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## **The female orgasmic state and the different dimensions of the female sexual experience: lessons learned from expert interviews**

Nemati, Anna-Lisa Julia ; Weitkamp, Katharina

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**The female orgasmic state and the different dimensions of the female sexual experience: Lessons learned from expert interviews**

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### **Abstract**

The diversity and complexity of female sexuality has not been sufficiently recognised within existing scientific definitions and concepts. We aimed to develop a more appropriate understanding of the characteristics and multifaceted nature of female sexuality. In a qualitative interview study, we interviewed ten experts in the field of female sexuality from various backgrounds. Data were analysed using Thematic Analysis. According to experts, female sexuality was identified as a multidimensional phenomenon and the intensity of its experience seems to be linked to the ability to create a mindful contact with oneself, with one's partner, as well as with the rest of the world. The socially widespread goal-orientation in sexuality was contrasted with a more perception-based, pleasure-oriented sexuality, favouring the mindful perception of sensuality and emotions as well as the encounter with a partner. Sexuality may pervade all aspects of a woman's life and may therefore be understood as a linchpin within her entire system. The present work emphasises the necessity of taking a holistic view on female sexuality and the development of a corresponding model of female sexuality as a base for diagnoses and treatment of female sexual dysfunction.

**Keywords:** female sexuality; female sexual dysfunction; expert view; holistic perspective; qualitative study

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### **Introduction**

Sexuality is a basic need, which represents a fundamental aspect affecting all parts of life of most adult human beings. According to the World Health Organisation (2011), a fulfilling sexuality contributes to general health. At the same time, sexual dysfunctions are a widespread phenomenon that impair the quality of life and the relationships of affected people (Khajehei et al., 2015). Prevalence of female sexual functioning disorders is quite high, ranging from 12-25% (Palacios et al., 2009). Scholarly attention towards female sexuality and its complexity is only currently developing (Basson, 2000; Komisaruk et al., 2006), challenging the still prevailing notion of the linear sequential model of desire, arousal, peak orgasm, and resolution of Masters and Johnson's human sexual response cycle from the 1960s (Masters & Johnson, 1966). This model poses a narrow view on female experience, for instance implying penetration. In spite of these shortcomings it is still serving as a base for defining sexual health and related problems in the International Classification of Diseases (ICD-10; World Health Organisation, 2016) or the Diagnostic and Statistical Manual (DSM-5; American Psychiatric Association, 2013) which is criticised by some researchers (Tiefer et al., 2015). Since the female sexual response does not typically follow the male linear-sequential model, but is more complex including psychosocial factors (Komisaruk et al., 2006) and non-linear sequences (IsHak & Tobia, 2013), Basson (2003) proposed a circular model as an alternative model, in which the sexual response cycle is initiated through sexual motivation, mostly based on intimacy and closeness. Arousability regulates the effects of sexual stimulation, which in turn may lead to an increase in sexual arousal and desire of sexual sensations for their own sake. Emotional intimacy and sexual satisfaction go alongside each other, leading back to sexual motivation (Basson, 2003). Empirical evidence suggests that women alternated between both models (Ferenidou et al., 2016). So far, no single model describes women's sexual response adequately (Cherkasskaya & Rosario, 2019). Furthermore, to date, there still seems to be a lot of miseducation and disagreement in the area of female sexuality in terms of misconceptions of the female genitals, erogenous zones and sexual experiences (Komisaruk et al., 2006). This is visible in the ongoing discussion of the existence of different types of female orgasms (Jannini et al., 2012) and the limited view of erogenous zones. For example, the cervix is not included in the Female Sexual Functioning Index (FSFI; Rosen et al., 2000) as an erogenous zone. Even though studies suggest that the erogenous zones extend from the outer part of the vulva up to the cervix (Komisaruk et al., 2006). Other parts of the body, such as the breasts, are also not included (Di Noto et al., 2013). Additionally, with the introduction of pharmacological treatments, there is a shift from the biopsychosocial model to a disease model leading to medicalisation (Almås, 2018) and "disease mongering" (Tiefer, 2006). Nonetheless, female sexual experience is known to be associated with a

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number of contextual and personal factors like relationship satisfaction (Wellings et al., 2019), relationship duration and number of children (Hassanin et al., 2019), everyday stress (Bodenmann et al., 2010; Géonet et al., 2018) or hormonal status and menopause (Thomas et al., 2018), or cultural and societal norms (Fahs et al., 2018; Haavio-Mannila et al., 1996).

In view of the high rates of sexual dysfunction particularly for women, the question seems valid, whether the current scientific concepts of female sexuality might fall short. The literature focuses mainly on sexual 'functioning' or specific categories of sexuality, while there is still a lack of a more holistic perspective on female sexuality. For the full acknowledgement of female sexuality, a more profound understanding of the complex physiological and, in particular, the psychosocial components may be insightful (Komisaruk et al., 2006).

Thus, it may be expedient to turn to alternative wisdom and therapeutic approaches to broaden the understanding of female sexuality in current scientific discourse. This course of action may lead to insights into new ways of education, empowerment and new or hitherto neglected treatment approaches when dealing with so called 'female sexual dysfunction'. Currently, some researchers promote a more multifaceted view of female sexuality, such as focusing on the role of desire for female sexuality (Cherkasskaya & Rosario, 2019; Wood et al., 2006) and sexual motivation (Toates, 2009). Furthermore, some are challenging the assumption that desire precedes arousal (Chivers & Brotto, 2017), or are integrating mindfulness into therapeutic approaches (Brotto & Goldmeier, 2015). Additionally, some researchers call for an overdue study of female pleasure beyond the prevailing heteronormative sexual scripts (Klein & Briken, 2016; Wiederman, 2005) and beyond the labels of 'normal' and 'dysfunctional' (Wood et al., 2006). Of particular interest is the knowledge base of sex therapists and body-oriented therapists, which are barely visible in current science but who may have some promising methods to help women develop more fulfilling sex lives. Women turn to these approaches for help, either parallel to or as an alternative to current evidence-based treatments. These alternative approaches are based on Asian traditions like Taoist practices that enable women to cultivate and enhance their sexual energy (Chia, 2005), or Tantra, which is a spiritual tradition and a belief system that integrates both sexuality and spirituality. Its roots date back millennia, first developing in India and since then disseminated and modified by different Asian cultures, especially in Buddhist Tibet (Lousada & Angel, 2011). Another alternative approach is Sexocorporel, which is an encompassing view of human sexuality that considers all of the physiological, emotional, cognitive and relational components involved in a sexual experience. The promotion of sexual pleasure is a central goal in Sexocorporel sexual therapy (Bischof, 2012).

