Available online at www.sciencedirect.com
ScienceDirect
British Journal of Oral and Maxillofacial Surgery xxx (2017) xxx–xxx
BRITISH Journal of Oral and Maxillofacial Surgery
www.bjoms.com

Review

Use of patient-reported outcome measures in oral and maxillofacial trauma surgery: a review

R. Ologunde *, N.M.H. McLeod

Oxford University Hospitals NHS Foundation Trust, Oxford, UK

Abstract

In the UK, about one person/100/year sustains a facial injury, so trauma surgery accounts for a considerable part of the caseload in oral and maxillofacial surgery (OMFS). Patient-reported outcome measures (PROM) allow for patient-centred assessment of postoperative outcomes, but to our knowledge, most research in OMFS trauma does not currently include them. To investigate their use, we searched Medline to find relevant studies that reported outcomes from inception in January 1879 to August 2016. Those not in the English language and those that did not report operations were excluded. We retrieved 416 articles, of which 21 met the inclusion criteria (five randomised controlled trials and 16 cohort studies) yielding 16 outcome measures. Most of these had been devised by authors (eight studies), four studies reported use of the Geriatric Oral Health Assessment Index, and three the Nasal Obstruction Symptom Evaluation. Most were used in studies on mandibular surgery (n = 13), followed by those on nasal and facial surgery (n = 3 each). There is a great heterogeneity in the use of these assessments in OMF trauma. In view of their increasing importance compared with simpler objective measures that may not be relevant to the patients' own perception, more research is needed to establish which of them can be used to measure the QoL of patients treated for OMF trauma.

Keywords: PROM; maxillofacial; trauma; surgery

Introduction

Trauma surgery forms a considerable part of the caseload of oral and maxillofacial (OMF) surgeons.[1] To the best of our knowledge, most studies on outcome after trauma report the use of simple objective measures of form, function, or symptoms (such as mouth opening or the presence or absence of diplopia), which do not always correlate with the patient's own perception or their quality of life. Patient-reported outcome measures (PROM) are increasingly being used, but to our knowledge, most studies on OMF trauma do not currently include them. Those that do, however, use different ones that are not directly comparable. To develop some recommendations to enable more consistent reporting of outcomes after the treatment of maxillofacial trauma, we have investigated their use.

PROMs are standardised, validated questionnaires that assess general health or health that is related to a specific disease or illness,[2] and they provide information on the patients' perspectives of their health, function, and quality of life (QoL) after treatment. They were initially used in clinical trials to assess the effectiveness of treatments,[2] and in the UK were first used in 2008 in a voluntary audit of mastectomy and breast reconstruction.[3] In April 2009 they were introduced into routine practice to assess outcome and quality of care in patients who had had elective hip and knee replacements, repair of hernias in the groin, and varicose vein surgery.[4] They are increasingly being used to guide the management of individual patients and have been included in the NHS Outcome Framework since April 2013. There are now plans to

* Corresponding author at: Department of Oral & Maxillofacial Surgery, Orthodontics & Restorative Dentistry, John Radcliffe Hospital, Oxford University Hospitals NHS Trust, Headley Way, Oxford, OX3 9DU.
E-mail addresses: Rele.ologunde@doctors.org.uk (R. Ologunde), Niall.Mcleod@ouh.nhs.uk (N.M.H. McLeod).

https://doi.org/10.1016/j.bjoms.2018.03.010

Please cite this article in press as: Ologunde R, McLeod NMH. Use of patient-reported outcome measures in oral and maxillofacial trauma surgery: a review. *Br J Oral Maxillofac Surg* (2017), https://doi.org/10.1016/j.bjoms.2018.03.010

