Book of proceedings

Symposium

SEXUALITY IN EUROPE

21st – 23rd of October 2021

Schloss Leopoldskron, Leopoldskronstraße 56-58, 5020 Salzburg

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EUROPEAN COOPERATION IN SCIENCE & TECHNOLOGY

European Sexual Medicine Network

SEXUALITY IN EUROPE
SYMPOSIUM OF THE EUROPEAN SEXUAL MEDICINE NETWORK
Book of Proceedings

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Agenda

Friday, 22nd of October **Moderator: Patricia M. Pascoal**	
11:00 – 11:15	**WELCOME SPEECHES TO THE NETWORK** • **Marianne Greil-Soyka** (Chair of the ESMN) • **Gudrun Mosler-Törnström** (Chair of the Monitoring Committee in the Congress for Local and Regional Authorities in the Council of Europe and Former President of the Congress of Local and Regional Authorities in the Council of Europe)
11:15 – 12:30	**PRESENTATIONS** **15 min discussion during the session** • The Importance of Evidence Based Knowledge and Its Translation into Global Policies That Promote Sexual Health and Rights: The Case of the World Sexual Health Day (**Pedro Nobre**) (30 min) • What Is Sexual Wellbeing and Why Does It Matter for Public Health? (**Kirstin Mitchell**) (30 min)
12:30 - 13:30	**Break**
13:30 – 14:30	**PRESENTATIONS (3 X 15 MIN)** **15 min discussion during the session** • Sexual Medicine in Latvia (**Gunta Lazdane**) • Proposal for a Nationwide Representative Survey of Sexual Health & Behavior in the Czech Republic (**Petr Weiss**) • The Paradoxical Relationship between Masturbation and Sexual Satisfaction (**Nantje Fischer**)

14:30 – 15:30	**PRESENTATIONS (3 X 15 MIN)** **15 min discussion during the session** • PRIORITY (**Peer Briken & Pedro Nobre**) • iMINDS (**Ethel Quayle**) • Sexual Violence Prevention (**Katerina Klapilova**)
15:30 – 15:45	**Break**
15:45 – 17.00	**PRESENTATIONS (4 X 15 MIN)** **15 min discussion during the session** • Why Women Have Difficulties to Have Orgasms - A Large Scale Qualitative Study (**Osmo Kontula**) • Weakening Genital Sexual Arousal with Aversive Smell (**Charmaine Borg**) • Towards a Transnational Sexual Health Research & Policy Agenda: The ESMN Delphi Study (**Joke Dupont**)

Saturday, 23rd of October **Moderator: Jacques van Lankveld**	
09:00 – 09:45	**PRESENTATIONS** **15 min discussion during the session** • Challenges and Opportunities of Sexual Medicine in South Africa (**Anthony Smith / Deidre Pretorius**)
09:45 – 10:40	**PRESENTATIONS (2 X 20 MIN)** **15 min discussion during the session** • Dating Violence among Sexual and Gender Minority Adolescents (**Laura Baams**) • Sexual Orientation and Gender Identity and Expression Change Efforts (Identify and Define So-Called "Change Efforts" or "Conversion Practices.") (**Travis Salway**)
10:40 – 10:55	**Break**
10:55 – 11:25	Gamification as a Co-production of Knowledge and Participative Dissemination Strategy (**Francisco Barbosa Escobar**)
11:25 – 12:25	**PRESENTATIONS (3 X 15 MIN)** **15 min discussion during the session** • Presentation of the Oncosexology Subgroup (**Bruno Jorge Pereira**) • Present Oncosexology Care in the Netherlands and Future Implications (**Ilaniek Zantingh**) • "It's like a part of you Is missing": Post-menopause Women´s Discourses on Sexual Health (**Marcos Bote**)
12:25 – 13:25	**Break**

13:25 – 14:40	**UNDERGRADUATE CURRICULUM IN SEXUAL HEALTH/SEXUAL MEDICINE FOR MEDICAL AND PSYCHOLOGY STUDENTS (WORKING GROUP 3)Chairpersons: Johannes Bitzer, Gunta Lazdane** • Introduction and Results of the Questionnaire • Presentations of the Curriculum • Virtual Group Discussion Including Networking in Undergraduate Sexual Education with Invited Guests: Deidre Pretorius (Lecturer, Department of Family Medicine and Primary Care, Division of Family Medicine Johannesburg), Antony Smith (President of SASHA / Southern African Sexual Health Association), Annamaria Giraldi (President of the International Society for Sexual Medicine / ISSM), Emmanuele Jannini (President of the UEMS Multidisciplinary Joint Committee of Sexual Medicine / MJCSM)
14.40 – 15:15	**Break**
15:15 – 16:10	**PRESENTATIONS (2 X 20 MIN)** **15 MIN DISCUSSION DURING THE SESSION** • Challenges in Psychotherapeutic Work with Persons having Sexual Dysfunctions before and during COVID-19 Pandemic in Serbia – Clinical Perspective (**Svetlana Zdravkovic**) • Impact of "First Wave" COVID-19 Pandemic and Restrictions on Sexual Health and Behavior in Latvia (**Ieva Briedite**)
16:10 – 16:30	**DISCUSSIONS** (Moderator: Jacques van Lankveld) **SESSION FOR PFIZER PRIZES** **Chairs: Marianne Greil-Soyka, Ethel Quayle, Richard Greil (TBC)** **CLOSING**

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PREFACE

Marianne Greil-Soyka

The European Sexual Medicine Network hosted the "Sexuality in Europe" symposium in Salzburg, drawing top-class medical doctors, psychologists, sociologists, and sexual scientists to this convention. The importance of this symposium was highlighted by the presence of Gudrun Mosler-Törnström, Chair of the Monitoring Committee in the Congress for Local and Regional Authorities in the Council of Europe and Former President of the Congress of Local and Regional Authorities in the Council of Europe.

Many socioeconomic factors influence today's global sexual health, including the rising costs of medical care, the spread of poverty, demographic development, and an increase in migration; these elements not only exert cultural influence, but also determine new points of focus in the area of sexual medicine. The ongoing COVID pandemic has also had a significant impact on sexual behavior and sexual health.

Europe's liberalization has issued in a state of rapid change in romantic relationships, in the relationship between genders, and in questions of sexuality and morality. Female sexuality has been liberated, while women's vulnerability to predators has increased. Taboos around sexuality have been removed, thus trivializing sexuality. Where transformative powers were once attributed to sexuality, it has mutated to merely a source of lust and affection. Sexuality has been commercialized and thus brutalized; it has become a commodity which can be traded and whose participants can be enslaved.

The influence of new communication technologies on the psychosexual development of adolescents, as well as most probably on their sexual preference structures, can no longer be denied, when considering the access that even prepubescent children have to pornographic content via websites and other sources of free pornography.

Every participant is keenly aware of the explosive forces behind this research area, with the result that the call to the symposium attracted partners of the ESMN from many parts of Europe and from overseas. Many committed members gathered in the historically significant Schloss Leopoldskron; the celebrated director Max Reinhardt had made his home here in 1918, as he co-founded the world-renowned Salzburg Festival with Hugo von Hoffmannsthal and Richard Strauß.

For three days, researchers focused their attention on "Sexuality in Europe," enabling them to return to their home countries rejuvenated, and primed to dedicate themselves anew to this challenging work, gather momentum, and spread important concerns. In the course of these days, brief lectures were interspersed with discussions and debates, and the call to raise political awareness for the crucial concern of sexual health, as well as to get politics on board with this mission, was reaffirmed.

In virtually all home countries of participants, there is a gaping divide between radical social change, advancing scientific research in sexual medicine, and insufficient opportunities to practically enact this breadth of knowledge. To this day, science runs up against a vast array of taboos, leading to inadequate sexual medicine education at universities, to the detriment of those affected.

The goal of the event was to exchange research results within the innovative European Sexual Medicine Network, and to raise our knowledge to a shared standard.

It is a great pleasure to know that this symposium succeeded in gathering concerns, so that requisite steps regained traction and so that our commitment to the area of sexual health will increase!

SYMPOSIUM SEXUALITY IN EUROPE - WELCOME SPEECH

Gudrun Mosler-Törnström

Ladies and Gentlemen,

It is an honor for me to address today's opening and I would like to welcome you to our beautiful city.

In the preparation for today, I have become very aware of the huge variety of topics on this subject, which is also reflected in the program of the next 2 days. From this variety of topics, I can only include a few thoughts that seem important to me from the perspective of a non-expert. Despite the highly topical issues, I am amazed by the fact, how unknown sexual medicine is to the public, including politics.

Sexual health is still a blind spot in our health care system but also in the political discourse. The circumstances in our world have changed. A new approach is needed, and knowledge of and research in sexual medicine are more necessary than ever. Incidents of sexual violence amplify the need for novel research on sexually deviant behavior. Policymakers set up round tables to find solutions. But the know-how, experience and results of many studies are used far too little in solving these problems. Instead of just addressing the symptoms, I would like to see a better understanding of the underlying causes. Your knowledge and expertise should be incorporated at an earlier stage of a problem-solving process. Simply put, we need to focus much more on prevention.

As we know, sexual health is inextricably linked to health, well-being, and quality of life. But how is this well-being and quality of life achievable if we cannot talk about our needs and problems because we have never lea rned to do so? There is a lack of information, but above all there is a communication and knowledge problem. Those lacks produce barriers. It is difficult for both men and women to talk about their sexual needs and problems. Sexuality is still not free of discrediting and stigmatization. Unfortunately, this already starts an early age.
If sexuality is not discussed at home, or is only discussed behind closed doors, and if schools do not provide appropriate education, then we must ask ourselves, how do young people experience sexuality, who conveys it? Providing better information gives safety through knowledge, so that young people are enabled to make informed decisions and to deal with different situations.

Mass media, including social media, have an immense impact on how younger generations perceive and think about sexuality. AND despite more openness in our society, we still experience a very one-sided view of sexuality from a male perspective, where female pleasure and needs are less considered. There are many examples like:

- In the case of preventing sexually transmitted diseases, it is striking that the responsibility very often lies with women, or that
- contraception is mostly perceived as a women's issue. These examples could be extended.

Sexual medicine operates in an immense field of tension. On the one hand, there have been many positive developments towards a more open and inclusive society in recent years and decades. On the other hand - despite these important achievements, we can simultaneously observe a backlash, especially where sexual health becomes a human rights issue. Although topics such as gender equality and sexual orientation are taking up more space than ever in the public debate. Developments around abortion laws as in Texas or Poland or the situation of LGBTI persons in Hungary show that we still have a long way to go and that the preservation of acquired rights cannot and should not be taken for granted. These examples also show that sexual health and human rights are deeply intertwined. In addition to the health aspect, your work is also to a great extend human rights work.

Let me therefore create a link to my work in the Council of Europe.
As a member of the Council of Europe, I am constantly confronted with issues such as those I just mentioned. For several years the Congress of the Council of Europe has been working to combat discrimination against LGBTI people by addressing recommendations to local and regional as well as national authorities. LGBTI persons are often victims of discrimination, social exclusion and violence because of their sexual orientation or gender identity. This was one reason why the Congress in the Council of Europe started to publish in 2019 a series of Human rights handbooks for local and regional authorities. So far, we have published 3 Volumes with different focus areas. Volume 1 is dedicated to Fighting Discrimination. One of its three chapters aims to combat discrimination against LGBTI people. Practical examples from various European countries show the different ways in which this discrimination can be dealt with. Contact details are given for each individual project. With this example, I want to draw your attention to the work of the Council of Europe that could be also relevant to you.

Many different approaches and players are needed to achieve the goal of improving sexual health worldwide and much remains to be done to ensure that this is reflected in health policy and in people's lives.

I hope:

- That in the future sexual medicine will be more in the focus of health policy and its importance will be recognized.
- Your work will receive more attention in the media world and thus in the public.
- That a cost-effective and low-threshold access to sexual medicine is made possible. Because health for all must not be dependent on financial background.
- That your work does not end with the COST PROJECT and that this project will be a turbo for the worldwide improvement of sexual health.

Finally, I would especially like to thank Dr. Marianne Greil-Soyka for her initiative and the enormous amount of work she is putting into this project. Many thanks also to all of you for your work and commitment.
I wish you a successful meeting and continued productive and effective cooperation.

WHAT IS SEXUAL WELLBEING AND WHY DOES IT MATTER FOR SEXUAL HEALTH?

Kirsten Mitchell

General wellbeing has been defined as 'how we're doing' (UK Office for National Statistics). Despite the centrality of sexuality to human experience, sexual dimensions are notably absent from measurement of population wellbeing. There are no commonly used self-report measures of general wellbeing that include a sexual dimension. This neglect is driven in part by lack of clarity about what sexual wellbeing means, and how to measure it.

Within the field of sexual health, there is growing interest in the concept of sexual wellbeing. However, in the literature to date, sexual wellbeing is rarely explicitly defined and is often confused with concepts like sexual function, sexual satisfaction and sexual health. In recent conceptual and measurement work (Mitchell, 2021), we located sexual wellbeing in relation to three other 'pillars' of public health enquiry into sexuality: sexual health, sexual pleasure and sexual justice. The first sexual health pillar includes fertility management, sexual violence prevention, prevention and management of sexually transmitted infections and sexual function. The second pillar, sexual pleasure, may be event related (tied to a particular occasion) or person-related (tied to interactional and interpersonal dynamics). Thirdly, sexual justice is about ensuring social, cultural and legal supports for equitable person-centred sexual and reproductive experiences. The final pillar, sexual wellbeing, is defined as 'how we're doing sexually' and comprises seven domains: sexual safety and security, sexual respect, sexual self-esteem, resilience in relations to sexual experience, forgiveness of past sexual experience, comfort with sexuality, self-determination in one's sexual life. Importantly, there are interdependencies across these four pillars, so for example it is difficult for an individual to experience sexual pleasure if their sexual rights are not being met. Together these pillars address structural determinants of sexual inequities, with each playing a distinctive role (Mitchell, 2021).

There may be some resistance to considering wellbeing as a valid goal of public health. Critics point out its subjective and variable qualities for instance. In particular, there may be resistance to considering sexual aspects of wellbeing. However, it is important to consider that goals related to pleasure shape both risk taking and risk reduction, thus a focus on positive sexuality is central to public health efforts in sexual health. Sexual wellbeing could add new dimensions to community engagement in local and larger public health policy and practice, including policy initiative such as the Sustainable Development goals on reproductive health.

A focus on sexual wellbeing can also help pinpoint discrimination based on gender, race, sexual identity. It could also support cross-cutting public health innovation; policies that recognise sexual wellbeing is partly a product of context and surroundings.

A recent scoping review of measures of sexual wellbeing by Lorimer and colleagues (Lorimer 2019) found 162 in which sexual wellbeing was included as an outcome, of which only ten provided an explicit definition of sexual wellbeing. The review found few multi-domain measures and conflation of sexual wellbeing with satisfaction and sexual function. There have been a number of notable attempts to explicitly define and measure sexual satisfaction (Laumann, 2006; Muise 2010; Syme, 2019; Stulhofer, 2019, Gerymski 2021). Overall, key gaps in the field remain for measures that are: relevant to those who are asexual or not having sex; designed to detect change; include socio-cultural dimensions of wellbeing and include summation of past and near future experience to reflect the fluctuating nature of wellbeing. Designing a measure to address these gaps is extremely challenging.

We took up the Office of National Statistics definition of 'how we're doing' and defined sexual wellbeing simply as 'how we are doing sexually'. We sought to operationalise the concept and design a measure that would be brief, relevant regardless of sexual experience, and amenable to change. To lay the groundwork for the measure we did extensive conceptual work and literature review to establish potential domains. We then did 40 semi-structured interviews with adults aged 18 plus in UK to explore, add meaning and corroborate our seven theoretically proposed domains of wellbeing, and to inform measure design. Each of our seven domains resonated with participants as they reflected on their lived sexual experiences. We defined these seven domains as follows: sexual security and safety (defined as experience of limited threat coupled with actions taken to assuage vulnerability); sexual comfort (experience of ease in contemplation, communication and enactments of sexuality and sex); sexual self-determination (free choice or rejection of sexual partners, behaviours, context and timing, without pressure, force or felt obligation); sexual respect (perception of positive regard by others for one's sexual personhood); sexual self-esteem (affective appraisal of oneself as a sexual being); sexual resilience (maintain equilibrium in response to sexual stress, dysfunctions, adversity or trauma); sexual forgiveness (interrupts patterns of self-blame, self-stigmatisation, shame, avoidance, aggression and revenge) (Mitchell, 2021). Based on these domains we created a 25-item measure which was reduced to 13 items following a review of item performance and exploratory factor analysis. The final 13-item measure had good model fit, good test-retest reliability and was positively associated with hypothesised constructs including depression, anxiety, sexual function.

In conclusion, we propose sexual wellbeing as a distinct concept and one of four pillars of public health focused efforts in relation to sexuality – alongside sexual justice, sexual health and sexual pleasure. We offer a way forward for conceptualising and measuring sexual wellbeing.

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SEXUAL MEDICINE IN LATVIA

Gunta Lazdane

The goal of this study is to present the overview of sexual medicine in Latvia. Latvian Folk songs Dainas include rich information on sexuality and guidance on sexuality education. Despite the history of these songs going back to the 13th century, their wisdom including the positive attitude towards sexuality, pleasure and satisfaction, often has been lost. Sexual and Reproductive Health Law was adopted by the Saeima (Parliament of the Republic of Latvia) in 2002. According to this Law "person has the right to receive information from a medical practitioner on promotion and care of sexual and reproductive health (SRH)". To reach the goal of the study, the latest policy documents, data sources on SRH in Latvia and existing curriculum of the Riga Stradins University (RSU), the leading university in Latvia in the field of medicine, were analysed and the leaders of the professional associations of sexologists, and non-governmental associations active in sexual health were interviewed. Sexuality education in schools still is an optional subject integrated in other subjects. The latest national survey on SRH is from 2011. A new survey was started in 2020 but it was interrupted because of COVID-19 pandemic and restrictions. The public health policy of Latvia (2021-2027) includes activities focusing on improving access to SRH information and services. There are two professional associations of sexologists in Latvia registered in the Latvian Medical Association. When analysing the training of future medical professionals and psychologists in RSU – the leading university in Latvia in the field of medicine, elements of sexual medicine are included in the programmes of nine departments and 44 study courses of RSU, however, coordination between these programmes requires improvement. From autumn 2021 two-year residency training in sexology and sexopathology is available in RSU. Conclusion: Sexual health and sexual medicine is not among priority areas in Latvia and still requires good governance starting from the development of common vision, update of the policy to ensure SRH and rights for all and concrete plan of action. Good coordination at all levels is still a challenge and requires improvement.

PROPOSAL FOR A NATIONWIDE REPRESENTATIVE SURVEY OF SEXUAL HEALTH & BEHAVIUOR IN THE CZECH REPUBLIC

Petr Weiss

In many countries, there is a long tradition of representative surveys of sexual health and behaviour, such as USA National surveys (Herbenick et al., 2010), NATSAL in the United Kingdom (Mitchell et al., 2013), Australian studies on health and relationships (Richters et al., 2014), FINSEX Research Project from Finland (Kontula, 2015), and recently also the SEXUS Project from Denmark (2020). Such surveys are crucial for the development of health programs and social services that improve sexual and reproductive health of the population. Moreover, they enable the monitoring of long-term social trends and emerging phenomena. In the Czech Republic, we lack current representative data on sexual health and behaviours. The last relevant data come from repeated representative surveys of sexual behaviour of Czech population conducted by Weiss and Zvěřina, which were undertaken every five years from 1993 until 2013, but then discontinued (e.g. Weiss & Zvěřina, 2009). These surveys provided valuable information for the relevant services and the resulting data were included in several cross-national comparative studies (e.g. Dean et al., 2013). In 2016, the first Czech population survey which explored the prevalence of paraphilias in general population was conducted (Bártová et al., 2020). This important study stimulated the development of new services for people with paraphilic interests and problematic sexual behaviour in the Czech Republic (https://www.projektparafilik.cz). In future, we propose to a nationwide representative survey which build on previous research (and include items assessing new trends). The survey aims at describing the present situation in sexual health and behaviour. Moreover, it focuses on the prevalence of sexual preferences and problematic sexual behaviour. Surveying methodology will be developed in collaboration with relevant experts (WHO) so as to conform to international criteria, which would enable the inclusion of data in future cross-national comparisons.

THE PARADOXICAL RELATIONSHIP BETWEEN MASTURBATION AND SEXUAL SATISFACTION

Fischer N.F., Træen B.T.

Masturbation can be experienced as pleasurable as well as shameful. Despite a high diversity of motives and experiences associated with masturbation, we know surprisingly little about how masturbation frequency is associated with sexual satisfaction. While previous research focused on linear relationships between sexual satisfaction and masturbation frequency, we aim to investigate whether individuals fall into different masturbation-sexual satisfaction groupings. Further, we assess whether sociodemographic, psychological, and sexual behavioral factors predict distinct masturbation–satisfaction typologies. A two-step cluster analysis was applied to examine data from a probability-based sample of 4,160 Norwegians aged 18–89 years. The clustering revealed similar groupings for both genders: 1) high masturbation/sexual satisfaction, 2) low masturbation/sexual satisfaction, 3) high masturbation/sexual dissatisfaction, 4) low masturbation/sexual dissatisfaction. While being younger, higher pornography consumption, and sexual variety were primarily associated with increased masturbation frequency, sexual distress and a negative body and genital self-image were more clearly associated with sexual dissatisfaction. Predicting different masturbation–satisfaction groupings also revealed some gender-specific findings in the use of pornography, and in the association between masturbation and intercourse frequency, suggesting a compensatory pattern for men and a complementary pattern for women. Our findings suggest that the relation between masturbation frequency and sexual satisfaction does not necessarily develop in the same direction, and that there are different masturbation–sexual satisfaction typologies.

PRIORITY

Briken P., Nobre P.

The objective of the planned action PRIORITY is to reduce barriers to accessing prevention interventions for individuals concerned about their risk to sexually abuse a child. To overcome these barriers, an available and elaborated Swedish online platform (ITerapi) will be used for large-scale and sustainable delivery of an online program (Prevent It 2.0). Prevent It 2.0 will be a further refinement of a prevention program with encouraging preliminary results. It will be translated, culturally adapted, and implemented in Germany, Sweden and Portugal: three countries, representing both different population densities and differences in the development of their prevention infrastructure. For individuals at risk who are already known to the police but have not yet been convicted, an innovative access route will be established in close cooperation with law enforcement authorities. In order to facilitate a broader and sustainable dissemination to other EU countries after the end of the project, country-specific implementation and access barriers will be studied and used to provide detailed recommendations for future actions. The interventions in the three study countries, Sweden, Germany and Portugal will be evaluated for implementation fidelity as well as efficacy using a scientifically rigorous design - a randomized trial with waitlist control, with self-report and therapist ratings for outcome measures. First and foremost, PRIORITY will protect children by reducing the incidence of abuse. Those at risk (estimates around 4% of the population) will receive access to a free, low-barrier intervention (Prevent It 2.0). Law enforcement practitioners will receive material and a new access route to reach detected but not convicted offenders. The academic community will profit from results that arise from a rigorous evaluation. In the long term, the potential benefits and requirements to offer Prevent It 2.0 will be made clear to all countries in the EU.

Here are the major objectives and targets around the collaboration:

Activity 5.2 – Establishment of stakeholder and practitioner network.

Complementary to the existing EU Network for prevention of child sexual abuse, PRIORITY will identify future potential responsible parties from all EU countries. This is achieved by cooperating with at least the following networks and societies: European Sexual Medicine Network COST Action, World Association for Sexual Health – WAS, European Society for Sexual Medicine – ESSM; European Federation of Sexology – EFS, International Association for the Treatment of Sex Offenders – IATSO. The aim is to invite and recruit at least two specialists from each member state in the fields of therapy/counselling/social work to participate in the European stakeholder and practitioner network.

Activity 5.3 – Data collection and barrier analysis

A three-round eDelphi technique will be used to collect data using an online survey tool. The survey instrument will be developed by members of the PRIORITY consortium in collaboration with the EU network for prevention of child sexual abuse in two online meetings. For data collection, study information and URL will be sent to the stakeholder and practitioner network established in activity 5.2

Activity 5.4 – Recommendations for action

Based on the data collected, a comprehensive report will be prepared on the structural barriers to the implementation and access of interventions for individuals concerned about their risk to young people on the EU level. Additionally, individual recommendations for action will be developed for each of the EU member states not yet participating in PRIORITY and presented in a comprehensive good practice action strategy. The stakeholder and practitioner network are used to ensure that these recommendations will reach its target groups and relevant policymakers.

i-MINDS: RESPONDING TO ONLINE CHILD SEXUAL ABUSE

Quayle E., Bucci S., Schwannauer M., Varese F., Cartwright K.

