

# Mindfulness

## Mindfulness, Sexual Functioning, and Subjective Sexual Well-Being

--Manuscript Draft--

<b>Manuscript Number:</b>	MIFU-D-15-00094
<b>Full Title:</b>	Mindfulness, Sexual Functioning, and Subjective Sexual Well-Being
<b>Article Type:</b>	Original Research
<b>Keywords:</b>	Mindfulness; Changes in sexual functioning; Subjective sexual well-being; Gender; Age groups; Portugal.
<b>Corresponding Author:</b>	Henrique Pereira PORTUGAL
<b>Corresponding Author Secondary Information:</b>	
<b>Corresponding Author's Institution:</b>	
<b>Corresponding Author's Secondary Institution:</b>	
<b>First Author:</b>	Vanessa Martins
<b>First Author Secondary Information:</b>	
<b>Order of Authors:</b>	Vanessa Martins Henrique Pereira Graça Esgalhado Rosa Marina Afonso Samuel Monteiro Manuel Loureiro
<b>Order of Authors Secondary Information:</b>	
<b>Funding Information:</b>	
<b>Abstract:</b>	<p>Although there are several studies that address mindfulness, sexual functioning, and subjective sexual well-being separately, there are very few studies that explore the associations between these three constructs. Therefore, this research was developed with the objective of evaluating levels of mindfulness, sexual functioning, and sexual well-being in a Portuguese-speaking adult sample in order to compare the differences in these measures between genders (male and female) and age groups, and to determine a predictive relationship between mindfulness, sexual functioning, and subjective sexual well-being. The sample consists of 1,416 Portuguese-speaking adults, with a mean age of 38.74 years of age (SD = 13.63). Participants completed the "The Freiburg Mindfulness Inventory - reduced version (IMF)", the Changes in Sexual Functioning Questionnaire-Short Form (CSFQ-14), and the "Subjective sexual well-being" questionnaire. After analyzing the levels of mindfulness, sexual performance, and subjective sexual well-being, we found that the participants had moderately high indicators for all variables. In regards to the comparison between genders, it was found that men have higher levels of mindfulness and sexual functioning than women. Regarding subjective sexual well-being, men also show higher values in almost all variables. It was also found that participants between 30 and 49 years of age demonstrated, in general, higher levels of mindfulness, sexual functioning, and subjective sexual well-being. Linear regression shows that having higher levels of mindfulness is a good predictor of enjoying more sexual pleasure and experiencing orgasm, demonstrating that mindfulness seems to condition sexual experiences. This study draws attention to the importance of further examining the selected variables, in order to provide relevant information to technicians who work in this field.</p>
<b>Suggested Reviewers:</b>	Ana Belen Navarro

	Universidad de Salamanca anavarro@usal.es
	Beatriz Bonete Universidad Miguel Hernandez de Elche bbonete@goumh.umh.es
	Florencio Vicente Universidad de Extremadura fvicentec@gmail.com
	José Buz Universidad de Salamanca buz@usal.es

# Mindfulness, Sexual Functioning, and Subjective Sexual Well-Being

Vanessa Martins\*

Henrique Pereira\*

Graça Esgalhado\*

Rosa Marina Afonso\*

Samuel Monteiro\*

Manuel Loureiro\*

\*Department of Psychology and Education, University of Beira Interior

Faculty of Social and Human Sciences, Estrada do Sineiro, s/n 6200 Covilha, Portugal

Contacting author: [hpereira@ubi.pt](mailto:hpereira@ubi.pt)

# Mindfulness, Sexual Functioning, and Subjective Sexual Well-Being

## Abstract

Although there are several studies that address mindfulness, sexual functioning, and subjective sexual well-being separately, there are very few studies that explore the associations between these three constructs. Therefore, this research was developed with the objective of evaluating levels of mindfulness, sexual functioning, and sexual well-being in a Portuguese-speaking adult sample in order to compare the differences in these measures between genders (male and female) and age groups, and to determine a predictive relationship between mindfulness, sexual functioning, and subjective sexual well-being. The sample consists of 1,416 Portuguese-speaking adults, with a mean age of 38.74 years of age ( $SD = 13.63$ ). Participants completed the "The Freiburg Mindfulness Inventory - reduced version (IMF)", the Changes in Sexual Functioning Questionnaire-Short Form (CSFQ-14), and the "Subjective sexual well-being" questionnaire. After analyzing the levels of mindfulness, sexual performance, and subjective sexual well-being, we found that the participants had moderately high indicators for all variables. In regards to the comparison between genders, it was found that men have higher levels of mindfulness and sexual functioning than women. Regarding subjective sexual well-being, men also show higher values in almost all variables. It was also found that participants between 30 and 49 years of age demonstrated, in general, higher levels of mindfulness, sexual functioning, and subjective sexual well-being. Linear regression shows that having higher levels of mindfulness is a good predictor of enjoying more sexual pleasure and experiencing orgasm, demonstrating that mindfulness seems to condition sexual experiences. This study draws attention to the importance of further examining the selected variables, in order to provide relevant information to technicians who work in this field.

**Keywords:** Mindfulness; Changes in sexual functioning; Subjective sexual well-being; Gender; Age groups; Portugal

## Introduction

Mindfulness is the translation of the term "Sati" in Pali, which means remember, recognize, and be intentionally aware. It also implies that one must possess a vigilant and lucid mind, be alert, and self-conscious (Sillifant, 2007; Siegel, Germer & Olendzki, 2009; Simon, 2011). Historically, mindfulness was defined as the "heart" of Buddhist meditation (Thera, 1962) and lay at the core of the Buddha's teachings (Gunaratana, 1992; Hanh, 1999; Nanamoli & Bodhi, 1995; Hanh, 1976; Kabat-Zinn, 2003). Over time, following increased investigation of mindfulness (Edwards, Bryning & Crane, 2014; Edwards & Bryning, 2013; Kabat-Zinn, 2013), the meaning of the word has since evolved (Simón, 2011).

The concept mindfulness appears to be simple however, its description and characterization has no consensus among researchers (Bishop et al., 2004; Neves, 2011). It's hard to build consensus when it comes to clarifying and distinguishing the essential components of mindfulness, as well

1 as the psychological processes involved, and their respective outcomes (Bishop et al., 2004;  
2 Sillifant, 2007; Hayes & Wilson, 2003).

3 According to the Buddhist perspective, mindfulness embraces a range of cognitive, ethical, and  
4 emotional dimensions (Grossman, 2010). In this sense, the most widely accepted definition of  
5 mindfulness is a type of awareness and knowledge that results from paying deliberate attention  
6 to the present moment, without making any value judgments about the experience itself, and  
7 while allowing the mind to focus with increased awareness, self-awareness, and the reduction of  
8 automatic thoughts (Brefczynski-Lewis, Lutz Schaefer, Levinson & Davidson, 2007; Brown &  
9 Ryan, 2003; Shapiro & Schwartz 2005; Holas & Jankowski, 2013).

