

A Systematic Review of Beliefs and Attitudes Towards Sexual Behavior: Disambiguation and Classification of Self-oriented Cognitive Schemata of Sexual Behavior

Revisión sistemática sobre creencias y actitudes hacia la conducta sexual: Desambiguación y clasificación de los esquemas cognitivos autorreferentes en conducta sexual

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Abstract

Introduction. Sexual behavior attitudes is a mix of constructs still addressed with inconsistent classifications by actual research, showing diverse theoretical structures. For that reason, we aimed to review the literature in the search for common patterns to bring in an exhaustive disambiguated proposal. **Methods.** We carried out a systematic review of sexual attitudes questionnaires and reviews. After that, following thematic analysis principles, we reviewed and categorized codes. **Results.** Of the 1126 screened publications, 89 scales and 62 reviews were assessed for eligibility. Of these, 28 were eventually included (15 questionnaires and 13 reviews). We classified 144 pieces of valid information into 17 groups based on content. **Discussion.** We conclude our work as a classification of broadly referenced self-oriented cognitive schemata of sexual behavior (SO-CSSB) as a first stage in the process of developing common classifications to overcome the inconsistency in the evaluation of sexual attitudes.

Keywords: sexual behavior, sexual beliefs, sexual attitudes, systematic review, cognitive schemata, attitudes towards sexual behavior

Resumen

Introducción. Las actitudes y creencias en conducta sexual son constructos todavía abordados con clasificaciones no unificadas, encontrando propuestas teóricas muy diversas. Por ello, el objetivo de este estudio es revisar la literatura en la búsqueda de patrones comunes para generar una clasificación desambiguada. **Métodos.** Se llevó a cabo una revisión sistemática de cuestionarios y revisiones. Tras ello, siguiendo los principios del análisis temático, los códigos encontrados fueron revisados y categorizados. **Resultados.** De los 1126 artículos revisados, se evaluaron en profundidad 89 escalas y 62 revisiones. De ellos, se incluyeron 28 (15 cuestionarios y 13 revisiones). Se obtuvieron 144 elementos de información válida según criterios, que se clasificaron en 17 grupos según su contenido. **Discusión.** Este trabajo resultó en la clasificación referenciada de los esquemas cognitivos autorreferentes sobre conducta sexual (ECA-CS). Se trata de un primer paso en el desarrollo de clasificaciones unificadas para la evaluación de actitudes sexuales.

Palabras clave: conducta sexual, actitudes sexuales, creencias sexuales, revisión sistemática, esquema cognitivo, actitudes hacia la conducta sexual

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Introduction

Until the early 2000s, sexual behavior was still an underdeveloped field of research. Illustrating this statement, for instance, O'Donohue & Geer (1993) referred the scarce number of psychometrically-validated assessment tools. Labrador & Crespo (2001) pointed out that one of the more problematic issues in sexual behavior assessment was the lack of explanatory models and the high variability of criteria depending on each professional's appraisal, and Heiman (2002) upheld that the scientific perspective did not understand the development of sexual disorders, the impact of treatments and the ordinary sexual functioning in partners and individuals.

Despite this, research on attitudes towards sexual behavior as a key factor for development and guiding actions (Sheeran et al., 2016) has been a prolific field of study over the last two decades. Just by conducting a preliminary search in PsychInfo database, including only peer-reviewed articles, in both English and Spanish and only about human subjects from year 2000 to year 2021, and combining in both abstracts and texts the terms "sexual behavior" plus "attitude" shows 15213 results, and "sexual behavior" plus "belief" generates 3484.

Then, the question could be: Has it gone better for sexual beliefs after this large number of studies? The answer may not be very positive. Over the late years of this period, we have found some relevant and more recent examples mentioning the lack of an exhaustive approach on sexual behavior attitudes.

In 2014, the systematic review about satisfaction (Sánchez-Fuentes et al., 2014), where the authors analyse more than 40 scales, did not mention that any were based on a comprehensive model or even any kind of validated and unified rationale. Likewise, Sánchez-Fuentes & Santos-Iglesias (2016) concluded that, until that date, sexual satisfaction research is "scarce and has proceeded atheoretically" (p.1), although in their review, both papers show the relevance of cognition and individual's appraisal defined as a main component of sexual satisfaction, widely acknowledged by previous cited research.