Technology mediates many of our daily activities and increasingly it has become difficult to make distinctions between what we do online and offline. This is clearly also the case for children and this was earlier conceptualised by Martin and Alaggia (2013) as a 'cybersystem' and part of the ecology of a child. Children aged 5-15 in the United Kingdom in 2020 nearly all went online using tablets, laptops and mobile devices and children were twice as likely to watch any type of video on demand (VoD) than live television (OfCom, 2021). Such use creates opportunities for children to act as receivers, participants, and actors in the digital world, but the internet also creates socially interactive spaces where is a potential for exposure to online risks, including sexual risks such as abuse, and exploitation. Livingstone and Stoilova (2021) have proposed a new 4Cs classification of online risk of harm which includes, within the sexual category, content (e.g. pornographic or sexualised material), contact (sexual harassment, grooming, sextortion, sharing of child sexual abuse material (CSAM)), conduct (witnessing or participating in sexual messages or images) and contract risks (trafficking and live streaming of sexual abuse). Increasingly there is a strong argument to suggest that the internet does not make children more vulnerable but might make already vulnerable children more accessible (Stoilova, Livingstone & Khazbak, 2021). Online child sexual exploitation and abuse (OCSEA) refers to situations involving digital, internet and communication technologies at some point during the continuum of abuse or exploitation. This continuum may span contacting children using a smartphone to arrange a meeting through to live streaming of sexual abuse. OCSEA can occur fully online or through a mix of online and in-person interactions between minor-attracted-people (MAP) and children. Within this context technological affordances provide opportunities for child sexual exploitation and abuse, and it becomes increasingly important to understand the role played by technology in perpetrating sexual violence against children (Quayle, 2020).

Prevalence

What we know about the prevalence of OCSEA largely comes from studies conducted in high-income countries, although this is changing with the survey data from the Global Kids Online project (http://globalkidsonline.net/) and more recently the Disrupting Harm research initiative(https://www.end-violence.org/grants/unicef-office-research-innocenti-disrupting-harm). However, our prevalence estimates vary depending on how OCSEA is defined, operationalised and measured, alongside our ability to recognise these crimes. Wager et al. (2018) has suggested that OCSEA prevalence data can be obtained from multiple sources which include population surveys, police data, digital data and victim studies. It is therefore inevitable that all of these may result in different estimates of the problem of OCSEA

as they are measuring different things. However, there is converging evidence to suggest that there is a year-on-year increase in these crimes and this was also evidenced during the COVID pandemic (Salter and Hanson, 2021). These crimes include the production, preparation, consumption, sharing, dissemination or possession of child sexual exploitation material as well as the solicitation of children for sexual purposes of children (sometimes called 'grooming'), whether or not this results, or is intended to result, in a contact offence (May-Chahal & Palmer, 2018). Increasingly many of these crimes involves the production and sharing of sexual images or videos, many of which are coercively produced by young people (Internet Watch Foundation, 2020). The Luxembourg Terminology Guidelines (ECPAT, 2016) define both online sexual exploitation and sexual abuse as any form of sexual abuse of children which has a link to the online environment or is facilitated by internet communication technologies (ICTs). Other researchers have called this Technology Assisted Child Sexual Abuse (TA-CSA) (Hamilton-Giachritsis et al., 2021). Such broad definitions of OCSEA pose challenges in that it reflects a continuum of potentially harmful experiences, many of which will never be disclosed, reported or result in a conviction. For adolescents, ambivalence about the boundaries of what may be seen as acceptable relationships and appropriate behaviour online may make early disclosure of OCSEA highly challenging. Manrai et el. (2021) have also noted that there may be a perceived generational gap between young people and their parents, teachers and possibly the police in relation to risk-taking, managing feelings of fear and shame and lack of information about disengaging from, and resolving, problematic relationships.

Risk and harm

Increasingly, studies illustrate the risks children are exposed to online, what might cause them harm or distress, and, in some cases, how they experience technology-mediated abuse. Within the research literature, risk-taking behaviours and harm are often conceptualised (and used) as if they were the same. However, the focus of a lot of the existing research is on risk rather than evidence of harm (Slavtcheva-Petkova et al., 2015). Helpfully they note that risk can be conceptualised as the probability of harm whereas harm relates to a range of negative consequences to the child's emotional, physical or psychological well-being. Other researchers have suggested that harm is related to risk, which can be seen to predict the probability but not the certainty of harm. What further complicates our understanding of harm relates to agency, as in many studies children are asked questions that ask specifically about events that they did *not want to happen* (such as exposure to pornographic or violent content, or platforms which might be associated with predatory sexual behaviour). This raises issues as to whether intentional acts (such as talking to an adult online about sex) should be seen as problematic when the child says they were wanted. Many adults feel uncomfortable with this, and the automatic assumption is that children believe this because they were coerced. This may be the case but for many children this lack of a shared understanding may make it difficult to disclose what happened. Research has focussed less on protective factors

than on risk although parental monitoring and perceived family support (particularly in females) have been seen as important (Helweg-Larsson et al; Aljuboori et al., 2021).

Victim and survivor studies.

There is now a growing, but still limited, body of research that relates to the experiences of young people who have been subjected to OCSEA. Children abused through sexual image production may experience additional problems that are different to those caused by the actual contact abuse. Gewirtz-Mayden et al. (2018), in the context of adult survivors, noted that many were anxious that people would think that they willingly participated in the making sexual content or, that at some point in the future, they may be recognised in images found by people online. These anxieties were accompanied by feelings of guilt and shame, and a perception of ongoing vulnerability. Leonard (2010) and Katz (2013) also noted in their participants self-blame and self-criticism alongside feelings of being enmeshed or controlled within the relationship (Whittle et al., 2015). Alongside guilt and shame, the psychological consequences for children may also include depression, anxiety, PTSD-related symptoms, compulsions to self-harm and changes in self-identity and the ability to trust others. Feelings of self-blame are often made worse by a fear of exposure and this may make it much more difficult to disclose to anyone what has happened (Joleby et al., 2020). It has also been noted that many professionals feel ill-equipped to understand the possible risks or consequences for children associated with OCSEA (Hamilton-Giachritsis et al., 2021) which may lead to young people remaining at risk, with professionals failing to offer protection or referral on to appropriate interventions.

Responding to OCSEA

Therapeutic work with children and young people who have experienced sexual abuse typically involves describing and identifying a beginning and an end to the abusive experience, whilst many trauma treatment models focus on managing post-trauma symptoms (Martin 2014). However, in OCSEA, young victims bring additional challenges and experiences. While they may share some characteristics of traditional sexual abuse victims, they also demonstrate a number of unique characteristics (Wells and Mitchell, 2008). One particular challenge is that still and moving images on the abuse may have been created, which can lead to a lack of closure, or non-resolution of the abuse experience (Wells and Mitchell, 2008; von Weiler et al., 2010; Leonard, 2010). Specifically, practitioners report that children often feel helpless about the lack of closure, leading to additional psychological stress and heightening feelings of shame. A second challenge concerns the harms arising from victims knowing that their images can continue to be distributed and viewed by innumerable other people. The feelings of loss of control in turn may lead to anger, self-blame and humiliation (Martin 2014; Slane, 2015; Cooper, 2011). In a longitudinal case study of 44 very young children

who had been abused and had digital photographs distributed by a single offender the abuse was associated with sexual and non-sexual behaviour problems and attachment insecurity, but rarely with PTSD or dissociation. However, many of the parents of these children did experience PTSD symptoms and negative emotional reactions (van Duin et al., 2018).

To date there is little empirical evidence, or evidence-based guidelines, about how professionals might to respond to the victims of OCSEA. Interviews with practitioners, suggested that in the absence of clinical guidance, conceptualisations about OCSEA are shaped by media and anecdotal reports of cases of 'offline' child sexual abuse in which the victim was photographed (Martin, 2015). Practitioners acknowledged that confusion over how OCSEA is defined and lack of protocols for working with victims meant that they had never considered asking questions about or addressing the issue with the young people. Earlier work by Cooper (2011) had argued that it is imperative that healthcare providers learn to understand the significance of abuse images in OCSEA alongside the experience of caring for victims.

i-MINDS

However, the distinctive nature of OCSEA relative to other forms of abuse is recognised in the current UK NICE guidelines for responding to child abuse and neglect. While they report no evidence-based interventions for improving the mental health and well-being of OCSEA they do recommend the need for more research to examine the efficacy of interventions to improve well-being, relationships and the prevention of further online harms. A PROSPERO search in June 2020 found no published or ongoing reviews relevant to OCSEA and this was also the case for the Cochrane Library and Medline data bases and trial registers. This led us to believe that the efficacy of interventions that could improve well-being and prevent further harm for young people who had experienced OCSEA still remained an under-researched need. iMINDS is an ongoing research project funded by the UK NIHR. The research consortium is led by Professor Sandra Bucci and Dr. Filippo Varese from the University of Manchester and co-investigators are Professor Ethel Quayle and Professor Matthias Schwannauer from the University of Edinburgh. The project is managed by Dr. Kim Cartwright from the Complex Trauma and Resilience Research Unit, Greater Manchester Mental Health NHS Foundation Trust.

In conceptualising the intervention we acknowledged that while multiple factors are likely to be involved in the vulnerability to being exposed to OCSEA, one relevant risk factor may be a young person's ability to accurately estimate other people's intentions and motivations when engaging in online environments. Mentalisation is the ability to attend to and reflect on the mental states in ourselves and in others and consequently understand our own actions and those of others on the basis of intentional mental states. There is an inverse relationship between emotional arousal and failure in mentalisation and young people who are distressed or have difficulties with emotion regulation as a result of having been victimised, abused,

and/or exploited online, may be at greatest risk of developing difficulties in mentalising, increasing the likelihood of repeated victimisation and harm. With online communication signals of empathy and understanding are transmitted more opaquely and mentalising, which already may be compromised young people who are at risk, may be impacted. The inability to mentalise can also make it difficult to evaluate risk and how far an individual can be trusted online and we considered that this may present an ideal intervention target for young people who had already experienced OCSEA and which may also lead to improved mental health in young people. There is a growing evidence base which suggest that Mentalisation-Based Therapy (MBT), a therapeutic approach that specifically aims to improve mentalising capacity, and consequently affect regulation and psychological distress, is a promising treatment approach across a wide range of clinical presentations, including groups that have previously shown limited response to psychological therapy (Rossouw and Fonagy, 2012).

More recently that has been an increase in digital health tools for young people (Lehtimaki et al., 2021) although there are concerns that many of these are not evidence based (Grist et al., 2017) and may have been developed without due regard for ethical issues such as data privacy (Wies et al., 2021). Digital apps may represent an acceptable way to support young people which circumvent traditional 'clinic-based' services and the waiting lists associated with Child and Adolescent Mental Health Services (Ribanszki et al., 2021). Recent systematic reviews and meta-analyses have demonstrated that smartphone apps hold promise as a stand-alone self-management tool in mental health service delivery (Leech et al., 2021). Existing feasibility, acceptability and efficacy studies of digital interventions have indicated that they are acceptable across genders, impact on behaviour as well as mood, and are safe with vulnerable young people (Bailey et al., 2020; Widman et al. 2020). They may also significantly scale-up and accelerate access to therapeutic support for young people exposed to OCSEA. The primary aim of the iMINDS research is to evaluate the feasibility, acceptability and usability of a secure, interactive, theoretically-informed multi-media digital intervention with the goals of reducing the risk of re-victimisation and harm and improving the mental health and well-being of young people who have experienced online sexual abuse. Particular attention will be paid to working with users (YP; clinicians/e-therapy providers) to identify and meet user 'wants and needs' and how to best integrate the intervention into existing care pathways in England and Scotland.

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ROME WASN´T BUILT IN A DAY: THE POWER OF EUROPEAN NETWORKING FOR RESEARCH IN SEXUAL VIOLENCE PREVENTION

Katerina Klapilova

In 2019, the pilot research project PARAPHILE started as a reaction to the lack of policy and early interventions focused on people at higher risk of sexual offending in the Czech Republic. The current concept was inspired by successful worldwide programs of primary prevention of sexual offense (like StopSO (UK), Stop it Now (UK, US), Lucy Faithful Foundation (UK), PrevenTell (SWE), I Can Change (GER), Kein Täter Werden (GER), etc.) and it implements their good practice to the Czech environment. The presentation will describe the current updates into this implementation process and lessons we have learned on the way.

The Paraphile project currently provides five anonymous and free of charge intervention modes targeted to self-identified paraphiles whose sexual preference includes unusual objects (e.g., pedophiles, hebephiles), or preference for non-consensual activities (e.g., sexual sadism, exhibitionism): a web platform, online counselling, crisis help-line, self-help online platform, and intense contact counselling and therapeutic services. After two years of existence, it has its own internationally trained team of clinicians, has collected population and community-based data on the situation of people with paraphilic preference in the country, has run several destigmatizing campaigns into the topic of paraphilia in the Czech media, has implemented internationally acknowledged tools in assessment of sexual offenders (e.g., risk assessment tools), has prepared the educational programs for experts in the field of sexual health and crime prevention and lastly has become an internationally recognized entity in the field (e.g., cooperation with the the European Commission´s science and knowledge service). Such an impressive rise of the project would not be possible without the extreme helpfulness of the international advisory consortium, which was found to be crucial and functional. On the other hand, the distraction of the scientific efforts and innovation development across Europe makes implementation decisions quite difficult. The data about the effectiveness and implementation of interventions in central and eastern European countries are lacking, and the prevention-related tools in less common national languages does not exist.

Moreover, it is necessary to acknowledge that the start of a new prevention program is not about science but politics on the first place. Many gaps in the system may be discovered and need to be fixed before RCT studies focused on the effectiveness of the treatment approaches can be held. In this respect, short –time EU grant scheme focused on scientific outcomes of prevention studies might be unrealistic in less developed countries. The stable European platform on research in sexual violence prevention could help to run synchronized scientific research on the effectiveness of interventions in different countries (differing by legal and health care systems) with a special accent on involvement of central and eastern Europe. Even more urgent need is to cooperate on promotion of long-term sustainability of the newly developed national programs on the European level.

WHY WOMEN HAVE DIFFICULTIES TO HAVE ORGASMS? - A LARGE SCALE QUALITATIVE STUDY

Osmo Kontula

Abstract

Previous empirical findings of national sex surveys indicate that women differ greatly from one another in terms of their tendency and capacity to experience orgasms. A qualitative study can add valuable information why individual differences are so significant.

This qualitative study was conducted in Finland in 2018 via online survey. Respondents were the readers of the leading Finnish newspaper Helsingin Sanomat website. This qualitative survey received responses and texts from 7000 women. Survey included 14 open-ended questions of orgasms.

These open-ended questions included for example: What prevent you the most to have orgasm in love making? Have some chances in your life had impact on this? How do you suppose that having orgasms is either difficult or easy to you?

A key issue because so many women have difficulties to have orgasms is based on their limited ability to concentrate in love making in a certain moment. Their mind can be full of disturbing thoughts and worries. Other reasons for difficulties to have orgasms are, for example, fatigue, low sexual self-esteem, limited stimulation to clitoris and the use of medicaments. Many women had also limited physical sense of touch and stimulation. Some considered sexual incompatibility with their partner.

Introduction

Previous empirical findings of national sex surveys indicate that women differ greatly from one another in terms of their tendency and capacity to experience orgasms. Some women never experience orgasms in their intercourse and others will easily get multiple orgasms in their love making. Some associations between orgasmic capacity and situational, mental and relationship issues have been found (Kontula & Miettinen, 2016). However, much has been left to study with the help of qualitative data that could enable to explain why orgasms are so difficult or so easy to different women.

In a national sex survey in Finland, the keys to their more frequent orgasms lay in mental and relationship factors. These factors and capacities included orgasm importance, sexual desire, sexual self-esteem, and openness of sexual communication with partners. Women valued their partner's orgasm more than their own. In addition, positive determinants were the ability to concentrate, mutual sexual initiations, and partner's good sexual techniques. A relationship that felt good and worked well emotionally, and where sex was approached openly and appreciatively, promoted orgasms. (Kontula & Miettinen, 2016.)

Research questions:

- Why women have so many difficulties to experience orgasm in intercourse?
- Why orgasms are so difficult for some women but so easy to other women.

Materials and methods

A qualitative study was conducted in Finland in 2018 via online survey. Respondents were the readers of the leading Finnish newspaper Helsingin Sanomat website. They could respond in addition to some survey questions to open ended questions. Questions were based on the key results of the previous orgasm studies. There were altogether 14 open ended questions.

Examples of the openended questions of orgasms:

- 10. What issues prevent you the most to have orgasm in love making? Have some chances in your life had impact on this?
- 12. What type of issues or situations you have experienced to stimulate you sexually the most? What kind of arousal will attract you to make love? How arousal impacts on your pleasure?
- 13. How do you suppose that having orgasms is either difficult or easy to you? Have you had some previous life experience - good or bad – that you assume to have impacted on this? How much having orgasms is impacted by how well or poorly you communicate of sexual issues with your partner?

This qualitative survey received responses via website (in one day!) from 7000 women and 1000 men. Their responses/texts were truly comprehensive by their exhaustiveness. Here only responses from women will be presented. The responses were categorized by their contents.

Results

Consequences of childhood

Sometimes difficulties to get orgasms were due to childhood experiences or cultural backgound. Because of them women needed a lot of sexual rehearsal to become aroused.

Many women told that in their childhood sex was labelled as dirty. This image arises from memories. Women had learned that pleasure is taboo, and that they can't touch themselves.

Other barriers to orgasms included sexual exploitation or harassment in adolescence and experiences of sexual violence and/or coerce. Traumatic experiences included violence, rape, and incest. It had created a need to control oneself sexually in adulthood in sexual situations.

Bad previous sexual experiences associated to pains and distress in sexual situations. Therefore, the body may tremble, and muscles may have spasms.

Physiological reasons

Several women believed that their problems to have orgasms were based on anatomical and physiological factors. They felt that their body enables orgasm to them only seldom. Their muscle power was felt inadequate, or overweight was causing them harm.

Many women needed truly strong stimulation because of their low bodily sensitivity. Their nerves or clitoris were not sensitive enough and they felt that their muscles were too loose.

Use of medicaments decreased sensitivity. Same was true also concerning operations. Some of these problems were due to failed gynecologic operations.

Many women had pains especially in specific positions. They had these difficulties also in masturbation. Sometimes partner's penis did not match to their female physiology.

One positive physiological result was that some women had experienced first orgasm only after their delivery. It had tuned their bodies to arousal and orgasm.

Difficulties to concentrate

The most often reported reason what prevents to have female orgasm was that it was too difficult to relax. There were too many disturbing thoughts in the mind. Mind was wandering somewhere else, and women could not concentrate on sex.

Women felt that they had to think, for example, something that had to do with their labor job – or of the possibility that their children could awake and to arrive to the room (they did not have a peaceful moment). This was why they lost their concentration in that moment – and they also lost the possibility to experience the orgasm.

Many were afraid that the others (neighbors) will hear noises of their sexual pleasure. They needed freedom to express themself in privacy that they did not have.

It is common that women monitor themselves all the time in sexual interaction including how they look and move. It has led them to a continuous need for self-control.

Stress and worries

The second most often reported reason why orgasm was difficult was too much stress, worries, recklessness and possible depression. These issues included distress, anxiety, and sadness. Women could not relax. They controlled their mind and arousal. For this reason, women were unable to get aroused by orgasm.

Other very often reported reasons why women did not have orgasms were fatigue and tiredness, and laziness to concentrate. Women also needed time to recovery after the intercourse that happened too frequently compared to what they hoped for. Often, they, instead of their own orgasm, concentrated in taking care that their partner got orgasm.

Common reason was also concerns if woman was good enough or competent for sex. This concern included low self-esteem or even self-contempt.

Many women felt it took too much time to have an orgasm. They were tired and sex was felt too much routine. These women considered that sex requires too much hard work. They gave it up also because of their partner. They did not want to put pressure to their partner to work for her orgasm.

Insensitivity and diseases

Other frequently reported reasons why women did not have orgasms were some diseases or the use of psychopharmaceutical drugs. Some women said that hormonal contraception has killed their sexual desire. Because of this it was difficult to get aroused.

Sense of touch was not sensitive enough, possibly because of alcohol use and intoxication. There could also be some physical pains that disturbed arousal. In these cases, intercourse had been perceived to take too long.

Sometimes women had physical difficulties or oversensitive clitoris. They needed a very gentle touch and stimulation.

Mental reasons

Orgasms were difficult if woman had a low self-esteem. She thought too often how she looks. After getting fat (big belly) woman feels ashamed and can't get orgasm anymore. Women had difficulties to approve their own body. They did not know how their body works.

Vagina is often not subjectively accepted. Some women had even mental health problems, for example self-contempt. Some other women have difficulties to accept their sexual orientation.

Many women want to keep control in sexual situations. Person can be mentally tense, probably because of some previous trauma. They do not dare to throw themselves mentally to the moment. They have difficulties to open their mind. They had even considered that orgasm would be impossible for them. They were no more willing to try anything for her orgasm.

Some women do not value sex. They think that sex is great also without orgasm. According to them it is not reasonable to focus so much time and energy to orgasms. Sex is, for example, considered too primitive for a clever woman. Orgasm was difficult because sex was considered bored and dull. Sexual fantasies were out of date.

Disappointment with the partner

Other frequently reported reason why women did not have orgasms was disappointment with the partner. Intercourse was too hasty and rapid, and man could be so called "one minute man". Intercourse can be too hasty also because of possible disturbance from children. When

partner comes too fast woman cannot concentrate in orgasm. She may get orgasm later with the help of vibrator.

Often partner did not invest to woman's pleasure but, instead, to his own pleasure. He was only interested in his orgasms. Woman had to guide all the time the man how to behave. It was felt embarrassing. Some women did not know how to guide her partner and they were not able to tell the partner what he should do. They considered that giving instructions to the partner was very difficult.

Partner was sometimes considered boring and/or he was not aroused enough. He did not know how to stimulate woman and what position in intercourse was woman's actual preference. Partner could also have problems with his erection, or he had a small penis.

Some men were inexperienced, they had a low desire, and they had sexual inhibitions. With such a partner it was very difficult to discuss of sex. Some men had horror of bacteria. That was why they mostly rejected women sexually. Many partners were not willing to use sexual devices or toys.

Other partner related issues

Some women said that there were too long breaks in their relationship without intercourse. The less there was intercourse the more difficult it was to get orgasm. There was some mismatch in desire or unequal rhythm in intercourse. Sex was felt too much as a performance. Many women pretended orgasms to her partner.

It was also difficult to have orgasm if clitoris did not receive enough oral or manual stimulation. Without these stimulations intercourse was considered boring and not arousing. They needed very specific caresses to get aroused. They did not get aroused enough in reasonable time.

Other partner related issues were different problems in relationship. There were unsettled issues with a partner. Trust had gone, for example because of partner's unfaithfulness.

Contact between partners had become unsatisfactory and it included too much criticism. Partner had given negative and nasty feedback; for example, of how woman looks. Partner had blamed woman of their sexual failures. This brought getting orgasm even more difficult. There could be also some verbal or physical violence.

Stimulating communication with a partner

In good sexual relationship partners often discuss of sex before love making. Their sustained relationship is based on trust. Thanks to that woman dares to give up mentally to orgasm.

Fluent communication is very important in lovemaking because orgasm is promoted by strong presence in the moment and by deep mental connection with the partner. It is like a common flow mode.

Orgasm is promoted by the partner who is aroused and who praises (even worships) and encourages his partner sexually. A woman may feel accepted by her partner as such.

Good partner is a generous and competent lover who has a skill to sense what his partner desires. He knows how to utilize his penis.

Orgasm is also contributed by the common rhythm with partner and by shared sexual fantasies. So called sexual chemistry works in these cases well between the partners.

What provides best arousal for female orgasms

Secret and somehow forbidden sex, novel situations, experiencing stimulating feeling of danger, submission or fantasy of submission are perceived as very arousing. Other factors are thoughts of sex, staying close to another person, giving oneself permission to be sexually open, and being able to eliminate barriers to arousal from own mind. Mind is highly active amongst sexual issues, erotic images, and dreams.

The most arousing to women is to feel that she is desired, beautiful, and desirable. That it is exactly me who is desired by the partner:" I desire you!". Arousing are also looks, surprising touches, sexual teasing, hints to sex, watching porn together, nudity, to become seduced, talking" dirty".

Partner's enjoyment is arousing and straightforward horny action and erection. Woman can notice and then feel mutual desire. Very arousing is when partner can't resist woman sexually.

Orgasmic women have courage to let go. They trust their partner and they dare to show her pleasure to him. She has good ability to concentrate and allocates energy to the bodywork. Woman can get into flow state. The outside world will disappear from her mind. She is highly present in situation, has mental sexual images, and is capable to empty other things from her mind. Woman can be completely authentic, spontaneous, and relaxed.