10 Therefore, mindfulness-based therapy is founded on the assumption that paying attention to  
11 control skills can help individuals change their relationship with the usual pattern of  
12 dysfunctional automatic thoughts (Fernandes, 2010), and, in this sense, place more emphasis on  
13 this dynamic and on the process itself (Fernandes, 2010; Hayes & Gregg, 2002).

14 Over time, indications have emerged that attention levels can be a predictor of various  
15 outcomes, such as health, well-being, adaptive qualities, cognitive flexibility, emotional  
16 intelligence, and life satisfaction ( Anderson, Lau, & Bishop Segal, 2007; Brown & Kasser,  
17 2005; Christopher, Charoensuk Gilbert, Neary & Pearce, 2009; Weinstein, Brown & Ryan,  
18 2009). In addition to the aforementioned qualities, the evidence shows significant associations  
19 between mindfulness and increased coping, functional abilities in cognition, affections,  
20 performance and behavior (Fernandes, 2010; Neves, 2011), and welfare and health (Lazaridou  
21 & Kalogianni, 2013). Significant associations are also seen between mindfulness and the control  
22 of negative affections in the warning capacity and sustained attention (Carmody, 2009),  
23 performance improvement (Chambres, Yee-Lo & Allen, 2008; Jha, Krompinger & Baime,  
24 2007; Tang et al, 2007), memory (Brotto, 2013), a decrease in emotional reactivity in managing  
25 emotions (Franco, Manas & Just, 2009), and sexuality (McCarthy & Wald, 2013; Lazaridou &  
26 Kalogianni, 2013; Brotto & Heiman, 2007; Justo, Manas & Martínez, 2010; Coffey & Hartman,  
27 2008).

28 Particularly in relation to sexuality, mindfulness seems to positively contribute to a significant  
29 improvement in sexual functioning and subjective sexual well-being, since being sexually self-  
30 conscious is known to have positive effects on sexual performance. Hence, the self interferes  
31 positively with excitement and with the process of pleasure, thus improving sensitivity and  
32 awareness and adopting an attitude of openness and acceptance, which, in turn, seems to  
33 promote the expression of sexuality (McCarthy & Wald, 2013; Goldmeier, 2013). In this sense,  
34 mindfulness tries to maintain focus on the mind and body, as well as everything that is  
35 occurring. Therefore, this practice seems to offer a unique approach to improving issues related  
36 to sexuality (Brotto, Krychman & Jacobson, 2008).

37 One of the basic premises of mindfulness in the area of sexuality is the acceptance of physical  
38 and psychological relaxation, based on sexual response (McCarthy & Wald, 2013).  
39 Consequently, the focus of attention is not on the individual's sexual performance, but on sexual  
40 desire, framing sexual satisfaction as an interpersonal process (McCarthy & Wald, 2013). The  
41 mindfulness component emphasizes the awareness and acceptance of the level of involvement  
42 and response, rather than forcing a sexual response or avoiding the pleasurable processes  
43 involved in sexual activity. Strategies and mindfulness techniques invite the individual to accept  
44  
45  
46  
47  
48  
49

1 and adopt a new set of physical and psychological abilities, assuming full control and  
2 responsibility for their sexual well-being (McCarthy & Wald, 2013).

3 The mindfulness associated with sexuality is used in order to increase desire, pleasure,  
4 eroticism, and sexual satisfaction in a couple or in an individual. Given that the main  
5 components of healthy sexuality are sexual desire and satisfaction, mindfulness tends to  
6 enhance these components (McCarthy & Wald, 2013; Lucena & Abdo, 2013). The practice of  
7 mindfulness leads to an increased ability to understand the perspective of a partner (Carson,  
8 Carson, Gil & Baucom, 2004; Brotto & Heiman, 2007; Burpee & Langer, 2005), that is, to be  
9 aware of the partner's opinion, which is linked to significantly increased marital satisfaction,  
10 thus improving sexual performance and subjective sexual well-being (Lazaridou & Kalogianni,  
11 2013; McCreary & Alderson, 2013).

12 The sexual response cycle can be influenced negatively by various psychological factors,  
13 including anxiety, low self-esteem, disturbances in perception of body image, fear of rejection,  
14 sexual performance anxiety, traumatic sexual experiences, history of abuse, and even the quality  
15 of relationships (Mendonça, Silva, Arrudai, Garcia-Zapata & Amaral, 2012). In this sense,  
16 mindfulness appears as a protective factor and facilitator of a positive sexual experience, in that  
17 it promotes cognitive, behavioral, and emotional awareness, in addition to an attitude of  
18 acceptance and a focus on immediate sexual sensations (McCarthy & Wald, 2013). Therefore,  
19 the association of mindfulness with sexuality allows for significant advantages for humans,  
20 because mindfulness leads to the acquisition of important skills for sexual function, namely, the  
21 effective management of time, energy, courage, determination, and discipline (Goldmeier,  
22 2013).

23 Sexuality is an integral part of human life and it promotes intimacy, connection, and pleasure  
24 (Diamond & Huebner, 2012; Buckstegge, Gouveia, Mafra & Bobato, 2009; Lerner, 2012;  
25 McCarthy & Wald, 2013). It turns out that sexuality is responsible for a set of personal and  
26 social needs, hence sexual health and well-being are linked inseparably to physical and mental  
27 health (Frohlich & Meston, 2002). Sexuality is also connected to the operation of sexual  
28 mechanisms, which are based on patterns of sexual response for men and women (desire,  
29 arousal, orgasm, and resolution) (Lucena & Abdo, 2013), and which are also important  
30 variables in the self-assessment of relationship satisfaction and overall well-being (Buckstegge,  
31 Gouveia, Mafra & Bobato, 2009). As a result, it is understood that sexual problems can be a  
32 source of suffering and dissatisfaction (Mendonça, Silva, Arrudai, Garcia-Zapata & Amaral,  
33 2012). Subjective sexual well-being refers to the perception of the quality of one's sexuality and  
34 sexual life (Edwards & Bryning, 2013). Studies on sexual well-being, examined sexual  
35 satisfaction in several areas, including satisfaction with the physical and emotional aspects of  
36 relationships, satisfaction with sexual functioning, and the importance of sexuality in life in  
37 general (Laumann, Paik & Rosen, 1999). Based upon this research, the concept of subjective  
38 sexual well-being is defined as a cognitive and emotional evaluation of the sexuality of a subject  
39 (Traeen & Schaller, 2010; Oberg, Fugl-Meyer & Fugl-Meyer, 2002), which results from the  
40 subject's perceptions concerning his/her emotional and physical satisfaction in several areas of  
41 sexuality and health. Subjective sexual well-being is particularly useful because it is a much  
42 more encompassing term than sexual satisfaction (Traeen & Schaller, 2010).