Shaw & Rogge (2016), on the same line, studied the construct "sex quality" and remark the high variability of factors and the inconsistency in their naming. Among all the reports included, the authors were not able to mention any comprehensive or disambiguated framework, despite that all of them mentioned some form of thought, attitude, or individual appraisal towards the experience of sex.

Not ending there, over recent years, even more conclusions of this lack of commonly shared rationale on sexual attitudes have been published. For example, Blanc and Rojas (2017), in their review of assessment questionnaires of sexual attitudes, asserted that "the production is diverse and dispersed" (p.18), either at a conceptual level or in the means of measurement, and conclude the need for a "precise definition acknowledged by specialists" (p.23).

Even more recently, Kane et al. (2019) found sexual attitudes relevant in terms of understanding sexual arousal and anxiety but pointed the still need of a structured framework. King et al. (2019) and Weinberger et al. (2019), who respectively reviewed sexual risk and female disfunction, consider and remark on the importance of sexual beliefs, schemata, or attitudes, but were unable to present cross-sectional validated models or even proposals based on common definitions.

Therefore, we found that the aforementioned "diverse and dispersed" (p.1) conclusion of Blanc and Rojas (2017) summarizes what we reckon as a common pattern in sexual attitudes research: under the name of beliefs, perceptions, appraisals or schemata, different authors have studied constructs with very different perspectives.

Thereby, with an attitude label given, it is possible to find reports focusing on topics like moral judgments (Blanc et al., 2018; Goodson et al., 2006; Leiblum et al., 2003), beliefs of suitability or contraindications (Arcos-Romero et al. 2020; Sierra et al., 2020), knowledge on risks (Evangeli et al. 2016; Velo-Higueras et al. 2019), relations with personal features (Brito-Rhor et al., 2020; Figueroa et al., 2018) or, also, with psychopathological symptoms (Snell et al., 1993).

Nevertheless, despite this introduction of inconsistencies in the field of sexual behavior attitudes, regarding the undeniable fact that there is a good number of studies about sexual behavior including some kind of thought or cognitive schema, we hypothesized the availability of valid information to compose a comprehensive model of sexual attitudes, although it was still faded in a big volume of unclear research.

This theoretical proposal would be useful to step forward in the unification of the actual knowledge about sexual attitudes, to build a comprehensive framework where to compare different models and disambiguate inconsistencies in prior definitions. This improvement could help researchers to avoid biases in the design of their studies and add evidence to a commonly shared baseline of sexual behavior.

Hence, the aims of the current disambiguation review were to: 1) identify the sources and concepts from the recent literature to describe sexual attitudes, using strict and sustained criteria, and 2) propose conceptual framework collecting and unifying the information gathered.

Methods

Bibliographic search

The search was carried out following PRISMA principles (Moher et al. 2010, Page et al. 2021) and PRISMA principles for abstracts (Page et al. 2021). It was divided into two information sources: questionnaires and systematic reviews. Both searches were conducted in EBSCOhost database (PsycARTICLES, Psychology and Behavioral Sciences Collection, PsycINFO, PSICODOC), in both English and Spanish and including only articles published in peer-review scientific journals focused on human population, no matter what age.

The search on questionnaires was based on the already conducted and published review of Blanc and Rojas (2017), for what we set the beginning in 1990. After that, another one was carried out regarding publications since 2016 until 2022. All the instruments were analysed under the same criteria.

The search terms, both English and Spanish, applied to title and/or abstract and full text, for questionnaires were: ("scale" and "sexual" and "attitudes") or ("questionnaire" and "sexual" and "attitudes") or ("questionnaire" and "sexual" and "beliefs") or ("scale" and "sexual" and "beliefs"); ("*escala*" and "*sexual*" and "*actitudes*") or ("*cuestionario*" and "*sexual*" and "*actitudes*") or ("*cuestionario*" and "*sexual*" and "*creencias*") or ("*escala*" and "*sexual*" and "*creencias*").

The search on systematic reviews included articles from January 2010 to November 2022. The search terms, both English and Spanish, applied to title and/or abstract and full text were: ("systematic review" and "sexual" and "attitudes") or ("systematic review" and "sexual" and "beliefs"); ("*revisión sistemática*" and "*sexual*" and "*actitudes*") or ("*revisión sistemática*" and "*sexual*" and "*creencias*").