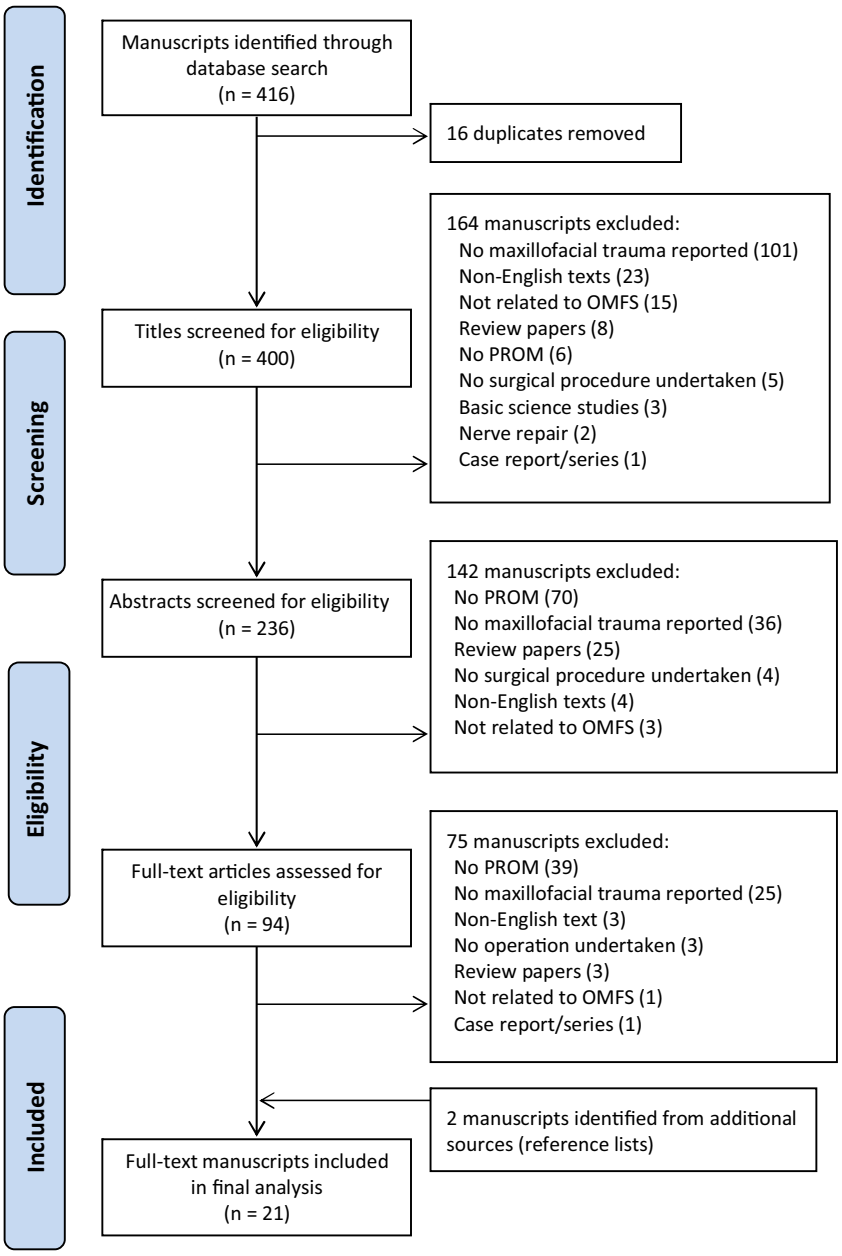

Fig. 1. Preferred reporting for systematic reviews and meta-analyses (PRISMA) diagram to show selection of studies.

expand their use to include more operations and the treatment of chronic conditions including mental illnesses.[5]

In clinical practice, the routine use of PROMs can be an effective and reproducible way to evaluate the quality of care, and can inform decisions about ongoing treatment. In clinical trials they can provide evidence of the effectiveness of a treatment in large groups that represent the general population,[6,7] and can be used to monitor disease progression. Findings can stimulate improvements in the quality of healthcare, as the data can be used to compare outcomes between providers.[8–10] PROMs have been used in national audits[11] and registers;[12] they have been used as screening tools,[13,14] and have helped to identify patients' preferences and to guide the decisions made about treatment.[13,15] They have also improved communication between the patient and provider.[16]

These measures can be broadly divided into two categories: generic (general global assessment of health-related QoL) and disease-specific (patients' assessments of their current status in relation to a particular condition). They have been widely used in head and neck surgery and in oral and maxillofacial surgery (OMFS), and several have been reported,[17,18] but they vary considerably in length, degree of validity, and use, and no gold standard has been identified. Their use in OMFS, and particularly in trauma surgery, can be challenging, as many comprise numerous domains that may not be relevant. Disease-specific measures should

Please cite this article in press as: Ologunde R, McLeod NMH. Use of patient-reported outcome measures in oral and maxillofacial trauma surgery: a review. *Br J Oral Maxillofac Surg* (2017), https://doi.org/10.1016/j.bjoms.2018.03.010