



Quality assessment of the satisfaction degree in anesthesia: overview of systematic reviews

Avaliação da qualidade do grau de satisfação em anestesia: revisão sistemática de revisões sistemáticas

Evaluación de la calidad del grado de satisfacción en anestesia: revisión sistemática de revisiones sistemáticas

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RESUMO

Justificativa e objetivo: Não existem questionários validados que avaliem a satisfação dos pacientes com os cuidados anestésicos no Brasil, por isso é importante identificar revisões sistemáticas que analisaram esse cenário. O objetivo desta revisão sistemática é descrever a qualidade das revisões sistemáticas que avaliaram o grau de satisfação em anestesia. **Métodos:** Pesquisamos no Cochrane Central Register of Controlled Trials, MEDLINE via PubMed, Lilacs, SCOPUS e listas de referências dos estudos incluídos. A partir da coleção de estudos selecionados, dois revisores verificaram de forma independente a qualidade das revisões sistemáticas, analisando o risco de viés. O risco de viés foi verificado por meio da escala AMSTAR-R. O número de registro é CRD42023406063. **Resultados:** Foram identificados 5.124 artigos no total, incluindo 3.910 da MEDLINE, 543 da SCOPUS, 406 da The Cochrane Library e 175 da LILACS. Os 4 artigos que passaram na fase de seleção foram lidos na íntegra e 2 foram excluídos. **Conclusão:** Identificamos duas revisões sistemáticas, porém não puderam ser classificadas como de baixo risco de viés. As revisões sistemáticas indicam seis instrumentos validados que passaram por todas as etapas de criação e validação do questionário.

ABSTRACT

Context and objective: There are not validated questionnaires that assess patient satisfaction with anesthesia care in Brazil, so it is important to identify systematic reviews that analyzed this scenario. The purpose of this systematic review is to describe the quality of systematic reviews that assessed the degree of satisfaction in anesthesia. **Methods:** We searched The Cochrane Central Register of Controlled Trials, MEDLINE via PubMed, Lilacs, SCOPUS and reference lists of the studies included. From the collection of selected studies, two reviewers independently checked the quality of the systematic reviews by analyzing the risk of bias. The risk of bias was verified using the AMSTAR-R scale. Registration number is CRD42023406063. **Results:** We identified 5124 articles

Palavras-Chave

Anestesia epidural;
Anestesia geral;
Anestesia espinal.

Keywords

Anesthesia, epidural;
Anesthesia, general;
Anesthesia spinal.

in total, including 3910 from MEDLINE, 543 from SCOPUS, 406 from The Cochrane Library and 175 from LILACS. The 4 articles that passed the selection phase were read in full and 2 were excluded. **Conclusion:** We identified two systematic reviews, however they could not be classified as low risk of bias. The systematic reviews indicate six validated instruments that went through all stages of questionnaire creation and validation.

RESUMEN

Fundamento y objetivo: No existen cuestionarios validados que evalúen la satisfacción del paciente con la atención anestésica en Brasil, por lo que es importante identificar revisiones sistemáticas que analicen este escenario. El propósito de esta revisión sistemática es describir la calidad de las revisiones sistemáticas que evaluaron el grado de satisfacción en anestesia. **Métodos:** Se realizaron búsquedas en el Registro Cochrane Central de Ensayos Controlados, MEDLINE vía PubMed, Lilacs, SCOPUS y en las listas de referencias de los estudios incluidos. De la colección de estudios seleccionados, dos revisores verificaron de forma independiente la calidad de las revisiones sistemáticas analizando el riesgo de sesgo. El riesgo de sesgo se verificó mediante la escala AMSTAR-R. El número de registro es CRD42023406063. **Resultados:** Identificamos 5124 artículos en total, incluidos 3910 de MEDLINE, 543 de SCOPUS, 406 de la Biblioteca Cochrane y 175 de LILACS. Los 4 artículos que pasaron la fase de selección fueron leídos íntegramente y 2 fueron excluidos. **Conclusión:** Identificamos dos revisiones sistemáticas, sin embargo, no pudieron clasificarse como de bajo riesgo de sesgo. Las revisiones sistemáticas indican seis instrumentos validados que pasaron por todas las etapas de creación y validación del cuestionario.

Palabras Clave

*Anestesia epidural;
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Introduction

Patient satisfaction is an outcome discussed in healthcare as a factor indicating a good service, mainly in anesthesiology (1). Psychometric validated instruments are needed to assess patient satisfaction. Good questionnaires should have some elements such as content validity, criterion validity, construct validity, reliability and acceptability (2).

Nowadays, there are not validated questionnaires that assess patient satisfaction with anesthesia care in Brazil. It is important to identify systematic reviews that analyzed this scenario. Good quality systematic reviews can identify and indicate validated questionnaires to clinical practice, so our purpose is to describe the quality of systematic reviews that assessed the degree of satisfaction in anesthesia.

