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Review

Research priority setting in plastic and reconstructive surgery: A systematic review[☆]

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Summary *Background:* The health research agenda has historically been led by researchers; however, their priorities may not necessarily align with those of patients, caregivers and clinicians. Research priority setting initiatives identify and prioritise topics which lack evidence. This is particularly important in plastic surgery, a speciality lacking high-quality evidence to definitively answer many common clinical questions. Research priorities direct research activity and funding, so their selection process must be representative and transparent. This review appraised all priority setting initiatives in plastic surgery using the reporting guideline for priority setting of health research (REPRISE).

Methods: OVID Medline, EMBASE, CINAHL and the James Lind Alliance (JLA) repository were searched (inception - 11/06/21) using search terms for ‘research priority setting’ and ‘plastic and reconstructive surgery’. Dual-author screening and data extraction were conducted, according to PRISMA.

Results: Of 3899 de-duplicated citations, 17 were included. Most studies were conducted in national (14/17), high-income (16/17) settings. More priority setting initiatives focussed on burns (6/17) and hand surgery (4/17) than other subspecialties. The JLA (5/17) and qualitative

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[#]This article is dedicated to Professor Amber Young.

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(5/17) approaches were most used for prioritisation, followed by Delphi techniques (3/17), other surveys (3/17) and mixed methods (1/17). A minority included patient (8/17) or multidisciplinary (8/17) stakeholders. Few reported strategies for implementing research priorities (6/17) or measuring their impact (2/17).

Conclusions: Stakeholders from lower-income countries are underrepresented in priority setting initiatives for plastic surgery, despite the global burden of disease. Future studies should recruit more patient and multidisciplinary stakeholders, to achieve meaningful consensus. Clear implementation strategies are needed to maximise impact.

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Introduction

The health research agenda has historically been led by researchers; however, their research priorities may not necessarily align with those of patients, caregivers and clinicians delivering patient care.¹⁻³ This mismatch may result in funding for research questions that do not address the shared interests of all relevant stakeholders. This is a frequent cause of avoidable research waste, alongside duplication of research.⁴⁻⁶ Research waste can be defined as research which is not prioritised or warranted, and does not lead to worthwhile achievements.^{5,6} Research priority setting initiatives are designed to identify and prioritise research questions without existing evidence that are important to stakeholders in discrete areas of healthcare. Numerous prioritisation approaches are available to gather and rank evidence uncertainties, using primary and/or secondary research methods.^{4,7}

Research prioritisation is particularly important in surgical research, given the disproportionately lower funding received compared with non-surgical research.^{8,9} For example, in the United Kingdom (UK), surgical research receives less than 5% of Government health research funding despite one third of admissions requiring surgical care.^{9,10} Compared with other surgical specialties, plastic and reconstructive surgery particularly lacks high-quality evidence to definitively answer many common clinical questions.^{11,12} This may be due to the small size¹¹ of the speciality and the difficulty in measuring subjective and aesthetic outcomes.¹³ This has generated many clinical uncertainties for research prioritisation and to date, various priority setting initiatives have been delivered in areas such as hand and upper limb surgery,¹⁴⁻¹⁷ burns,¹⁸⁻²⁴ congenital defects,²⁵ skin surgery,^{26,27} breast surgery,²⁸ and aesthetic surgery.²⁹

Research priorities have a significant impact on research activity and funding,^{14,30} so it is important that

Table 1 Inclusion and exclusion criteria.

| Inclusion criteria | Exclusion criteria |
|---|--|
| <ul style="list-style-type: none"> • Studies which elicited stakeholder priorities for research in plastic and reconstructive surgery • Full length, peer-reviewed, English language articles • Studies using the following methods for identifying research priorities: consensus methods (such as Delphi technique), workshops, consensus conferences, surveys and qualitative approaches (interviews and focus groups) • Published from database inception to 11th June 2021 | <ul style="list-style-type: none"> • Studies irrelevant to plastic and reconstructive surgery • Studies assessing priorities for practice and policy (quality indicators), not research • Non-original research (literature reviews, policy documents, clinical guidelines, editorials and commentaries) or basic science research • Protocol studies • Non-English language articles |

their selection process is transparent, representative and adequately reported.^{7,31,32} Previous systematic reviews of priority setting initiatives in various fields have demonstrated suboptimal reporting,³³⁻³⁹ and lack of patient involvement.^{36,38,39} The aim of this systematic review is to describe the scope, methodology and reporting quality of priority setting initiatives in plastic and reconstructive surgery, using the reporting guideline for priority setting of health research (REPRISE) checklist.³¹ The results will inform future researchers conducting research prioritisation in plastic surgery by summarising previous work, identifying areas that are still in need of prioritisation and highlighting both common deficiencies and examples of best practice in the methodology of previous initiatives.

