DESCRIPTION

Journal of Obsessive-Compulsive and Related Disorders (JOCRD) is an international journal that publishes high quality research and clinically-oriented articles dealing with all aspects of obsessive-compulsive disorder (OCD) and related conditions (OC spectrum disorders; e.g., trichotillomania, hoarding, body dysmorphic disorder). The journal invites studies of clinical and non-clinical (i.e., student) samples of all age groups from the fields of psychiatry, psychology, neuroscience, and other medical and health sciences. The journal’s broad focus encompasses classification, assessment, psychological and psychiatric treatment, prevention, psychopathology, neurobiology and genetics. Clinical reports (descriptions of innovative treatment methods) and book reviews on all aspects of OCD-related disorders will be considered, as will theoretical and review articles that make valuable contributions.

Suitable topics for manuscripts include:

The boundaries of OCD and relationships with OC spectrum disordersValidation of assessments of obsessive-compulsive and related phenomenaOCD symptoms in diverse social and cultural contextsStudies of neurobiological and genetic factors in OCD and related conditionsExperimental and descriptive psychopathology and epidemiological studiesStudies on relationships among cognitive and behavioral variables in OCD and related disordersInterpersonal aspects of OCD and related disordersEvaluation of psychological and psychiatric treatment and prevention programs, and predictors of outcome.

IMPACT FACTOR

2018: 1.391 © Clarivate Analytics Journal Citation Reports 2019

ABSTRACTING AND INDEXING

Current Contents - Social & Behavioral Sciences
Google Scholar
PsycINFO
Scopus
EDITORIAL BOARD

Editor-in-Chief
J. S. Abramowitz, University of North Carolina at Chapel Hill Counseling and Psychological Services, Chapel Hill, North Carolina, United States

Associate Editors
L. F. Fontenelle, Monash University, Clayton, Victoria, Australia
J. E. Grant, University of Chicago, Chicago, Illinois, United States
O. A. van den Heuvel, Amsterdam UMC Location VUMC Department of Anatomy & Neuroscience, Amsterdam, Netherlands
D. Mataix-Cols, Karolinska Institute, Stockholm, Sweden
D. McKay, Fordham University Department of Psychology, Bronx, New York, United States
E. A. Storch, Baylor College of Medicine, Houston, Texas, United States
S. Taylor, The University of British Columbia, Vancouver, British Columbia, Canada
J. Thompson-Hollands, Boston Medical Center Department of Psychiatry, Boston, Massachusetts, United States