All the records were screened by content of title and abstract, and analysed in depth regarding the full text by three independent reviewers. They were only selected for inclusion if there were no discrepancies among reviewers.

Following the thematic analysis process (Braun & Clarke, 2006), codes for description were periodically tested. Finally, codes were re-assed to ensure they described the information in separate clusters within all the records set. Final decision required no discrepancies among the reviewers.

Inclusion and exclusion criteria

Regarding inclusion criteria, the reports were included only if they contained plain definitions of the cognitive schema, attitude or belief, or provided clear examples to illustrate it. In this latter option, they must be specifically indicated which one they meant to, not taking only the example as enough description. The key point here was that definitions or descriptions must be self-oriented as detailed in thematic analysis.

Otherwise, the exclusion criteria were being published prior to the dates chosen for the search, being based on the definitions of another report already included or not fitting the inclusion criteria.

Thematic analysis

As briefed in the introduction, the purpose of the study faces the disambiguation problem of looking for patterns in a set of studies many times with no common naming or consideration, therefore a thematic analysis (Braun & Clarke, 2006) was performed to select the minimum units of valid information.

Cognitive schemata, also often named attitudes, beliefs or perceptions, has been described as the information managed to filter, appraise and include new inputs, and have been described as the complex and dynamic meaning structures in which sensory representations are organized (Derry, 1996; Gilboa & Marlatt, 2017; Reisenzein et al., 2019). They are used to process different types of information in order to code, forecast scenarios, guide actions and prompt emotions (Derry, 1996; Gilboa & Marlatt, 2017; Lipp et al. 2020; Reisenzein et al., 2019).

Hereof, basing on this rationale, we defined the criterion to identify components of cognitive schemata as descriptions or expressions of objectives, drives or motivations, or also expressions of satisfaction or annoyance for reaching or not any of the mentioned objectives. Moreover, to avoid misconceptions, we included only descriptions accompanied with any information or label about the attitude or belief meant.

Finally, there was one more consideration: individuals not always guide his conducts or judge themselves the same way they do with other people (Batson et al., 2002; Buhi & Goodson, 2007; Xu et al. 2019), and they can experience opposite feelings on sexual decisions (Mannberg, 2012), appraisals

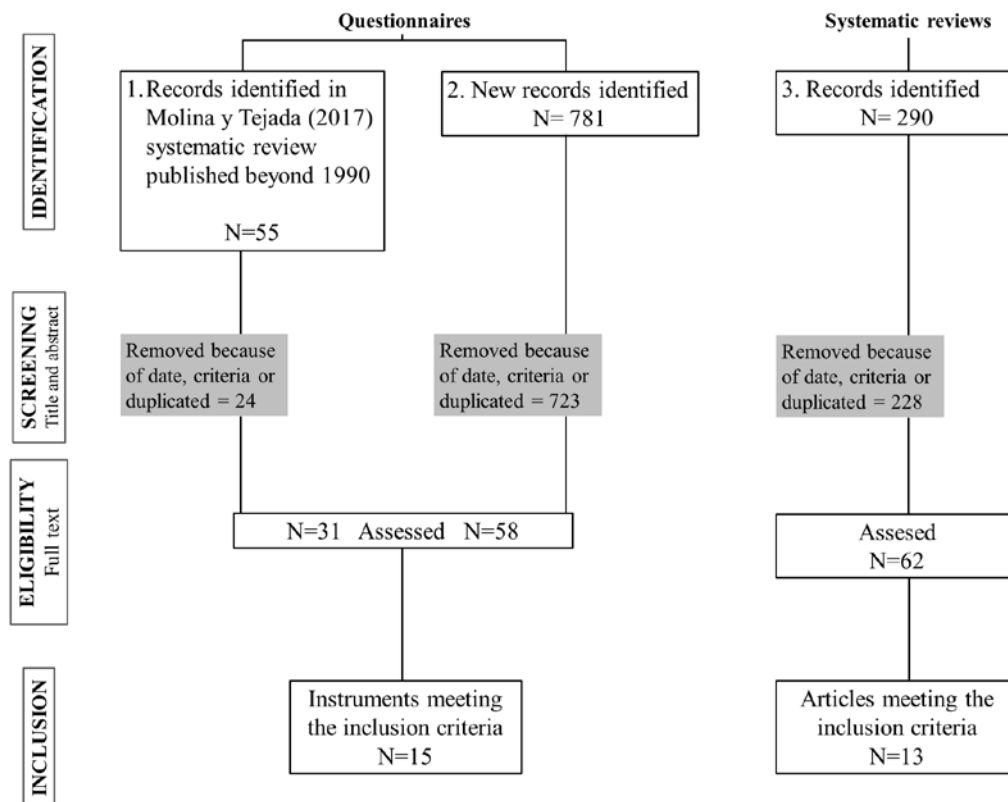
(Demarchi et al., 2020) or even guilt (Pinney et al., 1987). Therefore, in the search of a cognitive schema oriented to own individual behavior it is not suitable to rely on a description of moral or social judgment, but only on the specification of a self-guiding rule, even considering theoretically opposite options to cover dissonances.