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The objective of the current study was to carry out a qualitative interview study with experts based on these above-mentioned alternative approaches. We focused on the following research question: how would experts define their holistic view of female sexuality? What are the missing pieces of female sexuality that do not receive enough attention in current scientific discourse, that are relevant for experiencing the full potential of female sexuality?

## **Materials and methods**

### **Procedure**

We carried out semi-structured interviews with experts in the field of female sexuality, asking them about their view on female sexual functioning above and beyond the current scientific models. The criterion for inclusion was to have expert status in the field. We define expert status – and selected potential participants based on this definition – as either a therapeutic practitioner or a noted scientist in the field who has gained a differentiated view on the topic of female sexuality through his/her work. Expertise was grounded in a variety of approaches. In order to achieve a broad understanding of the field we deliberately included experts from various backgrounds.

Experts were contacted by the first author. Fourteen experts were contacted based on an internet search, first of experts in the region for face-to-face interviews, and via the webpage [trustedbodywork.com](http://trustedbodywork.com); five of them agreed to participate. The remaining five participating experts were recruited through the snowball principle by recommendations from interview partners. Eight of the interviews were carried out via Skype, two in person. Interviews were either in English or German depending on the preferences of the interviewee. The interviews had an average duration of 70 min. Interviews took place between November and December 2017. All interviews were carried out by the first author (German native speaker with sufficient command of English). The interviewees gave their informed consent and agreed to be audiotaped.

### **Participants**

The sample consisted of ten experts in the field of female sexuality (8 female, 2 male, age range 31 to 75 years). Eight of the experts will remain anonymous (we chose acronyms when presenting quotes in the results

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section). The remaining two experts are noted researchers based in the USA who gave their explicit approval to be quoted.

The two experts with a scientific background were Prof. Dr. Barry Komisaruk and Prof. Dr. Beverly Whipple from Rutgers University. Prof. Komisaruk is a noted expert studying the neurological correlates of the female sexual experience. Prof. Whipple is a sex coach and noted expert in female sexual health, having written a number of books and chaired boards of many societies, such as the World Association for Sexology.

To characterise the remaining sample a little further, while at the same time paying attention to protecting the anonymity of the study participants, we will give only a short summarised description: eight of the experts work therapeutically with women suffering from sexual functioning disorders. Their expertise ranges from sexological bodywork or body therapy (n=4), sex coaching (n=3), Sexocorporel (n=3), systemic sexual therapy (n=2) to Tantric massage techniques (n=5). Most of them are trained in more than one approach. They reported between 2 to 16 years experience in the field. The experts were based in Germany, USA, Switzerland and Australia.

### **Interview guideline**

The interview guideline consisted of questions around seven major themes: (1) Personal definition of female sexuality; (2) position to “sexual function”; (3) definition and significance of the female orgasm; (4) additional, important aspects of female sexuality; (5) questioning the comprehensiveness of current measures of female sexual functioning, for instance the Female Sexual Functioning Index (FSFI; Rosen et al., 2000), for capturing female sexuality; (6) attitudes towards the current classification of female sexual dysfunction in ICD-10 and DSM-V; (7) integration of overall understanding of female sexuality in their (therapeutic or scientific) work. At the end of each interview, participants were asked about their socio-demographic data as well as their qualifications and duration of work experience in the field.

### **Data analysis**

Interviews were audio taped, transcribed verbatim and analysed using Thematic Analysis (Braun & Clarke, 2006). Thematic analysis is a method for identifying, analysing and reporting patterns (themes) within data. Thematic analysis consists of six phases: familiarising yourself with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report. These phases

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are embedded in an iterative process of moving back and forth between the entire data set, the coded extracts of data that you are analysing, and the analysis of the data that you are producing (Braun & Clarke, 2006).

We coded every theme that came up in the interviews that captured something important in relation to our research questions. Codings were inductively created from the material on a semantic not latent level (e. g. not going beyond what was said on an interpretative level). We ground our analyses in a realist epistemology even though we are aware that the different experts expressed their views and emphasised different concepts based on their individual backgrounds and qualifications. Data analysis was carried out by the first author with supervision by the second author. The latter repeatedly re-examined the interim results of the first author. Thematic Analysis yielded a network depicting the interconnections of the identified themes/codes.

## **Results**

The experts gave rich accounts of their understanding beyond the current notion of sexual functioning. Their view on female sexual experiences was based on empirical research, personal experiences, as well as their practical work as sex therapists. The Thematic Analysis of the interviews yielded the following seven themes which will be characterised in turn: (1) pleasure-orientation in a perception-based sexuality; (2) the importance of sexual learning for a healthy sexuality; (3) subtlety of sexual sensations, full-body-involvement and the pluralism of female orgasms; (4) the direct female genital-brain-connection through the vagus nerve and the role of the cervix in female sexuality; (5) emotionality as the sustainably satisfying component of female sexuality; (6) “valley-sex” and the orgasmic state; and (7) the holistic nature of sexuality in the life of a woman.

### *(1) Pleasure-orientation in a perception-based sexuality*

There was overall consent among interview participants, that the popular linear model of sexuality cannot be regarded as generally valid and that it does not mirror the sexual experience of many women. However, because of the widespread acceptance of this model in the public eye, many women struggle to understand their sexuality and regard themselves as deficient.

We are all unique individuals! [...] We all have different tastes in what is pleasurable to us. And I think it's really important that we help to affirm women and let them know that what they find pleasurable is ok! That it doesn't have to fit into a pattern. There is not just one sexual response! [...] There are many sexual responses! And we can't put people into a linear model of only one way to respond sensually and sexually. (Prof. Beverly Whipple)



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From Prof. Whipple's point of view, the term *pleasure* should capture a wider meaning to address the multiple modes of female sexual reaction. Pleasure is what feels good, provides a warm and complacent feeling in the belly and is not limited to sexual actions, but it can be triggered by diverse sensual stimuli.

Everyone is different, so [...] looking at a mountain, or an ocean, or a beautiful view, or a sunset, listening to certain music, listening to things that you find pleasurable [...] using your sense of taste, your sense of smell, there is so much! [...] We have to use all of our senses and be aware of all of our senses in what we are finding pleasurable. (Prof. Beverly Whipple)

Here, the focus is on a perception-based sexuality with an emphasis on feeling with all our senses. Feeling means a mindful body-perception as well as the awareness of the subjective affective experience. Thus, sexuality is more than a purely physical process. Due to its psychosomatic nature such experience is highly emotional as well. In the understanding of some of the interviewees, the body stores memories and their associated emotions, a process called *embodiment*. Many women and men do not recognise this strong connection between sexuality and emotionality and try to suppress the range of emotions, only allowing desire to be felt. However, by suppressing emotions, desire is also affected, as interviewee 2 described about her work with women:

The emotions are kind of inside a big pot and if we put the lid on it and say the anger should not be there, the pain should not be, the grief should not be, only desire is allowed, if you are touched there and nothing else, then at some point nothing will come out of this pot anymore. But if I show the woman who is having this experience that it is ok, that everything is allowed to emerge, that she is alright just the way she is, then I observe that a lot simply dissolves. What then appears is a feeling of 'Everything is just fine'. And with that, desire returns as well – it suddenly comes around the corner just when you were not expecting it anymore. (2)

Here, female desire is compared to an emotion, whose occurrence depends on the situation and cannot be compelled. It may also be suppressed if it is experienced as threatening or uncontrollable.