Editorial Board Members
F. Aardema, University of Montreal, Montréal, Quebec, Canada
A. Abramovitch, Texas State University, San Marcos, Texas, United States
M. M. Antony, Ryerson University, Toronto, Ontario, Canada
N. Berman, Harvard Medical School, Boston, Massachusetts, United States
S. M. Blayke, Durham VA Health Care System and VA Mid-Atlantic Mental Illness Research, Education and Clinical Center, Durham, North Carolina, United States
T. K. Bouman, University of Groningen, Groningen, Netherlands
J. E. Calamari, Rosalind Franklin University of Medicine and Science, North Chicago, Illinois, United States
C. Carmin, OHIO STATE UNIVERSITY WEXNER MEDICAL CENTER, Columbus, Ohio, United States
G. S. Chasson, Illinois Institute of Technology, Chicago, Illinois, United States
D. A. Clark, University of New Brunswick, Fredericton, New Brunswick, Canada
C. Conelea, University of Minnesota, Minneapolis, Minnesota, United States
J. Cougle, Florida State University, Tallahassee, Florida, United States
B. J. Deacon, Illawarra Anxiety Clinic, Mount Pleasant, New South Wales, Australia
D. Denys, Academic Medical Center, Amsterdam, Netherlands
G. Doron, Interdisciplinary Center Herzliya Baruch Ivcher School of Psychology, Herzliya, Israel
D. Dougherty, Massachusetts General Hospital Neuroscience Center, Charlestown, Massachusetts, United States
B. A. Fallon, Columbia University, New York, New York, United States
J. Fama, Harvard Medical School, Boston, Massachusetts, United States
L. Farrell, Griffith University School of Applied Psychology Mount Gravatt Campus, Mount Gravatt, Australia
J. D. Feusner, University of California Los Angeles, Los Angeles, California, United States
Professor N. Fineberg, University of Hertfordshire, Hatfield, United Kingdom
C. A. Flessner, Kent State University, Kent, Ohio, United States
M. E. Franklin, University of Pennsylvania Department of Psychiatry, Philadelphia, Pennsylvania, United States
R. O. Frost, Smith College, Northampton, Massachusetts, United States
D. H. Gleaves, University of South Australia, Adelaide, South Australia, Australia
W. Goodman, Icahn School of Medicine at Mount Sinai, New York, New York, United States
B. Greenberg, Brown University Warren Alpert Medical School, Providence, Rhode Island, United States
J. Grisham, University of New South Wales, Sydney, New South Wales, Australia
E. Hollander, Albert Einstein College of Medicine, Bronx, New York, United States
R. J. Jacoby, Massachusetts General Hospital Department of Psychiatry, Boston, Massachusetts, United States
N. J. Keuthen, Massachusetts General Hospital - Harvard Medical School Center for Nervous System Repair, Boston, Massachusetts, United States
S. Khanna, Psychiatric Centre, Haryana, India
L. M. Koran, Stanford University Obsessive-Compulsive Disorders Program, Palo Alto, California, United States
J. S. Kwon, Seoul National University Hospital Department of Neuropsychiatry, Seoul, Korea, Republic of
M. Kyrios, Flinders University, Adelaide, Australia
H. J. Lee, University of Wisconsin Milwaukee, Milwaukee, Wisconsin, United States
A. Podda, University of South Florida, Tampa, Florida, United States
C. Lochner, Stellenbosch University Department of Psychiatry, Tygerberg, South Africa
J. S. March, Duke University, Durham, North Carolina, United States
L. Marques, Massachusetts General Hospital - Harvard Medical School Center for Nervous System Repair, Boston, Massachusetts, United States
G. Melli, Behavioural and Cognitive Psychology and Psychotherapy Institute, Firenze, Italy
R. G. Menzies, University of Technology Sydney, Sydney, Australia
E. Miguel, University of Sao Paulo, Sao Paulo, Brazil
S. Moritz, University of Hamburg Faculty of Medicine, Hamburg, Germany
R. Moulding, Deakin University School of Psychology, Burwood, Australia
T. K. Murphy, University of South Florida Department of Pediatrics, St. Petersburg, Florida, United States
G. Nestadt, Johns Hopkins University School of Medicine, Baltimore, Maryland, United States
K. O’Connor, University of Montreal, Montréal, Quebec, Canada
B. Olatunji, Vanderbilt University, Nashville, Tennessee, United States
Professor P. van Oppen, VU University Medical Center/GGZinGeest (VUMC), Amsterdam, Netherlands
D. Pauls, Harvard Medical School, Boston, Massachusetts, United States
K. A. Phillips, NewYork-Presbyterian Hospital/Weill Cornell Medical Center, New York, New York, United States
J. Piacentini, University of California Los Angeles, Los Angeles, California, United States
C. Purdon, University of Waterloo, Waterloo, Ontario, Canada
A. S. Radomsky, Concordia University, Montréal, Quebec, Canada
E. G. C. Rassin, Erasmus University Rotterdam, Rotterdam, Netherlands
S. L. Rauch, McLean Hospital, Belmont, Massachusetts, United States
P. Richter, University of Toronto, Toronto, Ontario, Canada
B. C. Riemann, Rogers Memorial Hospital - Oconomowoc, Oconomowoc, Wisconsin, United States
K. Rowa, McMaster University, Hamilton, Ontario, Canada
Professor P. Salkovskis, University of Bath, Bath, United Kingdom
P. J. Seibell, OCD and Anxiety Psychiatry of Westchester PC, Hawthorne, New York, United States
C. Sica, University of Florence, Firenze, Italy
J. Siev, Swarthmore College, Swarthmore, Pennsylvania, United States
G. Simos, University of Macedonia, Thessaloniki, Greece
Professor H. Blair Simpson, New York State Psychiatric Institute, New York, New York, United States
V. Starcevic, The University of Sydney, Sydney, New South Wales, Australia
D. J. Stein, University of Cape Town Department of Psychiatry and Mental Health, Cape Town, South Africa
G. Steketee, Boston University, Boston, Massachusetts, United States
L. J. Summerfeldt, Trent University, Peterborough, Ontario, Canada
K. R. Timpano, University of Miami, Coral Gables, Florida, United States
D. Veale, Maudsley Hospital, London, United Kingdom
S. P. Whiteside, Mayo Foundation for Medical Education and Research, Rochester, Minnesota, United States
S. Wilhelm, Harvard Medical School, Boston, Massachusetts, United States
M. Williams, University of Connecticut, Storrs, Connecticut, United States
D. Woods, Marquette University, Milwaukee, Wisconsin, United States
K. D. Wu, Northern Illinois University, Dekalb, Illinois, United States
J. Zohar, Rehabilitation Hospital Psychiatric Division, Tel Aviv, Israel
Your Paper Your Way
We now differentiate between the requirements for new and revised submissions. You may choose to submit your manuscript as a single Word or PDF file to be used in the refereeing process. Only when your paper is at the revision stage, will you be requested to put your paper in to a 'correct format' for acceptance and provide the items required for the publication of your article.