43 Despite that fact that there are many studies that separately address mindfulness, sexual  
44 functioning, and subjective sexual well-being, there are very few that explore which  
45 associations can be made between these three constructs. In order to fill this gap in the research  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65

1 we developed this study with the following objectives: to evaluate levels of mindfulness, sexual  
2 functioning, and subjective sexual well-being in a sample of Portuguese-speaking adults; to  
3 compare the differences in the levels of mindfulness, sexual functioning, and subjective sexual  
4 well-being between genders (male and female), as well as among different age groups; and to  
5 determine a predictive relationship between mindfulness, sexual functioning, and subjective  
6 sexual well-being.  
7  
8  
9

## 10 **Method**

### 11 **Participants**

12  
13  
14  
15  
16 The study's sample consists of 1,416 Portuguese-speaking adults, of whom 604 (42.70%) are  
17 male and 812 (57.30%) are female. Regarding marital status, 490 (33.40%) are single, 548  
18 (38.10%) are married, 129 (10%) are in civil union, 16 (1.10%) are widowed, 129 (10%) are in  
19 an emotionally committed relationship, and 104 (7.40%) report a different marital status. It  
20 should also be noted that most of the participants possess a university education. With regard to  
21 sexual orientation, 1,320 (93.40%) participants self-identity as heterosexual, 27 (1.90%) as  
22 bisexual, and 69 (4.70%) as homosexual. In regards to having children, 649 (45.80%)  
23 participants said that they have children and 767 (54.20%) are childless. Regarding the  
24 participants' place of residence, 164 (11.60%) subjects live in rural areas and 1,252 (88.40%)  
25 live in urban areas. Concerning employment status 82 (6.2%) participants are unemployed, 202  
26 (15.30%) are students, 1,061 (72.30%) are employed, 56 (4.60%) are retired, and 15 (1.60%)  
27 report being in a different employment situation. The entirety of the previously mentioned data  
28 is analyzed in Table 1. Regarding age, the mean age is 38.74 (SD = 13.63) years old.  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65

1  
2 Table 1  
3  
4 *Sociodemographic characteristics (N = 1,416)*

	N	%
Gender		
Male	604	42.70
Female	812	57.30
Marital status		
Single	490	33.40
Married	548	38.10
Civil union	129	10.00
Widowed	16	1.10
Emotional commitment	129	10.00
Other	104	7.40
Education		
Up to 4 years	1	0.20
Up to 6 years	4	0.50
Up to 9 years	30	2.20
Up to 12 years	185	12.90
University training	3	0.37
Undergraduate	464	32.80
Postgraduate	535	37.40
Ph.D.	191	13.63
Sexual orientation		
Heterosexual	1320	93.40
Bisexual	27	1.90
Homosexual	69	4.70
Children		
No	767	54.20
Yes	649	45.80
Place of residence		
Rural area	164	11.60
Urban area	1252	88.40
Professional status		
Unemployed	82	6.20
Student	202	15.30
Employed	1061	72.30
Retired	56	4.60
Other	15	1.60

42  
43  
44  
45  
46 Instruments

47  
48 In order to compile information about the participants in the survey, we put together a socio-  
49 demographic questionnaire, which included items such as age, gender, current place of  
50 residence, level of education, marital status, sexual orientation, whether participants have  
51 children or not, and employment status.  
52

53  
54 With the aim of assessing the mindfulness experience of the participants, we used the "The  
55 Freiburg Mindfulness Inventory - short version (FMI)" (Walach, Buchheld, Buttenmuller,  
56 Kleinknecht & Schmidt, 2006). The FMI – short version reduces the original survey from 30 to  
57 14 items, and the Portuguese version has a Cronbach's alpha of 0.86, indicating good internal  
58 consistency levels (Maroco & Garcia-Marques, 2006).  
59  
60  
61  
62  
63  
64  
65

1 The FMI is a consistent and reliable scale and takes into account important aspects of  
2 mindfulness (Walach, Buchheld, Buttenmuller, Kleinknecht & Schmidt, 2006). In addition, the  
3 validation study demonstrates that the FMI is a useful, valid, and reliable questionnaire, when  
4 used to measure levels of full attention (Walach, Buchheld, Buttenmuller, Kleinknecht &  
5 Schmidt, 2006). The reduced scale of 14 items also includes all aspects of mindfulness in the  
6 context of Buddhist meditation, and correlates almost perfectly with the full scale (Walach,  
7 Buchheld, Buttenmuller, Kleinknecht & Schmidt, 2006).  
8

9  
10 To assess changes in sexual functioning, we used the Changes in Sexual Functioning  
11 Questionnaire-Short Form (CSFQ-14) (Keller, McGarvey & Clayton, 2006). This questionnaire  
12 is a clinical and research instrument, which initially consisted of 36 items concerning the five  
13 scales of sexual functioning (Keller, McGarvey & Clayton, 2006). Later, a smaller version of  
14 the instrument with 14 items was created, which evaluates the three dimensions that correspond  
15 to the phases of the sexual response cycle (desire, arousal, and orgasm), as well as the five  
16 factors of the original questionnaire (Keller, McGarvey & Clayton, 2006). Factor analysis  
17 confirms the validity of this construct as a global measure of sexual dysfunction (Keller,  
18 McGarvey & Clayton, 2006). It should also be noted that the individual scales exhibit a strong  
19 level of internal reliability with a Cronbach's alpha of 0.90 (Keller, McGarvey & Clayton,  
20 2006). The level of significance of this study is 0.85, which indicates high levels of internal  
21 consistency (Maroco & Garcia-Marques 2006). After analyzing the questionnaire, in accordance  
22 with the proposal of the author, the questionnaire was organized into five different dimensions:  
23 desire and frequency of sexual activity, desire and interest, arousal, pleasure, and orgasm  
24 (Keller, McGarvey & Clayton, 2006). Finally, a global scale was developed from the 14 items  
25 of sexual functioning.  
26  
27  
28  
29  
30

31 Subjective sexual well-being was assessed according to Laumann et al.'s (2006) proposal and  
32 consists of four items. The first item evaluates the "level of satisfaction with the physical  
33 pleasure felt in relation to your partner in the last 12 months." The second investigates the "level  
34 of satisfaction with the emotional pleasure felt in relation to your partner in the last 12 months."  
35 The third item asks participants, "If you had to spend the rest of your life with the sexual life  
36 that you have today (sexual relationships and sexual health), how would you feel?" Finally, the  
37 fourth item addresses "the importance that sex has on your overall life". The responses are  
38 scored in a Likert-type scale where responses for items 1, 2, and 3 vary between "completely  
39 unsatisfied", "moderately dissatisfied", "neither dissatisfied, nor satisfied", "moderately  
40 satisfied", and "extremely satisfied". The possible responses for item 4 are "not important at  
41 all", "not very important", "somewhat important", "very important", and "extremely important."  
42 The original alpha was 0.80, consistent with the value obtained in the present study (also 0.80),  
43 representing a very good level of internal consistency (Maroco & Garcia-Marques, 2006).  
44  
45  
46  
47  
48

#### 49 Procedures

50  
51 Participants were recruited online and were invited to fill out the survey, which was conducted  
52 between October 2014 and February 2015. A specific link for the purposes of this investigation  
53 was put together, and was disseminated through mailing lists, contacts with organizations, and  
54 social networks.  
55

56  
57 The online page presented the goals of the study and included all of the principles of traditional  
58 psychological research ethics, namely the perseveration of confidentiality and anonymity, as  
59 well as informed consent, which were met.  
60  
61  
62  
63  
64  
65

1 Recruitment focused on obtaining a normative sample of the Portuguese population. Direct  
2 requests for voluntary participation were sent out, explaining the study's objectives, along with  
3 instructions and the contact information of the research team.