Methods

This systematic review adheres to a pre-specified protocol (see supplemental digital content 1) and is reported in line with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses statement.⁴⁰ It was ineligible for PROSPERO registration as there are no direct health outcomes.

Identification of studies

Study eligibility

Inclusion and exclusion criteria are shown in [Table 1](#). Included studies were full-length peer-reviewed research articles describing research priority setting initiatives in plastic and reconstructive surgery, from database inception to 11th June 2021. Protocol studies were excluded because they lacked information on outcomes. If a research publication describing the priority setting initiative was not available, formal reports from the James Lind Alliance (JLA) website (or equivalent organisation) were used. Multiple publications describing the same research priority setting initiative were merged as one study.

Types of participants

All eligible research priority setting initiatives were included, regardless of type of participant. Stakeholders were defined as patients, carers, healthcare providers, researchers, policy makers and industry representatives.³¹

Types of interventions

Included studies elicited research priorities from stakeholders in areas related to plastic and reconstructive surgery, as defined by the Royal College of Surgeons.⁴¹

Types of outcome

For all included studies, the primary outcome was a final prioritised list of research topics or questions related to plastic and reconstructive surgery.

Search strategy

The following electronic databases were searched from inception to 11th June 2021: OVID Medline, OVID EMBASE and CINAHL. The JLA website was also searched for reports of relevant priority setting partnerships. A search string was developed to identify relevant papers, which included key search terms and medical subject headings for 'research priority setting' and 'plastic and reconstructive surgery'^{36,42} The database search strings can be found in the [supplemental digital content](#).

Study selection process

Search results were combined and de-duplicated using Covidence (Veritas Health Innovation Ltd., Melbourne, Australia). Articles were screened independently by two authors (AL and GH) in two stages (by title and abstract, and full text), according to pre-specified inclusion criteria ([Figure 1](#)). A third author (AY) was consulted if discrepancies in article screening could not be resolved.

Quality assessment

There is currently no risk of bias assessment tool for studies of research priority setting, and tools designed for trials and observational studies are not applicable. The REPRISE reporting guideline was used for data extraction and to assesses reporting quality.³¹ This checklist included items covering the context and scope of the priority setting initiative, governance and team members, stakeholder recruitment and characteristics, identification and prioritisation of research topics, dissemination of results, implementation