To find out more, please visit the Preparation section below.

Submission checklist
You can use this list to carry out a final check of your submission before you send it to the journal for review. Please check the relevant section in this Guide for Authors for more details.

Ensure that the following items are present:

One author has been designated as the corresponding author with contact details:
- E-mail address
- Full postal address

All necessary files have been uploaded:

Manuscript:
- Include keywords
- All figures (include relevant captions)
- All tables (including titles, description, footnotes)
- Ensure all figure and table citations in the text match the files provided
- Indicate clearly if color should be used for any figures in print

Graphical Abstracts / Highlights files (where applicable)

Supplemental files (where applicable)

Further considerations
- Manuscript has been 'spell checked' and 'grammar checked'
- All references mentioned in the Reference List are cited in the text, and vice versa
- Permission has been obtained for use of copyrighted material from other sources (including the Internet)
- A competing interests statement is provided, even if the authors have no competing interests to declare
- Journal policies detailed in this guide have been reviewed
- Referee suggestions and contact details provided, based on journal requirements

For further information, visit our Support Center.

BEFORE YOU BEGIN

Ethics in publishing
Please see our information pages on Ethics in publishing and Ethical guidelines for journal publication.

If the work involves the use of animal or human subjects, the author should ensure that the work described has been carried out in accordance with The Code of Ethics of the World Medical Association (Declaration of Helsinki) for experiments involving humans http://www.wma.net/en/30publications/10policies/b3/index.html; EU Directive 2010/63/EU for animal experiments http://ec.europa.eu/environment/chemicals/lab_animals/legislation_en.htm; Uniform Requirements for manuscripts submitted to Biomedical journals http://www.icmje.org. Authors should include a statement in the manuscript that informed consent was obtained for experimentation with human subjects. The privacy rights of human subjects must always be observed.

Declaration of interest
All authors must disclose any financial and personal relationships with other people or organizations that could inappropriately influence (bias) their work. Examples of potential competing interests include employment, consultancies, stock ownership, honoraria, paid expert testimony, patent applications/registrations, and grants or other funding. Authors must disclose any interests in two places: 1. A summary declaration of interest statement in the title page file (if double-blind) or the manuscript file (if single-blind). If there are no interests to declare then please state this: 'Declarations
of interest: none'. This summary statement will be ultimately published if the article is accepted.

2. Detailed disclosures as part of a separate Declaration of Interest form, which forms part of the journal's official records. It is important for potential interests to be declared in both places and that the information matches. More information.

Submission declaration and verification
Submission of an article implies that the work described has not been published previously (except in the form of an abstract, a published lecture or academic thesis, see 'Multiple, redundant or concurrent publication' for more information), that it is not under consideration for publication elsewhere, that its publication is approved by all authors and tacitly or explicitly by the responsible authorities where the work was carried out, and that, if accepted, it will not be published elsewhere in the same form, in English or in any other language, including electronically without the written consent of the copyright-holder. To verify originality, your article may be checked by the originality detection service Crossref Similarity Check.