4 The Scientific Committee of the Department of Psychology and Education at the University of  
5 Beira Interior approved this study. The study also complies with all ethical principles set by the  
6 Portuguese Board of Psychologists for research development as well as the guidelines of the  
7 American Psychological Association regarding conducting studies involving human beings.  
8  
9

## 10 11 12 13 Results

14 Regarding mindfulness levels, the predicted median was 34 points, and the observed mean was  
15 40.39, with a standard deviation of 6.95. Thus, we can infer that participants have moderately  
16 high indicators of mindfulness levels.  
17  
18

19 When assessing the levels of sexual functioning among our sample, it is found that the  
20 participants have moderately high indicators in the various areas studied. When considering the  
21 "pleasure" scale, the expected median was 3.4 and the observed mean was 3.45 (SD = 1.13). In  
22 regards to the "desire and sexual frequency" dimension, the expected median was 6 and the  
23 observed mean was 6.69 (SD = 1.69). For the "desire and interest" scale, the expected median  
24 was 9 and the observed mean was 9.32 (sd = 2.63). The "Arousal" scale had an expected  
25 median of 9 and an observed mean of 2.11 (SD = 2.46). The "Orgasm" scale showed an  
26 expected median of 9 and an observed mean of 11.77 (sd = 2.62). Finally, in regards to overall  
27 sexual functioning, the expected average was 42.00 and the observed mean was 45.63 (sd =  
28 8.19).  
29  
30  
31  
32

33 When analyzing subjective sexual well-being, we found that the subjects had moderately high  
34 indicators for the various domains. For the level of satisfaction with physical pleasure, the  
35 expected median was 3 and the observed mean was 4.04 (sd = 1.9). Regarding the level of  
36 emotional pleasure, the expected median was 2.5 and the observed mean was 3.41 (sd = 1.78).  
37 Concerning how participants would they feel if they had to spend the rest of their life with their  
38 current sex life, the expected median was 2.5 and the observed mean was 3.17 (sd = 1.81).  
39 Finally, regarding the importance that sex has on participants' overall life, the expected median  
40 was 2.5, with an observed mean of 3.09 (sd = 1.57) for this parameter.  
41  
42  
43  
44

45 In order to compare the differences in the levels of mindfulness, sexual functioning, and  
46 subjective sexual well-being between genders and among different age groups, we conducted  
47 Student's t-tests on the independent samples, in addition to one-way ANOVAs.  
48

49 Concerning the comparison between males and females, we found the following statistically  
50 significant differences. With respect to mindfulness, men score higher than women. When it  
51 comes to sexual functioning, male participants indicate higher values in all parameters, which  
52 signifies that men report higher levels of pleasure, desire, frequency of desire and interest,  
53 arousal, and orgasm. Regarding overall sexual functioning, men also have higher values when  
54 compared with women. Finally, with respect to variables related to subjective sexual well-being,  
55 men also possess higher values in most variables. Men had greater satisfaction with emotional  
56 pleasure, concerning the idea of having to spend the rest of their lives with their current sex life,  
57 and in regards to the importance they attach to sex in their overall life. In turn, women had  
58  
59  
60  
61  
62  
63  
64  
65

higher levels of satisfaction in regards to physical pleasure. All of these results are shown in Table 2.

Table 2

Results of gender differences in sexual functioning, subjective sexual well-being, and mindfulness

	Gender	Mean	Standard Deviation (SD)	t(df)	<i>p</i> - value
Pleasure	Male	3.62	0.98	t(1401)=5.09	0.000**
	Female	3.31	1.21		
Desire and frequency	Male	7.45	1.41	t(1395)=15.63	0.013*
	Female	6.13	1.67		
Desire and interest	Male	10.65	2.27	t(1380)=18.09	0.272
	Female	8.33	2.43		
Arousal	Male	12.21	2.03	t(1248)=14.31	0.000**
	Female	10.31	2.42		
Orgasm	Male	13.04	1.89	t(1252)=14.49	0.000**
	Female	10.99	2.69		
Overall sexual functioning	Male	50.08	6.49	t(1173)=16.17	0.000**
	Female	42.89	7.92		
Satisfaction with physical pleasure	Male	4.03	1.08	t(1189)= -0.43	0.452
	Female	4.05	1.08		
Satisfaction with emotional pleasure	Male	3.64	1.59	t(1410)=4.26	0.000**
	Female	3.24	1.89		
Spending the rest of their life with their current sex life	Male	3.38	1.68	t(1410)=3.77	0.000**
	Female	3.01	1.89		
Importance of sex in the overall life	Male	3.48	1.45	t(1410)=8.06	0.000**
	Female	2.81	1.59		
Overall mindfulness	Male	41.06	6.84	t(1335)=3.07	0.262
	Female	39.89	6.99		

\*<0.05 \*\*<0.001

In order to compare differences in the levels of mindfulness, changes in sexual functioning, and subjective sexual well-being among age levels, we divided the sample into three different age groups (14-29, 30-49, and over 50). This division was made in order to accommodate and respect developmental criteria (Papalia, Olds & Feldman, 2008). As can be seen in Table 3, statistically significant differences were found for all sexual dimensions studied, except for “satisfaction with physical pleasure”. This indicates that the group of participants between ages 30 and 49 present higher scores than in the other age groups. Regarding “mindfulness”, the group of participants older than 50 years old presented higher scores (see Table 3).

Table 3  
Results of different age groups in mindfulness, sexual functioning, and subjective sexual well-being

	Age groups	Mean	Standard Deviation	Z(df)	<i>p</i> - value
Pleasure	14-29	3.48	1.19		
	30-49	3.48	1.07	z(2; 1370)=3.13	0.044*
	>50	3.30	1.13		
14-29	6.60	1.68			
Desire and frequency	30-49	6.93	1.64	z(2; 1365)=12.96	0.000**
	>50	6.36	1.77		
	14-29	9.26	2.51		
Desire and interest	30-49	9.66	2.65	z(2; 1350)=27.38	0.000**
	>50	8.79	2.60		
	14-29	10.98	2.38		
Arousal	30-49	11.49	2.25	z(2; 1222)=27.38	0.000**
	>50	10.19	2.71		
	14-29	11.37	2.77		
Orgasm	30-49	12.10	2.37	z(2; 1225)=9.19	0.000**
	>50	11.69	2.79		
	14-29	45.42	8.11		
Overall sexual functioning	30-49	46.82	7.78	z(2; 1148)=13.74	0.000**
	>50	43.57	8.76		
	14-29	4.12	1.04		
Satisfaction with physical pleasure	30-49	4.12	1.07	z(2; 1161)=1.99	0.136
	>50	3.94	1.18		
	14-29	3.26	1.92		
Satisfaction with emotional pleasure	30-49	3.53	1.64	z(2; 1379)=3.03	0.048*
	>50	3.37	1.83		
	14-29	2.96	1.89		
Spending the rest of their life with their current sex life	30-49	3.30	1.70	z(2; 1379)=4.54	0.011*
	>50	3.12	1.87		
	14-29	2.82	1.66		
Importance of sex in the overall life	30-49	3.28	1.44	z(2; 1379)=11.14	0.000**
	>50	3.12	1.62		
	14-29	39.16	6.95		
Overall mindfulness	30-49	40.19	7.22	z(2; 1304)=18.25	0.000**
	>50	42.23	6.13		

