

Understanding impacts of accreditation on medical teachers and students: A systematic review and meta-ethnography

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Abstract

Purpose. Accreditation is widely used by medical schools around the world to evaluate their curricula and educational processes, although its impacts on those involved in the ‘frontline’ of medical education receive little attention. This study systematically identified and synthesised qualitative studies that have explored medical teachers’ and students’ experiences of accreditation.

Methods. Four databases (Pubmed, EMBASE, ERIC and PsychINFO) were searched for relevant published articles. Synthesis was performed using meta-ethnography.

Results. 18 articles were included in the final synthesis with 1110 individual participants from 11 countries. Findings were categorised into four domains, including navigating power differentials, evaluating credibility, influencing medical programmes, and culture and behaviour. The synthesis demonstrates divergent views on the value of accreditation in medical schools from students and staff including both positive and negative impacts on medical education programmes and stakeholders.

Conclusions. Although accreditation is perceived to have many benefits, it also has a number of unintended consequences, including on staff morale, student-teacher relationships, and teacher workloads. Medical teachers also have a number of concerns about the credibility of accreditation standards, assessors, and processes. Regulators and policymakers should consider the views of teachers and students as they seek to improve current accreditation practices.

Key words:

Accreditation, quality assurance, medical education, curriculum, meta-ethnography

Introduction

Educational programmes around the world are reviewed and evaluated according to set domains, standards and procedures by external regulatory bodies that are accountable at the level of the government (Al Mohaimeed et al. 2012). This process is typically defined as accreditation. Within medical and health professions education, accreditation seeks to ensure high quality education that produces safe and effective professionals. Accreditation is widely considered important in medical education and is commonly employed by healthcare governing bodies to promote quality measurement and enhancement (Karle 2006; Muhtadi 2013).

The globalisation of medical education, which includes international education partnerships and the global movement of medical students and doctors, means that accreditation plays an even more crucial role to maintain quality standards (Hodges et al. 2009). Recent years have seen the rapid expansion in the number of medical schools, in addition to the expansion of cohort sizes, to offset the shortage of healthcare professionals (Duvivier et al. 2014). This increase in medical schools, and concerns about their quality, has led to a renewed interest in accreditation (Tackett 2019).

Accreditation aims to hold institutions accountable to internal (learners, teacher, administrators) and external (patients, public, healthcare sector) stakeholders for the quality of their teaching programmes – retrospective quality assurance – and to promote a healthy, continuous evaluation of teaching towards quality improvement – prospective quality assurance (Biggs 2001; Muhtadi 2013; Sjöström et al. 2019). This continual re-assessment examines whether the necessary resources and settings for training are available, and encourages pedagogical reform to meet the needs of evolving internal and external factors, which contributes to maintaining the trust of society in healthcare professionals (Karle 2006; Blouin et al. 2018; Buja 2019; Sjöström et al. 2019).

Quality assurance departments within medical education institutions are often tasked with ensuring internal processes are in place to enable continuous monitoring and evaluation. The intention of this is to sustain quality control between external accreditation visits and minimise administrative burden at the time of the accreditation process. Despite this, the standards to which institutions abide to maintain accreditation may ultimately limit innovative teaching methods (Buja 2019). Additionally, seeking or maintaining accreditation is a laborious process with ongoing costs in time, effort and money to institutions and their staff, ultimately contributing to ‘accreditation burnout’ (Blouin et al. 2018). Despite the dearth of empirical evidence that demonstrates the benefits of accreditation (Tackett et al. 2019), it is nonetheless widely established at local, regional and national levels.

Although qualitative research is valuable in providing insights to the process of accreditation and its impact on individuals and institutions, the generalisability of the research is limited by small sample sizes. Moreover, existing literature on accreditation has a greater focus on impacts on institutions and nations with comparatively less focus on users of the process output, i.e. teachers and students. This study seeks to systematically identify and interpretively synthesise the existing qualitative literature on teachers’ and students’ experiences of quality assurance and accreditation in medical schools globally.

Methods

Selection of studies

Four databases (Pubmed, EMBASE, ERIC and PsychINFO) were systematically searched for relevant articles in April 2020. These databases were chosen to provide a broad range of access to articles, including journals from medical, healthcare, educational, and social science disciplines.

Search criteria comprised of four search groups; terms related to:

1. Accreditation;
2. Qualitative research;
3. Teachers and students; and
4. Basic medical education programmes.

The full search term originally used was adapted based on respective database search requirements and limitations. The final search terms used for each database are listed in **Table 1**.

[Table 1 near here]

No restrictions were applied with regards to the year of publication. The search was restricted to research articles written in the English language that were published in peer-reviewed journals. Only studies that used qualitative methodologies were included, including articles that used mixed-method methodology where there was evidence of significant qualitative data analysis. As qualitative research is known to be difficult to find through conventional database searches (Greenhalgh & Peacock 2005), we supplemented database searches by hand searching reference lists, and by ‘snowballing’ and ‘reverse snowballing’ relevant articles identified by our database searches (Sayers 2011).