Preprints
Please note that preprints can be shared anywhere at any time, in line with Elsevier's sharing policy. Sharing your preprints e.g. on a preprint server will not count as prior publication (see 'Multiple, redundant or concurrent publication' for more information).

Use of inclusive language
Inclusive language acknowledges diversity, conveys respect to all people, is sensitive to differences, and promotes equal opportunities. Articles should make no assumptions about the beliefs or commitments of any reader, should contain nothing which might imply that one individual is superior to another on the grounds of race, sex, culture or any other characteristic, and should use inclusive language throughout. Authors should ensure that writing is free from bias, for instance by using 'he or she', 'his/her' instead of 'he' or 'his', and by making use of job titles that are free of stereotyping (e.g. 'chairperson' instead of 'chairman' and 'flight attendant' instead of 'stewardess').

Author contributions
For transparency, we encourage authors to submit an author statement file outlining their individual contributions to the paper using the relevant CRediT roles: Conceptualization; Data curation; Formal analysis; Funding acquisition; Investigation; Methodology; Project administration; Resources; Software; Supervision; Validation; Visualization; Roles/Writing - original draft; Writing - review & editing. Authorship statements should be formatted with the names of authors first and CRediT role(s) following. More details and an example

Changes to authorship
Authors are expected to consider carefully the list and order of authors before submitting their manuscript and provide the definitive list of authors at the time of the original submission. Any addition, deletion or rearrangement of author names in the authorship list should be made only before the manuscript has been accepted and only if approved by the journal Editor. To request such a change, the Editor must receive the following from the corresponding author: (a) the reason for the change in author list and (b) written confirmation (e-mail, letter) from all authors that they agree with the addition, removal or rearrangement. In the case of addition or removal of authors, this includes confirmation from the author being added or removed.

Only in exceptional circumstances will the Editor consider the addition, deletion or rearrangement of authors after the manuscript has been accepted. While the Editor considers the request, publication of the manuscript will be suspended. If the manuscript has already been published in an online issue, any requests approved by the Editor will result in a corrigendum.

Article transfer service
This journal is part of our Article Transfer Service. This means that if the Editor feels your article is more suitable in one of our other participating journals, then you may be asked to consider transferring the article to one of those. If you agree, your article will be transferred automatically on your behalf with no need to reformat. Please note that your article will be reviewed again by the new journal. More information.

Copyright
Upon acceptance of an article, authors will be asked to complete a 'Journal Publishing Agreement' (see more information on this). An e-mail will be sent to the corresponding author confirming receipt of the manuscript together with a 'Journal Publishing Agreement' form or a link to the online version of this agreement.
Subscribers may reproduce tables of contents or prepare lists of articles including abstracts for internal circulation within their institutions. Permission of the Publisher is required for resale or distribution outside the institution and for all other derivative works, including compilations and translations. If excerpts from other copyrighted works are included, the author(s) must obtain written permission from the copyright owners and credit the source(s) in the article. Elsevier has preprinted forms for use by authors in these cases.

For gold open access articles: Upon acceptance of an article, authors will be asked to complete an 'Exclusive License Agreement' (more information). Permitted third party reuse of gold open access articles is determined by the author's choice of user license.

**Author rights**
As an author you (or your employer or institution) have certain rights to reuse your work. More information.

Elsevier supports responsible sharing
Find out how you can share your research published in Elsevier journals.

**Role of the funding source**
You are requested to identify who provided financial support for the conduct of the research and/or preparation of the article and to briefly describe the role of the sponsor(s), if any, in study design; in the collection, analysis and interpretation of data; in the writing of the report; and in the decision to submit the article for publication. If the funding source(s) had no such involvement then this should be stated.

**Open access**
Please visit our Open Access page for more information.

Elsevier Researcher Academy
Researcher Academy is a free e-learning platform designed to support early and mid-career researchers throughout their research journey. The "Learn" environment at Researcher Academy offers several interactive modules, webinars, downloadable guides and resources to guide you through the process of writing for research and going through peer review. Feel free to use these free resources to improve your submission and navigate the publication process with ease.