In summary, the information searched constitutes a self-oriented cognitive schema of sexual behavior (SO-CSSB).

Results

The PRISMA diagram (Moher et al. 2010) (figure 1) summarizes the screening, exclusion, and inclusion of studies, in both searches, questionnaires and reviews. From the 1126 screened publications, a total of 89 scales and 62 reviews were assessed for eligibility, and 28 of them were eventually included (15 questionnaires and 13 reviews).

Figure 1



As introduced, there were several reasons for exclusion: definitions oriented to moral consideration instead of personal behavioral guides, items or variables containing descriptions of actions or emotions without specifying aims, and factors or variables naming without a description of the concept.

Within the thematic analysis process (Braun & Clarke, 2006), we generated codes for description periodically tested in appearance of new terms until the final set review. Finally, we re-asses them to ensure they contained in separate clusters all the information collected, obtaining 17 SO-CSSB (Table 1). After that, we named every cluster and defined them regarding the information included (Table 2).

Since our intention were to develop a classification collecting all the information found in prior research, it was possible to find variables describing in only one term what other reports split in more than one. Indeed, for instance, we found Erotophilia (del Río et al., 2013) used for more attitudes than Compliance (Implett & Peplau, 2003) or Permissiveness (Hendrick et al., 2006). Thereby, those variables were considered in as many definitions or examples as the reports provided, following the search criteria. The final classification took these different areas separately (pointed with superscript in table 1).

Table 1

Variables analysed and classified through thematic analysis for disambiguation.