\*<0.05 \*\*<0.001

In order to compare differences in sexual functioning and subjective sexual well-being between groups with higher and lower levels of mindfulness, with the goal of inferring the influence of

mindfulness on sexual variables, we utilize the observed median as the cut-off point. The first group refers to lower levels of mindfulness (<41) and the second group refers to higher levels of mindfulness (> 41). All variables in this study were analyzed independently using this criterion. The results show a statistically significant difference between high and low levels of mindfulness in regards to pleasure and orgasm. For all other variables of sexual functioning and subjective sexual well-being there were no statistically significant differences, as can be seen in Table 4.

Table 4

Results of the differences between levels of mindfulness and sexual functioning and subjective sexual well-being

	Mindfulness levels	Mean	Standard Deviation	t(df)	P
Pleasure	Lower levels	3.23	1.14	t(1330)= -8.02	0.009*
	Higher levels	3.71	1.06		
Desire and frequency	Lower levels	6.40	1.65	t(1324)= -6.94	0.808
	Higher levels	7.04	1.67		
Desire and interest	Lower levels	9.05	2.61	t(1309)= -4.54	0.585
	Higher levels	9.71	2.58		
Arousal	Lower levels	10.71	2.46	t(1184)= -5.21	0.606
	Higher levels	11.45	2.39		
Orgasm	Lower levels	11.45	2.63	t(1188)= -4.85	0.013*
	Higher levels	12.18	2.47		
Overall sexual functioning	Lower levels	44.44	8.08	t(1113)= -5.725	0.642
	Higher levels	47.23	8.08		
Satisfaction with physical pleasure	Lower levels	3.93	1.08	t(1129)= -3.88	0.434
	Higher levels	4.18	1.07		
Satisfaction with emotional pleasure	Lower levels	3.29	1.77	t(1338)= -2.70	0.436
	Higher levels	3.56	1.78		
Spending the rest of their life with their current sex life	Lower levels	3.01	1.76	t(1338)= -3.25	0.071
	Higher levels	3.34	1.85		
Importance of sex in the overall life	Lower levels	2.99	1.54	t(1338)= -2.86	0.144
	Higher levels	3.23	1.60		

In order to determine a predictive relationship between mindfulness and sexual functioning and subjective sexual well-being, we created a linear regression to show that higher scores for sexual functioning (pleasure, desire and frequency, desire and interest, arousal, and orgasm) are predictors of higher levels of mindfulness (R square = 0.610; p <0.001). This was also the case for subjective sexual well-being (satisfaction with physical pleasure, satisfaction with emotional pleasure, spending the rest of their life with their current sex life, and the importance of sex in overall life), which reports results that are predictors of higher levels of mindfulness (R square = 0.610; p <0.001).

## Discussion

This study aimed to evaluate levels of mindfulness, sexual performance, and subjective sexual well-being, through the use of reliable instruments in order to improve the availability of information concerning the study of the links between mindfulness and areas of sexuality.

In this sample we found that the results for global mindfulness levels were moderately high, as expected, since the sample is normative and possesses no likelihood of presenting psychopathological symptomatology (Walach, Buchheld, Butenmuller, Kleinknecht and Schmidt, 2006) that would affect mindfulness. The sample is also differentiated, consisting of highly educated and professional participants, as most participants have a university education and are employed. This is congruent with the fact that mindfulness is a multifaceted, heterogeneous, and comprehensive construct (Sternberg, 2000).

Despite the fact that the practice of meditation was not controlled, as Neves (2011) and Fernandes (2010) state, participants in this sample appear to have high levels of attention and acceptance that may facilitate more adaptive responses to performance situations and reduce emotional stress. This, in turn, leads to more positive states of mind and a better quality of life (Greeson, 2009; Greeson & Brantley, 2009).

The fact that we found that men have higher levels of full attention than women might suggest that women are more vulnerable to psychological distress, which, according to Walach, Buchheld, Butenmuller, Kleinknecht and Schmidt (2006), is a predictor of lower levels of mindfulness. At the same time, it appears that women are more likely to be socialized to internalize and express mental distress, seek support, and to use more dependent coping strategies of formal support and catharsis (Rabasquinho & Pereira, 2007). Simultaneously, women benefit more from mindfulness-based interventions (Katz & Toner, 2013). In contrast, men are more likely to be subjected to stereotyped gender roles that do not directly affect their ability to be alert and sensitive to different contexts (Rabasquinho & Pereira, 2007). These results confirm the data obtained by Mezo and Baker (2012), who also found that men had higher levels of mindfulness due to the possible association between lower levels of mindfulness with depression and anxiety, which women are more likely to experience (Mezo & Baker, 2012).

Having higher levels of mindfulness between the ages of 30 and 49 can be explained by the fact that participants in this age group are still protected from the susceptibility to cognitive decline associated with aging; yet, they are also more cognitively and emotionally mature than younger participants. As Bednar (2013) states, variables such as control beliefs associated with aging appear to be positively associated with higher levels of mindfulness, which requires us to accept that age can be a factor of interference on mindfulness. In fact, the results obtained in this study are similar to those obtained by Letho, Uusitalo-Malmivaara, and Repo (2015), which indicate that people between 38 and 68 years of age possess higher levels of mindfulness.