This is the question, we are all asking ourselves: 'If I am aroused, am I dangerous? Will it be dangerous? What will I do, would I make choices I wouldn't make normally? Will I get hurt? Where will this lead me?' Rather than just enjoying the fact that you are feeling sexual energy and everyone is looking at you because you look glowing, it brings an element of fear and danger. What happens if I am a sexual woman? And I think there's a lot of repression going on. (5)

Different parts of the body and body sensations can be emotionally charged as another aspect of *embodiment*. Many interviewees viewed the *emotional release* through touch, stimulation and arousal essential to the form of sexuality described in this paper.

(2) *The importance of sexual learning for a healthy sexuality*

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According to the experts, this form of pleasure-oriented sexuality is quite different from functionality, and due to its multidimensional nature it requires an individual and lifelong learning process. Time is a very important factor which is necessary for exploring the aspects of sexuality that lie beyond the mere physical level. On the one hand, this means taking more time for sex in general, both in partnered sex and in self-touch. On the other hand, sexual situations themselves would benefit from more calmness and patience.

On average, intercourse takes 3.5 minutes, with foreplay 13 [minutes]. [...] So this orgasm curve [according to Wilhelm Reich] is procreative sex and is about fertilising as many female mates as possible in order to promote the own genes. (3)

For the female body to be able to reach “operating temperature” (6), a minimum time of 30-40 minutes for intercourse is recommended (3, 6). In this context, the factor of *mindfulness* in terms of a certain presence within the sexual encounter also comes into play. It is about actually feeling consciously and deeply within yourself and your body, and thereby to become aware of everything that is there without focusing solely on lust. For couples, the mindful perception of the partner and the interpersonal dynamic has priority. Through awareness on these different levels the sexual experience may become more intense.

The difference between procreative sex, on the one hand, and ‘feeling sex’, on the other, is that [during the latter] the frontal lobes of the brain are activated, namely through consciousness and through somatic learning! Somatic learning means learning through the body. And learning through the body works completely differently than learning through the mind. (3)

Sexual somatic learning is very important for female sexuality. Naturally, it would take place at first during a woman’s self-discovery and would be continued later with a partner the woman can trust. This has to do with the fact that the female genital organ, in contrast to the male genital organ, is tucked away, hidden and well protected inside her body. An actual opening of this space is connected to very complex physiological and psychological processes, which need to be understood, accepted, seen and enjoyed as part of the sexual experience itself. Thus, it is helpful to first of all appreciate the meaning of the female genital organ on the whole and to understand the far-reaching neurological, biological and psychological correlations connected to this organ in order to build an appropriate relationship to this part of one’s body.

I have not seen a single woman, except for one, where it [the symptoms] appeared to be a tangible disorder. That was just a lack of knowledge and a lack of understanding of themselves. (7)

The experts talked about the physiology, how the female genital region consists of the uterus with the cervix as a passage to the vaginal interior space with many different, very sensitive trigger points like the Grafenberg spot (G spot, an erogeneous zone on the anterior vaginal wall) - and the A-spot (an area of sensitive tissue right

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at the inner ends of the vaginal tube between the cervix and the bladder). Stimulation of these different parts of the vagina can release very different sensations in women which can vary individually. But initially, in women a certain degree of anatomical knowledge and sufficient sexual self-exploration are necessary to find out about their individual preferences and to strengthen the neural pathways of sexual pleasure.

...really this is playful, not goal-oriented, but truly playful self-experimenting and getting to know oneself. (2)

[The benefit of a frequent] massage of the cervix [is] to start to strengthen the neural connection, to start to feel pleasure. (8)

Vulva and clitoris are the only parts that can be seen from the outside and build the outer pole of the organ complex. The uterus is known as the place where human life develops and grows. The vagina builds the entrance to it and therefore cannot be seen as a separate entity, as a kind of artificial category as the medical model would suggest. Some of the experts related that in many traditional cultures the female womb is considered to be a centre of connection to the Divine, to nature or Mother Earth, and is therefore highly respected and worshipped.

The cervix is part of the uterus, and it is clear that this is where life comes from! And furthermore, it is also the entrance to the spiritual womb, to the creative power, where we do not only give birth to children, but as well to dreams, visions. And Native Americans, for example, perform rituals with their menstrual blood. They have chalices to collect the blood and where it is brightest and menstruation is at its strongest, is where the unfertilised egg is released. And then they bury it, put a plant on it and send a vision out into the world. And through this [ritual] they create their life actively because a woman does that every month as long as she is bleeding. (3)

The vast significance of this organ seems to be bodily manifested through a very particular innervation:

Most organs are innervated by two different sensory nerves. But the cervix is an exception because three nerves carry sensation from it. So, since the cervix is innervated by three different nerves (pelvic, hypogastric and vagus) it must be doing important things! (Prof. Komisaruk)

Another point of consensus among most of the experts is that a fulfilled and sustainably satisfying sexuality requires regular exploration of one's body and its sexual potential in a very mindful and playful manner. It is mainly about getting to know and creating a positive connection to one's body in order to appreciate it and to consider it beautiful. Some of the experts actually call this process to "inhabit" the body, and especially one's genitals (e.g. 1). This way, women automatically develop a deeper connection to themselves and their emotions and memories as well as to their *embodiment*. Over time it will be possible for women to perceive increasingly subtle changes and processes in their body. This means, for example, noticing how during arousal, vulva and

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vagina swell and span like a tent. In addition, a woman can learn how to enhance her arousal with a combination of certain qualities of touch, movement, breath and voice. Through the conscious experience of frequent sensational stimuli inside the vagina, the neuronal connections are strengthened leading to an increase in sensitivity in this area.