EROTOPHILIA	EROTOPHOBIA	SELF-PLEASURE	PARTNER'S PLEASURE	SPIRITUALITY
<ul style="list-style-type: none"> • Communion³ Hendrick et al., 2006. • Eroticism³ Brito-Rhor et al., 2020. • Erotophilia² del Río et al., 2013. • Fun² Wesche et al., 2021. • Happiness seeking³ Meskó et al., 2022. • Permissiveness³ Hendrick et al., 2006. • Positive attitudes toward sex Buhi & Goodson, 2007. • Seeking novelty⁴ Meskó et al., 2022. • Sex esteem Snell et al., 1993. • Sexual comfort⁴ Arcos-Romero et al., 2020. • Sexual drive² Petersen & Hyde, 2011. • Sexual satisfaction² Shaw & Rogge, 2016. • Self-eroticism² Fino et al., 2017. 	<ul style="list-style-type: none"> • Catastrophizing Kane et al., 2019. • Embarrassed/conservative Woertman et al., 2012. • Erotophobia del Río et al., 2013. • Fear of sex Snell et al., 1993. • Guilt Sánchez-Fuentes et al., 2014. • Negative affection Brito-Rhor et al., 2019. • Negative attitudes towards sex during pregnancy Tavares et al., 2021. • Restricted attitude Nobre et al., 2003. • Seeking novelty⁴ Meskó et al., 2022. • Sexual anxiety Snell et al., 1993. • Sexual desire as a sin Nobre et al., 2003. • Sexual depression Snell et al., 1993. • Sexual preoccupation Snell et al., 1993. • Sexual dissatisfaction² Shaw & Rogge, 2016. • Negative attitudes towards sex Buhi & Goodson, 2007. 	<ul style="list-style-type: none"> • Attitude toward sexual desires Marston & King, 2006. • Eroticism³ Brito-Rhor et al., 2019. • Erotophilia² del Río et al., 2013. • Excitement³ Meskó et al., 2022. • Fun² Wesche et al., 2021. • Happiness seeking³ Meskó et al., 2022. • Instrumentality Hendrick et al., 2006. • Mitigating emotional deficit Meskó et al., 2022. • Own pleasure McKee et al., 2021. • Permissive attitudes Buhi & Goodson, 2007. • Permissiveness³ Hendrick et al., 2006. • Pleasure Wesche et al., 2021. • Relaxation Meskó et al., 2022. • Strictly physical pleasure McKee et al., 2021. • Sexual comfort⁴ Leiblum et al., 2003. • Sexual desire Meskó et al., 2022. • Sexual dissatisfaction² Shaw & Rogge, 2016. • Sexual drive² Petersen & Hyde, 2011. • Sexual motivation² Snell et al., 1993. • Sexual sensations Stulhofer et al., 2010. • Self-eroticism² Fino et al., 2017. 	<ul style="list-style-type: none"> • Beliefs about women satisfaction Nobre et al., 2003. • Care Meskó et al., 2022. • Compliance⁵ Implett & Peplau, 2003. • Compliment with partner desires Marston & King, 2006. • Coping with partner's emotional demands Meskó et al., 2022. • Eroticism³ Brito-Rhor et al., 2019. • Happiness seeking³ Meskó et al., 2022. • "Macho" belief² Nobre et al., 2003. • Sexual sensations towards the partner Stulhofer et al., 2010. 	<ul style="list-style-type: none"> • Conservatism³ Nobre et al., 2003. • Relation between religion and sexual satisfaction Sánchez-Fuentes et al., 2014. • Spiritual wellness Calvillo et al., 2018. • Spirituality Horn et al., 2015.
DOMINATION	SUBMISSIVENESS	COOPERATION	SELF-PAIN	PARTNER'S PAIN
<ul style="list-style-type: none"> • Conservatism³ Nobre et al., 2003. • Control and power Meskó et al., 2022. • Dominant role De Neef et al., 2019. • Female sexual power² Nobre et al., 2003. • Sexual coercion Lief et al., 1990. 	<ul style="list-style-type: none"> • Conformity Meskó et al., 2022. • Conservatism³ Nobre et al., 2003. • Submissiveness Meskó et al., 2022. • Submitted role De Neef et al., 2019. • Female sexual power² Nobre et al., 2003. • Rape supportive attitudes² Yapp & Quayle, 2018. 	<ul style="list-style-type: none"> • Communion³ Hendrick et al., 2006. • Compliance⁵ Implett & Peplau, 2003. • Self affirmation² Meskó et al., 2022. 	<ul style="list-style-type: none"> • Masochism De Neef et al., 2019. • Rape supportive attitudes² Yapp & Quayle, 2018. 	<ul style="list-style-type: none"> • Revenge Meskó et al., 2022. • Sadism De Neef et al., 2019.
SELF-PRESENTATION	VARIABILITY	EMOTIONAL ATTACHMENT	INSTRUMENTALITY	REPRODUCTION
<ul style="list-style-type: none"> • Boosting self-esteem Meskó et al., 2022. • Communion³ Hendrick et al., 2006. • Compliance⁵ Implett & Peplau, 2003. • Gender role Leiblum et al., 2003. • "Macho" belief² Nobre et al., 2003. • Performance Kane et al., 2019. • Reputation Marston & King, 2006. • Seeking novelty⁴ Meskó et al., 2022. • Self-affirmation Wesche et al., 2021. • Self-efficacy Buhi & Goodson, 2007. • Self-esteem Woertman & van den Brink, 2012. • Self-image Nobre et al., 2003. • Self-monitoring Snell et al., 1993. • Self-perception of attractiveness Calvillo et al., 2018. • Sexual comfort⁴ Leiblum et al., 2003. • Sexual interchange Stulhofer et al., 2010. • Social status Marston & King, 2006. 	<ul style="list-style-type: none"> • Conventional sex del Río et al., 2013. • Permissiveness³ Hendrick et al., 2006. • Seeking novelty⁴ Meskó et al., 2022. • Sociosexual orientation Barrada et al., 2018. • Variety Stulhofer et al., 2010. • Variation in sex Fino et al., 2017. 	<ul style="list-style-type: none"> • Affection primacy Nobre et al., 2003. • Commitment Meskó et al., 2022. • Compliance⁵ Implett & Peplau, 2003. • Dyadic adjustment Sánchez-Fuentes et al., 2014. • Emotional connection De Neef et al., 2019. • Emotional intimacy Calvillo et al., 2018. • Goal of forming a romantic relationship Wesche et al., 2021. • Intimacy Meskó et al., 2022. • Mate retention Meskó et al., 2022. • No commitment sex Barrada et al., 2018. • Passionate/Romantic Woertman & van den Brink, 2012. • Permissiveness³ Hendrick et al., 2006. • Premarriage sex Buhi & Goodson, 2007. • Romanticism Brito-Rhor et al., 2019. • Satisfactory relation Sánchez-Fuentes et al., 2014. • Self affirmation² Meskó et al., 2022. • Sexual assertiveness Snell et al., 1993. • Sexual comfort⁴ Leiblum et al., 2003. • Sexual connection Stulhofer et al., 2010. • Sexual motivation² Snell et al., 1993. • Sexual satisfaction² Shaw & Rogge, 2016. 	<ul style="list-style-type: none"> • Commercial sex Fino et al., 2017. • Compliance⁵ Implett & Peplau, 2003. • Compulsion and avoidance Meskó et al., 2022. • Coping with relational conflicts Meskó et al., 2022. • Mate retention Meskó et al., 2022. • Utilitarianism Meskó et al., 2022. • Way of getting money or gifts Marston & King, 2006. 	<ul style="list-style-type: none"> • Attitudes towards contraceptive measures Petersen & Hyde, 2011. • Birth control Hendrick et al., 2006. • Reproduction/motherhood primacy Nobre et al., 2003.