The database search was carried out independently by two researchers based on the aforementioned criteria, with no discrepancies reported. Articles that were excluded by title and abstract alone were most commonly due to the theme of accreditation or quality assurance not being addressed, or not using a qualitative methodology. Duplications were removed with the aid of a reference managing tool (Mendeley). Full text articles were obtained for all selected articles (n=106). Articles were included if they met all five of the following inclusion criteria:

1. Focus primarily on accreditation and/or quality assurance processes related to accreditation in basic medical education;
2. Seek the views or experiences of medical students and/or teaching staff;
3. Use a qualitative methodology;
4. Published in peer-reviewed journal;
5. Published in English language.

From this, articles were categorised into ‘key’ or ‘satisfactory’ articles based on how closely the content aligned to our topic of interest, using established criteria by Dixon-Woods *et al.* (2008). This method of categorisation was agreed upon by three researchers following independent review of articles (GC, MAR, ZA).

Critical appraisal, data extraction and synthesis

The critical appraisal of qualitative research is an area of recognised contention (Kuper *et al.* 2008). In order to ensure that articles included in the synthesis were of sufficient quality, all

articles selected as eligible for inclusion were independently appraised by two researchers (GC and ZA) using the Critical Appraisal Skills Programme (CASP) qualitative research checklist (CASP 2020). Only articles scoring more than 50% were included in the final synthesis.

A meta-ethnography methodology was adopted for this study. This is an approach for the synthesis of qualitative evidence which was originally developed by Noblit and Hare (1988) for education research. It is now widely used in healthcare research with an increasing number of studies in medical education (Atkins et al. 2008; Campbell et al. 2011; France et al. 2019). The final selection of articles that met all inclusion criteria were independently evaluated by two researchers (GC and ZA) who evaluated and extracted 'first-order constructs' and 'second-order constructs' from included articles. First-order constructs are participants' perspectives on the respective discussion points in the original research articles, i.e. participant quotes (Noblit & Hare 1988). Second-order constructs are the themes that researchers have interpreted based on participant quotes (Noblit & Hare 1988). Following this, a third researcher (MAR) evaluated the extracted first- and second-order constructs. Using the second-order constructs, three researchers (GC, ZA, MAR) proceeded to complete a 'line of argument' synthesis and formulate third-order constructs. Third-order constructs are the researchers' interpretations of the original authors' interpretations (Noblit & Hare 1988). This collaborative approach was used to challenge our individual interpretation of constructs and decrease the possibility of biases (Toye et al. 2013).

Results

Systematic review

Our search identified a total of 1,538 titles and abstracts for screening after the removal of duplicates. Following initial screening of titles and abstracts against exclusion criteria, 106 full-text articles were reviewed and assessed for eligibility. A total of 18 articles met inclusion criteria and were included in the meta-ethnography. *Figure 1* illustrates the systematic review process based on Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidance (Liberati et al. 2009). The final 18 articles selected for inclusion in the synthesis are summarised in *Table 2*.

[Table 2 near here]

Critical appraisal

No articles were excluded on the basis of poor quality, with all assessed articles scoring over 50% (between 70% and 100%) on Critical Appraisal Skills Programme (CASP) scoring. Of the 18 articles that met inclusion criteria, three papers were assigned as ‘key’ papers, with the remaining 16 designated ‘satisfactory’, as per previously established criteria (Dixon-Woods et al. 2008). Articles designated as ‘key’ or ‘satisfactory’ are detailed in *Table 2* (‘KEY’ for key articles, and ‘SAT’ for satisfactory articles).

Data extraction and synthesis

17 second-order constructs were identified across the 18 included studies., *Table 3* lists these second-order constructs, illustrative first order constructs for each, and the articles from which they were extracted. Four third-order constructs were identified by the research team:

- Navigating power differentials
- Evaluating credibility
- Influencing medical programmes
- Culture and behaviour

[Table 3 near here]

In *Table 3*, second order constructs are categorised according to these four groupings, which are considered in turn below.

Navigating power differentials

Teachers varied widely in their views about the value of student involvement in ~~quality assurance and accreditation~~ processes across included articles. This disagreement was mirrored by student participants. However, being involved in the quality assurance process was seen to be of personal value to students in terms of their own personal development. The ‘resistant’ (Elassy 2015) attitude of teachers towards student involvement in the quality assurance process was explored and felt by student interviewees in some articles. Student knowledge of the curriculum and the accreditation process was seen as an advantage when contributing to quality assurance and as a factor towards an improved student-teacher relationship. Students alluded to being in a challenging predicament— engagement was required to increase student understanding of the process, but students struggled to be taken seriously enough by their seniors to allow for engagement. Teachers’ position of power was thought to be a hindrance to student engagement and this was ameliorated by increased student numbers to give a collective voice. Similarly, students found creative ways to gain staff attention, such as by offering their technological expertise in exchange for being listened to. When a strong staff-student partnership was established, a shared agenda between

staff and students was formed and a positive atmosphere created, which put education at the centre of the programme improvement process.

Power differentials between external accreditation agencies and institutions was also highlighted, with external agencies having the power to disrupt a medical education institutions' reputation and funding streams. An indirect demonstration of power was also reported through institutions putting staff forward to participate in quality assurance and accreditation processes despite showing no interest or even giving their consent to be involved.

Evaluating credibility

Issues related to the credibility of accreditation standards were raised in several papers, such as the minimal transparency to how standards would be utilised by visiting teams, standards inappropriately driving the programme towards approaches that do not value leaners, and the applicability of standards to different cultures of learning, specifically to basic medical education. One participant commented that they felt the current accreditation system represented a "...onesize [model] that does not fit [everyone]" (Alrebish et al. 2017). Similarly, some articles found that institutions were engaging in the accreditation process as a one-off effort for approval, without aiming for long-term benefits. The lack of noticeable change in some instances was discussed by student participants, with one commenting that leaders in their organisation would make "certain decisions only to meet the regulation, but they didn't concern themselves over whether the action is effective or not." (Ho et al. 2014).