Every touch activates sensors, receptors of the skin. Through the neural pathways these stimuli get to the brain and build sort of a map of the body that is called 'Homunculus'. Through repeated stimuli this map develops and differentiates further and further. Imagine then that [up until sexual maturity] the inner part of the female body, the female genital organ stays untouched for several years. As a result the woman does not yet have a map for it and as long as there is no map I cannot develop sensation there. I would not know what is good or bad for that part, it is just a void there. [...] So, to 'inhabit' [one's body or one's genitals], translated into a scientific language, means to actually offer sensual stimuli in order to build this map through which we first recognise, ok, when I do that, it tickles a little bit, but it is also pleasant [interviewee makes circling movements of the hand in a symbolic vagina]. When I do that, dull, [interviewee makes quick in-out movement with the hand], my vagina does not feel anything anymore at some point. Or, when I press, oh, that is particularly nice! And this is only possible once this map has been created. (1)

In this sense, women experience sexual self-empowerment and can develop their sexual self-confidence and sexual identity. They understand that they can take an active role in sexuality: they neither have to get overwhelmed by their body reactions, nor are they dependent on a partner to experience pleasure or orgasm. Furthermore, they learn about their sexual needs and wishes which they can communicate to their partners.

One of the most important aspects of partnered sexuality, according to experts, is the need for the woman to feel safe and able to trust her partner. Only when met with the necessary respect can she actually open her most "holy" (2), vulnerable and best-protected space, to actually receive her partner. Otherwise, her body and her unconscious may react very sensitively, thus immediately affecting her sexual function.

Besides, female sexuality is very variable due to many contextual factors such as hormonal changes owing to age, the menstrual cycle or stress. Hence, communication about changing needs, wishes and fantasies, as well as the required flexibility, are again highly necessary. Another important aspect for women is to mindfully perceive their boundaries and to always have a choice on agreement or refusal concerning the next step. This gives rise, inter alia, to the feeling of really "being meant". Only then can a real sexual encounter and a real contact occur, where true intimacy and closeness lead to a sense of security and being held, thus enabling the woman to actually devote herself to her sexual experience.

*(3) Subtlety of sexual sensations, full-body involvement and the plurality of female orgasms*

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Many experts talked about subtle sensations like tingling, prickling and pulsing in all possible parts of the body, especially vaginal pulsation, as important components of the female sexual experience. These sensations require a certain degree of body awareness, which many women have not learned (or have unlearned) during their sexual experience because they focus mainly merely on achieving a climax.

The experts repeatedly described sexual arousal as an intensive flood of energy that spreads through the entire body via muscular contraction and relaxation. It can be triggered and intensified through all the senses and in many erogenous zones of the body. This way, for example, a kiss can be a full-body-experience. The inclusion of the whole body is essential for the intensity in female sexuality because women are less fixated on their genitals than men. A very special erogenous zone is the female breast. According to neuroscientist Prof. Komisaruk, female breasts seem to be an exception to the Penfield Homunculus. The homunculus is the representation of body parts in the somatosensory cortex. Historically, this homunculus was created using male subjects and there were no overlapping regions of body parts. However, when Prof. Komisaruk studied the representations of female genital regions she found an overlap with the breasts:

So maybe that's the basis for why many women say that nipple stimulation feels erotic. Maybe it's because nipple stimulation activates the same sensory neurons in the cortex as does genital stimulation. Orgasms can be elicited by clitoral stimulation, vaginal stimulation, or cervical stimulation... and since each of them activates neurons in a different region of the paracentral lobule of the sensory cortex, if you would stimulate all of them together, many more orgasm-relevant neurons would be activated. And that suggests that orgasms could be much stronger, if all the regions, clitoris, vagina, cervix and nipples, would be stimulated together. Women say that orgasms produced by stimulation like that are more intense, more pleasurable, more complex than orgasms produced by stimulation of just one of those body regions. (Prof. Komisaruk)

To enhance the distribution of sexual arousal in the body some of the interviewees recommended practicing a combination of conscious breathing, flowing self-movements or the inclusion of the voice. Furthermore, the constant dynamic interaction of muscular tension and relaxation is seen as beneficial. A flexible, trained and therefore well-innervated pelvic floor was described as highly relevant for the experience of lust, pleasure and orgasm, as well as for the a woman's sexual self-image (expert 5, 7).

Additionally, orgasms can be triggered in many different regions of the female body. According to the experts, women are able to experience orgasms outside of the genital area e.g. in the throat or at the anus. Moreover, there were phenomena like *breath orgasm* or *full-body orgasm*. The latter is explained as a reflex that occurs in relaxation after enough sexual tension (not created mechanically) has been built up and spread through

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the body. It is described as deeply satisfying and nourishing. Furthermore, it is reportedly possible to have orgasms that are released without any physical stimulation, only through thought and the imagination.

We did studies, where women came into my lab who experienced orgasm from imagery and compared that to their orgasm from genital stimulation. And we had exactly the same levels of activity in terms of heart rate, blood pressure, [...] many of the markers that we use to determine orgasm. And then we started doing PET-scans [positron emission tomography], and then functional MRI's [magnet resonance imaging] of the brain. And the same areas were activated when the women had orgasms from her own imagery or from some type of stimulation. (Prof. B. Whipple)

Within the context of a perception-based sexuality two different forms of female orgasms were described by the experts:

1. more local, mechanically triggered, outer orgasms which require more effort to achieve,
2. inner orgasms which instead occur after longer and varied stimulation starting from a relaxed state and which have a more lasting effect.

Some women even ejaculate, which happens in the second described form of orgasms. Another category that emerged from the descriptions is based on the genital region. In the genital area alone, corresponding to different vaginal trigger points, one can differentiate between at least three different orgasms: first the *clitoral orgasm*, which is reached focally and mechanically through friction or vibration outside, through the clitoris, and is described as rather superficial, short and sharp, with an explosive outward release of sexual energy instead of sustained satisfaction and saturation. Second, the *vaginal orgasm* that can occur through stimulation of particular spots of the vaginal sensitive tissue, for example the *G-spot* or the *A-spot*, and is experienced rather as an implosive feeling, distributing accumulated sexual energy within the body. And third, the *cervical orgasm*, which is barely known mainly due to a lack of information and sensibility, or to pain in the area of the cervix in many women. When, however, a cervical orgasm does occur, a broad spectrum of profound experience is reported: a calming, grounding effect on the female psyche is possible, as well as heightened states of consciousness and transcendental states with temporary immobilisation, visions and sensations of physical dissolution and merging into oneness with everything.