Orgasm in masturbation is easy – so why it is difficult with a partner?

Generally, it is difficult to find shared moments with a partner in family with children. It is sometimes easier to concentrate to orgasm when partner is not present. In this case, partner is considered even as a disturbing factor in intercourse.

In many women masturbation is very frequent. It makes life easier, and it takes less time. Some of these women do not enjoy of any other sexual activity. They are not willing to invest on boring intercourse, especially without high arousal.

Orgasm is easier in masturbation because woman knows her own body and just right rhythm better than the partner. She has not been able to educate partner of her desirable sexual techniques.

How do you suppose that having orgasms are easy to you?

Many women reported that orgasm had always been easy for them. It had been easy and natural since their childhood. They had very ease and spontaneous relation to their body and touching was felt very sensitive to sensuous.

These women knew well that by applying certain touches and positions they can always come, even after the first light touch. Through their life course they had maintained their sensitivity to touching. Some had even an oversensitive sense of touch.

They had been open to their sexual desires since their teenage. Gaining pleasure had been easy for them without shame and they felt sexy.

What kind of sexual behavior is needed for orgasm

About quarter of women can get only clitoral orgasms. It's the result of active masturbation. Orgasm comes easily in oral sex. Quite mechanic stimulation is felt enough. In some cases, clitoris is extremely sensitive to touching. Many women have educated their man to become skilled in oral and manual sex.

About fifth of women say that some stimulation in intercourse is the key to their arousal and to their orgasm. There are a lot of different variations what turns them on. In addition to penetration important is a common rhythm. Some like fast and strong movements. Many women masturbate herself while in intercourse.

About every tenth woman need plentiful and many kinds of consecutive or parallel stimulations. They need kissing and touching and massaging all over their body and genitals. They get orgasm only when there are parallel stimulations orally, manually, in intercourse, and by sex toys. They use butt plugs, dildos, they prefer to experience pinches to their ass, and to use stimulating fantasies.

Discussion

Qualitative data reinforces the fact that women are very different in terms of the kind of tendencies, motivations, and abilities to experience orgasms. There are many different explanations for these major individual differences. It would be a mistake to try adopting similar orgasmic model to all women.

Orgasms are influenced by, among other things, past experiences in life, sensitivity to touch, desire, and motivation to experience pleasure, concentration to moment, sexual perceptions, arousal, self-esteem, stress, medications, openness of communication with a partner, and sexual compatibility.

One key issue because so many women have difficulties to have orgasms is based on their difficulties to concentrate in love making. Their mind can be full of disturbing thoughts and worries. They can't relax enough to experience sexual pleasure. Many women had also limited physical sense of touch and stimulation. Some considered sexual incompatibility with their partner.

Many women considered orgasms to be more important to their partners than to themselves. They say that they get their pleasure of their partner's satisfaction.

There is a need promote sexual pleasure and orgasms to women who have difficulties to recognize and acknowledge that sexual pleasure is their self-evident sexual right and a significant way to improve the quality of life.

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DISGUST AND SEX CAN WE USE SMELL TO HELP WOMEN AT RISK OF SEXUAL VIOLENCE?

Charmaine Borg

Sex and sexual behaviour are a core part of life; aside from reproduction, sex can be pleasurable, healthy, and beneficial for developing intimacy. Alongside these desirable features, however, sex also has the clear downside of increasing the chances for contracting infectious diseases. The inherent contagious nature of sexual (by)products and sexual behaviour may help explain why sexual stimuli (e.g., sweat, saliva, and the ejaculate) may also be considered potent disgust elicitors across cultures. In this presentation, I aim to describe how sexual behaviours and some sex stimuli may elicit disgust responses and consequently hinder sexual arousal; whereas other sex stimuli, generally those associated with sexual appeal, may generate sexual arousal and weaken the disgust response to contamination-relevant features of sex stimuli and sexual behaviours. We also explore the pathways relevant to understanding how people still engage in sexual activity, despite the disgust that seems to be the response by default in many of us – towards the core sexual stimuli.

Considering that both disease avoidance and procreation are of paramount evolutionary importance, there should be a mechanism that facilitates pleasurable and functional sexual experiences. One hypothesis that has been put forward is that sexual arousal may temporarily reduce feelings of disgust; thus, to the extent that sexual stimuli elicit arousal, this may counteract or neutralize the disgust eliciting properties of sex (Koukounas & McCabe, 2001), thereby facilitating sexual approach. Consistent with the assumption that sexual arousal might temporally reduce disgust, sexually aroused male students were found to report less subjective disgust in response to sex-related disgust elicitors than unaroused participants (Stevenson, Case, & Oaten, 2011). A follow up study replicated and extended this pioneering work in female students (Borg & de Jong, 2012). Again, experimentally heightened sexual arousal decreased disgust in response to sex-related disgust elicitors and reduced disgust-induced avoidance (Borg & de Jong, 2012). Thus, sexual arousal not only reduced subjective appraisals but also behavioural avoidance of (sexual) disgust elicitors. In other words, it appears that sexual arousal may not only counteract the subjective perception of disgust but might also transform the disgust-induced avoidant and inhibitory tendencies into approach.

These findings suggest that sexual arousal has the power to override disgust-driven inhibitions / avoidance. It is thus possible that sexual arousal induces approach tendencies towards certain sexual stimuli and behaviours that would be inhibited in a non-sexually aroused state. In line with this argument, in a within-subjects study design, it has been shown that male participants (N = 24) in a sexually aroused state were significantly more open towards several sexual activities and behaviours that evoked repulsion in the absence

of experimentally induced sexual arousal (e.g., "have sex with someone who is extremely fat", or "getting sexually excited by contact with an animal") (Ariely & Loewenstein, 2006). This indicates that sexual arousal might also reduce the prerequisites that potential sex mates need to fulfil for sexual appeal.

The talk was focused on the other side of the model, on the **weakening of already generated sexual arousal with the use of aversive smell** (see Figure 1). Relatively recent work indicates that the obstructive relationship between sex and disgust is bidirectional, meaning that not only sexual arousal reduces disgust, but induced disgust may also weaken sexual arousal (e.g., Borg, Oosterwijk, Lisy, Boesveldt, & de Jong, 2019). It has, for example, been shown that sexually explicit images elicited less self-reported sexual arousal when primed by disgusting pictures (Andrews, Crone, Cholka, Cooper, & Bridges, 2015). Following this idea, a recent experimental study showed that sexual arousal elicited by an erotic movie could be weakened by prior exposure to an aversive, disgusting odour (Borg, Oosterwijk, Lisy, Boesveldt, & de Jong, 2019). The odour (associated with rotten food, rotten eggs, and tetrahydrothiophene -the odorant added to cooking gas) resulted in a decrease of both subjective and genital sexual arousal compared to the participants in the odourless control condition. These two studies support the view that disgust has an inhibitory effect on sexual arousal. Together, the available evidence suggests that sexual arousal and disgust have a mutually inhibiting relationship, however, as yet it is unclear what exactly is the underlying mechanism of this bidirectional relationship.

The concluding remarks from this research line of work were focused on utilising our own research labs to build bridges of knowledge between countries and researchers in order to fight sexual violence (among other highly relevant topics in sexual medicine) perhaps with novel approaches, and to promote safe sexual pleasure for all.

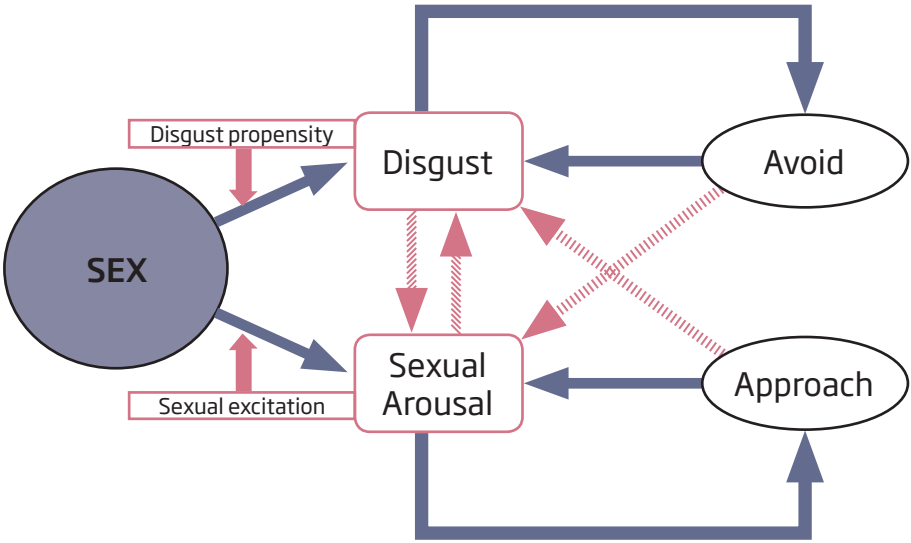

Figure 1. *Model adapted from de Jong, van Overveld, & Borg (2013). Black arrows indicate excitation, whereas grey arrows refer to inhibition. The model illustrates how sexual arousal and sexual disgust are interrelated and jointly affect sexual behaviour resulting in either sexual avoidance, when disgust dominates, or sexual approach, when arousal outweighs disgust. Some sex-related stimuli are assumed to be inherently disgusting due to their associated contamination risk. Other sex stimuli, that become apparent somewhere around the process of puberty, are associated with sexual readiness (and a good fitness/healthy status). The latter sex stimuli have the potential to trigger sexual arousal that are expected to override disgust elicited by concurrently available sex stimuli that are somehow associated with contamination threat. Individual differences in trait disgust propensity will moderate the strength of the sex-disgust relationship, whereas individual differences in trait sexual excitation / arousability will moderate the relationship between sex and sexual arousal.*

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Professor Peter J. de Jong was part of this line of research.

TOWARDS A TRANSNATIONAL SEXUAL HEALTH RESEARCH AND POLICY AGENDA: THE ESMN DELPHI STUDY

Joke Dupont

The concept of sexual health has evolved since its initial articulation by the World Health Organization (WHO) in 1975 but it has generally emphasized wellbeing across a range of life domains (e.g., physical, mental, and emotional) rather than simply the absence of disease or other adverse outcomes. The definition of sexual health currently in most widespread use is that developed by WHO in 2006: *Sexual health is a state of physical, emotional, mental, and social well-being in relation to sexuality; it is not merely the absence of disease, dysfunction, or infirmity. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination, and violence*. The WHO Millennium Development Goals Report (2015) argued that sexual and sexual and reproductive health is a prerequisite of all goals, particularly those related to gender and health. However, a decision was made to monitor progress through the achievement of two targets (and their associated indicators). These were: TARGET 5.A: Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio and TARGET 5.B: Achieve, by 2015, universal access to reproductive health.

This seems a narrower focus than suggested in the 2006 definition which emphasizes a broader sense of well-being related to sexuality that goes beyond the absence of specific health issues, with a positive and respectful focus on sexuality and relationships. It specifically emphasizes attributes of sexual health at both the individual level (e.g., individual understanding of benefits, risks and responsibilities, and prevention and care of health outcomes) and the social level (e.g., impact by socio economic and cultural contexts and healthy outcomes for families and communities as well as individuals) (Edwards & Coleman, 2004). The final journal of Entre Nous (2016) (The European Magazine for Sexual and Reproductive Health) emphasised a move from sexual and reproductive ill-health to choices and well-being. The UK National Institute for Health and Care Excellence (NICE) in their 2019 impact of sexual health report noted that Sexual and Reproductive Health (SRH) care should support sexual well-being irrespective of someone's background or sexual orientation and begins with education and ends with post-reproductive health across the life course.

Sexual health is therefore a concept undergoing evolution, not only in its definition, but also in its practical application. The term generally includes a focus on health and wellness rather than disease, an appreciation for the intrinsic importance of sexual health as part of overall health, and an attempt to address comprehensively a range of outcomes of public health importance (Edwards & Coleman, 2004). Giami (2002) outlined the history of sexuality as a public health issue since the 19th century. In doing so he analyses the history of the concept of sexual health since its emergence in 1975 through a comparative analysis of relevant documents from the US and the UK as well as international organisations such as the WHO. He concludes that there is

no international consensus on the concept of sexual health and its implementation in public health policies which he argues are as a result of political compromises and depend on the public health culture and practice of each country. Depending on the context, these different initiatives focus either on individual responsibility or on an appropriate sexual health services organization, and sexual health may be conceived as an ideal state of well-being or as the reduction of negative consequences of sexual activity. Interwoven with this is an upsurge in the debate on sexual rights (Sandfort & Erdhard, 2004) evidenced in discussion of adolescent sexual agency (Cense, 2019). Yet the prioritisation of sexual and reproductive health is still contested (Otu et al., 2021) and access to sexual health services remains limited in many countries. Dehlendorf et al. (2021) outline what they call a "Reproductive and Sexual Health Equity" framework, which they define "as an approach to comprehensively meet people's reproductive and sexual health needs". Within this framework they emphasise how structural influences play a role on health and health care and the importance of ensuring the highest level of health for all people to address inequities in health outcomes. The focus is on putting the needs of, and returning power to, local and communities, and addressing inequities across and within countries while paying attention to groups who have often been marginalised because of ethnicity, socio-economic status, gender or sexual identity and age. However, too often definitions of sexual health appear to overlook pleasure and well-being, instead focussing on an absence of disease or risk. Mitchell et al. (2021) have argued for the centrality of sexual wellbeing as an indicator of health equity and wellbeing, and the need to capture population data in relation to this to examine changes that are distinct from sexual health data.

Given the fact that the definition of sexual health is timely and contextual, we should be aware of the fact that new trends in society might warrant a new definition or interpretation. Therefore, we should not be afraid to pose the question: How comprehensive is our knowledge of sexual health nowadays? Are there still blind spots? Are there still important gaps in research as well as in practice? Are there specific challenges for European countries? To address these issues, we are proposing a Delphi study to examine what a group of diverse experts in this area consider to be the most important topics related to sexual health.

The Delphi technique is a methodology that allows the opinions of a group of experts in a scientific area to be expressed in a solid and succinct way. It is a systematic process, which, through iteration, concludes when a consensus is reached. With the Delphi technique, an iterative process of the questionnaire rounds strives to facilitate sharing of views and opinions that would occur if experts had been brought together in groups. The approach therefore allows participants to express their views and opinions and then to assess these against those expressed by others in the sample, without the necessity of having to attend time-consuming and costly face-to-face focus group meetings (Hackett, Masson & Phillips, 2006). In addition, opinions can be given anonymously which in turn encourages honest opinion – free of group pressure. Delbecq, Van de Ven, and Gustafson (1975) suggested that this process of structured communication allows for the pooling of judgments "to invent or discover a satisfactory course of action" (p5).

Within this study, which is under review, we examined what a group of diverse experts in this area from the ESMN COST network identified as interdisciplinary, transnational priorities on sexual health using a Delphi Method. In 2020, 93 participants from 29 countries were invited to complete an online three-round Delphi survey. From the first round a hierarchy of priority topics was developed, comparing consensus rates across the items. Following this a qualitative content analysis of the participants' responses to existing gaps and possible improvements in sexual health was administered. Participants identified 37 priority topics, divided into 10 overarching themes. We examined consensus based on quantitative measurements regarding the importance of the suggested priority topics relevant to sexual health, resulting in 23 implemented items in the list of priorities. Qualitative data from the experts informed us about possible sexual health challenges and gaps. The results of the study identified three overarching priorities: i. Inclusion of sexual health into relevant medical health fields and education; ii. the need for comprehensive sex education in schools and iii. the importance of sexual violence. This provides a possible research agenda for sexual health in the pan-European region, potentially serving as the base and start of joint interdisciplinary practice.

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THE STATE OF SEXUAL MEDICINE IN SOUTH AFRICA

Anthony Smith

Introduction

Sexual Medicine, as a distinct sub-specialty of medicine, concerned with the diagnosis, treatment, and prevention of disorders of sexual function remains in its infancy in South Africa. This paper outlines its status by taking a broad view, encompassing its practice, and training across both private and public sectors, and discusses the contemporary challenges and opportunities it faces.

Context

South Africa has a population of approximal 60.1 million persons[1] and has the dubious distinction of the highest GINI co-efficient in the world at 63.0 (2014)[2] Unemployment reached a record of 34.4% during the second quarter 2021.[3] Of the total population, 11 million citizens live on less that R28/day, ($1.93). To give some idea of the disease burden a telling statistic, is that in 2014, SA, while with only 0.7% of the world's population, shouldered 17% of the HIV burden.

South Africa is served by both a state and private sector. 84% of the population utilizes the State Sector while 16% the private sector. This disparately is thrown into further relief by recognizing, that in 2015/16, Private health care took up 4.4% of the GDP compared to a Public Health Care spend of 4.1% [4,5]

These are just a very small representation of the disparities in wealth and health in the SA context.

Social Sexual Health Markers

Notable statistics, giving some idea of social Sexual Health markers in South Africa includes Gender Based Violence. South African Police Statistics record that for 2019/20, there were 53 293 sexual offences reported, which makes it approximately 146 per day, of which 42 289 were rapes.[6] Even more sobering is to consider how these offences are vastly underreported.

With regards to the prevalence of STI's: HIV was noted to have a prevalence of 19.1% in 2021, an increase from 13.2% in 2001. Prevalence figures for other STI's in 2017 (age 15-49) includes Syphilis, with a prevalence of 0.5% (female) and 0.97% (male) (2012 WHO global prevalence estimates are 0.5% & 0.48% respectively[1]) gonorrhoea 6.6% (female) and 3.5% (male) (2012 WHO global estimates: 0.8% & 0.6%) and chlamydia 14.7%(female) 6.0% (male) (2012 WHO global estimates 0.7% & 4.2%)[7,8]

What is Sexual Medicine in SA?

The disparities and levels of morbidity noted above give clear idea to the challenges a South Africa faces. In this respect, problems associated with the Sexual Health of its citizens are overwhelmingly and justifiably prioritized around issues affecting those most economically

and socially marginalized. A very active NGO environment work hard to fight for the rights and health status of these populations. To name just a few who are prominent, the SRJC[9], or Sexual and Reproductive Justice Coalition, are active in the domain of Sexual and Reproductive Health Care, AIDs Foundation SA[10] and the Desmond Tutu Aids foundation[11] work in HIV and STI's, Sonke Gender Justice[12] works in Gender Based Violence, and Gender Dynamix[13] are active in promoting Trans and Gender diverse health care. Attention given to Sexual medicine as a clinical domain requires active dialogue with these social movements, which occupy pole position in the minds of many when they think of Sexual Health.

Becoming a Sexual Medicine Specialist (Sexologist) in South Africa:

Specialized training in Sexual Medicine is not available in South Africa, with no official recognition of Sexual Medicine as a sub-specialty. To work in clinical Sexual Medicine, your only route is to get a primary clinical degree, recognized by the HPCSA (Health professions council of SA) and then educate yourself locally through a patchwork of informal networks.

This contrasts with a very popular diploma in HIV Management, orientated to the practical management of HIV and Aids. There previously existed a diploma in the treatment of HIV, STI's and Sexual medicine, but now defunct with its entry criteria too difficult to achieve and the sexual medicine component too rudimentary. There are therefore very few Sexual Medicine experts working in SA, the majority attaining formal training through overseas educational bodies. These would include the European School of Sexual Medicine (ESSM), the University of Sydney Masters programme, and the Institute for Advanced Study of Human Sexuality. South African medical training does encourage a very hands-on practical generalist approach, so clinicians are generally left to themselves to treat or refer internally. General practitioners, and Specialties such as Urology or Gynecology would deal with Sexual Health problems if they had the inclination, time, or confidence to do so. So, in summary, there is no formal training, neither as a medical doctor or psychologist, a foundational challenge to the status of Sexual Medicine in South Africa.

Where then Sexual Medicine?

Notwithstanding the absence opportunities for formal Education, there are niches were the practice and education in Sexual medicine is present. I discuss below three such environments.

1. Tertiary Education
2. Professional organizations
3. Private sector.

1. Tertiary Education

There currently 10 Medical schools in South Africa, with a total of 1200 to 1300 graduates per year, excluding graduates from the newest medical school, the Nelson Mandela University MS.

Below is a description of how Sexual Medicine is integrated into the undergraduate curriculum at UCT (University of Cape Town). UCT is amongst the more progressive universities in South Africa and has approximately 17 hours dedicated to Sexual medicine through the 5 years prior to graduation.

4 hours are taught by the Critical Health Humanities, lectures specific to health care, that address Power, Privilege and intersecting identities, including Gender, Sexual and other marginalized identities. This is part of a larger Critical Health Humanities programme that focusses on a wide range of subjects pertinent to illness and society.

During second year, there are approximately 3 hours on an introduction to Clinical Sexual Medicine delivered by the Department of Primary care and Family Medicine. In the 3rd, 4th and 5th years, the department of Gynecology organizes 10 hours, split between clinical sexual health, intimate partner violence, forensics and rape, and transgender health care. There is no dedicated time set aside by departments of urology or psychiatry. What is notable, is that while the students find these engagements very useful, the various departments do not co-ordinate and don't know what each other is doing. This well-meaning but fragmented approach illustrates a consistent problem throughout medical schools in SA.

2. Professional Organizations.

Professional organizations such as SASHA[14] (the Southern African Sexual Health Association, PATHSA[15], (Professional Association for Transgender Health South Africa) and the ASSM, (African Association for Sexual Health) help to build communities of professionals, articulate values, help promote and make visible pertinent issues of sexual health and perhaps most importantly provide necessary education not available in formal state institutional settings. Their challenges are those of relying on volunteers, raising funds, maintaining sustainability, and remaining representative of the greater South African Population.

3. Private Sector

The private sector occupies an ambiguous position within the health are environment. It inevitably excludes the majority of South Africans yet provides opportunities for entrepreneurial thinking and can be sufficiently nimble to respond to needs in the health care service community, leading to creative solutions to the dearth of education in Sexual Medicine in formal sectors. This includes the MySexualHealth[16] group, working on a membership model, providing high quality education materials, and offering regular clinical meetings, supervision, and consultation around best practices in Sexual Medicine. On the other end of the spectrum are opportunists such as the Academy of Sexology which offers spurious degrees in Sexual Medicine, taking advantage of a vulnerable non-professional public who are looking to become sexologists.

The role of pharmaceutical companies cannot be excluded. Indeed, Pfizer with a generous grant, initiated SASHA when Viagra was launched. Though no doubt motivated by commercial interests, it nevertheless played a vital role in helping to educate GPs and other health professionals and raise the profile of Sexual Medicine in clinical practice.

Current Challenges

There are multiple challenges to the establishing of Sexual Medicine as a recognized and viable sub-specialty within a South African setting. Doctors and other health professionals, as well as the public still associate sexual health almost exclusively with STI's, HIV, reproductive health,

and contraception. There is little if any understanding and prioritizing of an individual's sexual functioning and their right to sexual pleasure. In addition, as mentioned above, there is no formal teaching, with few qualified teachers and no departments of sexual medicine (though a new initiative at the University of Stellenbosch is under development).

Teaching at an undergraduate level is poorly coordinated, fragmented with no vertical continuity through the curriculum. In addition, there is little liaison and integrative collaboration with specialties such as urology, geriatrics, oncology, and endocrinology. Curriculum builders are stymied by time constraints, crowded syllabuses, and competition between specialties for time and priority. This is all compounded by the very limited financial and human resources. For example, at some clinics, KY jelly is not available. There is no state provision for PD5inhibitors making the treatment of erectile dysfunction very difficult, with knock on effects on education of students. Add to all this the inherent challenges of teaching a subject whose biopsychosocial character does not naturally adhere to module-based teaching and the technically challenging nature of teaching sensitive subject matter and containing the emotions of a vulnerable population of young medical students, it's easy to see the difficulties presented.

Opportunities - the future.

Nevertheless, there are many green-shoots and reasons for optimism. There is a hunger to learn, and increasing demand from medical students, reflecting a rapidly changing socio-cultural milieu and personal norms. Students are sensitized to Gender and `Sexual Identity issues which may be the 'Viagra' moment to reinvigorate interest in Sexual Medicine, though this does pose the challenge of focusing on issues of gender and sexual identity at the expense of more quotidian sexual dysfunction.

It's also clear that using the concept of Pleasure as an entry point into teaching about Sexual Medicine is changing the frame of the conversation, and engaging students and professionals with a different dimension of care.

There is a new Postgraduate diploma in Sexual Health and HIV, the first of its kind in South Africa, run by the College of Family Physicians of South Africa, as well as a possible future spin-off African Journal in Sexual Medicine from the Journal of Primary Care and Family Medicine. A new chapter in the South African Manual of Family medicine on taking A Sexual History and a project across universities to investigate undergraduate perceptions of Sexual Medicine (Sexual Health Education for Professionals Scale SHEPS) all promise to raise the profile and introduce a new generation of practitioners into the field.