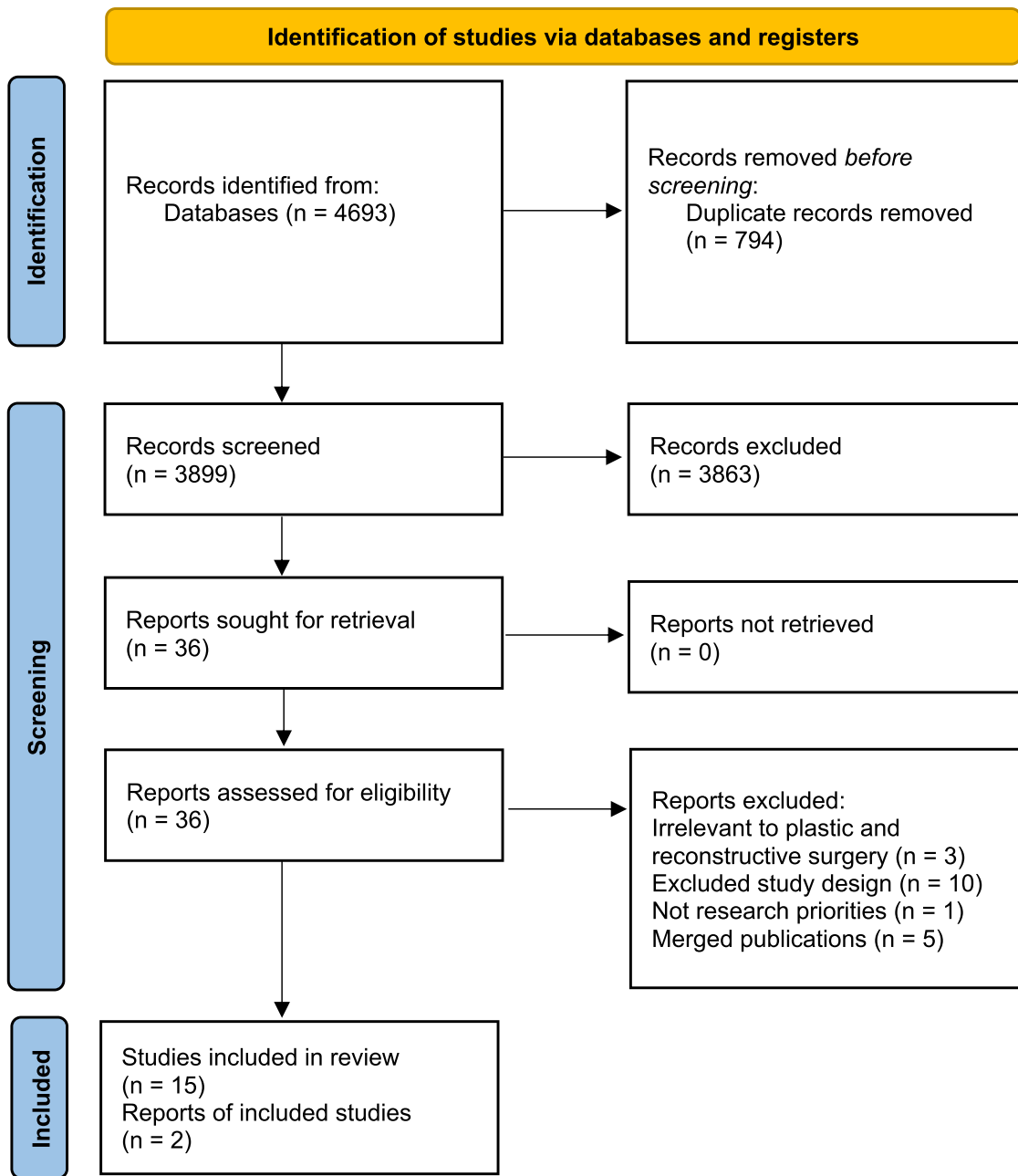


Figure 1 PRISMA flow diagram.

and evaluation, and disclosures of funding and conflicts of interest.

Data extraction

Data were extracted using a piloted data extraction form (Microsoft Excel) developed for the purposes of this review. Data were extracted independently by two authors (AL and GH). A third author (AY) was consulted if discrepancies in data extraction could not be resolved. Studies were categorised into eight subspecialty areas, adapted from the Royal College of Surgeons classification,⁴¹ including congenital conditions, breast surgery, skin surgery, trauma, burns,

hand and upper limb surgery, aesthetic surgery and other cancer-related reconstruction (e.g., head and neck cancer, sarcoma or perineal malignancy). Studies were defined as international if their stakeholder groups were multinational. Income status of the research setting (as stated in the text or affiliated with the corresponding author) was described according to the World Bank.⁴³ The World Bank categorises income status into the following: high, upper-middle, lower-middle and low income countries, based on Gross National Income per capita.⁴³ Studies were aggregated by the year of publication, pre- or post-2004, when the JLA was established.⁴⁴ Stakeholders were regarded multidisciplinary if more than one health profession (e.g., surgeon, nursing, therapy, etc.) was included.