For the cervical orgasm, women report experiencing a sense of unity with everything and a sense of the Divine. And their physical self kind of dissolves. And they just merge into oneness. I have got so many testimonies of women who have experienced this. We call it the DMT-effect [Dimethyltryptamin]. That's right, it's exactly like the experience of taking DMT. So women feel they are receiving messages, they see things, visions or they dissolve. (8)

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On the neurobiological level, the research group around Prof. Komisaruk made important contributions to orgasm differentiation through brain mapping studies:

We mapped the sensory cortical response to clitoral versus vaginal versus cervical self-stimulation. And we found that each of those activated a slightly different, but partially overlapping region of the sensory cortex, a region called the paracentral lobule. This probably reflects the fact that there are three or four different genital sensory nerves. The pudendal nerve carries sensation from the clitoris; the pelvic nerve carries sensation from the vagina and cervix; the hypogastric nerve carries sensation from cervix and the uterus and the vagus nerve carries sensation from the cervix and probably also from part of the vagina and maybe the uterus. (Prof. Komisaruk)

The subject of current studies of his research group is i.a. the hypothesis that, depending on the different nerves, various special neurotransmitters are involved. This would explain the diverse neuropsychological effects of different genital orgasms in women.

We don't yet know what the difference is in their neurotransmitters. That's actually a study that we are performing right now in rats. To see the difference between the neurotransmitters released into the spinal cord by clitoral stimulation and vaginal-cervical stimulation. It could be that vagus nerve stimulation activates the anandamide receptor, like the marijuana receptor, cannabis receptor. (Prof. Komisaruk)

*(4) The direct female genital-brain connection through the vagus nerve and the role of the cervix in female sexuality*

It seems possible for women to 'enter another dimension' through cervical stimulation. Prof. Komisaruk's neurobiological explanation for this is based on the vagal innervation of the cervix, which transports internal, visceral and sexual sensation information to the brain.

Our visceral sensations, our feelings are very different from our somatic sensations, vision, hearing, touch, olfaction, taste. The internal sensations... we can't identify them as clearly... have a tremendous impact on our mood, on our emotions, coming through the vagus. It could be that cervical stimulation is stimulating the vagus and that is producing this altered state of consciousness... feeling like another dimension. It's an internal mood/feeling dimension. But it can't relate to any of the external senses, it's something different. Perceived as a different, unfamiliar dimension. (Prof. Komisaruk)

The vagus nerve carries sexual sensation directly to the brain, bypassing the three other main nerves (pudendal, pelvic, and hypogastric nerve) which run through the spinal cord. This explains the vaginal-cervical sensitivity and the possibility of experiencing orgasm despite spinal cord injuries, and allows conclusions concerning a barely known and medically acknowledged, but central involvement of the vagus nerve in the female sexual reaction.

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We found that vaginal self-stimulation produced a powerful pain blockage (analgesia). In order to identify the sensory nerves that convey the pain-blocking signal, we studied women with severed spinal cord at different levels of the spinal cord that would block one or more of these nerves' access to the brain. [...] I figured that, in the women with a severed spinal cord, when they apply the cervical self-stimulation, if I see activation of the vagal sensory nucleus in the medulla, that will be evidence that the vagus nerve conveys the sensory information from the vagina and cervix, bypassing the spinal cord. That's how I got into brain imaging, using functional MRI. And I found, yes indeed, when those women performed vaginal-cervical self-stimulation they did get activation in the vagal sensory nucleus, which was evidence that the vagus nerves convey sensory activity from the vagina and cervix, completely bypassing the spinal cord. (Prof. Komisaruk)

Prof. Komisaruk shared the story of a woman who had a partial resection of the cervix, where the vagal connection of this part of her uterus was surgically severed. He recounted that she experienced dramatic consequences and a feeling of a huge, central part of the body having been amputated. This woman reported the complete loss of sensitivity inside her vagina, along with the loss of her whole internal body-and-soul integrity that she had had before, due to the surgical procedure. In her case, the impaired integrity of the cervix or the uterus and its innervation seemed to entail a persistently defective integrity of her whole sexuality with drastic impact on the personality, behaviour and thus the whole life of the affected woman. According to Prof. Komisaruk, this is not an isolated case. He talks about several cases of hysterectomy or partial resections of the cervix through which women lost their sexual reaction.

### *(5) Emotionality as the sustainably satisfying component of female sexuality*

Most of the experts spoke about the relevance of emotionality to female sexuality. The vagal, visceral part of the human nervous system, which also innervates i.a. the colon and heart, is considered to be involved in the development of emotions. There is possibly an interconnection with the frequently mentioned relevance of the emotional component of female sexuality.

The cervix and the heart are connected in Eastern tradition. And so, for a woman to be fully able to open and awaken the cervix she needs to feel like she has had enough emotional release and that she can be completely "in" her heart. So the emotional component of sexuality really can take a women's sex to another level and it doesn't mean she has to be in love with her partner. But it does mean that she needs to feel comfortable to express her emotions. You know, crying will often be a huge component as she drops deeper into her body and the trauma. Or unexpected emotion just arises. So for me, to go into those places, you need that time, you need that sense of safety. (8)

Through the perception and expression of emotions in sexuality a deeper connection to oneself and one's partner can occur. According to some of the experts, this has purifying effects for psyche and soul, and gives rise to a sexuality that is profoundly moving, satisfying and sustainably nourishing. In many traditional cultures, the



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significance of emotionality and sensuality within sexuality has long been intuitively perceived and knowledge of it handed down. Tantric teachings, for example, talk about an energy cycle created between man and woman during intercourse.

The concept is that, if a man is penetrating a woman, he will be sending energy through his penis, which is yang and is giving out energy. She will absorb it into her vulva. And she will bring it up to her heart and she will express it out of her heart into his heart. So you get a cycle. It will be going into his heart and out of his penis and into her vulva and out of her heart. So, the man and woman tend... but this is a generalisation! Not everybody matches this. (5)

The ability to establish a physical as well as an emotional connection is seen as a prerequisite by many of the experts in order to take sexuality to another level, which is going to be explored below.

### (6) “Valley-sex” and the orgasmic state

According to the experts, in contrast to the more popular goal-oriented sexuality, within the paradigm of a pleasure-oriented and perception-based sexuality there is no striving towards a climax. Some of the interviewees use the metaphoric analogy of *peak* and *valley* for differentiation of these two opposite forms of sexuality. Within this analogy the pleasure-oriented and perception-based sexuality corresponds to the valley, which unquestionably can also be interspersed with some smaller or greater hills. The starting point is relaxation rather than effort. This means doing nothing except devoting oneself to the perception of soft, tender touch and the thereby evoked body sensations. In physiological terms, this is related to parasympathetic activation.

What we try to do is stay in the [activated] parasympathetic nervous system. We try to stay relaxed in that state. So you are both aroused and relaxed, and not heading towards the peak of a climax. Maybe you are building a little bit of arousal and then you are just relaxing, enjoying and riding the pleasurable waves. (8)

It appears to be a state of both arousal and relaxation in which desire can be maintained and prolonged, instead of being discharged through a climax (peak). From a neuroscientific point of view, this state seems to be primarily associated with female sexuality.