Method

The research project was developed a priori and registered on the PROSPERO platform, International prospective register of systematic reviews, available at <https://www.crd.york.ac.uk/prosperto/>, with registration number CRD42023406063. The title of the

journals, the institutions of the authors of the included articles and the titles of the authors did not influence the results. The search did not have language restrictions.

The following databases were used: MEDLINE (Medical Analysis and Retrieval System Online) via Pubmed from January 1966 to November 2023, available at <https://pubmed.ncbi.nlm.nih.gov/>; The Cochrane Library available at <https://www.cochranelibrary.com/>; SCOPUS from inception until November 2023, available at <https://www.scopus.com/>; and LILACS (Latin American and Caribbean Literature in Health Sciences) from January 1982 to November available at <http://lilacs.bvsalud.org/>. The references of the included articles were evaluated in an attempt to identify more studies.

The search strategy used in MEDLINE via Pubmed was adapted for the other databases. The search strategy for MEDLINE was: (("systematic review"[Publication Type] OR "systematic reviews as topic"[MeSH Terms] OR "systematic review"[All Fields]) AND ("patient satisfaction"[MeSH Terms] OR PATIENT satisfaction[Text Word])). The original articles with the potential to answer the systematic review question were gathered together to be read in full. Original articles that were duplicates, had incomplete data or were not available in full were excluded from this systematic review.

Two reviewers independently assessed the titles and abstracts of all systematic review reports. Disagreements were discussed in consensus meetings between reviewers. From the collection of identified studies, two reviewers checked whether the studies found answered the question of this systematic review. Disagreements were discussed in consensus meetings between reviewers.

Data from systematic reviews included were extracted by Barbosa FT. The selection and analysis of studies were carried out without blinding, that is, there was prior knowledge of the authors, institutions, publication journals and results.

From the collection of selected studies, two reviewers independently checked the quality of the systematic reviews by analyzing the risk of bias. The risk of bias was verified using the AMSTAR-R scale (3). AMSTAR-R consists of an instrument with 11 questions to assess the methodological quality of systematic reviews. A score of points from 1 to 4 can be given to each domain based on pre-established criteria. Methodological quality can be given by the sum of points. Questions 9 and 10 refer to the statistical analysis of the data and were not considered in this systematic review as it is expected that meta-analysis will not be performed in studies to assess the level of satisfaction. For this systematic review, scores of 30 or greater were considered to be at low risk of bias and scores below 30 were considered to be at high risk of bias. Discrepancies were resolved in consensus meetings.

Results

We identified 5124 articles in total, including 3910 from MEDLINE, 543 from SCOPUS, 406 from The Cochrane Library and 175 from LILACS. The search in the references of the included articles did not add any new articles. In the selection phase, 5120 articles were excluded by reading titles and abstracts. The 4 articles that passed the selection phase were read in full and 2 were excluded. At the end of the entire process, only 2 were included in this systematic review (4,5).

The risk of bias was assessed using the AMSTAR-R scale modified by the authors. The result of this analysis can be seen in Table 1. The two systematic reviews were classified as being at high risk of bias.

Table 1 Task of bias assessment

Author	1 Was an 'a priori' design provid ed?	2 Was there dupli cate study select ion and data extrac tion?	3 Was a compr ehensi ve literat ure search perfor med?	4 Was the status of public ation used as an inclusi on criterio n?	5 Was a list of studie s (inclu ded and exclu ded) provi ded?	6 Were the charac teristic s of the includ ed studie s provid ed?	7 Was the scienti fic qualit y of the includ ed studie s assess ed and docum ented?	8 Was the scientific quality of the include d studies used appropri ately in formul ating conclus ions?	9 Was the conflict of interes t stated?	Total
Benet et al (4)	2	1	4	3	3	4	2	1	1	21
Chanth ong et al (5)	2	2	4	3	2	4	2	4	2	25

Of the two systematic reviews included, one did not indicate instruments to be used in clinical practice (5), and one indicated 6 validated instruments (4) to clinical practice. The instruments indicated were: ISAS for monitored anesthesia (6), Quality of preanesthetic visit for anesthetic visit (7), perioperative questionnaire for the perioperative period (8), perioperative questionnaire for the

perioperative period (9), English adaptation of the LPPSq (10), and Heidelberg Perianesthetic questionnaire for the perioperative period (11).

Discussion

Summary of findings

The preliminary search for articles that answered the question of this systematic review was small, so a broader strategy was used to identify articles. Despite more than 5000 titles being evaluated, only two could be included. Our quality analysis does not allow us to indicate the selected reviews as a guiding instrument for clinical practice.

Limitations

AMSTAR-R is not a specific tool for evaluating systematic reviews of patient-reported outcome measures, however, no alternative instrument was found to perform the risk of bias analysis. AMSTAR had two items missing from the analysis, but the items refer to statistical analysis and it was expected by the authors of this review that these types of systematic reviews would not perform meta-analysis. The deletion of two items may have altered the validation of the instrument, however we included a brief description of all instruments indicated by the reviews so that the reader can make their own judgment without considering the analysis of the systematic reviews included.