**Language (usage and editing services)**
Please write your text in good English (American or British usage is accepted, but not a mixture of these). Authors who feel their English language manuscript may require editing to eliminate possible grammatical or spelling errors and to conform to correct scientific English may wish to use the English Language Editing service available from Elsevier's Author Services.

**Informed consent and patient details**
Studies on patients or volunteers require ethics committee approval and informed consent, which should be documented in the paper. Appropriate consents, permissions and releases must be obtained where an author wishes to include case details or other personal information or images of patients and any other individuals in an Elsevier publication. Written consents must be retained by the author but copies should not be provided to the journal. Only if specifically requested by the journal in exceptional circumstances (for example if a legal issue arises) the author must provide copies of the consents or evidence that such consents have been obtained. For more information, please review the Elsevier Policy on the Use of Images or Personal Information of Patients or other Individuals. Unless you have written permission from the patient (or, where applicable, the next of kin), the personal details of any patient included in any part of the article and in any supplementary materials (including all illustrations and videos) must be removed before submission.

**Submission**
Our online submission system guides you stepwise through the process of entering your article details and uploading your files. The system converts your article files to a single PDF file used in the peer-review process. Editable files (e.g., Word, LaTeX) are required to typeset your article for final publication. All correspondence, including notification of the Editor's decision and requests for revision, is sent by e-mail.

**PREPARATION**
NEW SUBMISSIONS
Submission to this journal proceeds totally online and you will be guided stepwise through the creation and uploading of your files. The system automatically converts your files to a single PDF file, which is used in the peer-review process.
As part of the Your Paper Your Way service, you may choose to submit your manuscript as a single file to be used in the refereeing process. This can be a PDF file or a Word document, in any format or layout that can be used by referees to evaluate your manuscript. It should contain high enough quality figures for refereeing. If you prefer to do so, you may still provide all or some of the source files at the initial submission. Please note that individual figure files larger than 10 MB must be uploaded separately.

References
There are no strict requirements on reference formatting at submission. References can be in any style or format as long as the style is consistent. Where applicable, author(s) name(s), journal title/book title, chapter title/article title, year of publication, volume number/book chapter and the article number or pagination must be present. Use of DOI is highly encouraged. The reference style used by the journal will be applied to the accepted article by Elsevier at the proof stage. Note that missing data will be highlighted at proof stage for the author to correct.

Formatting requirements
There are no strict formatting requirements but all manuscripts must contain the essential elements needed to convey your manuscript, for example Abstract, Keywords, Introduction, Materials and Methods, Results, Conclusions, Artwork and Tables with Captions.
If your article includes any Videos and/or other Supplementary material, this should be included in your initial submission for peer review purposes. Divide the article into clearly defined sections.
Please ensure the text of your paper is double-spaced—this is an essential peer review requirement.

Figures and tables embedded in text
Please ensure the figures and the tables included in the single file are placed next to the relevant text in the manuscript, rather than at the bottom or the top of the file. The corresponding caption should be placed directly below the figure or table.

Peer review
This journal operates a double blind review process. All contributions will be initially assessed by the editor for suitability for the journal. Papers deemed suitable are then typically sent to a minimum of one independent expert reviewer to assess the scientific quality of the paper. The Editor is responsible for the final decision regarding acceptance or rejection of articles. The Editor's decision is final. More information on types of peer review.

Double-blind review
This journal uses double-blind review, which means the identities of the authors are concealed from the reviewers, and vice versa. More information is available on our website. To facilitate this, please include the following separately:
Title page (with author details): This should include the title, authors' names, affiliations, acknowledgements and any Declaration of Interest statement, and a complete address for the corresponding author including an e-mail address.
Blinded manuscript (no author details): The main body of the paper (including the references, figures, tables and any acknowledgements) should not include any identifying information, such as the authors' names or affiliations.

REVISED SUBMISSIONS
Author disclosure
Authors must provide three mandatory and one optional author disclosure statements. These statements should be submitted as one separate document and not included as part of the manuscript. Author disclosures will be automatically incorporated into the PDF builder of the online submission system. They will appear in the journal article if the manuscript is accepted.
The four statements of the author disclosure document are described below. Statements should not be numbered. Headings (i.e., Role of Funding Sources, Contributors, Conflict of Interest, Acknowledgements) should be in bold with no white space between the heading and the text. Font size should be the same as that used for references.
Statement 1: Role of Funding Sources
Authors must identify who provided financial support for the conduct of the research and/or preparation of the manuscript and to briefly describe the role (if any) of the funding sponsor in study design, collection, analysis, or interpretation of data, writing the manuscript, and the decision to submit the manuscript for publication. If the funding source had no such involvement, the authors should so state.