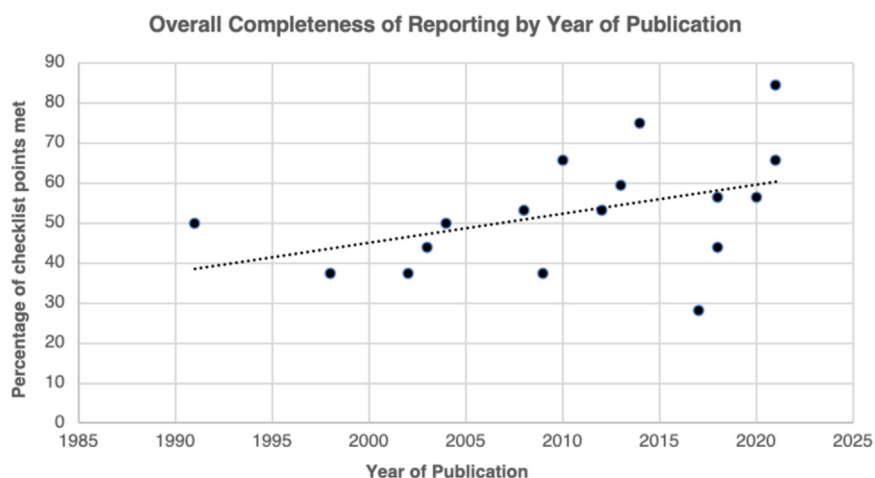


Figure 2 Overall completeness of reporting of REPRISE checklist by the year of publication of priority setting exercise.

Data synthesis

Information relating to priority setting context and scope, stakeholder characteristics and study methodology was tabulated (Tables 2-3). Reporting quality (compliance with the REPRISE checklist) is summarised in Table 4 and Figure 2. Table S1 shows a detailed breakdown of reporting compliance with REPRISE per study. A list of included studies can be found in **supplemental digital content 2**. Based on compliance with the REPRISE checklist and author consensus, a summary of recommendations for future priority setting exercises in plastic surgery is shown in Table 5.

Results

Identification of studies

The database search returned 3899 de-duplicated citations, of which 17 were included in the final analysis (Figure 1). Five publications were merged as they represented one priority setting exercise.⁴⁵⁻⁴⁹ Two studies identified from the JLA website were not published in peer-reviewed journals; data were therefore extracted from available JLA reports.^{25,50}

Context and scope

Most priority setting initiatives were conducted in single country (14/17)^{11, 14, 25-28, 15, 16, 18-20, 22-24} and high-income (16/17)^{11, 14, 25-29, 51, 15, 16, 18, 19, 21-24} settings (Table 2). The three international studies included only high-income countries (United States, Canada, UK, Australia and Norway)^{17, 21, 29} Only one study was conducted in a lower-middle income setting (India),²⁰ and none in low-income settings. More priority setting initiatives focussed on burns (6/17)^{20, 21, 23, 18, 19, 22} and hand and upper limb surgery (4/17),^{14-16, 51} than other subspecialty groups. Some burns

priority setting initiatives had a specific focus, e.g., paediatric burn care,²³ burn nursing,²² burn recovery,²⁰ and rehabilitation,²¹ which may account for some repetition of the topic. Similarly, the British Association of Hand Therapists regularly repeat their priority setting exercise,^{15, 16} hence the duplication of UK hand therapy priority setting. No priority setting initiatives were identified in (non-breast) cancer surgery and trauma subspecialty groups. Most priority setting initiatives (13/17) were published after 2004^{11, 14, 27-29, 15, 16, 18-21, 25, 26} All studies included priorities relevant to clinical practice; some additionally looked at the delivery of health services^{17, 18, 21, 22} and basic science.^{11, 19} For example, in their priority setting process for general plastic surgery, Henderson et al.¹¹ included both clinical topics (clinical trials and lymphoedema surgery) and basic science topics (tissue engineering and gene therapy) in the final priorities.

Stakeholder characteristics

Less than half of studies included patients (8/17)^{14, 18-20, 25-28} or multi-disciplinary professionals (8/17)^{14, 19-21, 23, 25, 26, 28} as stakeholders (Table 2). Two studies included nurse only stakeholders,^{22, 24} three included therapist only stakeholders,¹⁵⁻¹⁷ two surgeon only stakeholders^{11, 29} and one patient/caregiver only stakeholders.¹⁸ This included priority setting initiatives focussed on surgical nursing.^{22, 24} and physical therapy.¹⁵⁻¹⁷ Five studies reported a gender breakdown of stakeholders.^{14, 22-24, 28} The number of involved stakeholders varied, particularly at the uncertainty gathering and interim prioritisation stages (Table 3). This may reflect how specialised the topic being prioritised is; for example, in their priority setting exercise for 'Brazilian Butt Lift' (BBL) Sadideen et al.²⁹ only invited surgeons who performed a large volume of fat grafting and BBL surgery ($n = 10$). Few studies included in their steering groups multidisciplinary professionals (3/17),^{14, 26, 28} patients and caregivers (3/17)^{14, 26, 28} or advisors with training in priority setting (4/17); Table 2.