Some articles alluded to standards being too specific, hindering accreditation success, while others found standards were too broad and lacked clarity. One participant likened the accreditation process to "a fishing exercise where we just cast a line and don't know what to expect to come out...or how to improve" (Bezuidenhout 2007). Differences between national and international accreditation standards were drawn upon, with a sense that national standards were more complicated to achieve.

A lack of objectivity in the selection of accreditation assessors, perceived inexperience of some assessors, heterogeneity in assessment between institutions, and poor attention to detail of accreditation agencies all resulted in a lack of confidence in accreditation bodies, their assessors and the value of site visits, leading to poor institutional engagement in the process. Site visits as an evaluative process were, however, still seen to encourage good practices, even if only for the short-term. The ability to establish a good relationship between accreditors and assessors, and between institutions and teachers, promoted openness and honesty.

Influencing medical programmes

Teachers found accreditation standards gave central committees more control over educational programmes through standardisation of curricula with subsequent alignment of competencies between graduates. Accreditation also influenced curricula by raising awareness of institutions' own shortcomings as a consequence of the evaluative process. Accreditation was seen to improve programmes at a rapid pace as well as to provide support for institutions to instigate change where there was previously reluctance internally. The overall control gained by the institution over curricula was at the expense of individual teachers' control over their teaching content. One senior member of staff commented "to a certain degree it thwarts innovation, because we have to follow these rules and we have to get

these rules straight or else we're afraid of suffering a fate that we don't want..." (Blouin et al. 2018).

When accreditation was carried out duly with long-term goals in mind, it was associated with positive outcomes in several domains, including curriculum development, teaching, management and administration. This was acknowledged by both members of staff and students. One article cited students commenting: "...accreditation means that the hospital meets international standards...focusing on academic excellence and resident well-being" and "...for education, research and clinical care" (Ibrahim et al. 2015). Short-term negative impacts of the accreditation process were addressed in several articles, such as distraction of staff from teaching in favour of accreditation bureaucracy.

Accreditation is financially costly to institutions, with some participants commenting on the lack of justification relative to the returns, and the lack of support provided by the accreditation agency to facilitate necessary changes. However, in some cases it also made new funding streams and learning resources accessible.

Culture and behaviour

A negative attitude towards accreditation developed when the process took precedent over staff and student morale, sometimes contributing to permanent damage to working relationships. A dedicated unit overseeing the quality assurance and preparation for accreditation process at an institution was thought to provide greater structure around teaching and administrative roles, greater clarity in oversight and management of curricula, and improved communication between stakeholders (students, teaching staff, administrative staff, accreditors).

Given that healthcare services are predominantly designed to provide care rather than education and training, patient care and safety were important overarching considerations that provided a lens for some teachers and students to view quality assurance and accreditation of medical education. One study noted that during periods of preparing for accreditation, usual care and education practices in a hospital were diverted to "focus on the accreditation" (Ho et al. 2014). Conversely, another study found that students appreciated the long-term benefits of attending an accredited institution, which would help them develop important critical skills, ultimately to "provide the best care to our patients" (Ibrahim et al. 2015).

[Figure 1 near here]

Discussion

Summary

To our knowledge, this is the first study to systematically synthesise qualitative research about the experiences of teachers and students of quality assurance and accreditation in basic medical education. This review has found that the process of accreditation in basic medical programmes has a variety of intended and unintended consequences on teachers and students, broadly described in the four domains of *navigating power differentials*, *evaluating credibility*, *influencing medical programmes*, and *culture and behaviour*. It demonstrates that although medical teachers and students recognise many benefits of the quality assurance and accreditation processes, they also recognise many harms that result from it, including in areas that are traditionally difficult to measure, such as relationships, morale, credibility, and fatigue. It also reaffirms the significant impact that accreditation can have on medical education, although highlighting the complexity of this impact and potential for negative as well as positive consequences.

Some parallels can be drawn from previous studies of accreditation processes in basic medical education. A diminished value of student input from the perspective of teaching staff has been reported previously, with greater significance attributed to student performance measures (Blouin 2019). Frank *et al.* (2020) have previously reported the variation in accreditation systems globally, which can contribute to varied quality of the international graduate workforce. This is supported by a review of undergraduate medical education accreditation reporting incidences of misalignment of standards and requirement of standard adaptations (Tackett *et al.* 2019). The credibility of accreditation standards as a meeting of minimum thresholds has also been challenged (Frank *et al.* 2020), which has also been addressed by Blouin (2019), who suggests that factors such as a culture of continuous quality improvement and program processes to more closely reflect institutions' quality of education, rather than student satisfaction or performance. Transparency of accreditation processes has previously been identified as important by Javidan *et al.* (2020) to raise awareness of its value and stimulate teacher and student engagement towards improvement in the accreditation process itself. A previous study interviewing senior faculty members undergraduate medical education programmes in the United States found, like this review did, that total time and effort are considered as the highest 'costs' of the accreditation process (Muhtadi 2013).