Conclusion

There is much to do before Sexual Medicine can become a viable sub-specialty with academic and professional authority. There is a requirement to professionalize and consolidate its disparate parts and find an academic home for the discipline.

The biopsychosocial approach, a salient reflection on the complexities of patient's illness experiences, nevertheless poses challenges to integrate into crowded and siloed undergraduate curricula. Perhaps fledgling Sexual Medicine departments are best placed with Family Medicine from where in symbiotic co-ordination it can liaise and negotiate with other relevant specialties, plan an integrated curriculum and work to link the nodes of post-graduate training, academic journals, research and undergraduate education. Furthermore, and to return to the disparities between private and public, a strategy to unite and co-ordinate between these two sectors would be most vital in the greater project.

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SEX EDUCATION IN ONE MEDICAL SCHOOL IN SOUTH AFRICA

Deidre Pretorius

This article is an extension of a presentation prepared for a round table discussion on 23 October 2021 organised by the COST Action European Sexual Medicine Network (ESMN) to discuss sex education in medical schools globally.

Background

South Africa's 60 million population is rich in cultural diversity with 11 official languages and 35 spoken languages.[1,2] Historically, in South Africa heterosexuality and gender inequalities and identities were normalised during the colonial and apartheid era under conservative Christian values.[3] The move to a more tolerant perspective under democracy since 1994, changed legislation, but socially these conservative values prevail.[3,4] Gender is still often perceived as binary and sexuality as shameful and controlled within heteronormative boundaries whilst upholding the powerful status of men.[3,5,6] In South Africa today, gender and sexual violence, coercive sexual practices and rape, homophobia, unwanted pregnancy, and HIV remain significant threats to the health of young people.[7–10] Learners often leave sex education classes with the perception that sex is dangerous and damaging; men are predators; women are victims and only heterosexuality is acceptable.[3,6] Added to this is the unemployment rate that varies between 32 and 49% depending on the geographical area and the definition used for unemployment.[11–13] Poverty and food insecurity complicates the quadruple burden of disease namely maternal, new-born and child health; HIV/AIDS and tuberculosis; non-communicable diseases; and violence and injury.[14,15]

South Africa has two health care systems. The burden of disease is at present managed primarily in the public health service where primary care services are free to the public. Health care professionals in the public system are under pressure due to increasing numbers of patients, long waiting times, lack of resources and a small work force.[16–20] A public sector doctor sees between 25-40 patients per day (08h00-16h00) in primary care clinics and the prevalence of burn out is high.[21,22] To complicate it more, add language barriers and conversations with patients on sensitive topics are no longer a priority. The private health care sector, on the other hand, that manages the remaining 14% of the population, is well funded and resourced as patients pay fees for services.

Health care services

Health services, referrals, or help seeking pathways differ significantly in the two health sectors. In the private sector the patient can consult any professional, whether it is a general practitioner, psychologist, social worker, primary care nurse or any other medical specialist of his/her choice (Figure 1). Some medical insurance will require a referral to a specialist from the general practitioner.

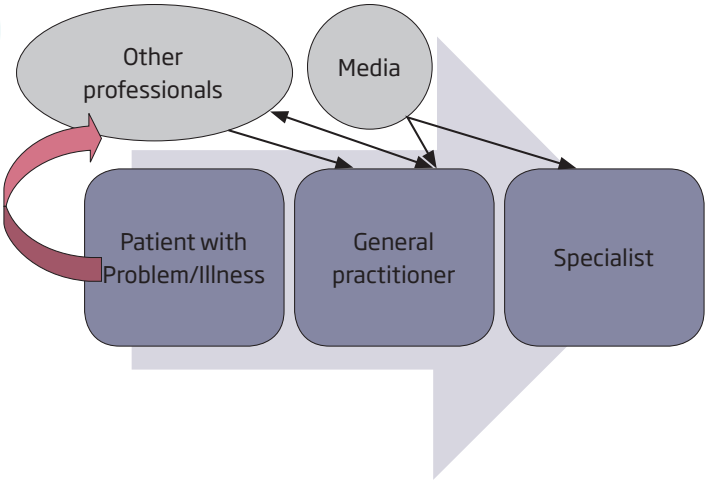

Figure 1. *Patient pathways from symptom to specialists in private sector.*

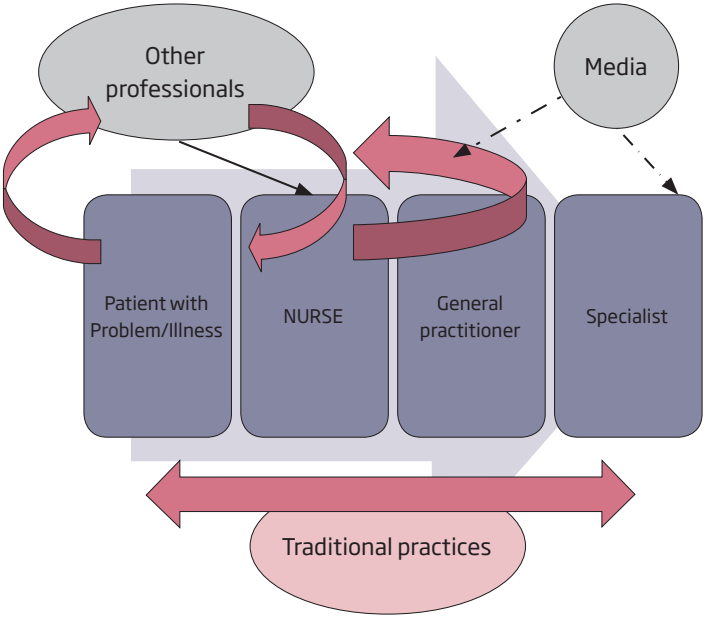

Figure 2. *Patient pathways from symptom to specialists in public sector.*

The primary care services in the public sector is nurse driven and the patient must first present to the nurse, who will decide if the doctor must see the patient. The doctor will manage or refer the patient to a specialist if available (Figure 2). The use of traditional medicine is socially associated with, but not limited to the users of the public sector. The media plays a role in sexual medicine by promoting private men's health clinics and encouraging men to discuss sexual challenges with their doctors. The first obstacle is that in the public sector, the patient will first have to consult the nurse, before s/he consults a doctor unless s/he has the funds to pay for private services. It is against this background that training of medical students occurs.

With the realities of the health care system in mind where students are taught and exposed to best practice standards, the question is what is one South African university training students to address the sexual medicine realities they face in health care. The aim was to prepare a presentation on sexual medicine training done at the medical schools in South Africa to join the round table discussion and contribute meaningfully.

Methods

The author is a lectured and Academic post graduate course coordinator as well as a member of the Education and Training Committee (ETC) of the South African Academy of Family Physicians and familiar with the different Family Medicine curricula of the medical schools. An email was sent to the representatives of all the medical schools who serve on the ETC, requesting confirmation on the nature of sexual medicine training in their curricula. The email was followed up with a gentle reminder. Dr Anthony Smith reported on the University of Cape Town's curriculum in the ESSM network meeting, and it was excluded from this paper. Due to poor response to the emails, key informants were approached. Key informants of the undergraduate program at the University of the Witwatersrand, two AHCs in the University of Witwatersrand, and the leader of the new developing sexual medicine curriculum of Stellenbosch University, contributed to the presentation at the ESSM network meeting and this paper.

Results and discussion

Information given as results will be divided into two sections, namely training during clinical years and sexual medicine curriculum and training. The results and discussion will be integrated.

Training during clinical years

South Africa has ten medical schools that use a decentralised training approach where clinical or practical experience is gained in Academic Health Complexes (AHC) also known as the extended clinical training platform. These complexes are based in the public health sector. For example, the University of Witwatersrand has six AHCs consisting of primary care clinics, community health centres and district and regional hospitals ranging from 4km to 442km from the main campus (Figure 3).

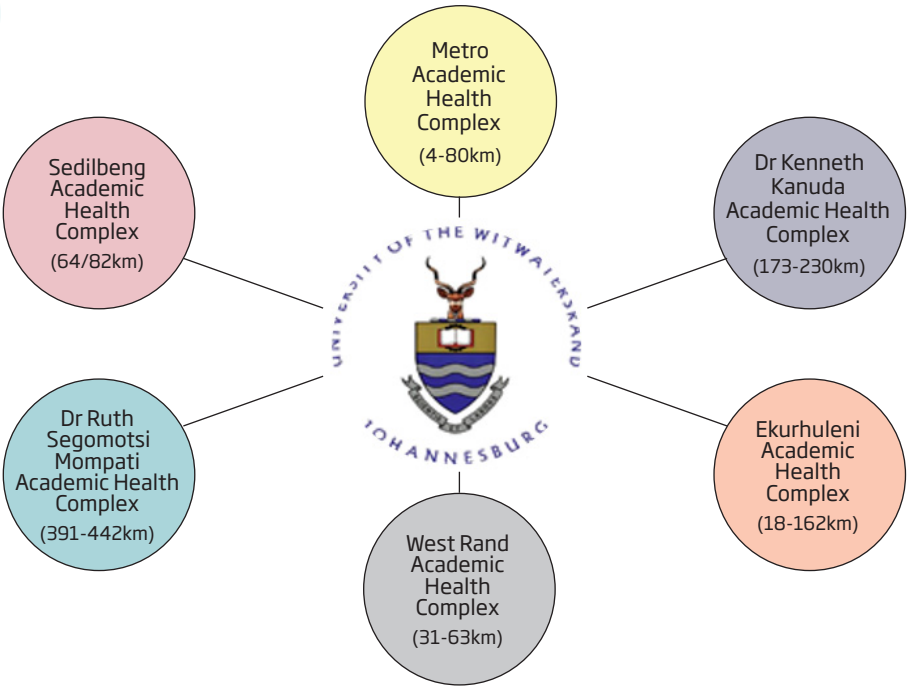

Figure 3. *The extended clinical training platform consisting out of six academic health complexes.*

In an academic health complex, the university will have doctors who are also joint appointees. These doctors are appointed by the National Department of Health with the agreement that 70% of their time will be service and the other 30% dedicated to training for the university. One AHC gave their numbers for training and clinical supervision as: Six Family Medicine Registrars (Post Graduate); eight final year medical students (Undergraduate); four to six Clinical Associates (Undergraduate) and 20 Interns. They also have six Nelson Mandela Fidel Castro collaboration students (Undergraduate), but these students are also supported by university appointed staff. All the training in this example is done by 8 doctors which gives a preceptor-student ratio of 1:6 for one and half day per week. The number of students per AHC varies based on the facility resources and preceptor availability.

The sexual medicine curriculum and training

To understand the teaching of sexual medicine, one must think of Blooms Taxonomy of learning (Figure 4). At the basis is didactic training and recall; moving up the expectation is that the student will understand the integration of illness and sexual medicine. For GEMP

(Graduate Entry Medical Students), and Integrated Primary Care (IPC or final year) sexual medicine is mainly taught in lecture sessions on campus. The declared curriculum (Figure 5) for undergraduates focuses on reproductive health, family planning and sexually transmitted infections.

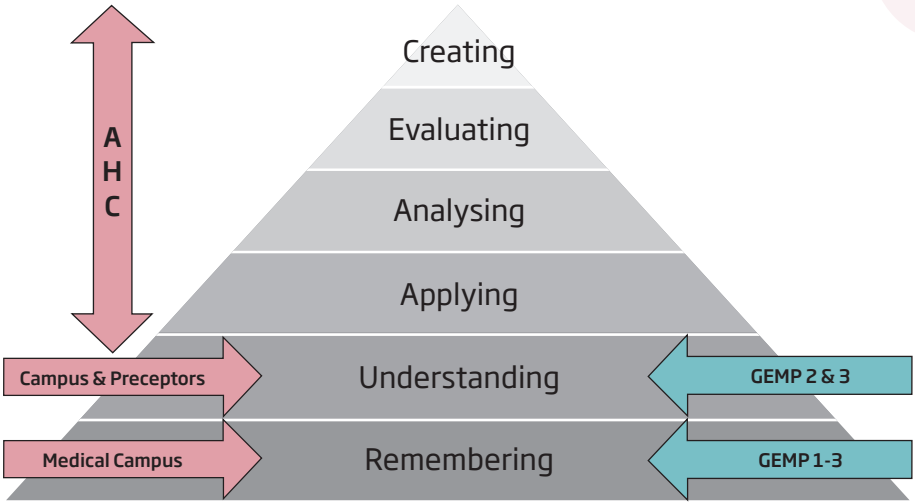

Figure 4. *Blooms taxonomy of learning and the exposure to sexual medicine training for undergraduate medical students at University of Witwatersrand.*

GEMP 1 has a sex, gender and gender based violence week with lectures on:

- Normal and Abnormal Genito-Anal Anatomy and Variations
- Holistic Care of the Rape Survivor
- Gender is not Binary: Ethical and Legal Implications
- Sexual Harassment
- Introduction to the Sexual Offenses Act
- Medico-legal Examination: Initial Approach
- Circumstances, context, and magnitude of sexual assault in SA
- GEMP 2 has a reproductive health block with lectures on:
- Anatomy of the Genital System
- Sexually Transmitted Genital Tract Infections: Vaginal discharge syndrome, medically unexplained symptoms, genito-urinary symptoms, Viral Sexually transmitted infections (STI), syphilis and pelvic inflammatory disease.

- Counselling of patients with sexually transmitted infections which focusses on HIV pre- and post-test, partner notification and health education for prevention of disease.
- Reproductive Health: Ethics and Law

GEMP 3 has only lectures for two days after which they have ten days with preceptors in private practice. If time in the lectures permits, they sometimes have one lecture on the sexual response

IPC students have one day orientation and then weekly tutorials with 24 consecutive days practical exposure in the public health sector. The national burden of disease is the focus of the training and clinical exposure.

Post graduate Family Medicine students are trained in these academic health complexes, supported by online resources. For post graduate students in Family Medicine, sexual medicine topics are on-line self-study resources and covered under women's and men's health. Female sexual disorders, menopause and hormone replacement therapy are also covered, but the focus is again on pregnancy, multi-morbidity and pregnancy, cervical screening, menstrual problems, antenatal care, diagnosing and managing labour and deliveries. For men erectile dysfunction and fertility as well as pathology of the scrotum and testes, prostatic disease, paraphimosis and 'andropause' and chronic health outcomes in men are in the on-line self-study resources. During examination, these topics are hardly ever included as the focus is on the burden of disease.

No training is done in primary care on the broader concept of sexual medicine which includes general sexual dysfunction (not disorders), paraphilias, the variety of sexual practices or cultural and religious influences on sexuality and sexual practices. When asked about these aspects of sexual medicine, the author was informed that it may be covered by obstetrics and gynaecology, urology, and psychiatry. The declared curriculum does not mention positive sexology or pleasurable sex and intimacy. More so is the communication skills to introduce a sexual medicine challenges within a diverse culture and historical socio-political and spiritual framework also absent.

Teaching and learning happen both on campus in the class room and in the AHCs. The scope (breadth and depth) of the undergraduate taught curriculum is not known. Sexual medicine teaching on the extended training platform where integration of skills and knowledge must take place, is also not known, and thus is the taught curriculum, not known (Figure 5). Besides the bulk of learning material aimed at the quadruple burden of disease, undergraduate and post-graduate logbooks representing the knowledge and skill requirements and assessments, emphasise the quadruple burden of disease. Students may get a multiple choice question or a single best answer question on sexual disorders, or an Objective Structured Clinical Examination (OSCE) on reproductive health or STI. We know assessment drives learning and if the student perceives the sexual medicine component's weighting as insignificant, no learning will take place.23

The same goes for the deeper learning according to Blooms taxonomy, and this brings us to the hidden curriculum. If the student does not observe a preceptor doing a screening for sexual challenges or engage with a patient on sensitive matters such as the influence of his/her illness on psycho-social and sexual wellbeing, learning did not progress beyond recall of knowledge and understanding of what the facts mean.

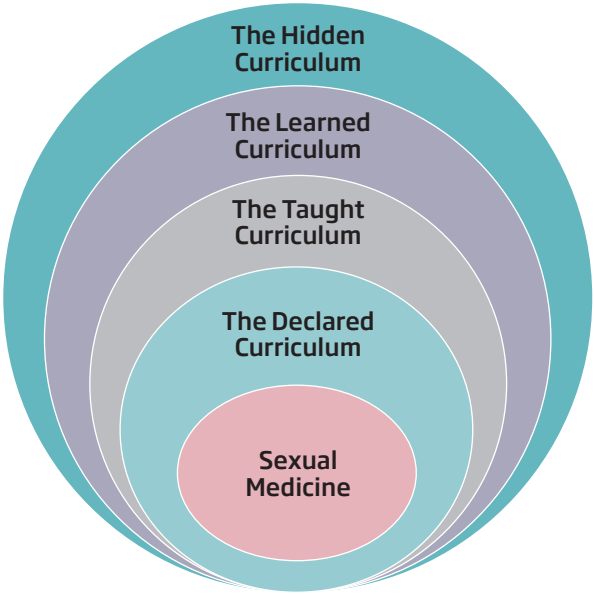

Figure 5. *The curriculum and sexual medicine.*

If one considers the pyramid of learning further, the higher order of learning must take place in the clinical practice exposure which happens in the AHCs of the extended training platform (Figure 3). Most of the communication skills to address these sensitive issues are taught in the practical exposure during interaction with patients on the clinical training platform. Thus, communication and role modelling occurs in the hidden curriculum where practice for future is moulded.[24,25] The hidden curriculum (Figure 5) has a non-academic focus and is the unwritten and not explicitly acknowledged curriculum, where good behaviour, respect and soft skills are transferred. The subtle focus of what is important shapes awareness and thinking. In medical training, this occurs mostly in the AHCs of the extended training platform. The material taught and learned is demonstrated as a skill supervised by a doctor or a nurse in a different context often far from campus and where their primary interest and work time are pure academic but managing the reality of disease and service delivery.

Conclusion

Training of sexual medicine is often disjointed and there is no alignment of, or skills transfer between the declared, taught learned and hidden curriculum. The preceptors at ground level in the AHC have competing responsibilities of not only service delivery in a very challenging public healthcare system, meeting control targets for health and wellness, but also ensuring the student is ready for the exam; an exam mainly focussing on the burden of disease. These competing responsibilities creates the perception that sexual medicine is a luxury with no importance in primary care.

Research in supervision in psychology practice, identified a need for a formal regulatory framework on supervision training and practices.[26] The perception from course coordinators in medicine is that supervision in medicine on the clinical training platform is often not overseen in a structured manner and reliant on the individual's work ethics and integrity. Due to the joint appointee structure, the doctor-teacher in the AHC has total autonomy in terms of their role, function and practice and the university can only advise. Clinical supervision of health professionals is associated with effectiveness of care, however a study in Ghana found little academic follow-up while students were in the community or AHC, compromised learning.[27,28]

When we look at the content in the declared curriculum, it seems as if there is no spiral learning. Spiral learning offers the student the opportunity to learn more and become more competent every time the student encounters the topic; thus, the more cycle and exposure to sexual medicine, the more learning takes place. The scope and sequence of learning is important to address difficult and sensitive concepts such as sexual functioning.[29,30] At this stage, sexual medicine often does not have a dedicated place in the curriculum and teaching is fragmented.

From a patient perspective, the patient is in a cul de sac presenting in the public health sector in South Africa. Despite media creating an awareness on sexual medicine, the nurse as health care professional and often intermediary between the patient with illness and the doctor in the primary care clinic, needs to identify the need and refer the patient to the doctor. The hope is then that the doctor will be competent enough to manage the sexual challenges or refer appropriately. All the professionals in the patient pathway to health care must be trained in sexual medicine, as low and middle income countries cannot afford the elitist nature of sex education for doctors and psychologists only.

Recommendations:

Learning in the hidden curriculum can be corrected if the declared or taught curriculum covered the broader scope of sexual medicine. More professionals in the health chain needs training on sexual health and there must be a direct supervision link between university and the AHC to monitor and improve skills to address sensitive matters that occurs in the hidden curriculum. More so, if logbooks are not adjusted to cover the scope of sexual

medicine, the importance of sexual medicine and well-being will not be valued in clinical training and practice.

The disconnect between the declared curriculum and the taught and hidden curriculum is the South African context can be decreased by a greater involvement of the teachers working for the university on the clinical training platform; alternatively, communication between the university and the AHC must improve to ensure that holistic teaching and learning take place.

Medical schools can follow the example of Stellenbosch University. They are in the process of revising their entire curriculum to dedicate space for positive sexology in the training of medical students. Communication training in the form of dyads with simulated patients will improve engaging with patients living with sexual challenges. They have the vision to develop an independent sexual medicine department in future. Other universities will be able to learn from them and hopefully adopt their approach and expand on the sexual medicine training.

With the development of a Sexual Medicine diploma by The College of Family Physicians in South Africa, the hope is that a greater awareness and expertise will be forged, and more professionals will have the opportunity to promote sexual wellbeing. It is important that other professionals such as nurses, social workers, psychologists, physiotherapists, and the pharmacists who are all in the loop of the service delivery in the primary care service delivery are included in the sexual medicine training. The doctor is not the exclusive custodian of sexual wellbeing in health care and training opportunities must be more inclusive in the interest of patient wellbeing.

The author plans to do The Sexual medicine Education for Professionals Scale at University of Witwatersrand and collaborate with Two other universities. This may help us to show the importance of sexual medicine training to leadership to facilitate change in the curriculum. A project to do research on patient's help seeking behaviour regarding sexual medicine is also underway. Furthermore, promote the author sexual medicine daily in the interaction with students in the classroom, role plays and in observed consultations at the AHC.

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DATING VIOLENCE AMONG SEXUAL AND GENDER MINORITY ADOLESCENTS

Laura Baams

Dating and intimate relationships are important developmental tasks during adolescence (Collins, Welsh, & Furman, 2009). Despite our knowledge of their importance, we know very little about what these early experiences with dating look like among sexual and gender minority (SGM) youth. Further, research indicates that SGM youth may be more likely to have negative experiences within and outside of intimate relationships, such as sexual harassment and assault, and dating violence (Martin-Storey, 2015). This review presents findings from two studies on dating violence among SGM youth (Kiekens, Baams, Fish, & Watson, 2021; Martin-Storey et al., 2021).

The first study (Kiekens et al., 2021) examined patterns of experiences with dating, dating violence, sexual harassment and assault among SGM adolescents aged 13-17 years old in a U.S. non-probability national web-based survey. Adolescents were asked to report their experiences with dating and relationships and whether they had experienced physical or sexual dating violence, harassment, or assault. Using latent class analyses (LCA), the authors identified four patterns of experiences with dating and dating violence. The largest group of adolescents had few experiences with dating and dating violence, while three smaller groups had experience with physical and sexual dating violence, and/or harassment or assault. Because some SGM groups may be more or less likely to have experience with dating and dating violence, the authors compared the likelihood of class membership (in the LCA) by sexual orientation and gender identity. Overall, the study showed that bisexual adolescents were more likely to having experience with dating, dating violence, and sexual assault compared to lesbian and gay adolescents. Further, cisgender girls, transgender boys, and non-binary/assigned male at birth adolescents were more likely to experience dating violence, sexual harassment, and assault compared to cisgender boys. These gender identity-based differences in experiences with dating violence, harassment and assault are in line with previous research (Dank, Lachman, Zweig, & Yahner, 2014) and extend existing findings to non-binary adolescents.

The second study (Martin-Storey et al., 2021) took a similar approach but applied it to dating violence victimization and perpetration among adolescents. Research suggests that during adolescence, dating violence victimization can occur together with dating violence perpetration (Haynie et al., 2013; Spencer, Renner, & Clark, 2016), and that a focus on either victims or perpetrators of dating violence disregards the complexity of these experiences. In addition, we currently know very little about the contextual factors that might help explain sexual orientation and gender identity disparities in dating violence victimization and perpetration. The authors argue that social stressors experienced by SGM youth might help explain vulnerability for dating violence (Langenderfer-Magruder et al., 2016; Martin-

Storey & Fromme, 2021). More specifically, childhood maltreatment, peer victimization, and discrimination is more prevalent among SGM youth, and might help explain disparities in dating violence victimization and perpetration (Martin-Storey et al., 2021).