Table 2 Characteristics of included studies.

| | N studies |
|--|-----------|
| Geographical scope | |
| National | 14 |
| International | 3 |
| Country^a | |
| United Kingdom | 8 |
| United States | 7 |
| Canada | 3 |
| Netherlands | 1 |
| Norway | 1 |
| Australia | 1 |
| India | 1 |
| World Bank income status | |
| High | 16 |
| Lower middle | 1 |
| Royal College of Surgeons Plastic Surgery Subspecialty area | |
| Burns ^b | 6 |
| Hand and upper limb surgery | 4 |
| Skin | 2 |
| Congenital | 1 |
| General Plastic and Reconstructive Surgery | 2 |
| Breast surgery | 1 |
| Aesthetic surgery | 1 |
| Year of publication^c | |
| Pre-2004 | 4 |
| Post-2004 | 13 |
| Type of prioritised research questions^d | |
| Treatment (intervention) | 13 |
| Health services | 8 |
| Aetiology | 6 |
| Psychosocial | 6 |
| Education | 5 |
| Economic evaluation | 4 |
| Prevention | 4 |
| Quality of life | 4 |
| Prognosis | 3 |
| Diagnosis | 2 |
| Stakeholders^e | |
| Surgeons/doctors | 9 |
| Nurses | 7 |
| Allied health professionals | 10 |
| Patients and care givers | 8 |
| Researchers | 1 |
| Industry representatives | 1 |
| Other | 6 |
| Multidisciplinary stakeholders (>1 profession) | 7 |
| Steering group members^f | |
| Surgeons/doctors | 9 |
| Nurses | 3 |
| Allied health professionals | 5 |
| Patients and care givers | 3 |
| Other | 1 |
| Multidisciplinary stakeholders (>1 profession) | 5 |
| Training / experience in priority setting (e.g., JLA advisor) | 5 |

^a Does not total 17 due to international studies.

^b In the original RCS classification, burns are included in the 'trauma' subspecialty group.

^c The JLA was established in 2004.

^d Inclusion of question type per study, not per question; does not total 17 as some studies included multiple question types.

^e Unclear in $n = 1$ study.

^f Not stated in $n = 5$.

Table 3 Study methodology.

| | N |
|--|---------------|
| Methods for gathering uncertainties (per study) | |
| Systematic review | 1 |
| Clinical guidelines and/or policy documents | 2 |
| Survey | 9 |
| Stakeholder consultation/focus group | 4 |
| Methodology of research prioritisation (per study) | |
| James Lind Alliance | 5 |
| Qualitative only | 3 |
| Delphi techniques | 3 |
| Other survey (single stage) | 3 |
| Consensus conference | 2 |
| Mixed methods | 1 |
| Average number of uncertainties/priorities, per stage (interquartile range) | |
| Uncertainty gathering ^a | 41 (13-719) |
| Interim priority setting ^b | 30 (26-30) |
| Final consensus meeting ^c | 10 (9-12) |
| Median number of stakeholders per stage (interquartile range) | |
| Gathering uncertainties ^d | 197 (79-338) |
| Interim priority setting ^e | 191 (127-289) |
| Final prioritisation or consensus meeting ^f | 25 (22-29) |
| One stage prioritisation process | 42 (25-248) |
| ^a Unclear or N/A in $n = 6$. | |
| ^b Unclear or N/A in $n = 10$. | |
| ^c Unclear or N/A in $n = 5$. | |
| ^d Unclear or N/A in $n = 11$. | |
| ^e Unclear or N/A in $n = 9$. | |
| ^f Unclear or N/A in $n = 5$. | |