Strengths and limitations

This review employed a systematic strategy to identify studies through various databases and reviewed all included articles for quality using a validated checklist. The synthesis was done using an established methodology for qualitative research and included studies from a range of countries and participants with different levels of experience within medical education, increasing the scope of our findings. The research team comprised of both medical students and medical school teachers, with a wide variety of international experiences of quality assurance and accreditation between them. Additionally, independent abstract screening, data extraction, and quality appraisal was carried out separately by different members of the research team, improving the rigor of this review.

Despite having a broad range of countries represented through the selected studies, a number of world regions, including sub-Saharan Africa, South and Southeast Asia, and South America, were under-represented. Although meta-ethnography is a useful tool for interpretive

synthesis of qualitative research, its use does preclude quantitative studies that may have examined this area from a different methodological perspective.

Future implications

Implications for research

A major finding of this study was the importance of power differentials between different stakeholders. Further study using established theoretical frameworks that deal with power relations, such as those developed by Michel Foucault (Ball 1990), may be useful to examine this in greater detail in the context of accreditation. Similarly, prospective research is required about the gains and losses to medical educators as a direct consequence of accreditation processes, including staff morale and productivity.

Further research to examine how current accreditation processes can be improved to ensure the 'voices' of the less powerful can be accounted for is also warranted, with an aim of optimising student involvement and creating productive teacher-learner partnerships. Similarly, defining the role of the learner within the accreditation process and where their voices provide the greatest benefit needs to be addressed.

Although the validity of accreditation standards has been widely acknowledged, an emphasis on the credibility of individual assessors also merits further study. Those involved in medical school accreditation should be aware of the factors that shape the accreditation process and the impact this process has in the short and long term on teachers, students, and support staff. This includes both positive and negative outcomes. Further quantitative studies may help to measure the impacts of the accreditation process on institutional resources and staff time. Such research could also provide invaluable information to formally establish an understanding of the cost-benefit balance of quality assurance and accreditation practices.

Implications for policy

This study shows the importance of power relations between students, members of staff, and accreditors across different countries and institutional settings. Senior medical school leaders should be mindful that their language and attitudes towards quality assurance and accreditation can impact on the organisational culture towards it. They should also seek to recognise and understand divergent experiences of accreditation amongst faculty members, and find ways to formally recognise staff who spend most time preparing for accreditation visits in reward structures. An internal reflective exercise following an accreditation event may help to identify such issues and ameliorate ongoing concerns, perceived injustices, and burnout factors.

Policymakers should be aware of the challenges of meaningful student involvement in current systems and ensure that students are given adequate training and briefing prior to accreditation visits, as well as ensuring that teams actively 'flatten' hierarchies to promote their input. They should also recognise the considerable scepticism and discomfort amongst some faculty members about aspects of the accreditation process, and seek to provide greater transparency and justification for approaches and reviewer selection decisions. Such transparency could contribute to improved credibility and confidence in the process by its institutional stakeholders and ultimately, produce a more constructive and positive experience for all involved.

Conclusion

This study systematically examined qualitative research about medical teachers' and students' perspectives on medical school accreditation. It demonstrates that the impact of medical education accreditation is complex and includes many unintended consequences. Power differentials between stakeholders, the credibility of the accreditation process, the influence of accreditation on medical education programmes, and the culture and behaviour of stakeholders engaging in the process are all important aspects of how medical teachers and students experience accreditation. Although medical teachers and students recognise many positive impacts of accreditation, they also perceive many negative impacts, which policymakers and regulators can seek to address as they work to improve current accreditation policies and practices.

Declaration of interest:

The authors report no declarations of interest.