The study by Martin-Storey and colleagues (2021) examined patterns of dating violence victimization and perpetration among high school students in Grades 9 and 11. Using LCA techniques, the authors found that sexual and gender minority adolescents were more likely to have experiences with dating violence victimization and perpetration compared with heterosexual, cisgender adolescents. To examine the role of childhood maltreatment, peer victimization, and discrimination in the likelihood of experiences dating violence victimization or perpetration, or both victimization and perpetration, these social stressors were added to the LCAs as predictors. The results from this study show that when these social stressors were added, sexual orientation and gender identity differences in dating violence victimization and perpetration became nonsignificant. These findings indicate that experiencing childhood maltreatment, peer victimization, and discrimination is related to experiencing dating violence victimization and perpetration. The authors argue that these harmful experiences during childhood and adolescence might gear adolescents toward patterns of violent behavior in intimate relationships and may make it more difficult to learn about, and explore healthy behaviors in intimate relationships.

In sum, the findings from these two studies show that sexual and gender minority youth are more likely to experience different forms of dating violence victimization and perpetration (Martin-Storey et al., 2021), and that there are subgroups of SGM adolescents who are more likely to experience dating violence, sexual harassment, and assault (Kiekens et al., 2021). Moreover, the findings indicate that social stressors in the family or peer-context explain the risk of experiencing dating violence (Martin-Storey et al., 2021). These findings aid in our understanding of the complexities of adolescent intimate relationships and experiences outside of relationships. Further, the findings show that harmful experiences in the lives of SGM youth have consequences for the behaviors that they encounter in relationships or may engage in themselves.

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WHAT IS SO-CALLED 'CONVERSION THERAPY' AND HOW CAN WE STOP IT?

Travis Salway

'Conversion therapy' refers to organized and intentional efforts that deter individuals from expressing lesbian, gay, bisexual, queer, or otherwise non-heterosexual identities and/or gender identities that differ from gender assigned at birth (Kinitz et al., 2021). 'Conversion therapy' practices have been denounced by dozens of health professional bodies, owing to their ineffectiveness and demonstrated harms (Byne, 2016). For example, in a recent Canadian study, 30% of those who had experienced 'conversion therapy' attempted suicide (Salway et al., 2020).

During the 43rd Canadian Parliament (2020-21), the federal government introduced a bill that would have banned 'conversion therapy' practices, through amendment to the Criminal Code (*Bill C-6: An Act to Amend the Criminal Code* (*Conversion Therapy*), 2021). This prompted our research team to launch a series of studies to inform the development of 'conversion therapy' prevention efforts. These studies aim to answer the following questions:

1. How prevalent are 'conversion therapy' practices?
2. What is the nature of contemporary 'conversion therapy,' including forms, settings, and ages of people affected?
3. What can be done to prevent harms associated with 'conversion therapy'?

(1) Prevalence of 'conversion therapy': From national surveys with thousands of individuals in Canada, we estimate that 4-11% of sexual and gender minorities have experienced some form of 'conversion therapy' in their lifetime (Salway et al., 2020; Salway et al., 2021; Trans PULSE Canada, 2020). These estimates are consistent with recent data from the United States (Blosnich et al., 2020; Green et al., 2020; Mallory et al., 2018; Meanley et al., 2019; Turban et al., 2019). The burden of 'conversion therapy' is inequitably distributed across sub-groups of sexual and gender minorities, with transgender and non-binary people (20%), immigrants (15%), youth 15-19 years of age (13%), and Black, Indigenous, and People of Colour (11-22%) reporting 'conversion therapy' histories in the greatest number (Salway et al., 2021). Prevalence of 'conversion therapy' is comparable across Canadian provinces/territories, despite some having enacted legislative bans in recent years (Salway et al., 2021).

(2) Nature of 'conversion therapy': From interviews with Canadians who have direct experience with 'conversion therapy' (N=22), we have identified a remarkably wide set of forms of these practices (Goodyear et al., 2021; Kinitz et al., 2021). These include: fasting to reduce sexual libido; intensive prayer sessions; exposure therapy (e.g., naked holding of other men); burning photos of parents; practicing more masculine or feminine behaviours/expressions; hypnosis; denial of gender-affirming care (e.g., access to hormones);

psychoanalysis; prescription of medicals to suppress sexual desire; electroconvulsive therapy; exorcism; and behavioural practices such as techniques to avoid masturbation or watching 'gay porn' (Kinitz et al., 2021). We estimate that approximately 67% of 'conversion therapy' practices occur in religious/faith-based settings, while 30% have experienced 'conversion therapy' in licensed healthcare provider offices (Salway et al., 2021). In a recent survey of Canadians who have experienced 'conversion therapy,' we found that the median age of starting 'conversion therapy' was 17 years, and concerningly, individuals remained in 'conversion therapy' for <1 to 33 years (median: 2 years) (Salway, Tiwana, et al., 2021).

(3) Preventing 'conversion therapy'-related harms: Legislative bans are an important component of 'conversion therapy' prevention strategies; however, any single ban is unlikely to be effective at fully eradicating 'conversion therapy,' given the breadth of forms and settings of these practices. From our research, we believe that the defining feature of 'conversion therapy' is the persistent denial of lesbian, gay, bisexual, transgender, queer (or otherwise non-heterosexual, non-cisgender) identities as permissible outcomes. In addition to legislative bans, we recommend sexual and gender minority-affirming supports for survivors of 'conversion therapy', regulatory enforcement of 'conversion therapy' practices that continue in licensed healthcare settings, and the creation of sexual and gender minority-affirming environments across healthcare, religious, and other institutions where 'conversion therapy' is likely to occur.

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GAMIFICATION AND CITIZEN SCIENCE IN SEXUAL HEALTH

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In the last couple of decades, gamification has gained interest from academics and practitioners in multiple fields. While there is not a standard definition of gamification, it broadly entails incorporating elements of game design elements and mechanics in non-game applications with a specific purpose, such as dissemination of information, data collection, and behavior change (Lugmayr et al., 2011). Common applications incorporating gamification for the public can be found in language learning such as Duolingo or the Fitbit fitness tracking app. The most predominant elements used in gamified applications include rewarding participants with points and badges, maintaining leaderboards, and storytelling. Other common elements include experience points (XP), challenges, and avatars. (Robson et al., 2015).

Multiple theories have been cited as rationale for gamification activities across the different studies. As (Krath et al., 2021) pointed out in their recent literature review, the theoretical foundations of these applications can be classified into three broad groups according to the intended outcome of the application, namely motivation and affect, learning, and behavior. Nevertheless, the most prevalent theory overall has been the self-determination theory (SDT), which relates to the components of human motivation (i.e., competence, autonomy, relatedness). Applied to gamification, the SDT brings insights into the design of applications and ways measure their effectiveness in increasing the different components of motivation. Gamified initiatives rooted on the SDT aim to fulfill the three components of human motivation to keep users engaged.

Related to the SDT, one of the most critical aspects to consider when designing gamified applications is the balance between extrinsic and intrinsic motivation. Although extrinsic rewards can motivate users to use gamification initiatives for the first time and keep them engage, over reliance on these elements may be detrimental for users intrinsic motivation (Deci et al., 1999), and it may cause them to stop engaging with the initiatives altogether. Hence, it is natural to question what happens to users in relation to the intended outcomes of the gamified initiatives—especially behavioral change—when the application is removed (see Seaborn, 2020).

Gamification has also played a major role in citizen science initiatives. Citizen science entails involving the general population in active scientific research processes along with professional scientists (Bonney et al., 2014). Citizen science projects involve different levels of involvement and functions for the population, including data collection and analysis but also generating ideas, research questions, and hypotheses (R. Bonney et al., 2009). Some notable Examples of citizen science have been Stall Catchers, Foldit, and Eterna.

While gamification has been widely used in fields such as overall fitness and education, as well as citizen science projects in various fields, its implementation in sexual health is still in its

infancy. The applications in this field have mostly remained as part of pilot studies and have not been released to the general population. These initiatives have had different purposes that have mainly consisted of education and information dissemination (e.g., Gannon et al., 2020; Haruna et al., 2018, 2019, 2021), HIV/STI testing resurces and screening (e.g., Balán et al., 2020; Mccoy et al., 2018; Zhang et al., 2017), sexual and reproductive self-tracking (see Lupton, 2015), stereotype fighting (Boyle & Labrie, 2021), and behavioral change in terms of adherence to medication, use of contraception (e.g., Hightow-weidman et al., 2018; Horvath et al., 2018; Legrand et al., 2016). The gamification elements used in these applications have included awarding of points and badges, leaderboards, quizzes, interactive mini games, leveling up, in-app currency, storytelling, avatars, betting, competitions. Other applications have used social media-like profiles and guessing and betting competitions about negative stereotype-related experiences, together with real prizes.

Beyond the applications and objectives most of the gamified initiatives in sexual health have focused on so far, gamification can be used may be used in novel ways to solve current societal challenges. Future gamification initiatives have the potential to serve as holistic platforms to provide immediate help and counseling in sexual education themes besides providing informational resources. For instance, mobile applications may implement storytelling and pointsification elements to conduct therapy and provide easy access to prompt professional help. Furthermore, one of the major potential uses for gamification lies in co-creation. Gamified applications may become sustained projects that actively involve the population to uncover pressing challenges in sexual health, as well as potential co-created solutions.

Academics and practitioners can leverage populations' online behaviors to enhance the reach and impact of gamified applications focused on sexual health. The use of internet and smartphones is ubiquitous around the globe, and smartphone ownership is increasing in most countries (Taylor & Silver, 2019). Furthermore, digital natives (Generation Z and onwards) spend most of their time online through mobile and wearable devices (Lim et al., 2021). Hence, the number of individuals that can potentially benefit from and co-create solutions for sexual health challenges worldwide is enormous. Moreover, the opportunities to collect and analyze data and to engage the population are rapidly increasing with the evolution of the Internet of Things (IoT) and Artificial Intelligence (AI; see Alla & Nafil, 2019 for a mapping of IoT in gamification). For instance, wearable devices and beacons may be used to provide real time information about testing and counseling centers, and sensors may be used for medicine tracking and automatic ordering.

Moreover, AI may reveal critical insights by analyzing large amounts of data stemming from co-created gamified initiatives.

Gamified and co-created applications in sexual health have an extensive potential to disseminate information and influence behavior. Nevertheless, the greatest impact of these initiatives may lie in their ability to involve individuals in the co-creation of solutions for pressing challenges, especially for sexual and gender minorities. Furthermore, Designers of future initiatives must have a clear purpose in mind for their applications and be able collect and incorporate constant feedback from users to maintain engagement and therefore generate sustained impact.

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CANCER AND SEXUAL HEALTH SUBGROUP

Bruno Jorge Pereira

Cancer is a major public health problem worldwide. Prostate cancer in men and breast cancer in women account for most cancer cases. On the other hand, colorectal cancer, cervix, lung, and stomach are also very frequent. Colorectal and cervix cancer treatment might directly affect sexual function. Head and neck cancers are less frequent but have a very high impact on the body self-image. Blood cancer like leukemias and lymphomas, and testicular cancer have a high incidence in the youngers and can significantly impair their sexuality.

In the middle of the 20th century cancer was considered a fatality. With the emergence of advanced treatment modalities for cancer and the development of the healthcare systems, the survival rate of cancer patients has increased considerably, often leading to long-term survival and concerns about quality of life after cancer treatment. Meanwhile sequelae may be only temporary but many of them will be permanent.

Oncosexology aims at increasing the awareness of sexual issues in oncology care and stresses the importance of addressing issues to prevent the development of (chronic) sexual dysfunctions, problems or worries. Oncosexology intervention system encompasses a team of interdisciplinary professionals (medical doctors, psychologists, social workers, couple therapists and sexologists, oncology nurses, etc.), together providing cancer patients and their partners with up-to-date information and adequate therapy focusing on their sexual, intimate, and relational needs.

Sex, sexuality, and intimacy are just as important for people with cancer as they are for people who don't have cancer. There is no "one size fits all" when it comes to sexuality and mainly in the field of sexual health and cancer. Sexual health in this field has relevant diverse variables: patients, partners, types and sites of cancer, cancer incidence, treatment options, patient preferences, professional and multidisciplinary approach, cultural differences. Doctors and health professionals now need to "see beyond the horizon" in cancer matters, anticipating the side effects of cancer and its treatment and minimizing the impact of cancer diagnosis and management. Cancer is no longer a question of survival but also a matter of preserving QoL in every individual dimension, sexual health included. No approach in cancer deserves to be called holistic if sexuality and intimacy have not been adequately addressed.

There are many publications concerning genital and "sexual" cancers with direct impact on sexuality like prostate cancer in males or breast cancer in females. On the other hand, there's a lack of studies about the impact on sexuality of non-genital cancers. Cancer patients clearly report that they would welcome information about sexual matters and report feelings of abandonment and not being taken seriously. Some of them feel ashamed to have sexual feelings when so threatened by cancer. If sexuality is mentioned in the early stages of treatment the sexual outcome may be better.

Sexual wellbeing benefits the recovery and healing oncological process: reduction of muscular tension, increase in pain threshold by endorphin release, increase in oxytocin levels, less depression and anxiety. The impact on sexuality can be very high in some cancers, affecting almost all patients (ex: hormonal treatments and surgery / radiation of pelvic cancers). There's a lack of healthcare professionals training in the field of Sexual Medicine and even more in the specific field of oncosexology.

Even in a terminal stage of cancer being questioned about sexuality and intimacy makes patients feel that they are still seen as alive or as a sexual human being. High prevalence of sexual dysfunction in the palliative care population. 86% of palliative care unit patients considered sexuality important enough to talk about it with a knowledgeable clinician. Medical oncologists assumed that barriers for avoiding discussing sexual function were lack of time (56,1%), lack of training (49,5%), and advanced age of the patient (50,4%).

Patients after hematopoietic stem cell transplantation (HCST) may experience decrease libido, genital graft-versus-host disease, hormonal dysfunction, ED, dyspareunia, infertility and psychosocial problems. Higher sexual education after HCST improved couple's sexual health (1.91 times more sexually active and 3.04 times with higher desire).

There is some information about cancer and sexual health from oncologic societies (ex: American Cancer Society) but they lack addressing lesbian, bisexual, transgender and gender non-conforming needs.

What Can and Should Be Done?

1. Promote multidisciplinary teams especially in cancer treatment centres.
2. Education for professionals and patients in the oncosexology area.
3. Fill in the gap in research in the heterosexual and LGBTQI+ individuals concerning cancers other than prostate and breast.
4. For policy makers: free-of-charge access to sexual rehabilitation protocols after cancer treatment.
5. Cancer should be treated in dedicated centres prepared for dealing with it in all the dimensions of the disease and ready to rehabilitate patients to their life as normal as possible.

Questions to be Raised in the European Sexual Medicine Network

1. Accessibility to an oncosexology multidisciplinary team in different EU countries?
2. Inequities between EU countries related to the cost of treatments?
   - PDE5i, Alprostadil, Vacuum erection devices, Penile prosthesis, …
   - Vaginal dilators, Lubricants, Breast prosthesis, …
3. Are men and women equally treated? Are there sexual and gender identity differences? Is the partner also addressed?

4. Specific in-country programs related to oncosexology – are there any? If so, can they be reproducible in the rest of the EU country members?
5. Links, Meetings, and common protocols between Oncosexology multidisciplinary teams / centres

Proposed Deliverables

1. Input from different members about their own country examples about oncosexology and mapping differences.
2. Booklet in different languages (national?) directed to professionals and patients covering the oncologic patient's sexual health needs.
3. Development of an online site about oncosexology at a European level for patients and professionals and online seminars (in collaboration with WG3 and WG4).
4. Development of an App with specific recommendations for cancer patients to enhance their sexual health?
5. Manifest for policy makers stating reasons and evidence about the benefits of sexual medicine/ oncosexology for oncology patients.
6. Animated Videos for ESMN site and for the ESMN Youtube Channel.
7. Making use of the Gamification tool as a way of making research and extract data.

In order to work on these questions, integration of new ideas and projects, a proposal of the first Cancer and Sexual Health Subgroup Meeting of the ESMN Working Group 1 and 2 in Coimbra (Portugal) from 28 to 30th of January, 2022 was made.

ONCOSEXOLOGY IN THE NETHERLANDS: FROM SPECIAL INTEREST GROUP TO FUTURE IMPLICATIONS

Ilaniek Zantingh

In The Netherlands all sexology care is rooted in the biopsychosocial model, which has implications for both research, education and clinical care. The biopsychosocial model assumes that no single factor is determinative. It is not just biology, not just psychology and neither just relationships, society and culture that determine what we want with sex, what we do with it and what we experience from it. Biological factors that play a role in oncosexology include - amongst others - the age of the patient, hormones, the type of cancer, the type of treatment, (additional) medication and (persistent) physical impairment, like amputation, scarring or stoma. Psychological factors include the positive evaluation of sexual stimuli, motivation for engaging in sexual activity, mood, (existential) anxiety, self- and body image, grief and acceptance, trauma and psychological flexibility. Social factors include relationships, type of communication, religion, belonging to a certain (sub) culture, the amount of social support and the possibilities for sexual contact.

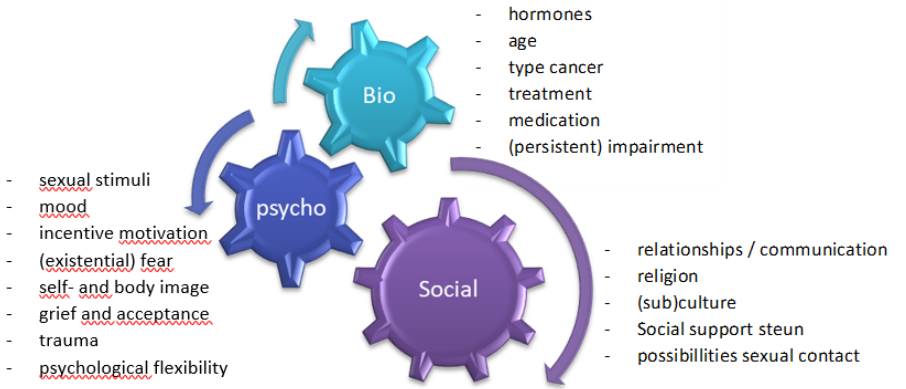

Figure 1. *The biopsychosocial model of sexuality in oncosexology (after Leusink & Ramakers, 2014)*

In oncosexual health each of these biopsychosocial factors determine both sexual function, sexual self-image and sexual relationship. Sexual function is all about the operation of the sexual organs, the sexual self-image is all about feeling like a sexual person and feeling attractive and the sexual relationship is about the person you have a sexual relationship with or want to have with in the future.

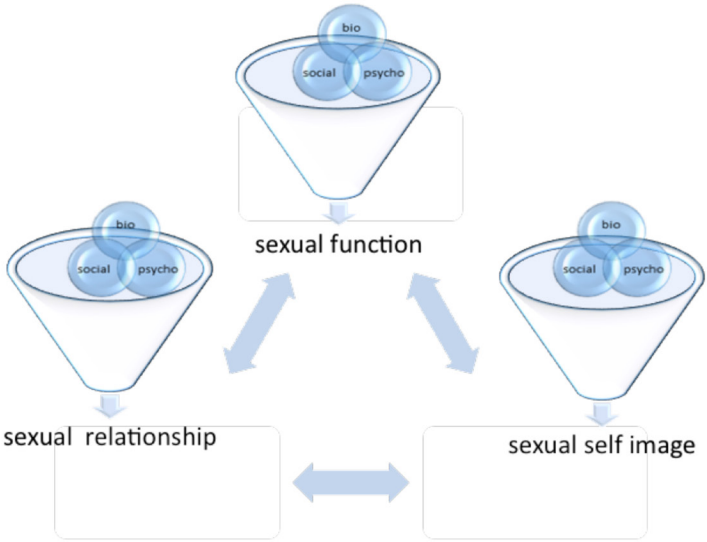

Figure 2. *Biopsychosocial factors determining sexual function, sexual self image and sexual relationship (Zantingh et al, in press)*

The basic and specialized oncosexological care which Dutch patients receive is partly depending on the hospital they are treated at and partly on the training or ease with the subject of the healthcare professionals they encounter. As a consequence, sexual problems are often only addressed by the patients themselves. Whereas we know from research thet many patients are hesitant to address this topic, even if they would be interested in receiving support or information. Fortunately, we see that healthcare professionals increasingly use routine patient outcome measurements (PROMS) or questionnaires like the 'lastmeter' (a distress thermometer) to get a better idea of their patients need for treatment in various areas (psychosocial, physical therapy, etc). The 'lastmeter' contains one question about sexual problems, so it's a start! If a patient gets referred for more oncosexological care, it depends on what the hospital has to offer and can include a referral to a urologist, gynecologist, endocrinologist or oncology nurse, all specialized in sexology care, a pelvic floor physical therapist, and trained medical social workers and psychologist. Some hospitals have a certified sexologist employed and there are a number of Centers for Sexual health in University Medical Centers (poliklinieken seksuologie) that also offer care for oncological patients.

An important part of basic oncosexology care is giving the patient information on the possible effects of cancer and its treatment on sexual health. Asking about possible sexual problems the patient encounters is part of giving permission to talk about sex (the first stage of the PLISSIT

model). After this the healthcare professional needs to routinely check how the patient is doing in this area and assess if more specialized help is needed. Training in talking about sexual problems needs to be a part of basic education of both (oncology) nurses and physicians. Up until now, training is rather 'scattered'. For example, nurses who give penis injection instruction get their training by urologists or colleagues, sexual rehabilitation for women after radiotherapy is provided as part of the SPARC-study and some healthcare professionals follow a postmaster education or training.

Yet still many patients also get their information on cancer and sexual health from the internet. There are a lot of websites and podcasts nowadays from both different and joined patient organisations (NFK) and oncosexologist (sickandsex, de bespreekkamer, de herontdekking van haarzelf).

To improve the oncosexological care for all oncology patients we try to join forces in a special interest group consisting of different important stakeholders in both clinical care, education and research. We started in the summer of 2020 and meet four times a year, because of Covid we have only met online. But have been able to start a newsletter to send out to all of our

Websites on cancer and sexual health

- www.kanker.nl
  Information and support for patients with cancer
- https://sickandsex.nl/
  Information and support about sexuality
- www.aya4net.nl
  Platform for adolescent and young adult patients with cancer
- www.seksualiteit.nl
  Knowledge Center on Sexuality: Rutgers WPF
- www.seksuele disfuncties.nl
  website belonging to the book 'sexual disfunctions'
- www.seksindepraktijk.nl
  empowers health professionals on the theme of sexual health
- www.nvvs.info
  Dutch Society for Sexology - Nederlandse Vereniging voor Seksuologie (NVVS)

Peer support websites with extra attention for sexual health

- www.kankerenseks.nl
  Dutch Federation of Cancer Patientorganisations (NFK)
- www.borstkanker.nl
  website of the Breastcancer Association of the Netherlands
- www.prostaatkankerstichting.nl
  The patiënt associatione for men with prostate cancer (and their loved ones)
- www.hematon.nl
  for patiënts with blood or lymph node cancer and stem cell transplant
- www.stomavereniging.nl
  association for people with a stoma or pouch
- www.olijf.nl
  Stichting Olijf: Network for women with gynaecological cancer
- www.freya.nl
  For people with fertility problems

Box 1. *Dutch websites about cancer and sexual health*

colleagues in oncosexological care, we discuss complicated cases, will soon start a workgroup on testosterone for women, have pitched for a delegations of educators, informed each other on the presentations and guideline actions that we are active in, will be reviewing the online information for patients for potential points of improvement (e.g. a website called seksenkanker) and have contacted several European colleagues to see if we can learn from initiatives they have been developing in their own countries.

Our mission for the future:

- improve basic oncosexological care provides by oncology nurses and physicians
  - by making sure sexology is an integral part of the education of healthcare professionals
  - by training oncology care teams (Pink elephant)
- better implementing research (KISS / SPARC) into clinical care
- Improving research questions and studies that are more closely informed by clinical care
- improving European collaboration
- Developing Expertise Center(s) for Sexual Health in Oncology
- Organize a conference or webinar for oncosexology following a French example for all healthcare workers in the Netherlands or a follow up of the congress of the ISSC in Rotterdam in 2010

Seeing the great amount of work we collectively carried out in the short existence of our Dutch special interest group we hope by connecting and joining forces with all oncosexologists in Europe we can even learn more and inform each other of all different initiatives (research, guidelines, seminars, education opportunities) all across Europe so we don't all have to reinvent the wheel ourselves.

So, let's connect!

References:

1. Leusink, P., & Ramakers, M. (Red.). (2014). Handboek seksuele gezondheid. Assen, Nederland: Van Gorcum.
2. Zantingh, I.C., ter Kuile, M.M., & Seegeren, C. (in press). Seksualiteit en kanker. In: Psychologische patientenzorg in de oncologie. Assen, Nederland: Van Gorcum

"IT'S LIKE A PART OF YOU IS MISSING": POST-MENOPAUSE WOMEN´S DISCOURSES ON SEXUAL HEALTH

Gómez-Garrido A., Ferrari R., D´Anna A., Hunziker I., Petillo A., Scarpetti G., Nicolini A., Bonfanti N., Tincani A., Ferrero-Camoletto R., Bote M.

