

Methodology in sexuality research: how to build a valid road?

Métodos de pesquisa em sexualidade: como trilhar um caminho válido?

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Sexology is a broad, interdisciplinary, field with a long tradition of empirical research. Comprehensive quantitative and qualitative studies have been conducted since the 20th century, providing abounding evidence. As the area is informed by diverse theoretical backgrounds, a wide range of methods have been applied to sex research over time.

While the World Health Organization¹ claims that sexual health refers to a state of physical, emotional, mental, and social well-being in relation to sexuality, beyond the absence of disease, dysfunction or infirmity, most studies from the past decades have focused on sexual function and behavior. Broader aspects such as quality of sex life, sexual violence, sexual beliefs, and sexual satisfaction have received less attention. The narrowing of sexuality around sexual function might be misleading in the understanding of the sexual complaints that make a person seek for sexual healthcare. The inclusion of broader aspects might foster a more comprehensive perspective and produce more effective, culturally competent, treatment options.

From Masters' and Johnson's observations in the 1960s until today, most of the knowledge available on sexual function and the psychophysiological processes involved in sexual response was derived from experiments that may seem exotic to a naïve observer. Unconventional instruments are used to measure participants' genital responses, like vaginal and penile plethysmographs or genital thermographs, and experimental tasks may include masturbating in the lab or watching a pornographic video, while monitored by eye-trackers, electroencephalography, or functional magnetic resonance imaging. Clinical trials on sexual medicine interventions have also risen in the last 30 years, driven mostly by efforts to develop medications for sexual dysfunctions.

Ethical guidelines limit the number of sexual behaviors that can be observed or experimentally manipulated in laboratory settings. Generalizability of these findings may additionally be biased by the artificial context and observer effects. Thus, for the study of sexual behavior, indirect observation is broadly used, with methods that include interviews, self-report questionnaires or retrieval of clinical records and public databases.

Cross-sectional surveys are the most used alternative for obtaining information about sexual behavior and other dimensions of human sexuality. Robust estimates of the prevalence of sexual behaviors and their determinants in the population have been provided by surveys in the past years. Research strategies to minimize measurement error have been applied, from sample selection to questionnaire content, design, and data collection².

Random probability sampling methods are used to reduce volunteer bias. Volunteers in sex research tend to be more sexually experienced, sensation seeking, to have more relaxed sexual attitudes and behaviors than the general population. Achieving good response rates is thus essential to improve the representativeness of the survey and reduce participation bias. Nevertheless, recall and comprehension problems, as well as respondents' ambivalence to report socially sensitive information are still a challenge in these studies. Long questionnaires may also decrease data quality, due to missing data and inconsistent answers. To minimize that, sex researchers sometimes alternatively rely on methods like diary studies, which may require participants to self-monitor some aspects of their sexuality or relationships every day, for a period.



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Interviews are often used to counterbalance some of those effects, although interviewers can also introduce reporting bias. Methods like the use of computer assisted self-interviewing techniques may reduce participation bias since embarrassment and worries about confidentiality are reduced. Self-completion questionnaires still reduce the need for respondents to disclose sensitive behaviors to the interviewer and may result in more valid reports than interviews.

In studies held among small population subgroups, or focusing on relatively rare sexual experiences, probability sampling may become challenging, and more cost-effective sampling alternatives are commonly required. Advertising, using online social communities, snowballing, recruiting of clinical samples and other social groups are common. Sample sizes, however, are frequently not large enough to accurately determine the prevalence of sexual behaviors, with a tendency to overestimation. Participation biases are particularly relevant in these cases.

Methods that rely on high levels of literacy may also exclude groups particularly vulnerable to poor sexual health outcomes. Pen and paper methods, and more recently, online surveys, may exclude those with poor literacy and less access to internet. Language adaptation processes demand extra care, to adequately address these populations. Sociocultural aspects are also known to play a role in the meanings and rules applied to sexuality in each culture, directly affecting the way it is experienced, the possibilities for sexual behavior, sexual beliefs, and consequently, the seek for sexual healthcare.

As in other areas of science, most of the existing evidence derived from studies conducted in developed countries. Sexuality studies in developing countries are often observational, with fewer experimental studies. The exception are few drug clinical-trials, often sponsored by the industry. In this sense, ecological validity and culturally competent clinical application brings additional challenge. Culturally informed and locally adapted research efforts in sexuality have been growing in the past two decades, providing data from less developed countries, such as Brazil, Latin America, and Middle East countries. There were also initiatives towards the development and validation of methods to foster such research.

Psychometric instruments can be locally developed or adapted for different settings and cultures. Compared to developing a new measure, translating, and culturally adapting an existing scale that has been validated and tested may be quicker, less expensive, and make it easier to compare results with those from other populations. Nonetheless, to assert the maintenance of the psychometric properties of the adapted versions, well-constructed methods are required. Translating an existing scale should

consider the sociocultural, religious, and linguistic diversity, especially when it comes to the linguistic taboos around sexuality. Recently, researchers have questioned whether best practices in sexual health assessment informed the transcultural adaptation of psychometric instruments originally developed in English to be used in Brazil³ and Middle East⁴.

In the Arab world, a review revealed important limitations in the of the available instruments to assess sexuality. Authors also pointed that clinicians and researchers must be aware that not all sexual concerns of the Arabic population are aligned with western classifications of sexual dysfunctions, and different categories of representation are needed, not to overestimate the prevalence of sexual disorders in this population. Considering the available instruments adapted for the Brazilian population, although there are numerous scales, it seems to be an inadequate use of psychometric methods in transcultural adaptations processes. Few instruments present norms for interpretation, implying a severe restriction for clinical use.

Recently, Pereira & Souza⁵ sought to translate the Questionnaire on Sexual Quality of Life – Female version (SQoL-F). Quality of sexual life is a broad concept, poorly studied, but clinically relevant, as it is strictly related to sexual healthcare seek. It encompasses sexual satisfaction and with partnership, the expression of sexual desires and values, body image and the physical, behavioral, psychological, and emotional issues that affect sexuality. The adaptation applied techniques guaranteeing the qualitative, content-oriented validity, as well as preliminary evidence on its internal structure, setting the cornerstone for future studies encompassing quality of sexual life in Brazilian population.

Validity of a scale should not be considered dichotomously, but as a continuum of cumulative evidence on how the scoring of an instrument can be interpreted as the reflex of the construct³. Hence, the quantitative psychometric aspects involved in the validation of this instrument needs further studies to advance the investigation of its properties. In this sense, it is important that studies using the SQoL-F at this point run psychometric analysis in that given sample, along the target analysis of the study, as well as add external criteria to confirm validity.

Evidence-based practices that consider the cultural determinants are considered gold-standard healthcare and expected to settle the basis for sexual health practices and policies. That close look to the possibilities and limitations of the methods involved in the research being produced and adapted transculturally in sexuality provides clinicians with a more realistic outlook of the available evidence, as well as gives hints about how use them to address real-life clinical demands.

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