DISAMBIGUATION OF COGNITIVE SCHEMATA OF SEXUAL BEHAVIOR

RESOLUTION (unfaithfulness)	SUSCEPTIBILITY (unfaithfulness)			
<ul style="list-style-type: none"> • Extramarital sex Petersen & Hyde, 2011. • Infidelity Meskó et al., 2022. • Permissiveness⁵ Hendrick et al., 2006. • Relationship exclusivity² Sánchez-Fuentes et al., 2014. • Unfaithfulness² Sánchez-Fuentes et al., 2014. Marston & King, 2006. • Willingness to engage in sex outside of a committed relationship Wesche et al., 2021. 	<ul style="list-style-type: none"> • Infidelity distress Carpenter, 2011. • Jealousy Calvillo et al., 2018. • Relationship exclusivity² Sánchez-Fuentes et al., 2014. • Unfaithfulness² Sánchez-Fuentes et al., 2014 Marston & King, 2006. 			

Superscript indicates the number of categories of disambiguation fitted partially by the definition of the construct.

144 pieces of valid information were found and classified in 17 groups (Table 1), including general perception (2), aim to pleasure or pain (self or partner oriented) (4), spirituality (1), role performance and self-presentation (4), emotional bound (1), reproduction (1), variability (1), non-sexual profits (1) and faithfulness (2).

Those groups were not equally supported, obtaining a range from 21 references (Emotional attachment) to only 2 (Partner's pain). Every valid variable was included with the original name and the reference (Table 1).

Some of them, such as Sexual comfort (Erotophilia group) (Arcos-Romero et al., 2020; Leiblum et al., 2003; Sánchez-Fuentes et al., 2014) or Permissiveness (Self-pleasure cluster) (Hendrick et al., 2006; Lief et al., 1990) were found with the same name in deferent records. Even that, they were analysed basing on the description provided, not relying on the title, and were included with all the references found.

Table 2

Grid of information gathered and sources.