References

- Alrebish SA, Jolly BC, Molloy EK. 2017. Accreditation of medical schools in Saudi Arabia: A qualitative study. *Med Teach*. 39:S1–S7.
- Atkins S, Lewin S, Smith H, Engel M, Fretheim A, Volmink J. 2008. Conducting a meta-ethnography of qualitative literature: Lessons learnt. *BMC Med Res Methodol* [Internet]. 8(1):21. <https://doi.org/10.1186/1471-2288-8-21>
- Ball SJ. 1990. Foucault and Education: DIsciplines and Knowledge. In: London: Routledge; p. 23.
- Bezuidenhout MJ. 2007. Quality Assurance in Undergraduate Medical Education: A Guide for Accreditation Reviews. *South African J High Educ*. 21(5):427–440.
- Biggs J. 2001. The reflective institution: Assuring and enhancing the quality of teaching and learning. *High Educ*. 41(3):221–238.
- Blouin D. 2019. Accreditation of Canadian Undergraduate Medical Education Programs. *Acad Med*:1.
- Blouin D, Tekian A, Kamin C, Harris IB. 2018. The impact of accreditation on medical schools' processes. *Med Educ*. 52(2):182–191.
- Buja LM. 2019. Medical education today: all that glitters is not gold. *BMC Med Educ* [Internet]. 19(1):110. <https://doi.org/10.1186/s12909-019-1535-9>
- Campbell R, Pound P, Morgan M, Daker-White G, Britten N, Pill R, Yardley L, Pope C, Donovan J. 2011. Evaluating meta-ethnography: systematic analysis and synthesis of qualitative research. *Health Technol Assess*. 15(43):1–164.
- CASP. 2020. Critical Appraisal Skills Programme (Qualitative). *Crit Apprais Ski Program* [Internet].(2020). <https://casp-uk.net/casp-tools-checklists/>
- Crampton P, Mehdizadeh L, Page M, Knight L, Griffin A. 2019. Realist evaluation of UK medical education quality assurance. *BMJ Open* [Internet]. 9(12):e033614. <https://bmjopen.bmj.com/lookup/doi/10.1136/bmjopen-2019-033614>
- Dixon-Woods M, Sutton AJ, Shaw RL. 2008. Appraising qualitative research for inclusion in systematic reviews: A quantitative and qualitative comparison of three methods (*Journal of Health Services Research and Policy* (2007) 12, (42-47)). *J Heal Serv Res Policy*. 13(1):56.
- Duvivier RJ, Boulet JR, Opalek A, van Zanten M, Norcini J. 2014. Overview of the world's medical schools: An update. *Med Educ*. 48(9):860–869.
- Elam P, Scales M, Pearson D. 2009. Do visits help improve the quality of teaching within undergraduate teaching practices? *Educ Prim Care*. 20(6):429–434.
- Elassy N. 2015. Student Involvement in the Egyptian Quality Assurance System. *Qual Assur Educ An Int Perspect*. 23(2):123–148.
- France EF, Uny I, Ring N, Turley RL, Maxwell M, Duncan EAS, Jepson RG, Roberts RJ, Noyes J. 2019. A methodological systematic review of meta-ethnography conduct to articulate the complex analytical phases. *BMC Med Res Methodol* [Internet]. 19(1):35. <https://doi.org/10.1186/s12874-019-0670-7>
- Frank JR, Taber S, Van Zanten M, Scheele F, Blouin D. 2020. The role of accreditation in 21st century health professions education: Report of an International Consensus Group. *BMC Med Educ* [Internet]. 20(Suppl 1):1–9. <http://dx.doi.org/10.1186/s12909-020-02121-5>
- Greenhalgh T, Peacock R. 2005. Effectiveness and efficiency of search methods in

- systematic reviews of complex evidence: Audit of primary sources. *Br Med J*. 331(7524):1064–1065.
- Ho MJ, Chang HH, Chiu YT, Norris JL. 2014. Effects of hospital accreditation on medical students: A national qualitative study in Taiwan. *Acad Med*. 89(11):1533–1539.
- Hodges BD, Maniate JM, Martimianakis MA (Tina), Alsuwaidan M, Segouin C. 2009. Cracks and crevices: Globalization discourse and medical education. *Med Teach* [Internet]. 31(10):910–917. <https://doi.org/10.3109/01421590802534932>
- Howe A. 2000. Teaching in practice: A qualitative factor analysis of community-based teaching. *Med Educ* [Internet]. 34(9):762–768. <https://go.openathens.net/redirector/nhs?url=https%3A%2F%2Fonlinelibrary.wiley.com%2Fdoi%2Ffull%2F10.1046%2Fj.1365-2923.2000.00576.x>
- Ibrahim H, Abdel-Razig S, Nair SC. 2015. Medical students' perceptions of international accreditation. *Int J Med Educ* [Internet]. 6:121–124. [http://europepmc.org/search?query=\(DOI:10.5116/ijme.5610.3116\)](http://europepmc.org/search?query=(DOI:10.5116/ijme.5610.3116))
- Javidan A, Raveendran L, Rai Y, Tackett S, Kulasegaram KM, Whitehead C, Rosenfield J, Houston P. 2020. Fostering trust, collaboration, and a culture of continuous quality improvement: A call for transparency in medical school accreditation. *Can Med Educ J*. 11(5):102–108.
- Karle H. 2006. Global standards and accreditation in medical education: a view from the WFME. *Acad Med*. 81(12 Suppl):S43-8.
- Khan AW, Sethi A, Wajid G, Yasmeen R. 2020. Challenges towards quality assurance of basic medical education in Pakistan. *Pakistan J Med Sci*. 36(2):4–9.
- Kuper A, Lingard L, Levinson W. 2008. Critically appraising qualitative research. *BMJ* [Internet]. 337. <https://www.bmj.com/content/337/bmj.a1035>
- Liberati A, Altman DG, Tetzlaff J, Mulrow C, Gøtzsche PC, Ioannidis JPA, Clarke M, Devereaux PJ, Kleijnen J, Moher D. 2009. The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate healthcare interventions: explanation and elaboration. *BMJ* [Internet]. 339. <https://www.bmj.com/content/339/bmj.b2700>
- Meeuwissen SNE, Spruijt A, van Veen JW, de Goeij AFPM. 2019. Student Participation in Governance of Medical and Veterinary Education: Experiences and Perspectives of Student Representatives and Program Directors. *Adv Heal Sci Educ*. 24(4):665–690.
- Al Mohaimeed A, Midhet F, Barrimah I, Saleh MN-E-D. 2012. Academic accreditation process: experience of a medical college in Saudi Arabia. *Int J Health Sci (Qassim)*. 6(1):23–29.
- Muhtadi DJ. 2013. The benefits and costs of accreditation of undergraduate medical education programs leading to the MD degree in the United States and its territories :: University of Southern California Dissertations and Theses [Internet]. [accessed 2020 Apr 12]. <http://digitalibrary.usc.edu/cdm/ref/collection/p15799coll3/id/316123>
- Nestel D, Ivkovic A, Hill RA, Warrens AN, Paraskevas PA, McDonnell JA, Mudarikwa RS, Browne C. 2012. Benefits and Challenges of Focus Groups in the Evaluation of a New Graduate Entry Medical Programme. *Assess Eval High Educ*. 37(1):1–17.
- Noblit GW, Hare RD. 1988. *Meta-Ethnography: Synthesizing Qualitative Studies*. [place unknown]: SAGE Publications Inc.
- Parry J, Mathers J, Thomas H, Lilford R, Stevens A, Spurgeon P. 2008. More students, less capacity? An assessment of the competing demands on academic medical staff. *Med Educ*

[Internet]. 42(12):1155–1165.