The present work is framed in the context of women's sexuality in relation to their aging processes. The general purpose has been focused on knowing the perception of sexual health and well-being of women over 45 years of age in the Region of Murcia (Spain) and Piamonte (Italy) through their discourses. With a qualitative methodological approach, women (n=23) over 50 years of age were interviewed using a semi-structured script with fundamental themes such as sexuality, sexual wellbeing, eroticism and social stigmatization, emphasizing the main changes that women have experienced in their sexuality, and without losing sight of the main factors that have influenced their sexual wellbeing. A non-probabilistic "Snowball" sampling was carried out in order to meet optimal heterogeneity criteria to meet the research objectives, interviewing women of various age ranges, educational levels, marital status and sexual orientations. For the analysis of the qualitative material, the Constant Comparison Method of Grounded Theory was used, and the main results show that women perceive sexuality as a "whole" that goes far beyond the sexual act itself, with the emotional and affective dimension of the couple relationship predominating, and despite the fact that certain traditional conceptions about sexuality still persist, in empirical practice many of the theorizations about stigmatization that are taken for granted in the academic literature did not appear. As for the main factors that influence sexual well-being, aspects related to menopause and also to the social environment stand out, as well as the difficulties that arise from not having a partner or establishing an emotional bond with one. There is a consensus among the participants about the importance of sex for quality of life, and the adversities that have affected their sexual well-being have also been reflected in the struggles they have gone through emotionally and with their partner relationships. The results also suggest that there is not a high enough level of knowledge to address the sexual health issues that women face over the course of their lives, and it is therefore imperative to encourage research that engages older women's sexuality from a societal perspective.

Consistent with previous studies (Palacios Ceña et al, 2016; López Sánchez, 2005), the results show that sexual well-being does not focus only on sexual satisfaction, but also on other elements such as complicity, affection and attraction in the couple.La masturbación mutua predomina en las relaciones sexuales de pareja, y el sexo en solitario no adopta el mismo grado de satisfacción para estas mujeres, tal y conforme habían apuntado otros estudios (Lindau et. al, 2007; Calsanti y Slevin, 2001; Connidis, 2006).

The importance of "sexual games", "warm-ups" and "foreplay", generally was related to the physical and affective contact that occurs in the moments prior to intercourse. However, it

should be noted that many theorizations that are made from the academic literature on the effects of stigmatization and aging on women's sexuality do not always occur in empirical reality.

Differing from other research (Freixas and Luque, 2009; Cárdenas and García, 2015; Morell Mengual et al., 2018; Iacub et al, 2019), the results of this study do not show that sexual stereotypes and taboos influence the perception that have older women of their sexuality. It is true that for some of the interviewees, widowhood has meant the end of their sexuality, but in accordance with other studies (Camacho et al, 2005), the women interviewed continue to express an interest in sexual activity and value it positively in their lives, and affirm that they will continue to have sex by adapting to the circumstances that come their way. It is true that in some interviewees an idea of sexual relations based on heterosexuality and satisfaction of men has been found, as other studies had indicated (Palacios Ceña et al, 2016), but in most of these cases an element of resistance by which women are aware of this situation and try to change it, adopting strategies such as breaking up with their partner and making autonomous decisions about their sexuality.

Regarding the influence of aesthetic canons on women's own perception, the double standard of aging put forward by Susan Sontag (1972) is only partially fulfilled, since women affirm that although they continue to worry about their physical appearance, the marks produced by age are insignificant. In any case, the triple standard of aging that other authors have already exposed would make more sense (Macdonald and Rich, 1983; Quam, 1992; cited in Freixas and Luque, 2009), since the speech of the lesbian woman interviewed showed the difficulties who come forward to find a partner and establish an emotional bond with her.

Finally, and in line with other studies (Hernández Carrasco et. Al., 2019), in the women interviewed there is a consensus on the importance of sex for quality of life, but their speeches show that it has not always been given an effective response to face the adversities that have occurred in their sexual well-being. While some interviewees turned to expert professionals to deal with problems related to their sexuality, others left it alone or focused their strategies on communicating with their partner, even if sometimes they were in vain, which suggests that there is no enought degree of knowledge to address the sexual health issues women face throughout their lives.

UNDERGRADUATE CURRICULUM IN SEXUAL HEALTH/SEXUAL MEDICINE FOR MEDICAL AND PSYCHOLOGY STUDENTS

WORKING GROUP 3 (Johannes Bitzer ed.)

1. Background:

The task of the working group is to develop a curriculum in sexual health/sexual medicine for medical and psychology students. The curriculum should be competence based with

- learning objectives for knowledge, skills and attitudes
- teaching methods
- evaluation and feeback
- implementation (including research on implementation

Competency :

The undergraduate student should be able to

- **Perform a sexual history** including **assessment of sexual health risks and sexual concerns**, encourage questions and create an open confidential non judgemental atmosphere following the principles of patient centred communication and patient/ professional relationship based on trust and respect
- **Counsel** patients on **sexual health protection and promotion (Contraception, STI, violence)**
- **Encourage questions and inform and educate patients** about the **basic facts of the anatomy and physiology of the human sexual response**
- **Address proactively sexual wellbeing in a respectful non invasive manner**
- **Take care of patients** with sexual problems by **practising patient centred counselling based on empathic listening, providing evidence based information and discussing solutions**

Learning objectives:

The undergraduate should

Know

- about definitions of sexual health and get an understanding of the basic anatomy and physiology as well as the psychology of the human sexual response in a biopsychosocial framework
- about sexual diversity and sexual cultures
- about sexuality related health risks and how to prevent these risks
- about the most frequent disorders of sexual wellbeing (sexual dysfunctions) their diagnosis and treatment options

- Know about the impact of the most frequent diseases on sexual health
- Know about the specific needs of sexual minorities

Be able

- to address sexual health issues in a patient centered respectful way
- to take a sexual history as part of a general medical history
- to establish a descriptive diagnosis of the sexual health problem (sexuality related disorder)
- to counsel about solutions to the sexual health problem (sexuality related disorders)
- to respond to the specific needs of sexual minorities
- be aware
- of his/her beliefs and values regarding sexuality and the impact of these on his/her care for patients
- of the large variability of sexual expressions and develop a open non-judgmental attitude

The group agreed on the following structure of the program

Attitude	Knowledge	Skills
Awareness and reflection on personal beliefs and values towards sex	Sexual health concepts and definitions What is sexual health ?	
Understanding the impact of one's own beliefs and values on the care for individuals with sexual problems	Biological (Anatomical and Physiological) processes and constituents of human sexuality Development, Human Response Anatomy, Endocrinology, Our body and sexuality	
Understanding and accepting the large variety of sexual expression and identification	Psychology of the human sexual response How do we learn sexuality Software The biopsychosocial model	
Understanding ethical principles and ethical issues regarding sexual behavior and sexual expression	Sexuality related health risks: Unwanted pregnancies STI incl HIV Sexual violence Prevention of Sex Hazards	Sexual history taking 1 Risk Assessment 5 Ps Questions and Interview Technique Risks Ass Counselling (Motivation, Preventive Behavior, Contraception, STI Protection
	Sexual Wellbeing (Dysfunctions) Male Female Diagnosis (biopsychosocial) Types of treatment	Sexual history taking 2 Wellbeing Dysfunction Counselling, Diagnosing Biopsychosocial Treatment options Shared decision making
	Medical illnesses and treatment impact on sexuality Medical conditions and sexuality	Sexual history taking in the context of diseases Taking basic care Patient centred counselling
	Sexual health of special groups Care for those who are different LGBT	Sexual history taking in special groups Taking basic care Patient centred counselling

2. Development and elaboration of the 8 Topics (Knowledge part of the curriculum)

Topic 1: Sexual Health Concepts and Definitions

- Definitions of Sexual Health (WHO, Unicef),
- Definitions of Sexology, Sexual Medicine;
- Determinants of sexual health (risks and ressources)

- Professionals involved in sexual health care,
- Multidisciplinarity
- Public health strategies
- Care for the individual, protection and promotion of sexual wellbeing

Topic 2: Biology of the human sexual response

- The making of female and male bodies
- The human sexual response cycle
- Sexuality a top down and bottom up regulated system
- The Brain with the main connections and areas involved in the sexual response (Dual control system)
- The endocrine regulation of the sexual response
- The autonomous nervous system regulation
- The response of the genital organs in women and men
  - Excitement
  - Plateau Phase
  - Orgasm
  - Resolution phase
- Factors influencing the excitation/inhibition balance

Topic 3 Psychological perspectives on sexuality (Mind and Sexuality)

- Major psychological theoretical perspectives on sexuality
- Psychanalytic perspective
- Jungian Analytical psychology
- Cognitive and behavioral perspective (Learning)
- Evolutionary and cultural perspective
- Sexual development
- Sexual education, sexual counselling and sexual coaching
- Psychological factors having an impact on the individual sexual experience
- Motivation, The body as a personal experience, The self image
- The intimate relationship
- Love and sex, sex and the unconscious
- Sexual fantasies and sexual fears (the inner representations of sexuality)
- Psychological factors involved in sexual difficulties and sexual dysfunctions
- Ways to a sexual satisfying experience

Topic 4 Sexuality related health risks

The 4 plus 1 big threats to sexual health and their consequences

- Unplanned pregnancies
- Unsafe abortions
- STIs

- Sexual violence
- Sexual discrimination and denial of sexual – reproductive rights
- Sexual health prevention and promotion
- Sexual rights (Political and legal dimension)
- Sexual education
- Contraceptive counselling and care
- Safe abortion care
- STI prevention and care (Vaccination, Safer sex practices etcc)
- Sexual Violence prevention
- Care for victims

Topic 5 Female Sexual Dysfunctions

The female response cycle

- Desire
- Arousal
- Orgasm
- Sexual pain

The biopsychosocial model to understand Sexual Dysfunctions
The diagnostic process
The therapeutic menu overview
Cases Low Desire/Loss of interest in sexual activity

- Prevalence
- Descriptive Diagnosis
- Factors (Biopsychosocial)
- Treatment

Cases Arousal

- Prevalence
- Descriptive Diagnosis
- Factors (Biopsychosocial)
- Treatment

Cases Orgasmic Dysfunction

- Prevalence
- Descriptive Diagnosis
- Factors (Biopsychosocial)
- Treatment

Cases Sexual pain

- Prevalence
- Descriptive Diagnosis
- Factors (Biopsychosocial)
- Treatment

Topic 6 Male Sexual Dysfunctions and Couple dynamics

33 slides

The male response cycle
Low desire

- Prevalence
- Descriptive Diagnosis
- Factors (Biopsychosocial)
- Treatment

Arousal Erectile Dysfunction

- Prevalence
- Descriptive Diagnosis
- Factors (Biopsychosocial)
- Treatment

Orgasmic Dysfunction (Premature ejaculation, Delayed ejaculation)

- Prevalence
- Descriptive Diagnosis
- Factors (Biopsychosocial)
- Treatment

The impact of the partner and the relationship on the sexual dysfunction

- Couples dynamics
- Risk Factors
- Ressources

Topic 7 Sexual Health in the context of diseases (Medical Sexology)

37 slides

A medical sexology algorithm

- Predisposing factors
- Impact of disease and treatment
- The individual and couple response

The diagnostic process (from description to biopsychosocial understanding)
Cardiovascular diseases

- Diagnosis
- Therapeutic options

Oncologic disease

- Diagnosis
- Mammary Carcinoma
- Gynecological tumours
- Therapeutic options

Neurologic diseases
- Diagnostic workup
- Parkinson
- MS
- Spinal Cord injury
- Therapeutic options

Psychiatric morbidity
- Diagnostic process and therapeutic options

Metabolic diseases
- Diagnostic process and therapeutic options

Topic 8 Sexual minorities

- Definitions LGBT
- Different sexual orientation
- Gender minorities
- Variety of sexual expressions
- Prevalence
- Medicalization
- Political and legal background
- Health risks
  - Medical
  - Psychosocial
- Special needs
  - SRH care for LGBT based on specific needs
  - Ex Contraception

The Questionnaire

After having developed the outline and the content with the topics WG 3 developed a questionnaire to get feedback from other COST members and future partners about the content and structure as well as the time frame and the teaching methodology

The questionnaire consisted of 4 major questions.

1. **What are the competencies students in medicine and psychology should acquire during their education and training?**
2. **Which timeframe would you consider necessary and realistic for teaching knowledge and skills?**

3. **Which teaching methods would be the most appropriate?**
4. **Would you evaluate the implemented curriculum?**

Answers from 13 members of COST to the questions of the questionnaire

1. **What are the competencies students in medicine and psychology should acquire during their education and training?**

There was a broad agreement on the competencies student should acquire

1a) **What are the elements of knowledge the student should be able to learn (Learning objectives):**

Votes	Learning objectives:
13	Know about the main sexual dysfunctions, the contributing factors, and available solutions
12	Know about the main threats to sexual health and the possible protection and prevention
12	Know about the impact of diseases on sexual health and available solutions
11	Know about the different components and international definitions of sexual health
11	Know about and understand the anatomy and physiology of the human sexual response
11	Know about Sexual Development, Sexual Education and the impact of the Internet and Media
9	Know about the needs of people with specific sexual orientation, gender dissatisfaction sexual Minorities

There is a strong agreement to focus on Sexual Dysfunction

1b) What are the skills:

1c) Please comment and add missing points:

- Cultural perspectives on sexuality
- Sexual ethics and appropriate legislation

All the above seem important and the list looks comprehensive. My observations/comments are:

- An understanding of sexual wellbeing and how that relates to sexual health seems important (see https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667(21)00099-2/fulltext).
- Under competencies, it would be good to stay away from terms like 'suffering from' - 'experiencing' is less negative.
- On the point on sexual development and education, why just focus on the internet and media when families, friends and culture all have important influences? - To be comprehensive, you could talk about 'influences on sexual development at individual, family, community and societal level, including sex education'
- Similarly the two points on sexual response cover only anatomy and physiology. Sexual response should be covered more holistically, including relational and psychological elements (biopsychosocial model) - especially since this course targets psychology students.
- On 'threats to sexual health' - could this also be more balanced - e.g. factors that contribute to positive experiences of sexuality and sexual health, as well as those that detract from it.

2) **Which timeframe would you consider necessary and realistic for teaching knowledge and skills?**

Knowledge

Feasible taking into account the present situation of medical and psychology curricula

Absolute Minimum: , 20, 4, 20, 14, 20, 10, 20, 35, 10, 10, 3, 20, 10 hours

Optimum: , 40-60, 8, 18, 40, 16, 30, 70, 15, 20, 6, 60, 50 hours

As can be seen there is a broad variety reaching from 3 hours to 35 hours as a absolute minimum and a optimum from 6 hours to 70 hours

Skills training:

Feasible taking into account the present situation of medical and psychology curricula

Absolute Minimum: , 40, 2, 20, 15, 10, 10,10, 35, 4, 10, 3, 20, 4 hours

Optimum: , 60-80, 5, 20, 20, 16, 20, 70, 8, 30, 12, 60, 16 hours

Again a large variety (Minim between 2 and 35) Optimum (between 5 and 70)

3) **Which teaching methods would be the most appropriate? What is your experience?**

Live Lectures (Teachers from the respective institution using the provided material and modifying it if wanted) & Slides:

All voted for yes

Comment:

- Sometimes, more than an hour per topic will be needed (including discussion time)
- experntial learning the best
- 1 hour for a topic is sometimes too short time

Video Lectures (Discussion moderated by local teachers):
All voted for yes

Comment:

- If pratice sessions can follow
- A mix is good...! I feel too unsure about the context of delivery and the course participants to be able to answer this question well.
- I think that it would good to record live lectures that can be used with other students to increase outreach. It may also be possible to have a mixture of live lectures and online presentations.
- only if necessery

Skills training (Sexual history taking Counselling):
All voted for yes

Comments:

- Recorded consulations can be assessed
- simulated patients would be nice but I think challenging practically!
- also group work with playing the patients, hence to establish empathy for the patients

4) Would you evaluate the implemented curriculum?
All voted for yes

Summary:

There is large agreement about the learning objectives and the content of the curriculum
Regarding time needed to do the teaching and skills training there is an extreme variety in the given times (absoulute minimum, optimum) indicating very different among COST members
Life Lectures and Video Lectures were considered appropriate teaching methods. It was mentioned that 1 hour lecture by topic might not be enough.
There is the proposal to produce Video Lectures which can be offered to the different faculties in different countries to be used or modified by them
Regarding skills there was agreement that Sexual History Taking is at the core of the skills training.
The methods recommended include scripts for role play, Videos of cases with group discussions, videos with simulated patients.
The majority agreed that there should be an evaluation, mostly by feedback questionnaire with and without discussion but also short exam with questions for the students for self - assessment

Work in progress
The next steps in the work of WG 3 will be:

a. Extension and modification of the material created regarding knowledge transfer
b. Development of material concerning the skills for medical and psychology students to communicate with and counsel women, men and couples with sexual health problems
c. Development of an evaluation methodology and program
d. Dissemination of the material developed through publications (written, online) to make it available for European and ev Non European Medical and Psychology Universities

- Presentations of the Curriculum
- Virtual Group Discussion Including Networking in Undergraduate Sexual Education with Invited Guests:

Deidre Pretorius (Lecturer, Department of Family Medicine and Primary Care, Division of Family Medicine Johannesburg), Antony Smith (President of SASHA /Southern African Sexual Health Association), Annamaria Giraldi (President of the International Society for Sexual Medicine / ISSM), Emmanuele Jannini (President of the UEMS Multidisciplinary Joint Committee of Sexual Medicine / MJCSM)

CHALLENGES IN PSYCHOTHERAPEUTIC WORK WITH PERSONS HAVING SEXUAL DYSFUNCTIONS BEFORE AND DURING COVID-19 PANDEMIC -CLINICAL PERSPECTIVE-

Svetlana Zdravkovic

Abstract

The author is discussing the situation before and during COVID-19 pandemic in Serbia and in Europe in general. The psychotherapeutic work with persons having sexual dysfunctions was facing multiple challenges in above mentioned periods. Some of the important issues that existed before pandemic, continued to influence the psychotherapeutic process even during COVID. Other significant features emerged as we dived into the liminality of COVID. In order to analyse the challenges in psychotherapeutic work, hermeneutic method, well known method of Jungian psychology and analysis, was being used with patient from author`s clinical practice. A number of important antinomies have been noticed even before the pandemic started: sex as a taboo - unleashed sexuality; prejudices and stereotypes – intense sexual experimenting; these and others dimensions have been colouring strongly the attitudes towards sexuality and increasing the possibility of having sexual dysfunctions. Other antinomies like certainty-uncertainty, impotency-potency, loneliness-sharing, technology-human relationship emerged during pandemic. Online psychotherapy also brought out with itself questions and dilemmas like: visible face-invisible body; faraway closeness or close distance; privacy reduced or enlarged, etc. All of these new issues have made a huge impact on the psychotherapeutic work with persons having sexual dysfunctions.

Introduction

Looked at from the clinical perspective, the situation concerning the issue of sexuality in Serbia before COVID-19 pandemic has been seen and analysed through different dimensions. On the one side, there were still present prejudices and stereotypes that could be related to the remains of the patriarchal system. As a consequence, sexual dysfunctions are rising. On the other side, at the same time, other people are hugely experimenting with their sexuality. For some of them, there are not clearly established boundaries between imagination and reality and that can bring them into some difficult situations and evoke different sexual and psychological difficulties. The situation with pandemic brought with itself additional difficulties and antinomies that needed to be faced in psychotherapy. Close distance of distant closeness, present face and absent body, privacy reduced or enlarged, certainty – uncertainty, impotency – potency, loneliness – sharing, technology – human relation.

The research question is: Are these different antinomies and newly emerged dilemmas influencing and if yes, in what way, psychotherapeutic work with persons having sexual dysfunctions and psychological difficulties in general?

Methods

The author is using with the patients from her clinical practice a hermeneutic method, a well known and often used method in the field of Jungian psychology. In addition, she is showing an example (from a case study) of the psychotherapeutic work with her patient. There, it could be seen, how the mentioned issues, before and after the beginning of COVID-19 pandemic, have been influencing patient's individuation process and the improvement of the quality in his sexual life.

Results and clinical observations

Still present prejudices and stereotypes, in Serbia, could be related to the remains of the patriarchal system. Connected with that, not enough gender equality is still putting the pressure on women who are not sure if they have the right to ask for their pleasure and to feel orgasm. Not a small number of them are still faking it. It is "safer" for some of my patients and women in general to stay without their needs fulfilled and with putting their partner's needs in the first plane. For lot of them, having sex from obligation is not an unusual situation. Besides that, a lack of tolerance and respect towards diversity could be seen. Not a small number of patients have difficulties accepting their own sexual preferences and needs, because of the social pressure to conform to the main stream. As a consequence, sexual dysfunctions are rising. All of that could be connected with the lack of sexual education. On the other side, at the same time, other people are hugely experimenting with multiple sexual partners, with role changing, with having sex with unknown partners without protection while using different psychoactive substances. For some of them, there are not clearly established boundaries between imagination and reality and that can bring them into some difficult situations and evoke different sexual and psychological difficulties. If, for example, a person has certain fantasies, it does not mean that he has to act them out. For some people it would be a right thing to do, but for a bigger number it could be an injuring experience. The imagination is asking people to learn something about their own sexuality and personality by staying with an image and by working psychologically on its symbolical meaning. It is important to stay with the image and with its symbolic meaning.

As the COVID-19 pandemic has begun, previously mentioned antinomies continued to exist. From this reason, at the beginning of pandemic, the author, after getting a STSM within the ESMN, started the research project about young people`s attitudes about sexuality. The idea was to begin collecting important data that could help rising awareness about sexual issues and the value of sexual education. The collaboration with prof. Kontula from Helsinki in creating this research project will, among many other things, enable comparison of the data and experiences related to this issue between Finland and Serbia.

At the same time, when the pandemic begun, we have been thrown even more deeply into liminality. That situation brought with itself new dimensions and questions that need to be taken into account. But before that, it is necessary to clarify what is being meant by liminality. This notion comes from the Latin word "*limen*" which means "threshold" or "doorway". The

term "liminality" was well known in the early 20th-century anthropology. Victor Turner was talking about the status of people that were undergoing cultural initiations and rites of passage into adulthood. But, liminality is more than that. It describes the situation of being "betwixt and between". In order to get from one stable period into another, one has to cross this border or "*limen*" – and to stay there for a certain time. It indicates something like a zone of being between, a halfway position, a borderline space. It was happening before, but it has been even amplified during the COVID pandemic. While the sense of "I-ness" and some of its continuities remain during liminality, the prevailing feeling is one of alienation, marginality, and drift"[1]. There are micro and macro episodes of liminality. Micro phases these situations that call for small daily ajustments of balance through minor compensations from the unconscious. On the other side, macro phases could evoke major changes, a massive reorganization of our attitudes and could lead to more comprehensive transformations of the personality (and in the case of COVID – in the society as well!). The whole process could be triggered by the one time encounter with the important, transformative symbolic image (eg. in a dream[2] and active imagination[3]) in psychotherapy or more often, by a stresfull or traumatic events – like COVID-19 pandemic.

Now, the example of the clinical work from the case study will be shown. A patient of mine, X, came to me, because he was having panic attacks during night that would wake him up. He did not know what was causing them, because, as he believed and told me, his life was almost perfect. He was in an emotional relationship. He had a good job and a flat in his parents` house. Others could only envy him. After a while, he brought into analysis his initial dream. He had a great resistance bringing it into session, he thought it was a "stupid" dream, but, luckily, he decided to tell me about it.

A dream: "Perfume shop"

"I am in a fancy perfume shop with my girlfriend. Everything smells great, a sails girls are going around spraying. Everything looks beautiful. Suddenly, I have to go to the toilet urgently. I cannot delay it. I see a toilet in the middle of the shop. I have to use it. I feel very embraced, because it smells. Everyone is pretending like nothing is happening. They go around spraying with perfumes".

When we started talking about his associations on different dream images, it slowly turned out that nothing was actually so great - in his relationship with a girlfriend, with his mother and father etc. It became clear that he became impotent during the relationship with his girlfriend. He never tried to tell me about it and even to think about it, because he thought that nothing could be done in order to become potent and more satisfied with his sexual life. He thought that he was just like that and that everything was his fault. It emerged that his girlfriend did not allow him to kiss passionately with her (with a tongue) – nothing more than superficial, short kisses. He was not being allowed to touch her in a erotic or sexual way. It was only expected from him to be a dominant alpha male who will give her an instant "hard core" sex. Being faced with such restrictions and demands, he became impotent.

Then after a while, he had a next dream: A dream with a horse.