		Erotophilia	Erotophobia	Self-pleasure	Partner's pleasure	Spirituality	Domination	Submissiveness	Cooperation	Self-pain	Partner's pain	Self-presentation	Variability	Emotional attachment	Instrumentality	Reproduction	Resolution (unfaithfulness)	Susceptibility (unfaithfulness)	Sum	Questionnaires*
Questionnaire's authors	Year																			
Arcos-Romero et al.	2020	•																	1	SOS-6
Barrada et al.	2018												•	•					2	SOI
Brito-Rhor et al.	2019	•	•	•	•									•	•				4	IEASF
del Río et al.	2013	•	•	•									•						4	EROS
Fino et al.	2018	•		•									•		•				4	TSAQ
Hendrick et al.	2006	•		•					•			•	•	•		•	•		8	BSAS
Horn et al.	2015					•													1	ESS
Leiblum et al.	2003	•		•								•		•					4	CCAS
Lief et al.	1990			•			•												2	SKAT-A
Nobre et al.	2003		•	•	•	•	•	•				•		•		•			9	SDBQ
Meskó et al.	2022	•		•	•		•	•	•	•	•	•	•	•	•		•		12	YSEX?-HSF
Shaw & Rogge	2016	•	•	•										•					4	QSI
Snell et al.	1993	•	•	•								•		•					5	MSQ
Stulhofer et al.	2010			•	•							•	•	•					5	NSSS
Tavares et al.	2021		•																1	MSP/PSP
Reviews	Year																			
Buhi & Goodson	2007	•	•	•								•		•					5	
Calvillo et al.	2018	•				•						•		•				•	5	
Carpenter	2001																	•	1	
De Neef et al.	2019						•	•		•	•			•					5	
Impett & Peplau	2003				•				•			•		•	•				4	
Kane et al.	2019		•									•							2	
Marston & King	2006			•	•							•			•		•	•	6	
McKee et al.	2021			•															1	
Petersen & Hyde	2011	•	•	•										•		•	•		6	
Sánchez-Fuentes et al.	2014	•	•			•								•			•	•	6	
Wesche et al.	2021	•		•				•				•		•			•		6	
Woertman & van den Brink	2012	•	•	•								•		•					5	
Yapp & Quayle	2018							•		•									2	
% of records included in the review		53	39	57	21	14	14	17	10	7	7	46	21	60	14	10	21	14		

*SOS-6 (Sexual Opinion Survey); SOI (Sociosexual Orientation Inventory); IEASF (Instrumento de Evaluación del Autoesquema Sexual Femenino); EROS (Encuesta Revisada de Opinión Sexual); TSAQ (The Trueblood Sexual Attitudes Questionnaire); BSAS (Brief Sexual Attitudes Scale); ESS (Embodied Spirituality Scale); CCAS (Cross Cultural Attitude Scale); SKAT-A (Sexual Knowledge and Attitude Test for Adolescents); SDBQ (Sexual Dysfunctional Beliefs Questionnaire); YSEX?-HSF (Why Hungarians Have Sex? Developed in Hungarian sample); QSI (Quality of Sex Inventory); MSQ (Multidimensional Sexuality Questionnaire); NSSS (New Sexual Satisfaction Scale); MSP/PSP (Maternal Sex during Pregnancy/Partner Sex during Pregnancy)

Discussion

Our disambiguation work was intended to overcome this “diverse and dispersed” (p.1) statement of Blanc & Rojas (2017) by selecting information from a wide range of studies, gathering the units of comparable ones and classifying them in a common framework so as to develop a basing layer from where to build a comprehensive consideration of sexual attitudes. In this intent, we set up a strict and referenced criteria and searched fulfilling studies from different approaches, obtaining 17 key factors which likely, according to previous research, contains the information needed to draw the self-oriented cognitive schema related of sexual behavior and not only a cherry-picked part of it.

Table 3
SO-CSSA definitions

Cognitive schema label	Definition
	<i>All of them start with: “Personal and self-oriented perception of sexual activity, totally o partially, as...”</i>
EROTOPHILIA	a positive activity linked to desire and satisfaction.
EROTOPHOBIA	a negative activity linked to rejection and dissatisfaction.
SELF-PLEASURE	a way to get physical sexual pleasure and/or mental enjoyment for myself.
PARTNER PLEASURE	a way to get physical sexual pleasure and/or mental enjoyment for my partner.
SPIRITUALITY	a pack of personal development behaviours in a spiritual, esoteric, or religious meaning.
DOMINATION	a mean to rule, control, master or even subdue my partner.
SUBMISSIVENESS	a way of acquiescing or undergoing my partner control.
COOPERATION	a pack of erotic behaviours agreed between partners.
SELF-PAIN	a way to experience erotic practices which cause any pain or humiliation to me.
PARTNER PAIN	a way to experience erotic practices which cause any pain or humiliation to my partner.
SELF-PRESENTATION	a form to express and show a psychosocial role or appearance.
VARIABILITY	a shifting repertoire depending on partners or situations.
EMOTIONAL ATTACHMENT	a way to connect emotionally with the partner.
INSTRUMENTALITY	a mean to achieve relationship gains, gifts or any other of non-erotic advantage.
REPRODUCTION	a procreation behaviour.
RESOLUTION TO UNFAITHFULNESS	positive in situations which means committing sexual infidelity.
SUSCEPTIBILITY TO UNFAITHFULNESS	negative in situations in which my partner commits sexual infidelity.