<https://go.openathens.net/redirector/nhs?url=https%3A%2F%2Fonlinelibrary.wiley.com%2Fdoi%2Ffull%2F10.1111%2Fj.1365-2923.2008.03234.x>

Sayers A. 2011. Tips and tricks in performing a systematic review. *Br J Gen Pract* [Internet]. 354(May):1–9. [papers2://publication/uuid/4E029D53-76EB-4159-8760-F795FAF49BFE](https://pubmed.ncbi.nlm.nih.gov/21484441/)

Sharifi M, Raeissi P, Gorji HA, Aryankhesal A. 2019. Developing a Model for Accreditation of Iranian Teaching Hospitals: A Qualitative Study. *Ethiop J Health Sci* [Internet]. 29(6):657–668. [http://europepmc.org/search?query=\(DOI:10.4314/ejhs.v29i6.2\)](http://europepmc.org/search?query=(DOI:10.4314/ejhs.v29i6.2))

Sjöström H, Christensen L, Nystrup J, Karle H. 2019. Quality assurance of medical education: Lessons learned from use and analysis of the WFME global standards. *Med Teach*. 41(6):650–655.

Stalmeijer R, Whittingham J, de Grave W, Dolmans D. 2016. Strengthening internal quality assurance processes: facilitating student evaluation committees to contribute. *Assess Eval High Educ* [Internet]. 41(1):53–66. <http://dx.doi.org/10.1080/02602938.2014.976760>

Tackett S. 2019. Examining the Educational Commission for Foreign Medical Graduates Announcement Requiring Medical School Accreditation Beginning in 2023. *Acad Med*. 94(7):943–949.

Tackett S, Zhang C, Nassery N, Caufield-Noll C, Van Zanten M. 2019. Describing the Evidence Base for Accreditation in Undergraduate Medical Education Internationally: A Scoping Review. *Acad Med* [Internet]. [accessed 2020 Apr 12] 94(12):1995–2008. <http://www.ncbi.nlm.nih.gov/pubmed/31274521>

Toye F, Seers K, Allcock N, Briggs M, Carr E, Andrews J, Barker K. 2013. A meta-ethnography of patients' experience of chronic non-malignant musculoskeletal pain. In: *Heal Serv Deliv Res* [Internet]. Vol. 1. Southampton; p. 1–190. <https://www.ncbi.nlm.nih.gov/books/NBK262996/>

Wajid G, Sethi A, Khan RA, Aamir HS. 2019. World federation for medical education: Appropriateness of basic medical education standards in Pakistan. *Pakistan J Med Sci* [Internet]. 35(5):1185–1191. [http://europepmc.org/search?query=\(DOI:10.12669/pjms.35.5.882\)](http://europepmc.org/search?query=(DOI:10.12669/pjms.35.5.882))

White J, Paslawski T, Kearney R. 2013. “Discovery Learning”: An account of rapid curriculum change in response to accreditation. *Med Teach*. 35(7).

Table 1. Search terms used for each database systematically searched.

Database	Search term
Pubmed	("Quality assur*" OR Accredit* OR Governance) AND (Interview OR Qualitative OR "Focus group*" OR Transcript) AND (Student* OR Teacher* OR Tutor* OR Learner* OR Undergraduate* OR Postgraduate*) AND ("Medical education" OR "Medical school" OR Medicine)
EMBASE	((("Quality assur*" OR Accredit* OR Governance).af AND (Interview OR Qualitative OR "Focus group*" OR Transcript).af) AND (Student* OR Teacher* OR Tutor* OR Learner* OR Undergraduate* OR Postgraduate*).af) AND ("Medical education" OR "Medical school" OR Medicine).af
ERIC	Accreditation "quality assurance" "medical school" "medical education" qualitative
PsychINFO	("Quality assur*" OR Accredit* OR Governance) AND (Interview OR Qualitative OR "Focus group*" OR Transcript) AND (Student* OR Teacher* OR Tutor* OR Learner* OR Undergraduate* OR Postgraduate*) AND ("Medical education" OR "Medical school" OR Medicine)

Table 2. Description of included studies (n=18), ordered by first-author.