Study methodology

The JLA,^{14,25-28} and qualitative approaches,^{16,18,20,21,23} were the most common methods of prioritisation (both 5/17), followed by Delphi techniques,^{11,22,29} other surveys,^{15,24,51} (both 3/17) or mixed methods (1/17).¹⁹ The number of priorities varied at different stages of prioritisation, particularly at the uncertainty gathering stage (Table 3). The median number of final priorities was 10 (interquartile range: 9-12), but one study had as many as 101.²²

Quality of reporting

The quality of reporting varied across studies. Out of a possible 32 items included in the modified REPRIS checklist (Table 4), the number of items met ranged from 9 (28%) to 27 (84%). The overall completeness of reporting, as defined by the number of checklist items met, did not correlate significantly with the year of publication ($r = 0.43$, $p = 0.084$). All 17 studies defined the geographical scope, health area or focus, and research focus of the priority setting exercise. Basic characteristics of stakeholders were described in most studies (16/17),^{11,14,24-26,28,29,51,15,16,18-23} but these were often limited to occupation and did not specify age, gender or income status. Few studies identified the project leaders or steering group members (6/17),^{14-16,19,26,28} described their characteristics (a minimum of total number, stakeholder type and occupation; 4/17), or described

how the individuals within these groups were selected (7/17).^{11,14,15,26-29} Very few studies reported how the final priorities were made available for review by stakeholders (1/17),¹⁴ or how the completed exercise was evaluated (2/17).^{14,19} Few reported a strategy for implementing the research priorities (6/17).^{11,15,16,19,26,27} or measuring their impact (2/17).^{14,16} Most strategies for implementation described liaison with funding bodies (professional organisations, e.g., BAPRAS and national funding bodies, e.g., NIHR) to inform a programme of research. Two studies explicitly stated the amount of funding achieved for proposals incorporating their research priorities. Karantana et al. conducted an 'impact' survey of hand clinicians, demonstrating £3 million of competitively awarded funding achieved by researchers who used the research priorities for hand and wrist conditions to strengthen their applications. Steward et al. were able to provide funding for a 60-credit MSc research module and provide a research grant (£5000 per annum for 3 years) for proposals responding to their research priorities for hand therapy, via the British Association of Hand Therapy. No studies reported if reimbursement was provided for patient participation, and no studies outlined the budget for the project.

Discussion

This systematic review has comprehensively summarised and appraised global research priority setting initiatives in

Table 4 Comprehensiveness of reporting (REPRISÉ).

| Item | References | N (%) |
|---|----------------------------------|-----------|
| Context and scope | | |
| Define geographical scope | 11,14,23-29,15-22 | 17 (100%) |
| Define health area/focus | 11,14,23-29,15-22 | 17 (100%) |
| Define end-users of the research | 11,19 | 2 (12%) |
| Identify the research focus | 11,14,23-29,15-22 | 17 (100%) |
| Identify the type of research question | 14,15,18,20,21,23,26 | 7 (41%) |
| Identify the time frame | 20,25 | 2 (12%) |
| Governance and team | | |
| Describe the selection of project leaders and team | 11,14,15,26-29 | 7 (41%) |
| Describe the characteristics of the project leader and team members | 14,19,23,28 | 4 (24%) |
| Describe any prior training or experience in research priority setting | 14,20,25,26 | 4 (24%) |
| Inclusion of stakeholders/participants | | |
| Define the inclusion criteria for stakeholder groups | 11,14,23-29,15-22 | 17 (100%) |
| State the strategy for identifying and engaging stakeholders | 11,14,15,19,20,22,24-29,17 | 13 (76%) |
| Indicate the number of participants and/or organisations involved | 11,14,25-29,15-17,19-23 | 15 (88%) |
| Describe the characteristics of stakeholders | 11,14,26-29,15-17,19-23 | 16 (94%) |
| State if reimbursement for participation was provided | | 0 |
| Identification and collection of research topics/questions | | |
| Identify the approach to priority setting | 11,14,23-29,15-22 | 17 (100%) |
| Describe the methods for collecting research topics or questions | 11,14,26-29,15-17,19,20,22,24,25 | 14 (82%) |
| Describe the framework used to organise/aggregate topics or questions | 11,14,16,19,20,22,26-29,17 | 11 (65%) |
| Describe methods and reason for initial removal of topics or questions | 14,16,26-28 | 5 (29%) |
| Describe methods for checking if research questions have already been answered | 14,25-28 | 5 (29%) |
| Describe the number of research topics or questions | 11,14,27-29,15,16,19-22,25,26 | 13 (76%) |
| Prioritisation of research topics/questions | | |
| Describe methods for prioritising or achieving consensus | 11,14,27-29,15,16,19,21-24,26 | 13 (76%) |
| Provide reasons for excluding research topics or questions | 14,16,26-29 | 6 (35%) |
| Output | | |
| Describe the dissemination of the priority setting exercise | 14,15,19,22,26-28 | 7 (41%) |
| Published in a peer-reviewed journal | 11,14,23,24,26-29,15-22 | 16 (94%) |
| Define the specificity of the research priorities | 14,15,24-29,16-23 | 16 (94%) |
| Evaluation and feedback | | |
| Describe how the priority setting exercise was evaluated and any changes that were made | 14,19 | 2 (12%) |
| Describe how priorities were made accessible for review by stakeholders | 14 | 1 (6%) |
| Translation and implementation | | |
| Outline the strategy or action plan for implementing priorities | 15,16,19,22,26,27 | 6 (35%) |
| Describe how the impact will be measured | 14,16,29 | 3 (18%) |
| Funding and conflicts of interest | | |
| State sources of funding | 14,19,20,23,25-27,29 | 8 (47%) |
| Outline the budget and/or cost of the project | | 0 |
| Declare any conflicts of interest | 14,19,20,26-29 | 7 (41%) |