Our classification takes into account not only pleasure or philia towards sexual intercourse, but also other kind of representations as pain, role, reproduction, spirituality, attachment, faithfulness or instrumental use. Hence, the combination of positive, negative, or null approaches to every of them make it possible to theoretically bring in a wide range of construct network, likely to draw profiles and allow research of correlations among them or with other behavioral variables.

In that term, the present classification did not aim to discuss if the theoretical factors correlate in the individual's appraisals, but to separate qualitatively different meanings to make available this proposal in futures studies.

Thus, we did not try to evaluate, for instance, the possibility that Erotophilia and Erotophobia may be or not two sides of the same construct, as concluded by Shaw & Rogge (2016) talking about Satisfaction and Dissatisfaction. Other example is the sensible consideration of Self-pleasure and Partner pleasure, possibly components of the same cluster and theoretically suitable to place them in opposition of another factor consistent in pain or sexual restrain, abstinence or prudishness (Schmitt & Buss, 2000), if they were considered as negative poles of the same factor.

As we see, in daily used terms, it is possible to find multiple and multidirectional sensible relations. But, nevertheless, we uphold that it must not be concluded that way in a scientific report, which requires disambiguation with accurate definitions and clear structure before exploring correlations and causality. Then, these discussions about revealing the full structure or the factors are far beyond the aim of the present study and requires further results in the light of quantitative analysis. For this reason, the present report defines every factor found referring only to itself, and they are regarded as a pieces of information which, by now, cannot be misunderstood with the rest of elements in the list.

With all those conditions given, what we present is a common classification of cognitive schemata on sexual behavior or, in other words, a set of theoretical latent classes describing attitudes, beliefs, direction of the action or expectations of sexual behavior.

Those SO-CSSB can point to general consideration (Erotophilia, Erotophobia), and to specific parts of the context (Self-pleasure, Partner pleasure, Self-pain, Partner pain). They also can refer to partner role (Self-presentation, Domination, Submissiveness, Cooperation) and bond (Emotional attachment). And they can add information about modulation of the behavior (Variability, Instrumentality, Resolution and Susceptibility to unfaithfulness), or even further motivations (Spirituality, Reproduction).

Conclusion

We present our sustained and broadly referenced review of sexual attitudes, along with a specific definition of the target variable, called SO-CSSB, in order to step forward in the search of an acknowledged model of cognitive factors related to sexual activity.

This search conforms a necessary stage in the process of developing common classifications to overcome the inconsistency in the definition, framework and evaluation of sexual attitudes.

In summary, we reckon crucial to improve the accuracy and validity of sexual research through comprehensive reviews and quantitative analysis. In this way we have brought in a necessary theoretical work likely to constitute a baseline in the process of model development.

Limitations

There are still two limitations in the present study. The first one, in terms of selection of the reports included, the conditions of the search method do not allow to gather all the possible examples which consider any kind of belief, attitude or cognition. As mentioned in the introduction, what we call sexual attitudes have been named and described differently, and there are studies which do not fulfil the inclusion criteria but use variables that may fit our goals, for instance, Maggini & Pillsworth (2020) discuss about beliefs related to Reproduction factor, Muise, Maxwell & Implett (2018) about Resolution and Susceptibility to unfaithfulness, or Karaga et al. (2016) consider some about Religion. In that way, to ensure of including all this reports it is necessary whether to loosen the inclusion criteria or to conduct bigger searches including variables not fully described.

In addition, the second limitation refers also to the selection criteria of the variables. Our choice of excluding variables described in general moral considerations provides a strict limit in the frame of the aforementioned references, but there are previous results informing about moral considerations linked to sexual beliefs and behavior (Blanc, Byers & Rojas, 2018). Although we do not study the direct relation between moral attitude and actual belief, it is also logical to consider the chance to transform these moral statements into personal and self-oriented items. In that case, we reckon it should include three additional steps: 1) to identify every moral or non-self-focused meaning and discuss if it refers to sexual perception or other social behavior belief, and 2) to find out a suitable self-oriented description which still contains the same meaning of the prior one, 3) to figure out the accurate relation between moral and self-oriented in individuals.

Those steps were not the aims and terms of our study but, anyway, we regard them as a likely positive method to extend and complete our presented results in further studies.

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