#	Author, year	Sample size	Methods	Country	KEY/SAT
1	Al Mohaimeed <i>et al.</i> , 2012	91	Self-administered questionnaires, focus group	Saudi Arabia	SAT
2	Alrebish, Jolly and Molloy, 2017	16*	Interviews, focus groups, evaluation of documents and self-study reports	Saudi Arabia	SAT
3	Bezuidenhout, 2007	17	Interviews and focus groups	South Africa	SAT
4	Blouin <i>et al.</i> , 2018	63	Interviews, focus groups	Canada	KEY
5	Blouin, 2019	63	Interviews, focus groups	Canada	KEY
6	Crampton <i>et al.</i> , 2019	34	Semi-structured interviews	United Kingdom	SAT
7	Elam, Scales and Pearson, 2009	56	Questionnaires	United Kingdom	SAT
8	Elassy, 2015	134	Interviews, focus groups	Egypt	SAT
9	Ho <i>et al.</i> , 2014	34	Semi-structured interviews	Taiwan	KEY
10	Howe, 2000	120	Questionnaires, semi-structured interviews	United Kingdom	SAT
11	Ibrahim, Abdel-Razig and Nair, 2015	78	Questionnaires	UAE	SAT
12	Khan <i>et al.</i> , 2020	12	Semi-structured interviews, focus groups	Pakistan	SAT
13	Meeuwissen <i>et al.</i> , 2019	43	Questionnaires, semi-structured interviews, focus groups	Netherlands	SAT
14	Parry <i>et al.</i> , 2008	60	Semi-structured interviews	United Kingdom	SAT

15	Sharifi <i>et al.</i> , 2019	19	Semi-structured interviews	Iran	SAT
16	Stalmeijer <i>et al.</i> , 2016	36	Questionnaires, semi- structured interviews, focus groups, critical incident reports	Netherlands	SAT
17	Wajid <i>et al.</i> , 2019	127	Questionnaires	Pakistan	SAT
18	White, Paslawski and Kearney, 2013	14	Semi-structured interviews	Canada	SAT

* Alrebish *et al.* (2017) did not specify the exact participant count in their paper, but conducted eight focus groups and eight individual interviews

Figure 1

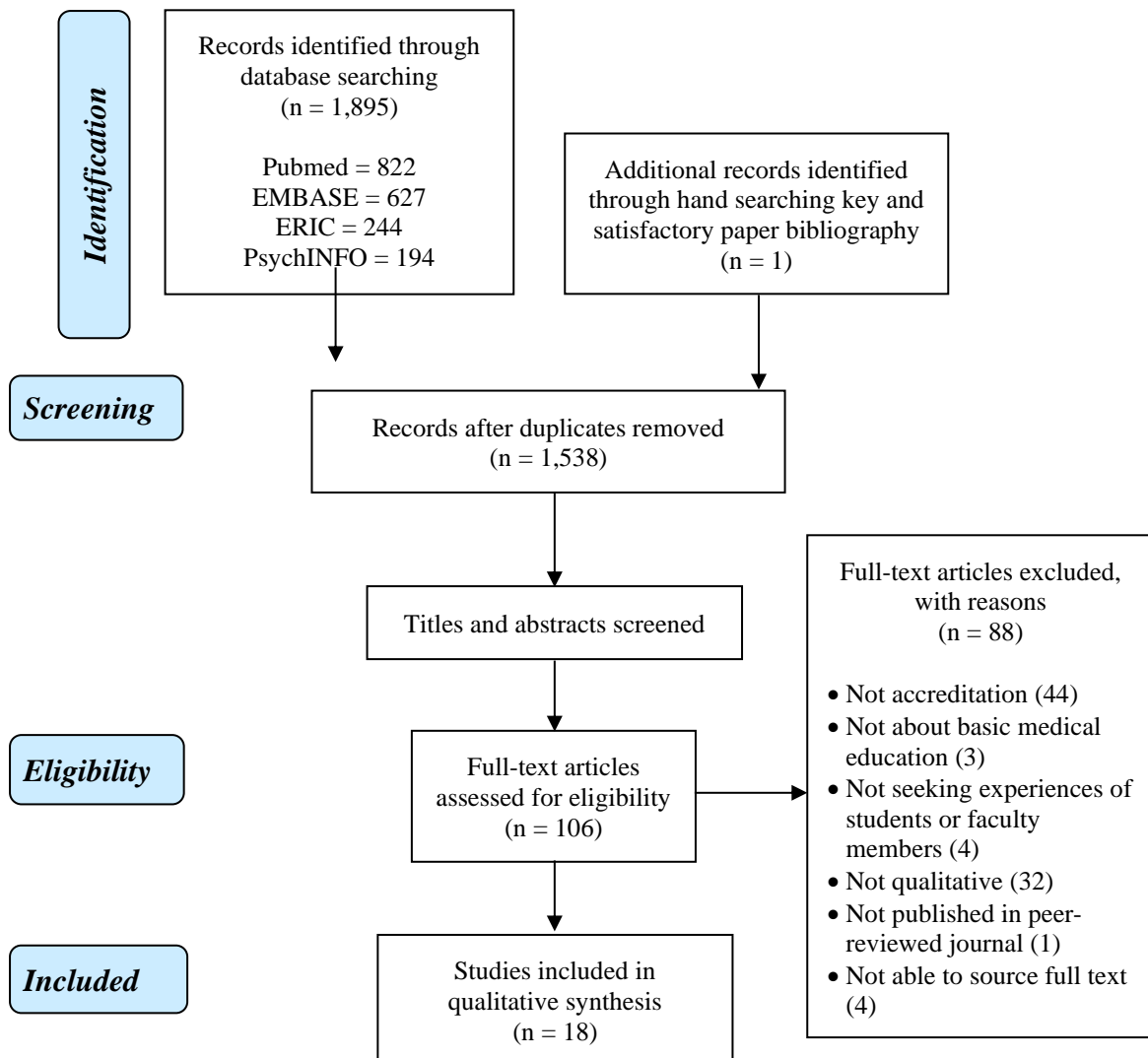


Table 3. Table collating the formulated third-order constructs by researchers based on second-order constructs extracted from research articles that met the search criteria.