Multiple orgasms are a prolonged state of arousal that is another aspect of the sexual response. It doesn't occur in most men. Some men practice doing that but it is much more common in women. (Prof. Komisaruk)

Considered within the graphical progression of the orgasm curve by Masters and Johnson (1966), it is an extension of the excitement phase with several possible plateaus, but not necessarily leading to one “real”

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climax. Even more appropriate for the female sexual experience seems to be the image of a dynamic, expanded, wavelike curve.

The truth is, orgasm works totally differently. Orgasm actually works in waves and that is completely normal. The excitement comes and the excitement goes. (3)

Thereby it is substantial for women to be with a partner who is able to stay with her in her intermediary phases of relaxation, holding her, breathing with her, stimulating the next rise of excitement in union, without putting her under any pressure. It may require a male partner to be capable of controlling his own arousal and delaying his ejaculation. This also requires the above-discussed flexibility towards the very variable female sexual response that depends on many contextual factors. One of the experts described the *orgasmic state* and its benefits as follows:

I feel like the female sexual orgasmic response can also be just like a body that is full of sexual energy and full of orgasmic waves of pleasure without a climax. And I think this aspect is largely missing in the sexual debate, this thing surrounding the orgasmic state. The fact that, if you can feel pleasure, you can bring yourself to the orgasmic state. And that, if we really want [...] to harvest as much of the good neurochemistry as we can through sexuality, like oxytocin, then we need to maintain our states of pleasure for longer, rather than releasing the pleasure in climax. (8)

A majority of the experts argued that this *valley-sex* with the focus on feeling, desire and pleasure without pursuing a goal leads to a release of more and different neurotransmitters and endorphins, especially oxytocin. Oxytocin, a hormone primarily associated with *bonding*, may evoke feelings of deep bliss, peace, connection and sustained nourishment. For this to occur, the experts pointed to two preconditions: first, being in touch with oneself and the partner. Second, taking enough time to build up real intimacy and connection (at least 30-40 minutes).

Because out of a sexuality, that lasted for an hour and was really intensely felt and there develops an orgasm at the end [...] then the different layers [of the experience] merge and it becomes bigger than yourself. [...] Even only the difference between a physiologically satisfying sex with orgasm but which did not touch you emotionally and always stays at that level that is not fully satisfying, and another sexuality, that allows you to feel yourself but oftentimes does not end in orgasm, still the [latter] 'feeling-sexuality' is much more nourishing and satisfying than the mechanical sexuality, where you have 25 orgasms in a row. (3)

The experts mentioned another characteristic of *valley-sex*: expansion. The whole experience appears to gain depth and vastness. Instead of a discharge of excitement for the purpose of releasing tension, an expansion of pleasure and arousal is aspired to. This again requires a broader, diverse stimulation involving the whole body,

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as well as breath, movement and voice. In addition, the experts suggest that for a multidimensional experience, a deep vaginal-cervical stimulation, e.g. on the *G-Spot* or the *A-Spot*, is conducive.

Some of the experts described how the mindful and unlimited perception of physical and emotional sensations may enable one to come into full contact with oneself. One is thereby allowed to be authentic and surrender to the partner in order to merge with each other. If there is enough security and trust for the woman to actually devote herself to her own needs and permit this kind of loss of control, she will be able to enter a state of immobility, non-intentionality and physical dissolution, extending as far as transcendental experience:

There are various layers to an orgasmic state. So an orgasmic state, let's just say [...] at its biggest amplitude is when the nervous system [...] seems to go into immobilisation. So you are completely in a trance, you are completely out of it. You are, like, completely relaxed and, I suppose, actually overwhelmed. And your body is in involuntary state, which means you might have the shudders, you know, you might have... your genitals will definitely be engaged. (8)

Interviewee 8 introduces the polyvagal theory by Stephen Porges (1995) to explain what a partner can do to help a woman feel safe and thereby enable her to enter such a realm:

You can use Stephen Porges' Polyvagal Theory, as a cue to help a women feel safe. So, gazing into each others' eyes, voice, touch, all can help women's nervous system say, "Alright, it's ok for me to immobilise now. I can completely surrender". (8)

Overall, the terminology of the female orgasm is expanded within this new concept of "experiencing" sexuality. Vaginal pulsations and contractions over different periods of time and without resulting in a climax can count as an orgasm – or an *orgasmic state*. Furthermore, the vertexes of the wavelike curve of female arousal can be experienced as *multiple orgasms* by women. Neuro-scientifically, this is the main difference between male and female orgasms:

We have compared orgasm in men and women. And in terms of the brain regions, that we see activated, the similarities are much greater than the differences. With one exception! And that is, after the orgasm men go into a refractory period and women can continue having orgasms. (Prof. Komisaruk)

Apart from that, there is no such feeling of completion and not wanting to be stimulated anymore, as the refractory period in the model of Masters and Johnson (1966) suggests. Within this paradigm of sexuality explored here, the *orgasmic state* can be sustained until long after the sexual intercourse.

There truly is a dynamism that arises out of feeling. This is authentic and true because it arises from feeling. And after sex like that forget the orgasm, because that will make you feel really, deeply touched. Then you are satiated! This is not

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addictive but there you access a space of divine grace [...] and this can last for days! And that way you go through life in a completely different way because it gives rise to a sort of a spiritual connection. [...] And with this "actually-everything-is-fine" feeling you will also confront your problems differently. So it changes life in its essence, and that is not exaggerated, that is truly how it is! (3)

Consequently, there is no drop in the sexual charge but instead a fostering of (sexual) energy. Some experts pointed out that women can make use of this energy, use it for any creative purpose, for example into achieving their life goals. In this sense a woman's sexuality appears to have an impact on her whole life.

### *(7) The holistic nature of sexuality in the life of a woman*

According to the experts, if lived and acted out naturally, female sexuality is not limited to sexual actions but seems also to affect vitality, strength, creativity and joy in a woman's life. Some of the experts mentioned a direct link between the extent to which a woman lives her sexuality authentically and her basic energy level.