"I am with my horse. We are dead and not somehow at the same time. I am afraid that some bad guys could kill us again and for good. So I am hiding from them. At the same time, my horse is

running around, looking happy just because he is jumping and having fun of the nice meadow we are on. I am becoming very anxious because he`s jumping around – he will direct the attention of the people who want to kill us again. I am telling him that we need to pretend being dead. He is not listening me, he`s happy to feel alive. I am scared even more."

It became obvious while working together on this dream, that X. was quite ambivalet towards his sexuality. On the one side, he wanted to be alive, potent, joiful and energetic (like the image of the horse). On the other side, he was afraid to let himself be and behave in this way, since he could be (in one way or the other) punished for getting out with his needs it the first plane.

The mentioned girlfriend broke up with him before the pandemic. He was free to be with someone else, but all the girls that were choosing him (and he was accepting them on the surface) were having emphasized a very active aspects of the arhetype of the feminine. They were too direct, too intense, and in a way, too violent way of approaching him sexually. They were more like succubas from mythology – taking what they want. They were not genle, emotional and sensual for him to be able to open. The negative mother compex (based on the experiences with his dominant hystrionic and narcissistic mother) was preventing him to relax in the company of a women enough to be sexually functional. So, although it was before the pandemic when all direct communications were possible, X. could not established an emotional and sexual relationship. The distance, for him, was not big enough to give him a neccessary space and he stayed impotent for a while.

Then a COVID-19 pandemic came and for lot of people it became more difficult, for some even impossible, to establish and maintain direct emotional and sexual selationship. Online analysis begun with the emphasized face and absent body. Direct communication between people was often being postponed or even impossible. X, on the contrary, got a safe enough (optimal) distance to continue his process of individuation and to improve his emotional and sexual functioning. What for some people represented a bockcage (like in the figure 1 – with a door and a heart), loneliness, detachment and the impossibility of sharing, was a new beginning for X.

Before the pandemic, X. was trying to have sex with women and it was frustrating. He was trying to play some role games (mother-son type) with the unknown women online and he was again feeling frustrated by the exaggerated needs of the „motherly type" of women. That strenghtened even more his negative mother complex.

Figure 1. *available at* *http://hakikatarayisi.com/derin-sevgi.html*

After COVID-19 pandemic started, he met a young woman. They started to kiss and cuddle in the open (because it was not possible for them to go inside at the moment). He liked her, but was at the same time terrified of the possible continuation of a sexual communication indoors. It turned our that she had to go abroad to finish working on her PhD thesis. So, they were in two different countries now and they started making love online. This looked like an unfortunate situation, like in the figure 1. A door is being closed. It could not be open. The communication could not be established behind the closed door. But, looking from a new perspective, with a new „reflection", an image of a heart appear as a metaphor for a new type of communication and sharing. This new situation gave X. neccessary space and time to get used to his new girlfriend. First, they were just typing messages and it was excited. Gradually, he alowed himself to let her voice be heard during their making love, and finally even the visual cannel of communication was introduced. His girlfried (who was actually a mother of a little child) was nurturing, gentle person and passionate lover. X. begun having erection and was able to have and orgasm. He regained his potency and his relationship with a girlfriend was deepen and was continuing to develop after she came back to his city.

Discussion and conclusion

Although, looked at from the general point of view, X. had much better conditions of getting into sexual and emotional relationship and resolving his problems with impotency before COVID-19, his situation started to improve after being dived into liminality of the pandemic. Within the context of rising uncertainty, physical distance among people, the absence of the body and loneliness, the creative power of the unconscious started to emerge[4]. Till then blocked process of individuation continued to unfold. The situation of being "betwixt and between" stable fazes and without conventional ways of functioning, gave the opportunity to X. to establish better relationship with a positive mother image within himself (his Anima figure) and with a mother-lover type of a partner within his sexual relationship. In the period of overall uncertainty and liminality of the pandemic, he found enough security and confidence to open himself to his own sexuality and to the sexual relation with his new girlfriend.

The antinomies and dilemmas that emerged during the pandemic most definitely influence psychotherapeutic work in both negative and positive ways. Although the pandemic situation evoked lots of negative consequences like feelings of frustration, uncertainty, anxiety, depression and suffering (among other things), it brought lots of new possibilities, creative ideas, openess for new experiences, looking at things from different perspectives, staying open long enough for the deeper insights and images to emerge from the unconscious. Jazz could be seen as a beautiful metaphor for life and for psychotherapy. From that reason, the author will emphasize the words of a famous jazz musician Winton Marsalis (Figure 2):

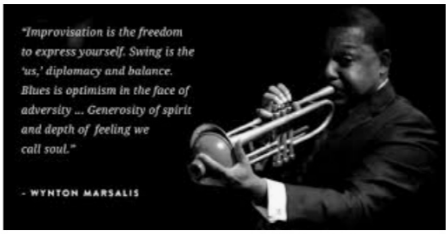

Figure 2. *available at www.storemypic.com*

„New reality" of psychotherapy demands improvisation and integration of what we have learned from COVID experience. I certain amount of modesty is neccessary in order to be open to new insights and possibilities that could enrich psychotherapeutic process with our patients.

Besides that, it is very important that we psychotherapists maintain an individual approach towards our patients with sexual dysfunctions and psychological disorders[5]. Charles Mingus (figure 3) said:

Figure 3. *available at https://images.app.goo.gl/kn2xfx2PDJFqyhL6A*

Exactly that, among other things, is our job while working with sexual (and other disorders) – not to impose the common solutions („simlified" ones) to our patients, but to help them to find, through complexity, their own simplicity by respecting their individuality and their authenticity in sex (and in general).

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IMPACT OF "FIRST WAVE" COVID-19 PANDEMY AND RESTRICTIONS ON SEXUAL HEALTH AND BEHAVIOUR IN LATVIA

Ieva Briedite

Since the beginning of COVID-19 restrictions, almost all domains of people's lives have been affected, including couple and family relationships and sexual life. There were various factors that were likely to influence the partner availability, intimacy, emotional well-being, contraception access and interpersonal tension. Behavioural online survey and qualitative research from July to October 2020 as a part of a multi-country study I-SHARE (International Sexual Health And REproductive Health survey in the time of COVID-19) and the state research project "Impact of COVID-19 on health care system and public health in Latvia; ways in preparing health sector for future epidemics" (VPP-COVID-2020/1-0011) with the aim to determine the impact of COVID-19 social restriction measures on sexual health and psychological well-being and behaviour was conducted. The study consists of the cross-sectional online survey with convenience sampling combined with the qualitative research of structured interviews with people living with HIV, health care providers and leaders of governmental and non-governmental organizations involved in SRH. 1173 people living in Latvia submitted an online survey. Most respondents (37.8%) had sexual relations 2 to 3 times a week and for 58.8% frequency of sexual relations did not change. Decrease in sexual satisfaction was observed among women (16.2% vs 24.3% not satisfied), Friedman test, $p<0.001$. People who did not have children more often were dissatisfied with their sex life (27.2% vs 20.2%), Cramer's $V=0.119$, $p=0.002$. As relationship tension increased, dissatisfaction with sex life increased (Spearman's correlation, $rs=0.207$, $p<0.001$) and sex life frequency decreased (Spearman's correlation, $rs= 0.254$, $p <0.001$). Women who increased alcohol consumption were less satisfied with their sex life (Cramer's $V=0.100$, $p=0.009$). Quantitative survey showed decrease of intimate partner violence (Wilcoxon test, $p<0.001$), while qualitative research discovered significant increase of violence against women. Results showed increase of tension and its negative impact on frequency and satisfaction with sex life. Frequency of sexual intercourse decreased more for people who did not live with their partner. Increase of alcohol consumption and loss of job decreased satisfaction with sex life. Controversial data about contraception availability and intimate partner violence were obtained showing no impact in survey, but revealing contraception access restrictions and intimate partner violence increase during qualitative research interviews.

POSTERS

THE PSYCHOLOGICAL AND SEXUAL BURDEN OF WOMEN WITH PELVIC FLOOR COMPLAINTS; A MIXED METHOD STUDY

Brand A.M., Rosas S., Waterink W., Stoyanov S., van Lankveld J.

In the literature various restrictions and types of distress in women with pelvic floor complaints are described. However, a comprehensive overview of women's psychological burden emerging from these complaints is lacking, which compromises our ability to inventory and grasp the impact to women.

Two studies were performed to gain more insight into this gap in knowledge. The first study aimed to explore in young adult women with pelvic floor complaints if their daily, social and sexual functioning, and intimate relationships are challenged, and which restrictions and distress they experience. Comparisons were made between women who did and did not receive pelvic physical therapy, and between pregnant, parous and nulliparous women. The second study was carried out to examine the correspondence of sorted and rated statements from the interviews by women with pelvic floor complaints and various health care providers. It was conducted to compare the alignment of women's and health care providers perspectives on women's restrictions and distress, and to identify common restrictions and distress to assess women's psychological burden. Forty-eight women were interviewed, and data was analyzed using NVivo and Leximancer in a mixed-method design, utilizing 57 concepts, derived from the interviews for subgroup comparisons. Subsequently, 125 statements, also derived from the interviews were used applying the Group Concept Mapping research methodology. These concepts and statements contained common restrictions and distress. Sixteen women with pelvic floor complaints and health care providers, sorted the statements into comprehensive self-labeled clusters, and rated their nature and severity. Multidimensional scaling and hierarchical cluster analyses were performed to identify a conceptual framework of coherent clusters of statements. Item-total correlations of severity scores were calculated to identify items for the inventory. Outcomes were then examined again using the underlying conceptual framework. Sexual dysfunction, relationship dynamics, the nature and severity of restrictions and distress, and coping strategies appear to vary between women who did and did not receive therapy. Specific combinations of restrictions and distress are present in pregnant, parous and nulliparous women, and might influence women's decision to seek help. Distress appears more subgroup- and context related than previously reported. Women with pelvic floor complaints express common feelings of disappointment which emerges as the most distinct and severe type of distress. Insecurity is more pervasive than other types of distress.

In comparison with previous research, the current outcomes add to more in-depth insight into, and a more comprehensive overview of women's psychological burden with pelvic floor complaints. Thirty-three statements and seven clusters representing women's restrictions and distress were identified to assess women with pelvic floor complaints' psychological burden.

LATE ONSET HYPOGONADISM AFFECTS ONLY ELDERLY MEN WITH CO-MORBIDITIES

Pozarska R, Pozarskis A, Baranovska L.

Aim of the study

To investigate frequency of late onset hypogonadism (LOH) among healthy elderly men, and among men with different co-morbidities.

Materials and Methods

1852 men aged 40-70 years attending primary health care.

Men filled out the Aging Male Symptoms (AMS) scale questionnaires. Furthermore, 1340 men with positive AMS were invited to participated in the study, and 1222 men agreed. These men were investigated by general practitioner, and provided morning blood samples for general blood test, lipid profile, glucose levels, and assessment of both total and free testosterone (T) levels. LOH was diagnosed if total T ≤ 3.46 ng/ml, or free T ≤ 72 pg/ml.

Results

Out of 1222 men, 820 men were found to have different co-morbidities (HOPD, ED, compensated type II diabetes, metabolic syndrome), and 402 were found healthy. LOH was detected in 55% of all men. Only 5% of healthy men were diagnosed with LOH, whereas among men with co-morbidities 79% of men could be diagnosed with LOH.

Conclusions

1. AMS scale is not very sensitive to detect LOH since 33% with positive AMS could not be diagnosed with LOH according to T levels;
2. LOH is infrequent (5%) among healthy men at the age of 40-70, whereas it can be found in more than 2/3 of such men suffering from different co-morbidities.

AWARENESS OF SEXUAL HEALTH IN MALTA

Gabrielle Attard DeBono

Introduction

A small European Union member state started to gain momentum in the new millennium. Rates of sexually transmitted infections have been reported to be on the increase both in Malta and worldwide, affecting mostly young people. In addition, high rates of teenage pregnancies are also reported. These trends demand stakeholders to further investigate and evaluate the need for further support services which help in achieving sexual health. Taboos and norms about sexuality pose strong barriers for the provision of information, and reproductive health services. A major contributor in Malta is the strong influence of the Roman Catholic Church, which holds fast to its prohibitions of sexual behaviours, albeit counterbalanced by the liberal standpoint adopted by the State in recent years.

Methods

Survey data were collected from 269 students aged 16–21 (response rate 89.7%) in a post-secondary state school. The sample was selected through convenience sampling within the school grounds.

Results

This small-scale study revealed that women were more knowledgeable in relation to available services and risks when compared to men. No geographical differences were found when the island's geographical regions were compared. School was the most common source for information, while health professionals, namely general practitioners were considered trusted resources for their needs. Confidentiality was deemed to be the most requested and crucial feature of sexual health services.

Conclusion

Three important multisectoral needs emerged, namely adequate dissemination system of sexual health information, scientifically based sexual health education for professionals in contact with young people, and well-designed and accessible sexual health services. Implications for management include updating health sexual education and promotion strategies, as well as designing better services. Young people should be able to make informed choices regarding their sexual health, in line with contemporary needs. If one fails to take into consideration the needs and demands of all the actors involved in delivering and receiving sexual health services one will be missing the opportunity to provide services which suite these needs.

SEXUALITY AND SEXUAL DISORDERS OF MEN IN THE REPUBLIC OF MOLDOVA

Ion Dumbraveanu

The study of male sexuality in the Republic of Moldova was conducted between 2015 and 2016 by a team of "Nicolae Testemitanu" State University of Medicine and Pharmacy researchers.

The aim of the study was to determine the prevalence of sexual disorders among the male population in the Republic of Moldova in dependence on age, living environment, social status, economy and medical conditions. A cross-sectional descriptive study was performed on a sample of 1186 men aged between 18 and 80 years. The study questionnaire included 43 questions and was developed based on the requirements of scientific societies in the field with reference to Brief Sexual Symptom checklist, IIEF -5 International Index of Erectile Function, MSHQ - Male Sexual Health Questionnaire (6 questions), IPSS-International Prostate Symptom Score. The evaluation of the regularity and frequency of sexual intercourse showed that only half of the men surveyed (584 people or 49.2%) had regular sexual intercourse during the last months, while 225 (19%) had occasional sexual intercourse and 282 (23,) 8%) had less sex than they wanted. The age of first sexual intercourse in the interviewed men ranged from 11 to 31 years. The first sexual intercourse before 17 years had 334 people (28.2%), including 21 people (1.7%), before 14 years. Contraception methods are used by 64.4% of people, but only 30.4% by condoms and 24% by uninterrupted sexual intercourse. Also asked if they are satisfied with their sexual activity - 61.1% of respondents answered that they were satisfied. The most common sexual problems reported after self-intercourse are: premature ejaculation - 25.8%, reduced or absence of erection - 19.9%, absence of sexual desire - 14%, late ejaculation - 3.7%, the presence of penile deformities that make sexual intercourse impossible - 2.7%. At the same time when using the IIFE-5 questionnaire, only 627 men (52.9%) did not show problems with erectile function, while 559 (47.1%) showed different degrees of erectile dysfunction (ED), including 5.1% severe ED, 7.6% moderate, 12.4% moderate - mild and 22% mild ED. The difference between the prevalence of ED determined according to the questionnaire and the self-reported one is explained by the fact of not reporting mild forms of erectile dysfunction. The prevalence of erectile dysfunction in the Republic of Moldova was dependent on age and living environment. The prevalence of ED in men up to 40 years of age was 21.1%, and in men over 40 years of age it was 67.4%. Data from current research show a higher prevalence of ED in older men compared to other studies.

We have shown that similar to other studies, erectile dysfunction is correlated with medical determinants of health (obesity, smoking, alcohol consumption). At the same time, sexual disorders have social connotations, they are more common in people who do not have a permanent sexual partner, and those with a wife abroad, divorced / widowed or those who have sex occasionally or the state of the couple's psycho-emotional relationships.

REPEATED STRESS DECREASES NUMBER AND FUNCTIONALITY OF SPERMATOZOA DUE TO DISTURBED TRANSCRIPTIONAL PROFILES OF MITOCHONDRIAL DYNAMICS MARKERS AND SIGNALING MOLECULES REGULATING BOTH, MITOCHONDRIAL DYNAMICS AND SPERMATOZOA NUMBER AND FUNCTIONALITY

Starovlah I.M., Radovic S.M., Kostic T.S., Andric S.A.

Here, we study possible mechanisms of (in/sub)fertility related to the acute or repeated psychological stresses (the most common stresses in human society) by following the transcriptional profile of 22 mitochondrial dynamics/function markers and 22 signaling molecules regulating both mitochondrial dynamics and spermatozoa number/functionality. An in vivo study mimicking acute (once for 3 h) and repeated (3 h for 10 consecutive days) psychophysical stress was performed on adult rats. The analysis of hormones, the number/functionality of spermatozoa, and 44 transcriptional markers were performed on individual samples from up to 12 animals per group. Results showed that both types of stress reduced spermatozoa functionality (acute by 4.4-fold, repeated by 3.3-fold) and ATP production (acute by 2.3-fold, repeated by 14.5-fold), while only repeated stress reduces the number of spermatozoa (1.9-fold). Stress significantly disturbed transcription of 34-out-of-44 markers (77%). Mitochondrial dynamics and functionality markers: 18-out-of-22=>82% (mitochondrial-biogenesis-markers–>6-out-of-8=>75%; mitochondrial-fusion-markers–>3-out-of-3=>100%; mitochondrial-fission-markers–>1-out-of-2=>50%; mitochondrial-autophagy-markers–>3-out-of-3=>100%; mitochondrial-functionality-markers–>5-out-of-6=>83%). Markers of signaling pathways regulating both mitochondrial dynamics/functionality and spermatozoa number/functionality important for male (in/sub)fertility–>16-out-of-22=>73% (cAMP-signaling-markers–>8-out-of-12=>67%; MAPK-signaling-markers–>8-out-of-10=>80%). Accordingly, stress-triggered changes of transcriptional profile of mitochondrial dynamics/functionality markers as well as signaling molecules regulating both mitochondrial dynamics and spermatozoa number and functionality represent adaptive mechanisms.

Acknowledgements

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HAS THE SEXUAL BEHAVIOR OF PEOPLE WITH INTELLECTUAL DISABILITIES CHANGED BEFORE AND AFTER LOCKDOWN?

Maria Dolores Gil-Llario

In 2018 we conducted a study on the sexuality of people with Intellectual Disabilities (PID) involving 180 men and 180 women aged between 19 and 55 years old (M = 39.97; SD= 10.50). All the participants were administered a questionnaire about sexuality adapted to their characteristics. Results showed that 84.2% have had sexual relationships with another person, this percentage being higher in females and in people aged between 38 and 55 years old. 6.1% has experienced sexual abuse at some point in their lives. At the end of the first and most extreme confinement period in Spain (in May 2020) a sample consisting of 73 people with intellectual disabilities between 21 and 63 years old (M = 39.63; SD = 10.11), was evaluated again. The results show that the lockdown increased the sexual appetite of a third of the sample (38%), especially the youngest participants. Sexual activity focused on autoeroticism and online behavior, particularly sending nude images of oneself (88%) and viewing pornography (83.6%). Rates of sexual abuse during this period were higher than those reported in the previous study, which referred to a much longer period of time (6.8%).

Conclusions

The sexual activity of PID was changed during the lockdown because they had to adapt to the circumstances of isolation in a similar way to the general population. Technological improvements in terms of devices and connection quality at home allowed their sexual behavior to be reoriented, opening the door to new risks for the sexual health of PID. Cybersex and the increase in sexual abuse due to confinement are aspects that should be addressed.

CHRONIC SILDENAFIL TREATMENT ALLOWS MAINTENANCE OF THE MITOCHONDRIAL HOMEOSTASIS IN LEYDIG CELLS DURING RAT AGING

Medar M., Sokanovic S., Kojic Z., Andric S., Kostic T.

Since mitochondria play an essential role in the testosterone biosynthesis, serve as power centers and are a source of oxidative stress, a possible mitochondrial dysfunction could be connected with decreased activity of Leydig cells and lowered testosterone production during aging. Here we chronologically analyzed age-related alterations of mitochondrial function in Leydig cells correlated by the progressive rise of cGMP signaling and with respect to testosterone synthesis. To target cGMP signaling in Leydig cells, acute or long-term in vivo or ex vivo treatments with sildenafil (phosphodiesterase 5 [PDE5] inhibitor, Viagra ®) were performed. Aging-related accumulation of cGMP in the Leydig cells is associated with mitochondrial dysfunction illustrated by reduced ATP and steroid production, lowered O2 consumption, increased mitochondrial abundance and mtDNA copies number, decreased expression of genes that regulate mitochondrial biogenesis (Ppargc1a/PGC1a-Tfam-Nrf1/NRF1), mitophagy (Pink1), fusion (Mfn1, Opa1), and increased Nrf2/NRF2. Acute in vivo PDE5 inhibition over accumulated cGMP and stimulated testosterone but reduced ATP production in Leydig cells from adult, middle-aged, and old rats. The increased ATP/O ratio observed in cells from old compared to adult rats was diminished after stimulation of cGMP signaling. Opposite, long-term PDE5 inhibition decreased cGMP signaling and improved mitochondrial function/dynamics in Leydig cells from old rats. Mitochondrial abundance in Leydig cells decreased while ATP levels increased. Chronic treatment elevated Tfam, Nrf1, Nrf2, Opa1, Mfn1, Drp1, and normalized Pink1 expression. Altogether, long-term PDE5 inhibition prevented age-related NO and cGMP elevation, improved mitochondrial dynamics/function, and testosterone production. The results pointed on cGMP signaling in Leydig cells as a target for pharmacological manipulation of aging-associated changes in mitochondrial function and testosterone production.

Declaration

This work was supported by the MS173057 and APV2856.

THE RELATION OF MOOD AND SEXUAL DESIRE: AN INTENSIVE LONGITUDINAL STUDY OF THE DUAL CONTROL MODEL

Van Tuijl P., Verboon P., van Lankveld J.

Traditionally cross-sectional and experimental methods have been used to investigate associations between mood and sexual feelings. In this study we used an intensive longitudinal design, which allowed us to assess the effects of fluctuations in positive and negative affect on sexual desire. Our sample consisted of 133 Dutch participants (87 women/46 men) all engaged in a steady relationship. Within a period of 7 days, we collected up to 70 measurements per participant of affect and desire. We specifically investigated if contemporaneous and temporal associations between different affective states and sexual desire were moderated by person level characteristics based on the Dual Control Model (DCM). The DCM postulates that within sexual motivation three aspects can be discerned: sexual excitation proneness, sexual inhibition proneness due to threat of performance failure and sexual inhibition due to threat of performance consequences. As the data consisted of many measurements within persons, we used multilevel models for analysis and investigated moderation effects with cross-level interaction tests. Our analyses showed that for people with higher levels of sexual excitation, an increase in negative affect is associated with an increase in sexual desire. Besides these contemporaneous effects, we also investigated temporal or lagged effects. In these analyses also the autoregressive effect of lagged on current sexual desire was included, which allowed for the conclusion that, for people with higher levels of sexual excitation proneness, lagged negative affect forecasts sexual desire a few hours later (Granger causality). For positive affect we found a significant contemporaneous association, indicating that for people with higher levels of sexual excitation there is a stronger association between current positive affect and current sexual desire. There were no significant associations between lagged positive affect and sexual desire which suggests that positive affect has no temporal effect on sexual desire. We did not find any gender differences in the effects of mood states on sexual desire indicating similar associations between affect and sexual desire for women and men. Our results corroborated a previous paradoxical result of cross-sectional research on the DCM: for part of the population there is an increase in sexual interest in negative mood states. As this result, in previous research, was particularly prominent in persons who self-identified as addicted to sex, it has been suggested that sex as a coping mechanism with negative feelings is an underlying mechanism of problematic hypersexuality. The results of the current study show that sex used as coping is not necessarily an indication of a problematic involvement with sex, but might be a common, innocuous method of emotion regulation, particularly active in people more open to sexual excitation. This study demonstrated how intensive longitudinal methods can be used to extend research on associations between sexual and non-sexual emotions and shows that sexual excitation and inhibition proneness moderate associations between affect and sexual desire.

SEXUAL LIFE DURING THE LOCKDOWN CAUSED BY COVID-19 IN SPAIN: "INSIDE" PROJECT

Ballester-Arnal R, Nebot-Garcia JE, Ruiz-Palomino E, Giménez-García C, Gil-Llario MD.