Example: Funding for this study was provided by NIAAA Grant R01-AA123456. NIAAA had no role in the study design, collection, analysis or interpretation of the data, writing the manuscript, or the decision to submit the paper for publication.

Statement 2: Contributors
Authors must declare their individual contributions to the manuscript. All authors must have materially participated in the research and/or the manuscript preparation. Roles for each author should be described. The disclosure must also clearly state and verify that all authors have approved the final manuscript.

Example: Authors A and B designed the study and wrote the protocol. Author C conducted literature searches and provided summaries of previous research studies. Author D conducted the statistical analysis. Author B wrote the first draft of the manuscript and all authors contributed to and have approved the final manuscript.

Statement 3: Conflict of Interest
All authors must disclose any actual or potential conflict of interest. Conflict of interest is defined as any financial or personal relationships with individuals or organizations, occurring within three (3) years of beginning the submitted work, which could inappropriately influence, or be perceived to have influenced the submitted research manuscript. Potential conflict of interest would include employment, consultancies, stock ownership (except personal investments equal to the lesser of one percent (1%) of total personal investments or USD$5000), honoraria, paid expert testimony, patent applications, registrations, and grants. If there are no conflicts of interest by any author, it should state that there are none.

Example: Author B is a paid consultant for XYZ pharmaceutical company. All other authors declare that they have no conflicts of interest.

Statement 4: Acknowledgements (optional)
Authors may provide Acknowledgements which will be published in a separate section along with the manuscript. If there are no Acknowledgements, there should be no heading or acknowledgement statement.

Example: The authors wish to thank Ms. A who assisted in the proof-reading of the manuscript.

Use of word processing software
Regardless of the file format of the original submission, at revision you must provide us with an editable file of the entire article. Keep the layout of the text as simple as possible. Most formatting codes will be removed and replaced on processing the article. The electronic text should be prepared in a way very similar to that of conventional manuscripts (see also the Guide to Publishing with Elsevier). See also the section on Electronic artwork.
To avoid unnecessary errors you are strongly advised to use the ‘spell-check’ and ‘grammar-check’ functions of your word processor.

Article structure
Introduction
State the objectives of the work and provide an adequate background, avoiding a detailed literature survey or a summary of the results. If the focus of the paper is on a disorder other than OCD (as defined in DSM-IV.TR), provide a rationale for including the disorder as an obsessive-compulsive related disorder (see Editorial Guidance section).

Methods
Provide sufficient detail to allow the work to be reproduced. Methods already published should be indicated by a reference: only relevant modifications should be described.
Theory/calculation
A Theory section should extend, not repeat, the background to the article already dealt with in the Introduction and lay the foundation for further work. In contrast, a Calculation section represents a practical development from a theoretical basis.

Results
Results should be clear and concise.

Discussion
This should explore the significance of the results of the work, not repeat them. Avoid extensive citations and discussion of published literature. Be sure to include limitations of the present study and suggestions for future research.

Conclusions
The main conclusions of the study may be presented in a short Conclusions section, which may stand alone or form a subsection of a Discussion or Results and Discussion section.

Appendices
If there is more than one appendix, they should be identified as A, B, etc. Formulae and equations in appendices should be given separate numbering: Eq. (A.1), Eq. (A.2), etc.; in a subsequent appendix, Eq. (B.1) and so on. Similarly for tables and figures: Table A.1; Fig. A.1, etc.