I think sexuality is a very important part of self-expression. It is the strongest force that we have in our body. It is simply life energy. And if one suppresses or devalues it, or if you cannot live it out for whatever reason, then it takes away a lot of the energy that you have. And if you always walk around with this feeling of "It's not ok, I should not have these wishes, I should not have these thoughts, these needs" then you degrade yourself constantly. (2)

It seems to be significant for female physical and psychological health not to suppress her sexuality but to understand it, perceive it with all her senses, enjoy it and to develop a sexual self-image. Thus, the terminology of pleasure, sensuality and ecstasy should cease to be limited to sexual intercourse. All kinds of daily situations, impressions or body movements can create pleasure and (sexual) excitement without any sexual action having to take place, as expert 5 explained:

So that first of all, and again it's the same for men and for women, it comes from having access to your senses. And I mean full access! Most people are charging around, they really live from inside the head. And they are not enjoying the movement of the body, right? Like, just walking down the street, that's orgasmic enough. You are in your body, moving. Yeah, breathing. (5)

Some experts stressed that the sensual perception of being a sexual being brings about liveliness and vibrancy. For women this also includes discarding beauty ideals concerning her body and especially her vulva. It is about finding themselves attractive and sexy, enjoying the vitality of their bodies and being confident that they will be welcomed just as they are. Moreover, this involves acknowledging their own womanhood and being proud of it. Some of the experts described female sexual energy as part of the female primal force that gives life through birth and has a direct connection to Mother Earth and nature. Woman is the holder of this womb, in

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which not only children but also visions grow. She has an intuitive knowledge about opening and holding that space.

It gives you self-confidence knowing that is what I am capable of! That's the power I have! Also, experiencing that force, what kind of energy is stored inside my pelvis. Knowing that it is not just an inert mass, but that all this [power] is within them [the women]. (2)

Regardless of how spiritual a woman is, her life and her sexuality are influenced by constant interactions with her sexual energy in both directions. The higher her ability to connect with herself and with a partner, the more she will feel connected to the whole world and feel a sense of deep, intuitive safety and basic trust. This in turn will be mirrored in her self-confidence, her self-worth and her identity, which again affects her personality and behaviour.

Sexuality strongly influences our whole life, beyond those small things like sexual intercourse or so. Therefore I would say sexuality is more of a basic life energy [...] which, if it is suppressed and lessened, it can cause many women to end up in some sort of a grey swamp [...] where they do not feel much anymore and where there is not much joy and so on. [...] In this respect, sexuality or, let's say, this sexual force that is in us, actually runs through all areas of life! It is also simply a very creative force. (4)

Conversely, this is supported by the narrative about the drastic, life-changing consequences that Prof. Komisaruk reported about women who had lost their sexual integrity after partial resection of her cervix.

## **Discussion**

In our study we carried out expert interviews to establish a more holistic view of female sexuality. We were interested in the question as to what the missing pieces of female sexuality are that do not receive enough attention in current scientific discourse and that are relevant to experiencing the full potential of female sexuality. The interviews with experts yielded a number of starting points for a truly holistic understanding of female sexuality. The present findings have given evidence to the complexity and diversity of the female sexual experience already voiced by other authors (Komisaruk et al., 2006; Thomas & Thurston, 2016).

The experts interviewed in this study pointed to the relevance of a perception-based sexuality that incorporates the whole female body with all their senses as well as the woman's emotional world. In parts this notion is mirrored in an empirical study that distinguished different types of female orgasm and showed that 15% of *good-sex orgasms* spread out through the entire body (King et al., 2011).

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The importance of sexual learning for women is mirrored in the relevance of “embodying their bodies” (Cherkasskaya & Rosario, 2019; p. 1671). If women developed a sense of ownership and agency, this would help them stay connected to and tuned into the body to experience sexual pleasure (Cherkasskaya & Rosario, 2019).

In terms of the plurality of orgasms and full-body involvement, the current findings seem to be in line with Lousada and Angel (2011), who similarly observe the current lack in valid clinical definitions of orgasm and describe them as deficient in their coverage of the orgasmic experience. They claim the descriptions are too technical, that while they help us to understand the physiological function of orgasm they also reduce the experience of orgasm to a simple response to sexual stimuli. Instead, the authors suggest a more expansive approach to include affective and energetic dimensions of the orgasm, as already defined by Wilhelm Reich, who saw orgasm as a full-body energetic potential and a complete expression of healthy sexuality (Reich, 1973). Lousada and Angel (2011) introduced the term *Tantric Orgasm* by describing an experience of sexuality that includes a number of components beyond physiological responses and the relational perspective, such as inter-subjective states and transpersonal union with that which is beyond self (Lousada & Angel, 2011). Interestingly, this relates directly to the findings of the present study, in which three dimensions of the female sexual experience could be differentiated in the expert interviews:

1. Establishing a mindful connection to oneself and *inhabiting* one’s own body;
2. Integrating the real needs of the partner and building up an emotional connection in order to merge with one another; and
3. Detaching from the physical by entering an altered state of consciousness and a more encompassed sense of connection to the world and what lies beyond.

In a similar manner, Lousada and Angel (2011) proposed a three-dimensional model with an underlying energetic component. Next to the familiar intrapersonal level of the individual physical, cognitive and affective experience, they implemented two further levels: on the second level they take into account the shared partner experience in which a couple might enter an inter-subjective state and gain experience of union and not being separate (Lousada & Angel, 2011). The exchange of sexual energy can lead to a so-called *soul orgasm* (Chia, 2005). Whereas in the third, transpersonal level of the orgasmic experience the perception of the self (*ego*) transcends into an altered state of awareness that may induce out-of-body and other transcendental peak

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experiences, such as feeling at one with everything, feeling as if in a timeless present and profound love and divine joy (Lousada & Angel, 2011). The authors term this state a *total-being orgasm*. At the same time they argue that if the focus in sex were limited to the physical aspects the orgasmic experience would not go beyond a *low-level orgasm* (Lousada & Angel, 2011). This also corresponds to the findings of this study regarding a sustainably satisfying sexuality, where the different layers of the sexual experience expand and merge, exerting lasting positive effects on the entirety of life. Sexuality and sensuality can improve the subjective quality of life and personal growth, as well as contributing to personal fulfilment and self-realisation (Komisaruk et al., 2006), which is included in the WHO (2011) definition of fulfilling sexuality.

Turning to the vagus nerve and the role of the cervix in female sexuality, the varying cortical projection of stimulation of clitoris, vagina, cervix and nipples was confirmed through fMRI-studies (Komisaruk et al., 2011). In particular, the significance of the cervix within female sexual reactivity and the ability to orgasm was long neglected, dating back to Kinsey and colleagues (1953). Through reports of sexual difficulties in patients with cervical cancer this aspect has come to the fore of current research (Vermeer et al., 2015).

The relevance of emotionality as the sustainably satisfying component of female sexuality may be linked to empirical evidence in the narratives on “great sex” studied by Kleinplatz and colleagues (2009). Interestingly, men and women spoke about feeling intensely present, authenticity, intense emotional connection, sexual and erotic intimacy, communication and transcendence. Most participants, regardless of sex, touched on all the major components. As one participant explained, “I think probably when we reach that level of calling something great or excellent or optimal, I think probably most gender differences would disappear.” (Kleinplatz et al., 2013; p. 253). It seems as if fulfilling sex needs to include these more feminine aspects of sexuality for both men and women alike. The overlap of these accounts of “great sex” with our findings gives a broader body of evidence to the proposed understanding of female sexuality.