Regarding sexual function and subjective sexual well-being, the sample showed normative scores, which is consistent with other population-based studies (Laumann et al., 2006). Nevertheless, when comparing men and women, there were statistically significant differences in all dimensions except for “desire and interest” and “satisfaction with physical pleasure”. These differences indicate that men score higher in all areas of sexual function. These

1 differences can possibly be explained by biological, psychological, and social reasons that invite  
2 us to reflect on gender differences in specific social contexts. Portuguese society can be  
3 considered religious and conservative and tends to generate different social norms by gender.  
4 These norms are usually more permissive for men (Costa, Oliveira, Pereira & Leal, 2015),  
5 which end up conditioning sexual functionality.  
6

7 An increasing amount of research emphasizes the basic similarities in the sexual responses in  
8 men and women and the vast majority concludes that significant differences exist at every stage  
9 when comparing men with women. For example, some studies have shown that men have  
10 higher levels of sexual satisfaction than women, regardless of the socio-cultural context  
11 (Edward, Bryning & Crane, 2014; Kabat-Zinn, 2003; Kabat-Zinn, 1990; Kabat-Zinn, Lipworth  
12 & Burney, 1985). Thus, as in the present study, the average levels of satisfaction were generally  
13 lower in women than in men in all groups and in all aspects of subjective sexual well-being  
14 (Edward, Bryning & Crane, 2014). These differences can be attributed to stereotypical socially  
15 constructed beliefs that regulate behavior and sexual attitudes by gender according to cultural  
16 norms (Mendonça, Silva, Arrudai, Garcia-Zapata & Amaral, 2012; Dennerstein, Dudley &  
17 Burger, 2001). These differences can also be ascribed to the anatomical structural and  
18 neuroanatomical differences between men and women that are still largely unexplored. As  
19 Basson (2000) and Carpenter, Nathanson, and Kim (2009) tell us, women seem to be more  
20 affected by emotional variables such as security or emotional closeness, and this may interfere  
21 with their thoughts, fantasies, or sexual behaviors.  
22

23 Regarding the differences in sexual expression between age groups, we found that adult  
24 participants (30-49 years of age) have higher rates of sexual function and subjective sexual well-  
25 being. We expected these results, since it is accepted that there is a gradual decline in sexual  
26 responsiveness throughout the life cycle associated with changes in bodily function, hormonal  
27 changes, and frequency of sexual activity, even if these factors do not completely disappear with  
28 advancing age (Schick, 2010). On the other hand, although sexual activity is high among youth,  
29 it may not be accompanied by emotional stability and safety, thus affecting the subjective  
30 experience of sexual well-being.  
31

32 With regard to associations between mindfulness, sexual functioning, and subjective sexual  
33 well-being, it was found that the only dimension where there were differences in comparing  
34 groups with higher and lower levels of mindfulness were the variables “pleasure” and “orgasm”.  
35 These results may indicate how mindfulness seems to condition the sexual experience, working  
36 as a minimizer of anxiety that can specifically facilitate the experience of pleasure and orgasm  
37 (Garland, 20007, Coffey & Hartman, 2008; Lucena & Abdo, 2013). In the field of sexuality, the  
38 essence of mindfulness is reflected in cognitive, behavioral, and emotional awareness, a posture  
39 of acceptance, and a focus on the here and now of sexual sensations (McCarthy & Wald, 2013).  
40 This is demonstrated by the effectiveness of mindfulness for the treatment of sexual dysfunction  
41 (Brotto & Heiman, 2007). Hence, being sexually self-conscious has positive effects on sexual  
42 performance, as the self interferes positively in the arousal and pleasure process. This in turn,  
43 makes people more sensitive and aware and leads them to adopt a posture of openness and  
44 acceptance, in addition to promoting a more pleasurable sexuality (McCarthy & Wald, 2013).  
45

46 The linear regression model predicts a positive association between mindfulness, sexual  
47 function, and subjective sexual well-being. In fact, as Masters and Johnson (1966) state,  
48 attentional focus and minimal anxiety are fundamental for optimal sexual expression, and these  
49 ideas are congruent with mindfulness, which allows for the concentration on bodily sensations  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65

1 and the removal of disturbing thoughts (Goldmeier, 2013). Thus, we can anticipate that the  
2 benefits that mindfulness brings will be closely linked to the sexual dimensions of humans.  
3 Thus, the contribution of this research is to deepen the study of this field. As Nobre (2009;  
4 2010) states, there is a close impact between cognitive-emotional functioning, performance, and  
5 sexual functioning both in men and in women, thus suggesting an inherent predisposition to  
6 healthy sexuality based on the therapeutic prescriptions of mindfulness.  
7

8 Mindfulness related to sexuality should be seen a personal responsibility, encompassing desire,  
9 pleasure, and sexual function. However, each person plays a crucial role in the mindfulness  
10 process. Therefore, in the realm of interpersonal relationships, its practice should be intended to  
11 promote significant improvements in the sexual experience, as reinforced by the results of this  
12 research. In this sense, mindfulness increases the levels of openness to the other, the clarity of  
13 perception of the relationship, and the degree of emotional closeness (Brown & Ryan, 2003).  
14

15 This study has some limitations, including the fact that the sample is highly differentiated and  
16 was collected by convenience over the Internet. Therefore, the results are not generalizable. In  
17 order to rectify these deficiencies, it would be appropriate to develop future studies with  
18 probability samples and also control groups, in order to manipulate the mindfulness experience  
19 as an experimental variable. It should be noted that the responses to questionnaires about  
20 intimate subjects, such as sexuality, may be influenced by factors such as inhibition, shame, or  
21 social desirability, which, not being controlled, may skew the results, although all the measures  
22 present good levels of internal consistency.  
23

24 Regardless, these results allow us to better inform technicians who work either in the area of  
25 mindfulness, or in the field of sexuality, about the importance of these two variables in  
26 promoting health, well-being, and quality of life in general.  
27

#### 28 Compliance with Ethical Standards

29 Funding: This study was not funded by any organization or grant thus careful consideration was  
30 given to all aspects of ethical nature.  
31

32 Conflict of Interest: The authors declare that they have no conflict of interest.  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65

## References

- Anderson, N. D., Lau, M.A., Segal, Z.V. & Bishop, S.R. (2007). Mindfulness-based stress reduction and attentional control. *Clinical Psychology and Psychotherapy*, 14, 449-463;
- Basson, R. (2000). The female sexual reponse: A diferente model. *Journal of Sex & Marital Therapy*, 40, 51-65;
- Bednar, J. L. (2013). Memory and aging: the role of mindfulness and control beliefs. Tese de Doutoramento da Universidade de artes e ciências: Brandeis;
- Bishop, S.R., Lau, M., Shapiro, S., Carlson, L., Anderson, N.D., Carmody, J., Segal, Z.V., Abbey, S., Speca, M., Velting, D., & Devins, G. (2004). Mindfulness: A Proposed Operational Definition. *Clinical Psychology: Science and Practice*, 11 (3), 230-241;
- Brefczynski-Lewis, J. A., Lutz, A., Schaefer, H. S., Levinson, D. B., Davidson, R. J. (2007). Neural correlates of attentional expertise in long-term meditation practitioners. *Proceedings of the National Academy of Sciences*, 104 (7) 11483-11488;
- Brotto, L. (2013). Mindful sex. *Canadian Journal of Human Sexuality*, 22(2), 63–68;
- Brotto, L. Krychman, M. & Jacobson, P. (2008) Eastern approaches for enhancing women’s sexuality: mindfulness, acupuncture, and yoga. *Journal of Sexual Medicine*, 5, 2741–2748;
- Brotto, L. A., & Heiman, J.R. (2007). Mindfulness in sex therapy: applications for women with sexual difficulties following gynaecologic cancer. *Sexual and Relationship Therapy*, 22(1), 3–11;
- Brown, K., & Ryan, R. (2003). The benefits of being present: mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology*, 84(4), 822-848;
- Brown, K. W. & Kasser, T. (2005). Are psychological and ecological well-being compatible? The role of values, mindfulness, and lifestyle. *Social Indicators Research*, 74, 349-368;
- Buckstegge, K., Gouveia, M., Mafra, M. & Bobato, S. (2009). Disfunções sexuais femininas: um estudo exploratório com um psicólogo que atua em âmbito clínico. *Centro Científico Conhecer*, 5(8);
- Burpee, L. C. & Langer, E. J. (2005). Mindfulness and marital satisfaction. *Journal of Adult Development*, 12, 43-51;