Abstract

The COVID-19 pandemic impact has extended to sexual health. The purpose of this study, the first including a large sample of the Spanish general population, was to analyze sexual behavior during the 99 days of lockdown in Spain (INSIDE Project). A total of 1,448 Spanish people (18-60 years old), were evaluated through an online survey during April 2020. The variables analyzed were: sexual desire, type of sexual activity, masturbation, sexual intercourse, online sexual activity, general sexual frequency, sexual fantasies, general impact of confinement on sexuality and emotional mood. Results indicate that for approximately half of participants (47.7%) their sexual lives have not changed, being higher the percentage for men (53.3%) than for women (45%). However, for the other half of participants it has changed. For 14.4% of people it has improved. In a larger percentage (37.9%) they reported a deterioration. In conclusion, different factors have been significant predictors of the positive or negative evaluation about the impact of this confinement on sexual life, such as gender, couple life, privacy, stress level and the perception of confinement as unbearable. These results have important implications for the public health and more especially sexual health of the Spanish population.

Introduction

There are still few studies examining how this pandemic is affecting the sexual life of society and some of them include important methodological deficiencies. Specifically, only two studies with large samples of general population have been only found, one focused on United States, Canada, the United Kingdom and Australia (Lehmiller, Garcia, Gesselman, & Mark, 2020), and another on Great Britain (Jacob et al., 2020). A third one also included an important number of participants from the United States although this was restricted to men who have sex with men (MSM) (Sanchez, Zlotorzynska, Rai, & Baral, 2020). The remaining of the published studies have only evaluated between 58 and 459 participants belonging to the general population from Bangladesh, India and Nepal (Arafat, Mohamed, Kar, Sharma, & Kabir, 2020), Japan (Taniguchi, Hisasue, & Sato, 2020) and a very small group of women from Italy (Schiavi et al., 2020) and Turkey (Yuksel & Ozgor, 2020). The only study found that has explored the impact of COVID-19 on the Spanish population is the review by Ibarra et al. (2020). This presents preliminary data from 279 participants who responded to an English and Spanish version survey. However, the authors do not provide the characterization of the sample or the methodology used.

In general, there are diverse results depending on the country of the participants and the variables analyzed. The studies seem to agree that there have been fewer sexual partners.

However, in the study by Ibarra et al. (2020), about 6% of participants have had sex with different people during quarantine. Regarding sexual frequency with respect to the period before confinement, a decrease exists as in the study by Lehmiller et al. (2020) but also an increase as in the study by Yuksel & Ozgor (2020), thus the results are inconclusive. Other studies, in line with Lehmiller et al. (2020) or Sanchez et al. (2020), indicate that the sexual repertoire has expanded with new activities such as sexting or viewing pornography, the use of recreational drugs and alcohol consumption. In addition, the use of dating apps would have decreased or the motivation to use them would have changed. Finally, studies by Taniguchi et al. (2020), Yuksel & Ozgor (2020) and Schiavi et al. (2020) have observed a deterioration of sexual function, sexual satisfaction and quality of life.

Since the response to this pandemic also requires attention to sexual health as a fundamental pillar of physical and mental well-being, the aim of this study is to analyze, in a comprehensive manner, the sexual habits of the Spanish general population during the COVID-19 confinement (INSIDE Project).

Methods

Participants

The sample consisted of 1,448 Spanish people aged between 18 and 60 years old, including 67.5% women and 32.5% men. The average age was 31.92 years old (SD=10.03). In relation to sexual orientation, 78.3% self-identified as heterosexual, 9.9% as bisexual, 8.7% as homosexual, 2.5% as pansexual, 0.2% as asexual and 0.3% self-identified with "other sexual orientations". Regarding the romantic relationship status, 43.8% had regular partner, 31.6% were single people, 20.6% were married o unmarried partner, 3.6% were separated or divorced and 0.4% were widow/widower.

Measures

An adhoc questionnaire with 59 items, created by the Qualtrics platform, was used. This mainly evaluates different sexual behaviors developed during the COVID-19 confinement. However, this research only includes a total of 42 items based on a varied format. The evaluated topics were the following: Sexual desire, Type of sexual activity, Masturbation, Sexual relationships, Online sexual activity, General sexual frequency, Global evaluation of the confinement impact and Mood.

Procedure

On March 16, 2020, the Spanish Government decreed the State of Alarm due to the health emergency caused by Coronavirus, forcing the confinement of the Spanish population until May 2, when the outings were allowed to do sport or to walk. Finally, on June 21, the state of alarm ended.

Since April 3 and during the confinement, an advertisement was disseminated on the Internet on social networks (Facebook, Twitter, Instagram, Whatsapp and Telegram) requesting participation in a study to assess sexual behavior during the COVID-19 confinement.

When participants clicked on the advertisement, before answering the online questionnaire, they reach a screen where they were informed about the anonymous, voluntary and confidential nature of the research. Moreover, they were asked for their informed consent. The research had the permission of the Deontological Commission of the Universitat Jaume I (Castellón, Spain). Additionally, the ethical principles of the Declaration of Helsinki were followed at all times.

Results

Sexual desire

Regarding sexual desire, the total sample is divided into three quite similar subgroups. Approximately one third, 35.9% stated that they had a higher sexual desire during confinement, 34.9% had a lower desire and 29.1% nearly the same.

Types of sexual activity

In general, in the total sample, the most performed sexual practices were in order, traditional masturbation (without using sex toys) (61%), followed by relationships with the partner (40%), online sexual activities (28.4%) and masturbation using sex toys (20.2%), highlighting that 4.1% skipped confinement to have relationships with another person.

For each of these practices, we explored if there had been any changes from the pre-confinement situation. Regarding masturbation, the most usual frequency before confinement for men was 4-7 times per week (44.4%), followed by 2-3 times per week (29%) and more than once a day (12.5%). However, during confinement the percentage of those who did it more than once a day rose to 25.8%. The changes were significant when applying the Wilcoxon test ($p < .001$). The changes were also significant for women ($p < .001$). Thus before confinement, the most prevalent frequencies were 2-3 times per week (33.8%), followed by 1 time per week (19.4%), 2-3 times per month (18%) and 4-7 times per week (17.8%). Only 2.5% did it more than once a day. However, during confinement this last percentage increased to 8.1% and the previous one to 20.5%. Regarding the invested time on masturbation, half of those evaluated, 49.6%, invested the same time as before, while for the other half, confinement had an impact on the amount of time dedicated to masturbation. However, similar as sexual desire results, this was in two different directions: 27.2% invested more time and 23.1% less time. Regarding the satisfaction obtained by masturbating, something similar occurs. Slightly more than half (57.3%) perceived it as satisfactory as before, while almost the other half is divided between those who stated that it was less satisfactory (26.4%) and those who indicated that it was more satisfactory (16.3%). For neither of these two variables, there were statistically significant differences according to gender.

Regarding online sexual activities, the percentage of those who maintained the invested time on them was lower (34.1%). Among those who were affected by confinement (65.9%), only 19.3% stated spending less time on these activities compared to 46.7% who admitted spending more to them. Once again, there were not statistically significant gender differences.

Global frequency of general sexual activity and reasons

The frequency of general sexual activity has maintained in 26.6% of participants and has been affected in most of them, almost equally in the two opposite directions. In particular, it has been lower for 38% and higher for 35.5%.

The main reasons for the lower sexual frequency have been in order: worries (41.5%), stress (37.5%), lack of desire (35.3%), lack of privacy (27.3%), not being able to be with the partner (26.4%) or being locked up at home (24.8%). In any case, 7.8% reported overloading by being with the partner a long time or having conflicts with them (7.7%) and these are also interesting.

Regarding the reasons for the higher frequency, the main ones are the following: increase of desire (48.6%), seeking to relax (45.7%), distracting oneself from boredom (39.9%), investing more time on partner (29.2%), or reduce anxiety (29%). In the distance, are reported more available people to cybersex (6.6%), being alone and perceiving that nobody controls them (6%) and curiosity about feeling trapped (1.9%).

Global evaluation about the confinement impact

In line with the heterogeneity of aspects mentioned, the global evaluation about the confinement impact on sexual life was explored. For approximately half of participants (47.7%) their sexual lives have not changed, being higher the percentage for men (53.3%) than for women (45%). However, for the other half of participants it has changed. For 14.4% of people it has improved, being more women (16.3%) than men (10.4%). In a larger percentage (37.9%) they reported a deterioration, with similar percentages in men (36.3%) and women (38.7%). The differences are statistically significant (2=12.640, p<.002, V=.093).

Predictive variables of a better or worse sex life as a consequence of COVID-19

To predict what variables affect the improvement or the deterioration of sexual life during the Covid-19 lockdown, a multinomial logistic regression was carried out. Our dependent variable had 3 levels, where sample had to response if their sexual life had improved, had deteriorated or had not change at all. The option "lockdown has not altered my sex life" was used as the reference category. Eleven variables were included in this analysis: gender, age, sexual orientation, being in a relationship, privacy at home, living alone during the lockdown, how hard the lockdown has been and levels of stress, anxiety, depression and boredom during that time.

First of all, the goodness-of-fit of the model has to be checked. As the Pearson chi-square statistic has a value of 212.37 (204 df; p = .329) and it is not significant, we can assure that our model fits well the data. Firstly, when the lockdown has increased the sexual life, women experimented an improvement in this, with an Odds Ratio (OR) value of 1.52 (1/.657). Furthermore, living with your partner has a positive effect on having a better sexual life. In fact, those who were living with their partner have a OR 2.15 times bigger than those who were not living with their partner in having a better sexual life. However, to have got some privacy at home do not have a significant effect on a better sexual life. Similarly, different levels of stress do not have a significative effect on having a good sexual life. Nevertheless, how people lived the lockdown has a significative effect on the improvement of their sexual experiences. Those who lived the

lockdown as a fairly hard moment or as a hard moment affirmed that their sexual life did not improve, given that coefficients has a negative value. For example, those who lived the lockdown as a hard moment have an OR 2.45 (1/.408) times bigger than those who not lived that moments as a hard time in not improving their sexual life.

Secondly, to the case that lockdown deteriorated sexual life, gender is not a significative variable, thus there are no differences between women and men. However, those who were living with their partner affirmed that their sexual life did not decay during the lockdown, with an OR of 1.61 (1/.621), compared with people who were not living with their partners. Now, privacy at home gave to our sample the feeling that their sexual life did not decay, given that the Privacy coefficient has a negative value. In this case, the OR are 1.40 (1/.713) times higher for people who had a private place at home and did not have a bad sexual life, compared to those who did not have that private place. Related to the stress variable, those who were very or quite stressed have an OR higher than 2 of having experienced a decrease in their sexual life during the lockdown, compared to those who did not experienced that levels of stress. Finally, all people who lived the lockdown as an unbearable situation agree that their sexual life suffered a deterioration, being really difficult for those who lived that situation as a very hard or a hard lockdown.

Discussion

The purpose of this study was to analyze the impact of COVID-19 confinement on the sexual behavior of the Spanish general population. Our results indicate that confinement in Spain has had an impact on sexual desire. It only remained the same for 29% of participants. Among those that changed, two opposite directions was revealed with almost identical percentages: for 36% of participants increased and for 35% decreased. There are also certain gender differences, increasing more in women and decreasing more in men. This differential effect in the same situation may seem contradictory, but it is not so much. Ibarra et al., (2020) emphasize that sexual desire towards a partner may decrease in this situation due to negative mood (depression or anxiety). However, in those who live apart from their partner, this confinement has exacerbated the desire towards the other, although it could not be satisfied due to the physical distance.

Regarding the types of sexual activity, our study reveals that in Spain, for almost half of those evaluated, confinement caused changes on the invested time and satisfaction related to masturbation. Despite the fact that more people dedicated more time to masturbation, and the significant increase in its frequency in men and women with respect to pre-confinement, there were more who reported lower satisfaction than before. However, in the study by Lehmiller et al. (2020) carried out in the United States, Canada, Great Britain and Autralia, the frequency of masturbation, like the other sexual behaviors, decreased. Certainly, in the study cited, a small number of participants also increased their sexual behavior.

Focusing on our study, regarding sexual relationships, no significant differences were found in the frequency before-during confinement in either men or women, differing from

masturbation. However, aproximately 40% reported an impact on confinement on their relationships. More of them stated investing more time on sexual relationships, although the percentages of those who reported more or less satisfaction were quite similar. Moreover, the differences between men and women were not significant.

In addition to masturbation, our study also found a significant increase of frequency in online sexual activity for almost 50% of participants, not being differences between men and women. Moreover, during confinement, there is a significant increase in invested time on each online sexual activity for both men and women. Lehmiller et al. (2020) also show an increase in sexting, especially in people who live without their partner during confinement.

Considering the global frequency of all types of sexual activities, our study shows that it has been affected in almost 75% of the Spanish population and is almost equally distributed among those who have increased and decreased them. There are significant differences based on gender, following a trend that increases more in men and decreases in women.

In general, our study reveals that confinement has influenced on the sexual life of half of the Spanish population (47.7%), especially women. This percentage is extremely similar to the 45% obtained in Bangladesh, India and Nepal (Arafat et al., 2020) and 42.8% found in the United States, Great Britain, Canada and Australia (Lehmiller et al, 2020). In our study, those who reported a deterioration of their sexual life are almost three times more (37.9%) than those who reported an improvement (14.4%). These results are also very similar to the 43% and 13.6% obtained by Lehmiller et al. (2020). This confinement has given some Spanish people an opportunity to improve their sexual lives by increasing frequency, spending more time on sexual fantasies, exploring themselves through masturbation, or engaging in new sexual practices with their partner. However, for others it has been a problem especially due to the decrease in sexual frequency or the lack of privacy to masturbate or have relationships. Curiously, differing from some preconceptions, the decrease in sexual frequency has been considered as something positive and the increase as something negative for more men than women. This result may deserve some attention.

Finally, our study explores the predictive variables of the perception of a worsening or improvement of sexual life during confinement. Our results indicate that age, sexual orientation, and levels of anxiety, depression, and boredom during confinement are not significant factors. Among the variables that did enter the regression model, women and those who have lived with their partners during confinement said that their sex lives had improved, and those who experienced confinement as being too hard said that it had not improved. Having privacy at home and the degree of stress during confinement were not significant variables. Regarding the worsening of sexual life, it was higher among those who experienced significant levels of stress and reported that confinement became unbearable. Conversely, those who lived with their partners during confinement, and had privacy, stated that their sex life did not worsen. Gender was not a relevant variable in predicting worsening.

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Declarations

Funding: No funding was received for conducting this study.
Conflict of interest: The author declares no competing interests.
Ethics approval: This study is in accordance with the ethical standards of the 1964 Helsinki Declaration and its later amendments. It was approved by the Human Research Ethics Committee of the University Jaume I of Castellón.
Consent to participate: Volunteer participants in the research were informed of the study aim and completed an informed consent forms before proceeding with the questionnaire.
Publication: This work includes part of results published in:
Ballester-Arnal, R, Nebot-Garcia, J. E, Ruiz-Palomino, E, Giménez-García, C. and Gil-Llario, M.D. (2020). "INSIDE" Project on Sexual Health in Spain: The Impact of the Lockdown Caused by COVID-19. Sexuality Research and Social Policy, 1-20. DOI: 10.1007/s13178-020-00506-1.

EPIGENETIC REGULATION IN COMPULSIVE SEXUAL BEHAVIOR

Renata Androvicova

In this presentation, I would like to share my experiences from a short term scientific mission funded by COST ESMN. During this scientific mission, I visited the Dept. of psychiatry in Hanover, Germany, where I was hosted by Prof. Tillmann Krueger. The purpose of this mission was to learn the basics of epigenetics, i.e. the study of gene expression changes that are not linked to changes in the DNA sequence, and apply them to the study of compulsive sexual behaviour cohort from Hanover. We used CpG islands methylation of several gene targets as epigenetic markers which may distinguish between the compulsive sexual behaviour cohort and matched controls. We examined methylation of target genes coding for androgen, dopamine, serotonin, oxytocin and vasopressin receptor; in addition, methylation of the genes coding for dopamine and serotonin transporter was examined too. I will present preliminary results from this project and I will also talk about how this STSM inspired my next career steps.

MITOCHONDRIAL DYNAMICS MARKERS ARE IMPORTANT REGULATORS OF LEYDIG CELLS AND SPERMATOZOA FUNCTIONALITY

Kostic T.S., Starovlah I.M., Tomanic T.M., Radovic S.M., Andric S.A.

Mitochondria are very important for cells involved in reproduction as endocrine organelles that provide both energy and mitocrine signals, thus enabling and directing adaptive mechanisms. Here we studied the profile of mitochondrial dynamics markers in Leydig cells and spermatozoa obtained from animal models of stress and cell-insulin-resistance as well as from human spermatozoa with different spermiograms. Results show that psychophysical stress, the most common form of stress in the human population, provokes mitochondrial adaptations, and this maintains the function of testosterone-producing Leydig cells as well as spermatozoa. In insulin-resistant cells of prepubertal and adult mice, the expression patterns of mitochondrial dynamics/architecture markers are disrupted only in testosterone-producing cells, but not in estradiol-producing cells. In human spermatozoa, different patterns of transcriptional profile of mitochondrial dynamics markers are associated with types of spermiograms as well as with the response to acrosome-reaction-inducer progesterone. Changes in the transcriptional profiles of mitochondrial dynamics markers in Leydig cells and spermatozoa do not only correlate-with but also are an essential for their function, being all events depend on the same regulators. The above mentioned mitochondrial markers can be used as "mitochondrial-sperm-signature" to test spermatozoa functionality and for a better understanding of the correlation between stress as well as any other life-style-environmental-one-health-factors and male (in/sub)fertility.

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DEFICIENCY OF THE INSULIN-LIKE GROWTH FACTORS SIGNALING DISTURBS THE ANDROGEN PHENOTYPE BUT INCREASES AROMATASE ACTIVITY IN MOUSE LEYDIG CELLS

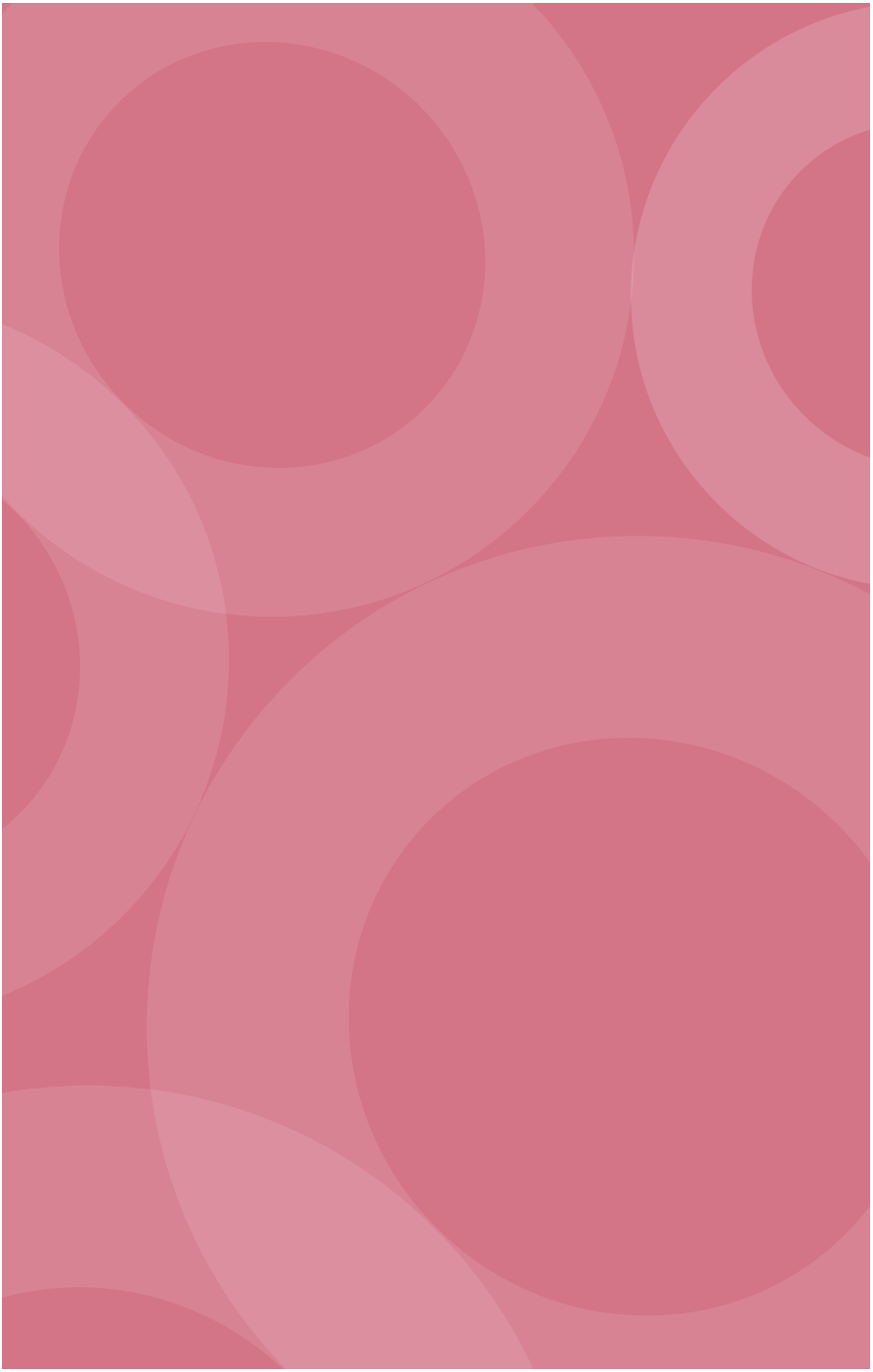
Radovic Pletikosic S.M., Starovlah I.M., Miljkovic D., Bajic D.M., Capo I., Nef S., Kostic T.S., Andric S.A.

A growing body of evidence pointed correlation between insulin-resistance, testosterone level and infertility, but there is scarce information about mechanisms. The aim of this study was to identify the possible mechanism linking the insulin-resistance with testosterone-producing Leydig-cells functionality. We applied in vivo and in vitro approach. The in vivo model of functional genomics is represented by insulin-resistant-testosterone-producing Leydig cells obtained from the prepubertal (P21) and adult (P80) male mice with insulin and IGF1 receptors deletion in steroidogenic cells (Insr/Igf1r-DKO). The in vitro model of insulin-resistant-cell was mimicked by blockade of insulin/IGF1 receptors on primary culture of P21 and P80 Leydig cells. Leydig-cell-specific-insulin-resistance causes the loss of androgen phenotype, but induce the development of estrogenic characteristics of progenitor Leydig cells in prepubertal mice and mature Leydig cells in adult mice. Level of androgens in serum, testes and Leydig cells decrease as a consequence of the dramatic reduction of steroidogenic capacity and activity as well as all functional markers of Leydig cell. Oppositely, the markers for female-steroidogenic-cell differentiation and function increase. The physiological significance is the higher level of estradiol in double knock-out mice of both ages. Intriguingly, the transcription of pro-male sexual differentiation markers Sry and Sox9 increased in P21-Leydig-cells, questioning the current view about the antagonistic genetic programs underlying gonadal sex determination. The results provide new molecular mechanisms leading to the development of the female phenotype in Leydig cells from Insr/Igf1r-DKO mice and could help to better understand the correlation between insulin resistance, testosterone and male (in)fertility.

COLLAGENASE CLOSTRIDIUM HISTOLYTICUM FOR THE TREATMENT OF PEYRONIE'S DISEASE - A SINGLE CENTRE EXPERIENCE

Bele U., Bratus D.

Several conservative treatments have been tried for the treatment of Peyronie's disease in the last decades. All of them have failed to show significant efficacy in placebo controlled trials. Intralesional application of collagenase Clostridium histolyticum (Xiapex®) is one of the newer treatment possibilities and was introduced with a hope that it would reduce the number of men requiring surgery for this condition. Xiapex® consists of a mixture of purified class I and class II collagenases which cause enzymatic disruption of the fibrotic plaque by synergistically hydrolyzing the triple helical conformation of types I and III collagen. It also down regulates many of the growth factors, genes and cytokines that are involved in the pathogenesis of Peyronie's disease. We have studied the safety and efficacy of this treatment in our institution. 22 patients with diagnosed Peyronie's disease were treated and the applications of collagenase Clostridium histolyticum were performed by two urologists. The inclusion criteria were diagnosed Peyronie's disease with a fibrotic plaque causing the penile curvature between 30° and 60°. All patients were treated with two cycles of collagenase Clostridium histolyticum injections. The injections were applied a week apart in a single cycle and the cycles were 6 to 8 weeks apart. Patients were instructed to perform penile modelling (stretching and straightening) at home in between the cycles. The efficacy and side effects were evaluated at each visit and also 3 months after the last application. The satisfaction rate of treated men was extremely high and only two men reported no significant improvement and were scheduled for a surgical repair of penile curvature. There were no serious side effects reported, only some minor local changes in form of swelling and bruising of the penis. Application of collagenase Clostridium histolyticum proved to be an effective and safe procedure for the treatment of Peyronie's disease.



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