Implications

The main items for systematic reviews are: protocol developed a priori; description of the identification, selection, extraction and analysis processes of included articles, description of the literature used; detailed description of the articles included; the list of excluded articles; analysis of risk of bias; the criteria for statistical analysis; the conclusion based on the risk of bias, and the conflict of interests (3, 12). The evidences identified through a systematic review provide the greater confidences at perioperative care and bring benefits to health service and patients (12). The included reviews presented problems in all items that could not be classified as low risk of bias.

The main implication for clinical practice from this overview is that the instruments indicated by systematic reviews must be evaluated by professionals before their inclusion in daily practice. The professional must be trained to evaluate the validation process, reproducibility and acceptability of questionnaires constructed using psychometric techniques.

The implication for future research is that the need to create instruments that assess the risk of bias for overviews that asystematic reviews of patient-reported outcome measures was highlighted. The absence of these instruments can lead to wrong conclusions and inappropriate recommendations for clinical practice.

Conclusion

We identified two systematic reviews, however they could not be classified as low risk of bias. The systematic reviews indicate six validated instruments that went through all stages of questionnaire creation and validation.

References

- 1 Bello C, Nübling M, Luedi MM, Heidegger T. Patient satisfaction in anesthesiology: a narrative review. *Curr Opin Anaesthesiol*. 2023;36(4):452-59. doi: 10.1097/ACO.0000000000001270.
- 2 Heidegger T, Saal D, Nuebling M. Patient satisfaction with anaesthesia care: what is patient satisfaction, how should it be measured, and what is the evidence for assuring high patient satisfaction? *Best Pract Res Clin Anaesthesiol*. 2006;20(2):331-46. doi: 10.1016/j.bpa.2005.10.010.
- 3 Shea BJ, Grimshaw JM, Wells GA, Boers M, Andersson N, Hamel C, et al. Development of AMSTAR: a measurement tool to assess the methodological quality of systematic reviews. *BMC Med Res Methodol*. 2007;7:10. doi: 10.1186/1471-2288-7-10.
- 4 Barnett SF, Alagar RK, Grocott MP, Giannaris S, Dick JR, Moonesinghe SR. Patient-satisfaction measures in anesthesia: qualitative systematic review. *Anesthesiology*. 2013;119(2):452-78. doi: 10.1097/ALN.0b013e3182976014.
- 5 Chanthong P, Abrishami A, Wong J, Herrera F, Chung F. Systematic review of questionnaires measuring patient satisfaction in ambulatory anesthesia. *Anesthesiology*. 2009;110(5):1061-7. doi: 10.1097/ALN.0b013e31819db079.
- 6 Dexter F, Aker J, Wright WA: Development of a measure of patient satisfaction with monitored anesthesia care: The Iowa Satisfaction with Anesthesia Scale. *Anesthesiology* 1997; 87:865–73. doi: 10.1097/00000542-199710000-00021
- 7 Snyder-Ramos SA, Seintsch H, Böttiger BW, Motsch J, Martin E, Bauer M. Patient satisfaction and information gain after the preanesthetic visit: A comparison of face-to-face inter- view, brochure, and video. *Anesth Analg* 2005;100:1753–8. doi: 10.1213/01.ANE.0000153010.49776.E5.

- 8 Capuzzo M, Landi F, Bassani A, Grassi L, Volta CA, Alvisi R. Emotional and interpersonal factors are most important for patient satisfaction with anaesthesia. *Acta Anaesthesiol Scand* 2005; 49:735–42. doi: 10.1111/j.1399-6576.2005.00738.x.
- 9 Bauer M, Böhrer H, Aichele G, Bach A, Martin E. Measuring patient satisfaction with anaesthesia: Perioperative questionnaire versus standardised face-to-face interview. *Acta Anaesthesiol Scand* 2001; 45:65–72. doi: 10.1034/j.1399-6576.2001.450111.x.
- 10 Jla HA, Caljouw MA, Bedforth NM, Hardman JG: Patient satisfaction with perioperative care among patients having orthopedic surgery in a university hospital. *Local Reg Anesth* 2010; 3:49–55. doi: 10.2147/lra.s11381.
- 11 Schiff JH, Fornaschon AS, Frankenhauser S, Schiff M, Snyder-Ramos SA, Martin E, et al. The Heidelberg Peri-anaesthetic Questionnaire— Development of a new refined psychometric questionnaire. *Anaesthesia* 2008; 63:1096–104. doi: 10.1111/j.1365-2044.2008.05576.x.
- 12 Barbosa FT, Lira AB, Oliveira Neto OB, Santos LL, Santos IO, Barbosa LT, et al. Tutorial for performing systematic review and meta-analysis with interventional anesthesia studies. *Braz J Anesthesiol*. 2019;69(3):299-06. doi: 10.1016/j.bjan.2018.11.007.

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