- 1 Carmody, J. (2009). Evolving conceptions of mindfulness in clinical settings. *Cognitive Psychotherapy:*  
2 *An International Quarterly*, 23(3), 270-280;  
3
- 4 Carpenter, L.m Nathanson, C. & Kim, Y, (2009) Physical women, emotional men: gender and sexual  
5 satisfaction in midlife. *Archives of Sexual Behavior*, 38, 87-107;  
6  
7
- 8 Carson, J. W., Carson, K. M., Gil, K. M., & Baucom, D. H. (2004). Mindfulness-based relationship  
9 enhancement (MBRE) in couples. *Behavior Therapy*, 35, 471-494;  
10  
11
- 12 Chambers, R., Yee-Lo, B. C., & Allen, N. B. (2008). The impact of intensive mindfulness training on  
13 attentional control, cognitive style, and affect. *Cognitive Therapy and Research*, 32, 303-322.  
14  
15
- 16 Christopher, M. S., Charoensuk, S., Gilbert, B. D., Neary, T. J. & Pearce, K. L. (2009). Mindfulness in  
17 thailand and the United States: a case of apples versus oranges?. *Journal of Clinical*  
18 *Psychology*, 65(6), 590-612;  
19  
20  
21  
22  
23
- 24 Coffey, K. A. & Hartman, M. (2008). Mechanisms of Action in the Inverse Relationship Between  
25 Mindfulness and Psychological Distress. *Complementary Health Practice Review*, 13 (2), 79-  
26 91;  
27  
28  
29
- 30 Coffey, K. A. & Hartman, M. (2008). Mechanisms of action in the inverse relationship between  
31 mindfulness and psychological distress. *Complementary Health Practice Review*, 13 (2), 79-91;  
32  
33  
34
- 35 Costa, P. A., Oliveira, R., Pereira, H. & Leal, I. (2015) Adaptação dos inventários de sexismo moderno  
36 para Portugal: o inventário de sexismo ambivalente e o inventário de ambivalência em relação  
37 aos homens. *Psicologia: Reflexão e crítica* 28(1), 126-135;  
38  
39  
40
- 41 Dennerstein, L., Dudley, E. & Burger, H. (2001). Are changes in sexual functioning during midlife due  
42 to aging or menopause. *Fertility and sterility*, 76(3);  
43  
44  
45
- 46 Diamond, L. & Huebner, D. (2012) Is good sex good for you? Rethinking sexuality and health. *Social*  
47 *and Personality Psychology Compass*, 6, 54–69;  
48  
49
- 50 Edwards, R. T., & Bryning, L. (2013). Measuring the cost effectiveness of mindfulness - challenges and  
51 opportunities. Paper presented at the International Scientific Conference 2013, Mindfulness in  
52 Society Conference, Chester, UK. Retrieved from  
53 <http://www.cmrpconference.com/index.php/past-conferences;>  
54  
55  
56  
57
- 58 Edwards, R., Bryning, L. & Crane, R. (2014) Design of Economic Evaluations of Mindfulness-Based  
59 Interventions: Ten Methodological Questions of which to be Mindful. *Mindfulness*;  
60  
61  
62  
63  
64  
65

- 1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65
- Fernandes, M. (2010). Atençaõ plena e ansiedade do desempenho em músicos. Tese para obtençaõ do grau Mestre em Psicologia Clínica e da Saúde: Universidade do Algarve;
- Franco, C., Mañas, I. & Justo, I., (2009). Reducción de los niveles de estrés, ansiedad y depresión en docentes de educacón especial através de un programa de mindfulness. *Revista Educacón Inclusiva*, 2( 3), 11-22;
- Frohlich, P., & Meston, C. (2002). Sexual functioning and selfreported depressive symptoms among college women. *Journal of Sex Research*, 39, 321–325;
- Garland, E. L. (2007). The Meaning of Mindfulness: A Second-Order Cybernetics of Stress, Metacognition, and Coping. *Complementary Health Practice Review*, 12 (1), 15-30;
- Goldmeier, D. (2013). Mindfulness: A sexual medicine physician’s personal and professional journey. *Sexual and Relationship Therapy*, 28(1-2), 77-83;
- Greeson, J., & Brantley, J. (2009). Mindfulness and anxiety disorders: developing a wise relationship with the inner experience of fear. *Clinical handbook of Mindfulness*, 171-188;
- Greeson, J. M. (2009). Mindfulness research. *Complementary Health Practice*, 14(1), 10–18;
- Grossman, P. (2010). Mindfulness for psychologists: Paying kind attention to the perceptible. *Mindfulness*, 1, pp. 87-97;
- Gunarantana, H. (1992). *Mindfulness in plain english*. Wisdom Publications: Boston;
- Hanh, N. T. (1976). *The miracle of mindfulness: a manual for meditation*. Beacon: Boston;
- Hanh, T. N. (1999). *The heart of the buddha’s teaching*. New York: Broadway;
- Hayes, S. C. & Gregg, J. (2002). Functional contextualism and the self. *Self-relations in the psychotherapy process*. Washington, American Psychological Association, 391-307;
- Hayes, S. C., & Wilson, K. (2003). Mindfulness: Method and process. *Clinical Psychology: Science and Practice*, vol. 10, pp. 161-165;
- Holas, P. & Jankowski, T. (2013). A cognitive perspective on mindfulness. *International Journal of Psychology*, 48(3), 232-243;