Looking at existing models of female sexuality, they all appear insufficient in capturing the female sexual experience with the same holistic degree as mentioned in the expert interviews. Starting with the Masters and Johnson sexual response cycle (1966), besides being limited to the physiological function, it merely describes the goal-oriented form of sexuality and orgasm that accompanies physiological excitation. It does not include the possibility of what was defined as *valley-sex* and *valley-orgasm* or the *orgasmic state* by some of the experts, which requires relaxation and slow, mindful stimulation of the entire female body. Basson’s alternative models (2000, 2003) initially integrated components of emotion, cognition, physical satisfaction, partner

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interactions, as well as other contextual factors, and provided a more bio-psycho-social perspective in addition to the idea of the complexity of the female sexual response. Still these models also lack the whole realm of *valley-sex* and the different layers of the sexual experience, including changes in the state of consciousness as reported by the different experts and the effect that fulfilling sexuality might have on all aspects of the woman's day-to-day life.

The potential inferences for therapeutic interventions are clear, as Kleinplatz and colleagues concluded: "Perhaps much of what is currently diagnosed as sexual desire disorders can be best understood as a healthy response to dismal and disappointing sex" (Kleinplatz et al., 2009; p. 10). Based on the experts' views and experiences, the male linear model of sexual reaction can no longer serve as a standard for the comprehension of female sexuality nor as generally valid within the biomedical discourse. Many other authors have already criticised this and have sought an alternative model that meets the specific characteristics of female sexuality (Tiefer, 2006; Wood et al., 2006). In particular, the summarising character of the innovations in DSM-5 regarding female sexual dysfunction less than ever satisfies the complex, flexible, reactive and receptive nature of female sexuality (Spurgas, 2013). It lacks a holistic view within the scientific concepts of female sexuality and its possible disorders. Even the bio-psycho-social perspective (DeLamater & Sill, 2005) appears to be insufficient in the light of current data. It does not meet the spiritual component and the multi-dimensionality of (female) sexuality with their influence on basically all areas of a woman's life. Because "when sexuality is viewed holistically, it refers to the totality of a being, not just the genitals and their functions. Sexuality includes all the qualities that comprise a person – biological, psychological, emotional, social, cultural and spiritual" (Komisaruk et al., 2006; p. 97).

Based on this emerging picture of perception- and pleasure-orientation, a whole new paradigm of a holistic and sustainably satisfying sexuality appears to be evolving. The main characteristics of this prototype of an alternative model lie in an expanded understanding of female sexual desire and orgasm, and accordingly in the redundancy of goal-oriented climax-seeking. Furthermore, a lifelong sexual learning process of mindful self-exploration and its transfer into a trustworthy, partnered sexuality is seen as both natural and essential, as well as offering lasting flexibility and communication between partners regarding their sex life. In line with this, amongst others, Nagao et al. (2014) also emphasised the importance of good communication between sex partners. It seems like a necessary paradigm shift for women to develop their own sexuality within a culture of dominant phallogocentric sexual scripts and social roles that require women to prioritise attending to others over themselves (Fahs & Plante, 2017; McClelland, 2014).



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Further refinement, verification and differentiation are necessary to present this new model of female sexuality. Additionally, the transcendental element of sexuality requires further scientific research. Neurobiological studies could be helpful to identify the neurotransmitters that are associated with the aforementioned altered states of consciousness, especially during cervical orgasm. Besides, in this context a possible endogenous synthesis of dimethyltryptamine (DMT) might prove interesting.

### **Limitations**

The findings are based on the subjective views of the ten interviewed experts living in Western society and their personal wealth of experience. Their respective perspectives were influenced by their individual educational backgrounds and their clientele, or in case of the scientific experts, by their research focus. Therefore the present results are not reliably replicable through further interviews with other experts. Furthermore, it should be mentioned that to date some of the expert's therapeutic approaches have not yet been verified by neuroscientific research.

In terms of validity, *triangulation* was established by interviewing members of different interest groups (sex therapists, sexual body workers, neuroscientific researchers and one "patient" or personally affected person). In addition, the sample included five different nationalities originating from three continents. Their voices and perspectives appear to provide the pieces of a puzzle that was portrayed in this research report and partly represents what Mays and Pope (2000) call an *underlying reality*. We are aware of the fact, that this puzzle is still not complete. Furthermore, we are mindful of influences exerted by the researchers and the research process on the collected data. Subjective phenomena on the part of the researchers, such as prior assumptions, experiences, personal and intellectual biases, as well as personal characteristics like age, sex and profession, might also have shaped the data in some way. For this reason we have provided a clear account of the process of data collection and analysis through a detailed coding-system. Nevertheless, the objectivity of the analysis could have been further increased with a formal, second independent coding in addition to the close supervision undertaken by the second author.

### **Conclusions**

In a nutshell, the interviews lead to the following conclusions: (female) sexuality needs to be understood as a multidimensional phenomenon and the intensity of its experience is dependent on the ability to create mindful contact with oneself and one's partner, with effects that potentially can emanate into the rest of

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the world and beyond. Based on the accounts of the experts from varying backgrounds, functionality and the endeavour to fulfil a goal are pushed into the background in favour of a mindful, perception-based and pleasure-oriented sexuality. Moreover, sexuality is not limited to coitus, but rather extends through all areas of a woman's life and should be seen as a focal point within her entire system of being.

Furthermore, the experts criticised the focus of the diagnoses of female sexual dysfunction in DSM-5 and ICD-10. Here, the underlying concepts of female sexuality are limited to genital function, are based on a male linear model and exclude the emotional components and the multiple ways woman experience sexuality and orgasm. Future research should focus instead on the establishment of a more holistic, perception- and pleasure-oriented model of female sexuality as a basis for diagnoses and treatment approaches. A more holistic understanding of female sexuality might reduce the pressure of women to experience a fulfilled sexual life and at the same time help them to find out more about their sexual potential. Experts in the medical field and psychotherapists should be trained to more adequately address this important and omnipresent topic with their patients.

Finally, the findings illustrate the need for a shift in understanding the actual nature of female sexuality within society as well as in medical professions. In addition, sex education in schools could counteract the unilateral education about sexuality, as, for example, mediated through pornography, by providing information on the actual core aspects of fulfilled sexuality. Girls and boys should be encouraged to undertake sexual self-exploration in order to help discard taboos and lower shame barriers. This complies with the WHO's call (2011) for unbiased and scientifically accurate information that would allow all humans to live fulfilled sexuality and relationships.

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The authors declare to have no conflict of interests.

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