Clinical reports and case histories
The Journal will consider clinical reports that articulate the treatment of OCD or related disorders using any theoretical framework (biological, behavioral, cognitive, gestalt, humanistic, psychodynamic, and others). Clinical reports should use the following format (maximum manuscript length is 30 pages in total):

1. Theoretical and Research Basis for the Treatment
2. Case Introduction (presenting complaints, history, etc.)
3. Assessment (what instruments were used [and justification if needed])
4. Case Conceptualization (discuss the clinician's thinking about the case and the treatment selection)
5. Course of Treatment and Assessment of Progress (Describe what happened during treatment and the outcome at post-treatment and follow up. If possible, use single case research design methodology; see Barlow, Nock, & Hersen [2009])
6. Complicating Factors (if any, including medical management)
7. Treatment Implications of the Case
8. Recommendations to Clinicians and Students

Shorter communications/Brief reports
This option is designed to allow publication of research reports that are not suitable for publication as regular articles. Shorter Communications or Brief Reports are appropriate for articles with a specialized focus or of particular didactic value. Manuscripts should be between 3000-5000 words, and must not exceed the upper word limit. This limit includes the abstract, text, and references, but not the title page, tables and figures.

Essential title page information
- **Title.** Concise and informative. Titles are often used in information-retrieval systems. Avoid abbreviations and formulae where possible.
- **Author names and affiliations.** Please clearly indicate the given name(s) and family name(s) of each author and check that all names are accurately spelled. You can add your name between parentheses in your own script behind the English transliteration. Present the authors' affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lower-case superscript letter immediately after the author's name and in front of the appropriate address. Provide the full postal address of each affiliation, including the country name and, if available, the e-mail address of each author.
- **Corresponding author.** Clearly indicate who will handle correspondence at all stages of refereeing and publication, also post-publication. This responsibility includes answering any future queries about Methodology and Materials. Ensure that the e-mail address is given and that contact details are kept up to date by the corresponding author.
• **Present/permanent address.** If an author has moved since the work described in the article was done, or was visiting at the time, a 'Present address' (or 'Permanent address') may be indicated as a footnote to that author's name. The address at which the author actually did the work must be retained as the main, affiliation address. Superscript Arabic numerals are used for such footnotes.

**Highlights**

Highlights are mandatory for this journal as they help increase the discoverability of your article via search engines. They consist of a short collection of bullet points that capture the novel results of your research as well as new methods that were used during the study (if any). Please have a look at the examples here: example Highlights.

Highlights should be submitted in a separate editable file in the online submission system. Please use 'Highlights' in the file name and include 3 to 5 bullet points (maximum 85 characters, including spaces, per bullet point).

**Abstract**

A concise and factual abstract is required. The abstract should state briefly the purpose of the research, the principal results and major conclusions. An abstract is often presented separately from the article, so it must be able to stand alone. For this reason, References should be avoided, but if essential, then cite the author(s) and year(s). Also, non-standard or uncommon abbreviations should be avoided, but if essential they must be defined at their first mention in the abstract itself.

**Graphical abstract**

Although a graphical abstract is optional, its use is encouraged as it draws more attention to the online article. The graphical abstract should summarize the contents of the article in a concise, pictorial form designed to capture the attention of a wide readership. Graphical abstracts should be submitted as a separate file in the online submission system. Image size: Please provide an image with a minimum of 531 × 1328 pixels (h × w) or proportionally more. The image should be readable at a size of 5 × 13 cm using a regular screen resolution of 96 dpi. Preferred file types: TIFF, EPS, PDF or MS Office files. You can view Example Graphical Abstracts on our information site. Authors can make use of Elsevier's Illustration Services to ensure the best presentation of their images and in accordance with all technical requirements.

**Keywords**

Immediately after the abstract, provide a maximum of 6 keywords, using American spelling and avoiding general and plural terms and multiple concepts (avoid, for example, 'and', 'of'). Be sparing with abbreviations: only abbreviations firmly established in the field may be eligible. These keywords will be used for indexing purposes.

**Acknowledgements**

Collate acknowledgements in a separate section at the end of the article before the references and do not, therefore, include them on the title page, as a footnote to the title or otherwise. List here those individuals who provided help during the research (e.g., providing language help, writing assistance or proof reading the article, etc.).

**Formatting of funding sources**

List funding sources in this standard way to facilitate compliance to funder’s requirements:

Funding: This work was supported by the National Institutes of Health [grant numbers xxxx, yyyyy]; the Bill & Melinda Gates Foundation, Seattle, WA [grant number zzzz]; and the United States Institutes of Peace [grant number aaaa].