<i>Third-order constructs & second-order construct</i>	Articles	Illustrative first order construct
<i>Navigating power differentials</i>		
Value of student engagement	5, 8, 9, 10, 13, 14, 17, 18	“They [students] think in other frameworks. They can much easier think out of the box and come up with smart, creative solutions. Of course [those solutions are] based on their interest, but also based on their youth, another phase of life, and having another input and output” (Meeuwissen et al. 2019)
Personal value to students	8, 13	“[...] we want to participate in committees at all levels, because we then can change the rules for students’ benefits or at least we will be aware of the rules and can understand the unchangeable regulations.” (Howe 2000)
Student-teacher relationship	5, 8, 13, 14, 17, 19	“There’s an understanding that undergraduate teaching is an important part of the role of the professorship here. By involving large number of people with students whose names they get to know, whose face they recognize, they run into them in the hallways. What you’ve done is you’ve vastly increased the visibility of undergraduate education to the faculty as a whole. You can no longer be forgotten and I think it enriches the life of the faculty, makes them excited about the enthusiasm of the students that they encounter.” (White et al. 2013)
Appropriate agency powers	4, 6, 9, 15, 18, 19	“The system is oriented towards having the potential to disrupt the reputation of a school, to have profound impact on its ability to fundraise, a profound effect on maybe the quality of students that subsequently try to get into the medical school.” (Blouin et al. 2018)
<i>Evaluating credibility</i>		
Validity of standards	2, 3, 4, 5, 6, 8, 9, 12, 15, 18, 19	“When you’re reviewed externally you always put your best foot forward. You can paper over the cracks, you want people to think you’re good, and that means that you never acknowledge problems, or problems aren’t noticed, because you can sometimes do a very good job of papering over the cracks, so that people don’t actually realise that cracks are there, but, if nobody actually realises the cracks are there and doesn’t do anything about it, well, we all know what happens to buildings when that happens...you know, we’ve been done by the GMC, we had our periodic review, all these things gave us good reports, but I’m aware that perhaps we were covering up things.” (Parry et al. 2008)

Confidence in assessors	3, 6, 9, 12, 18, 19	“If we don’t know why the accreditation body is established, and how the accreditation surveyors are selected, how can we believe they are competent enough?” (Ho et al. 2014)
Site visits	8, 9, 12	“The hospital is brand new. The floor was polished with wax. Normally the hand sanitizers are empty, but all of the sudden they were full.” (Ho et al. 2014)

Influencing medical programmes

Control on curriculum	2, 4, 6, 11, 16, 18, 19	“Our curriculum was very decentralized and coordinators at both the clerkship and pre-clinical level had pretty much free reign. They could do whatever they want and [the curriculum committee] had very little control.” (White et al. 2013)
Curriculum changes	2, 4, 5, 9, 11, 16, 19	“There were a lot of changes that came out of that accreditation cycle in [year]. We switched to active learning, we started to take harassment more seriously, we started to take resident teacher training more seriously. There were lots of different things we did. A lot of curricular transformation.” (Blouin et al. 2018)
Impact on teaching and learning	2, 6, 8, 9, 11, 12, 19	“At the time of the visit there was a change, but after the visit they returned [to the usual] practice just like the past.” (Alrebish et al. 2017)
Resource implications	2, 4, 5, 8, 9, 10, 12, 16	“I mentioned earlier the curriculum mapping tool we just bought. This is a huge expense for the School of Medicine and I think it’s a good thing. If it hadn’t been for accreditation, I am not sure we would have had the support of the university to buy this resource.” (Blouin et al. 2018) “When you start spending huge amounts of time and money that seems to increase every cycle, I think that’s part of the problem, is standards appear to be increasing if not ultimately, certainly in the amount of work it takes to satisfy the standard. The workload increases, the costs increase and it’s very hard to tie back the bang for the buck, certainly at specific standards and maybe for the whole process.” (Blouin et al. 2018)

Culture and behaviour

Attitudes to regulation	5, 9, 12, 19	“I would hope then that you would have faculty members that are engaged in faculty development for their own purposes, that you have faculty members that recognize the importance of being involved in curriculum development and curriculum review, that they believe in sound pedagogy and are teaching by that.” (Blouin 2019)
Dedicated staff time	2, 4	“Someone who’s overseeing things at the medical school level so that it’s not just me making changes with a colleague but there’s some oversight so that someone can see the whole big

Staff morale	4, 9	<p>picture, and I think that's a change that's come about." (Blouin et al. 2018)</p> <p>"A lot of engagement has been lost, that means a lot of people feel disempowered and disenfranchised, that means a lot of people have left medical education and left the medical school and will not come back, and it means that a lot of relationships have been damaged." (Blouin et al. 2018)</p>
Patient safety movement	9, 11	<p>"More human resources and time are needed to have the requirements of accreditation done. Therefore the clinical work is definitely affected. If you are a patient in the hospital then, it is certainly not beneficial for you." (Ho et al. 2014)</p> <p>"We will learn up-to-date and evidence-based practices that will help us provide the best care to our patients." (Ibrahim et al. 2015)</p>