



## A Clarion Call for More Qualitative Studies in Surgery

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### Abstract

Qualitative studies in Surgery are important because they contextualize the previously missing social facets of the surgical narrative and inquire into the crucial issues of quality of life/well-being, gender and other discriminations and biases faced by surgeons and patients, surgical education/training, mental issues and burnout, etc. This has resulted in an increasing trend of qualitative studies in surgery. Authors, editors and journals have to ensure that the principles of scientific rigour in qualitative research are followed; otherwise, the answers will not be valid, thus rendering the whole exercise futile. More studies, addressing these fascinating ‘social’ facets of surgery, are needed.

**Keywords** Qualitative studies · Surgery · Applied social science

Qualitative studies started making their appearance in the medical literature around the time the revolution of Evidence-Based Medicine was taking the Medical World by storm. Not surprisingly, these were labelled as anecdotal, unscientific social/anthropological studies and for a long time, the gatekeepers of medical science, the editors of influential journals, gave them low priority [1]. It took persistent efforts by committed researchers to convince them that qualitative studies are important and actually complement the conventional quantitative studies in medical research [2]. As the surgical scientists introspected and reflected on their purpose, they realized that qualitative studies allow them to go beyond the numbers and contextualize the previously missing social facets of the surgical narrative — from the point of view of both the patient and the surgeon. This newly found awareness has prompted increasing use of qualitative methods in surgery to inquire into the crucial issues of quality of life/well-being, gender and other discriminations and biases faced by surgeons and patients, surgical education/training, mental issues and burnout, etc. [3–9]. As the

surgical qualitative literature continues to grow, these social/anthropological phrases and issues have become ingrained in surgical lexicon and ethos. The resulting increasing trend of qualitative studies in surgery can be seen in Table 1.

Broadly speaking, qualitative surgical studies aim to understand specific behaviour, behaviour change or barriers to change; meaning of and reasons behind such behaviours; understanding the meaning of concepts such as pain, illness, patient satisfaction, quality of care, quality of life and autonomy in a specific group; capturing perceptions of a population on specific products or interventions; process documentation or evaluation of interventions; and situational analysis, etc. [10]. It must be remembered that sampling, data collection and analysis are different in qualitative studies. While qualitative surgical studies can be concluded relatively quickly, their limitations include lack of funding and trained qualitative researchers at the grass-roots. And if done selectively, the researcher may misinterpret and try to quantify the outcome and then the results may be disconnected from its broader context [10]. However, the principles of scientific rigour in qualitative research are well known and if followed, such pitfalls can be avoided [11, 12].

Qualitative research has to have a face validity and trustworthiness; otherwise, it may not clear the bar of needed scientific rigour. A simple example is triangulation of surgeon’s observation on clinical/functional outcome measured by clinical score, when supplemented by laboratory data and patient’s feedback completes a qualitative study [13]. Since every data can have some weakness or bias, triangulation

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**Table 1** Number of published qualitative surgical studies in PubMed since 2005

Key word searched*	2005–2009	2010–2014	2015–2019	2020– May 21 <sup>st</sup> 2021
Quality of life/well being	633	2332	4387	2677
Surgical education/training	118	246	309	129
Gender discrimination	6	16	54	28
Mental health	4	49	172	82
Racial and ethnic Discrimination	4	11	36	13
Burn out	2	7	44	31

\*Combined with <Surgery> and <Qualitative study>

as cross-checking can strengthen the quality of evidence and validity through the convergence of information from different sources. Qualitative research at times yields much higher dividends than quantitative research. Use of open-ended questions allows respondents to include more information, including feelings and understanding of the subject. This allows researchers to better access the respondents' true feelings on an issue and more deeply understand the topic under discussion, which can be infinitely more than what can be accessed from a qualitative study.

As the acceptance of such studies gained, as with other types of studies, standards for reporting qualitative research were formulated for helping the authors during manuscript preparation, and editors and reviewers in evaluating a manuscript [14]. The next logical step was advice on 'how to read surgical qualitative studies' as the surgeons must be familiar with the basic techniques for the critical appraisal of qualitative studies in the surgical literature [15]. It must be remembered that this gaining popularity may be short-lived and readers may get disenchanted if the issues addressed are not important for them or if the studies are of poor quality — something the authors, editors and journals have to watch out for [16]. A prominent example is surfeit of internet-based questionnaires eliciting qualitative information on various topics. Unless the questionnaire is appropriately designed, the answers will not be valid, thus rendering the whole exercise futile [17]. These studies not only address weighty and salient issues like QOL, discriminations, biases and burnouts affecting the surgical ecosystem; but more importantly, they have prompted much needed remedial reforms to mitigate these issues. However, continuous follow-up research is crucial to ensure these visible gains are not fallacious, as overt acts of discrimination brought under the society's lens may continue covertly [18–20].

Late Rudolf Ludwig Carl Virchow (1821–1902), widely considered as 'the father of modern pathology', was also the 'founder of social medicine'. If his teachings were remembered, the fact that 'medicine is a social science' would never have been questioned [21]. Applied social science in the form of qualitative studies in Surgery has come a long

way since the early days, and their pride of place in surgical research is now axiomatic. Onus remains on the researchers to use many available qualitative techniques to study these fascinating 'social' facets of surgery to enrich the surgical literature.

## Declarations

**Conflict of Interest** The authors declare no competing interests.

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