plastic surgery. Overall, the findings demonstrate under-representation of stakeholders (particularly patients) from lower-income countries, as well as lack of multidisciplinary initiatives. Compliance with reporting standards for research priority setting was variable and especially deficient in the areas of governance and team members, evaluation and feedback, translation and implementation, and funding and conflicts of interest.

The scope of the priority setting initiatives varied widely; some focussed on individual conditions or procedures,²⁵⁻²⁹ whilst others focussed on the subspecialties^{14-16,18-23,51} or plastic surgery overall.^{11,24} There were several priority setting initiatives for burns^{20,21,23,18,19,22} and hand conditions;^{14-16,51} these tended to have more non-multidisciplinary steering groups and focussed on the care delivered by specific professions (e.g., nursing).²² or

Table 5 Recommendations for future priority setting exercises in plastic surgery.

1. Research priority setting exercises focussing on traumatic injuries and (non-breast) cancer reconstruction
2. Inclusion of steering group member(s) with experience in research priority setting
3. Multidisciplinary research priority setting initiatives
4. Increased representation of lower income countries and patient stakeholders
5. Improved quality of reporting across all domains of REPRISE (in particular, the recruitment and characteristics of steering group members and stakeholders, the processes for collecting and prioritising uncertainties and funding disclosures and conflicts of interest)
6. Development and widespread use of strategies to assess implementation and impact of priorities

therapy.^{15,16,21,51} Arguably, a better approach would be to work cohesively with multidisciplinary input to maximise clinical relevance of the final priorities and reduce repetition, particularly with respect to subsequent funding applications. No priority setting initiatives were identified in the trauma and non-breast cancer categories, though major trauma and skin cancer JLA priority setting partnerships are in progress. Some studies, e.g., Henderson et al.¹¹ had a broad scope traversing clinical practice and basic science; however, the distinct funding streams for clinical and translational research would favour a more clearly defined scope.