- 1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65
- Jha, A. P., Krompinger, J. & Baime, M. (2007). Mindfulness training modifies subsystems of attention. *Cognitive, Affective & Behavioral Neuroscience*, 7(2),109-119;
- Justo, C., Manãs, I. & Martínez, E. (2010). Mejora en algunas dimensiones de salud percibida en pacientes com fibromialgia mediante la aplicación de un -programa de meditación mindfulness. *Psychology, Society, & Education*, 2(2), 117-130;
- Kabat-Zinn, J. (1990). Full catastrophe living - using the wisdom of your body and mind to face stress, pain and illness. *The Practice of Mindfulness*, 4, 59-72;
- Kabat-Zinn, J. (2003). Mindfulness-based intervention in context: past, present, and future. *Clinical Psychology, Science and Practice*, 10 (2), 144-156;
- Kabat-Zinn, J. (2013). Keynote with Jon Kabat-Zinn - Mindfulnessbased interventions in medicine, psychology and beyond: transformation and healing at the confluence of science and dharma. Proceedings of the International Scientific Conference 2013, Mindfulness in Society Conference, Chester, UK. Retrieved September 19 2013, from <http://www.cmrpconference.com/index.php/past-conferences;>
- Kabat-Zinn, J., Lipworth, L. & Burney, R. (1985). The clinical use of mindfulness meditation for the self-regulation of chronic pain. *Journal of Behavioral Medicine*, 8 (2), 163-190;
- Katz, D. & Toner, B. (2013). A systematic of gender differences in the effectiveness if mindfulness-based treatments for substance use disorders. *Mindfulness*, 4, 318-331;
- Laumann, E. O., Paik A., Glasser D. B., Kang J., Wang, T., Levinson, B., Moreira, E., Nicolosi, A. & Gingell, C. (2006) A cross-national study of subjective sexual well-being among older women and men – findings from the global study of sexual attitudes and Behaviors. *Sexual Behavior*, 35(2), 145–16;
- Laumann, E., Paik, A., & Rosen, R. (1999). Sexual dysfunction in the United Sates: prevalence and predictors. *American Medical Association*, 281, 537-544;
- Lazaridou, A. & Kalogianni, C. (2013). Mindfulness and sexuality. *Sexual and Relationship Therapy*, 28(1–2), 29-38;
- Lehto, J., Uusitalo-Marmivaara, L. & Repo, S. (2015). Measuring mindfulness and well-being in adults: the role of age and meditation experience. *Happiness & Well-Being*, 3(1), 30-40;

- 1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65
- Lucena, B. & Abdo, C. (2013) O papel da ansiedade na (dis)função sexual programa de estudos em sexualidade (ProSex). *Diagn Tratamento*, 18(2), 94-8;
- Lucena, B. & Abdo, C. (2013) O papel da ansiedade na (dis)função sexual. *Diagn Tratamento* 18(2), PP. 94-108;
- Maroco, J. & Garcia-Marques, T. (2006). Qual a fiabilidade do alfa de Cronbach? Questões antigas e soluções modernas?. *Laboratório de Psicologia*, 4(1), 65-90;
- Masters, W. H. & Johnson, V. E. (1966) *Human sexual response*. New York: Bantam Books
- McCarthy, B. & Wald, L. (2013). Mindfulness and good enough Sex. *Sexual and Relationship Therapy*, 28(1-2), 39-47;
- McCreary, S. & Alderson, K. (2013). The Perceived effects of practising meditation on women's sexual and relational lives. *Sexual and Relationship Therapy*, 28(1-2), 105-119;
- Mendonça, C., Silva, T., Arrudai, J., García-Zapata, M. & Amaral, W. (2012). Função Sexual Feminina – Aspectos normais e patológicos, prevalência no Brasil, diagnóstico e tratamento. *Feminina*, 4(4);
- Mezo, P. & Baker, R. (2012). The moderating effects of stress and rumination on depressive in women and men. *Stress Health*, 4, 333-339;
- Nanamoli, B., & Bodhi, B. (1995). *The middle length discourses of the Buddha: The majjhima nikaya*. Boston: Wisdom Publications;
- Neves, C. (2011). A relação entre mindfulness, auto-compaixão, vergonha e psicopatologia em praticantes e não praticantes de meditação/yoga. Dissertação Apresentada ao ISMT para obtenção do Grau de Mestre em Psicologia Clínica. Coimbra: Instituto Superior Miguel Torga
- Nobre, P. J. (2009). Determinants of sexual desire problems in women: testing cognitive-emotion model. *Journal of sex and marital therapy* 35(5), 360-377;
- Nobre, P. J. (2010). Psychological determinantes of erectile dysfunction: testing a cognitive-emotional model. *Journal of sexual medicine* 7(4) 1429-1437;
- Oberg, K., Fugl-Meyer, K., & Fugl-Meyer, A. (2002). On sexual well-being in sexually abused swedish women: epidemiological aspects. *Sexual and Relationship Therapy*, 17, 329-341;

- 1  
2  
3 Papali, D., Olds, S. & Feldman, R. (2008). *Human Development*. New York;
- 4  
5 Rabasquinho, C. & Pereira, H. (2007). Género e saúde mental: uma abordagem epidemiológica. *Análise*  
6  
7 *Psicológica*, 3, 439-454;
- 8  
9 Schick, V., Herbenick, D., Reece, M., Sanders, S. A., Dodge, B., Middlestadt, S. & Fortenberry, J. D.  
10  
11 (2010). Sexual behaviors, condom use, and sexual health of americans over 50: implications of  
12  
13 sexual health promotion for aging adults. *The Journal of Sexual Medicine*, 7(5), 315-329;
- 14  
15 Shapiro, S., & Schwartz, G. E. (2005). The role of intention in self-regulation: toward intentional  
16  
17 systemic mindfulness. *Handbook of self-regulation*, 253-273;
- 18  
19 Siegel, R. D., Germer, C. K. & Olendzki, A. (2009). Mindfulness: What is it? Where did it come from?.  
20  
21 *Clinical Handbook of Mindfulness*, 17-35;
- 22  
23 Sillifant, B. (2007). *A conceptual basis for the refinement of an operational definition of mindfulness*.  
24  
25 Tese de obtenção de grau de aconselhamento, Universidade de Massey, Nova Zelândia;
- 26  
27 Simón, V. (2011) *Aprender a praticar mindfulness y abrir el corazón a la sabiduría y la compasión*.  
28  
29 Espanha:Barcelona;
- 30  
31 Sternberg, R. J. (2000). Images of mindfulness. *Journal of Social Science Issues*, 56(1), 11-26;
- 32  
33  
34  
35 Tang, Y., Ma, Y., Wang, J., Fan, Y., Feng, S., Lu, Q., Yu, Q., Sui, D., Rothbart, M. K., Fan, M. &  
36  
37 Posner, M. I. (2007). Short-term meditation training improves attention and self-regulation.  
38  
39 *Proceedings of the National Academy of Sciences*, 104(43), 17152-17156;
- 40  
41 Traeen, B. & Schaller, S. (2010). Subjective sexual well-being in a web sample of heterosexual  
42  
43 norwegians *International Journal of Sexual Health*, 22, 180-194;
- 44  
45  
46 Walach, H., Buchheld, N., Buttenmuller, V., Kleinknecht, N. & Schmidt, S. (2006). Measuring  
47  
48 mindfulness - the freiburg mindfulness inventory (FMI). *Personality and Individual*  
49  
50 *Differences*, 40, 1543-1555;
- 51  
52 Weinstein, N., Brown, K.W. & Ryan, R.M. (2009). A multi-method examination of the effects of  
53  
54 mindfulness on stress attribution, coping, and emotional well-being. *Journal of Research in*  
55  
56 *Personality*, 43, 374-385.
- 57  
58  
59  
60  
61  
62  
63  
64  
65