With regards to stakeholder characteristics, there was only one priority setting exercise from a lower middle-income country,²⁰ and none from low-income countries, despite the burden of disease (especially, burns and trauma) in lower income nations.^{52,53} Increasing the participation of stakeholders from lower-income countries will increase generalisability of the final priorities but raises questions for study design. For example, how to define adequate international representation and how to manage international data, particularly when local factors (e.g., health infrastructure and sociocultural beliefs) may significantly affect prioritisation behaviours.^{20,54} Patients were under-represented as both steering group members and stakeholders, despite clear differences in their prioritisation behaviours compared with healthcare professionals.⁶ Research has shown that patients are less likely to prioritise pharmacological and surgical interventions (the focus of most registered trials), favouring education and training, service delivery, and physical and psychological interventions.⁶ Neglecting patients' needs is a common cause of research waste and should be avoided through adequate representation at steering group and stakeholder levels. Although basic stakeholder characteristics were described in most studies, the level of detail varied and often did not include age, gender or ethnicity, as recommended by the World Health Organisation.⁷ Sufficient demographic information is essential for fully informed interpretation of the final priorities. For example, Karantana et al. in their priority setting exercise were aiming to identify unanswered questions about the management of common conditions affecting adult hands and wrists. The patient and carer stakeholders who participated in the prioritisation exercise were mainly older females, which probably biased the final priorities away from traumatic hand injuries.¹⁴

There is no consensus on appropriate methods of prioritisation, stakeholder sample sizes or the numbers of final priorities, which is reflected in the variability of published studies. Although published guidance exists (e.g., REPRISE),⁵⁵ there are no universally recommended quality

assessment tools for studies of research prioritisation, resulting in poor quality reporting across various domains. Few studies have described the recruitment and characteristics of steering group members, their conflicts of interest or funding sources, despite the potential for bias. Furthermore, only JLA-associated initiatives included an advisor experienced in priority setting methodology. A minority of studies explicitly described reasons for exclusion of research topics. A flow chart of uncertainties, clearly depicting the addition and removal of topics, such as that used by Karantana et al.,¹⁴ provides clarity and reproducibility. Many studies did not report cross-checking uncertainties with published systematic reviews, risking unjustified (and sometimes harmful) duplication of research,⁶ another cause of research waste. No studies reported patient reimbursement, though this is considered best practice.⁵⁶

The main aim of research priority setting is to streamline funding for research questions deemed most important by key stakeholders.⁵⁷ Despite this, few studies have described a strategy for implementation of priorities or measuring their impact. Early planning and resourcing for dissemination of the final priorities should be encouraged.⁵⁷ For example, the Dutch Burns Foundation compared top-ranked priorities with their organisation's current research funding, and a pilot programme was developed to address under-funded areas. Greater awareness and training regarding research priority setting amongst funders and academic journals are also required.⁵⁷ For example, the National Institute for Health Research in the UK now fund an annual call for studies addressing JLA research priorities.³⁰ The British Association of Hand Therapy repeats their priority setting exercise regularly, allowing them to identify both persistently highly ranked research topics which require ongoing investment (e.g., complex regional pain syndrome), as well as emerging topics (e.g., treatment modalities)^{15,16} Regularly repeating priority setting exercises could be a useful method for assessing the implementation and impact of priorities, but further consideration is needed to determine appropriate time intervals on a case-by-case basis. Future researchers could also consider conducting an 'impact survey' to determine how much competitive funding was awarded to proposals referencing the research priority exercise.¹⁴

Strengths of this review include the comprehensive search of three electronic databases and hand-searching the JLA repository, with dual-author screening and data extraction. Limitations include lack of non-English language articles and formal risk of bias assessment, although no specific tool exists for research priority setting exercises, and reporting quality was assessed with the REPRISE checklist.

Study compliance with some of the REPRISE checklist items was subjective. For example, most studies described stakeholder characteristics, but the level of detail (not specified in REPRISE) varied substantially from only reporting stakeholder type (i.e., patient versus healthcare professional) to detailed demographics (age, gender and ethnicity).

Conclusion

Research priority setting exercises have been conducted in most subspecialty areas of plastic and reconstructive surgery, except trauma and non-breast cancer. Reporting quality was variable and generally poor when describing project team and stakeholder characteristics, reasoning for exclusion of research uncertainties, authors' conflicts of interest and funding sources. A core aim of establishing research priorities is to influence funding allocation, yet strategies to assess their implementation were rarely described. Future initiatives should also consider recruitment of multidisciplinary steering groups, including an advisor with experience in research priority setting, and more patients and stakeholders from lower-income countries.

Conflicts of Interest

None declared.

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Ethical approval

Not required.

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:[10.1016/j.bjps.2022.10.035](https://doi.org/10.1016/j.bjps.2022.10.035).

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