It is not necessary to include detailed descriptions on the program or type of grants and awards. When funding is from a block grant or other resources available to a university, college, or other research institution, submit the name of the institute or organization that provided the funding.

If no funding has been provided for the research, please include the following sentence:

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.
Math formulae
Please submit math equations as editable text and not as images. Present simple formulae in line with normal text where possible and use the solidus (/) instead of a horizontal line for small fractional terms, e.g., X/Y. In principle, variables are to be presented in italics. Powers of e are often more conveniently denoted by exp. Number consecutively any equations that have to be displayed separately from the text (if referred to explicitly in the text).

Footnotes
Footnotes should be used sparingly. Number them consecutively throughout the article. Many word processors build footnotes into the text, and this feature may be used. Should this not be the case, indicate the position of footnotes in the text and present the footnotes themselves separately at the end of the article.

Artwork
Electronic artwork
General points
• Make sure you use uniform lettering and sizing of your original artwork.
• Preferred fonts: Arial (or Helvetica), Times New Roman (or Times), Symbol, Courier.
• Number the illustrations according to their sequence in the text.
• Use a logical naming convention for your artwork files.
• Indicate per figure if it is a single, 1.5 or 2-column fitting image.
• For Word submissions only, you may still provide figures and their captions, and tables within a single file at the revision stage.
• Please note that individual figure files larger than 10 MB must be provided in separate source files.

A detailed guide on electronic artwork is available.

You are urged to visit this site; some excerpts from the detailed information are given here.

Formats
Regardless of the application used, when your electronic artwork is finalized, please 'save as' or convert the images to one of the following formats (note the resolution requirements for line drawings, halftones, and line/halftone combinations given below):
EPS (or PDF): Vector drawings. Embed the font or save the text as 'graphics'.
TIFF (or JPG): Color or grayscale photographs (halftones): always use a minimum of 300 dpi.
TIFF (or JPG): Bitmapped line drawings: use a minimum of 1000 dpi.
TIFF (or JPG): Combinations bitmapped line/half-tone (color or grayscale): a minimum of 500 dpi is required.

Please do not:
• Supply files that are optimized for screen use (e.g., GIF, BMP, PICT, WPG); the resolution is too low.
• Supply files that are too low in resolution.
• Submit graphics that are disproportionately large for the content.

Color artwork
Please make sure that artwork files are in an acceptable format (TIFF or JPEG), EPS (or PDF) or MS Office files) and with the correct resolution. If, together with your accepted article, you submit usable color figures then Elsevier will ensure, at no additional charge, that these figures will appear in color online (e.g., ScienceDirect and other sites) in addition to color reproduction in print. Further information on the preparation of electronic artwork.

Figure captions
Ensure that each illustration has a caption. A caption should comprise a brief title (not on the figure itself) and a description of the illustration. Keep text in the illustrations themselves to a minimum but explain all symbols and abbreviations used.

Tables
Please submit tables as editable text and not as images. Tables can be placed either next to the relevant text in the article, or on separate page(s) at the end. Number tables consecutively in accordance with their appearance in the text and place any table notes below the table body. Be sparing in the use of tables and ensure that the data presented in them do not duplicate results described elsewhere in the article. Please avoid using vertical rules and shading in table cells.

References
Citation in text
Please ensure that every reference cited in the text is also present in the reference list (and vice versa). Any references cited in the abstract must be given in full. Unpublished results and personal communications are not recommended in the reference list, but may be mentioned in the text. If these references are included in the reference list they should follow the standard reference style of the journal and should include a substitution of the publication date with either 'Unpublished results' or 'Personal communication'. Citation of a reference as 'in press' implies that the item has been accepted for publication.

Web references
As a minimum, the full URL should be given and the date when the reference was last accessed. Any further information, if known (DOI, author names, dates, reference to a source publication, etc.), should also be given. Web references can be listed separately (e.g., after the reference list) under a different heading if desired, or can be included in the reference list.

Data references
This journal encourages you to cite underlying or relevant datasets in your manuscript by citing them in your text and including a data reference in your Reference List. Data references should include the following elements: author name(s), dataset title, data repository, version (where available), year, and global persistent identifier. Add [dataset] immediately before the reference so we can properly identify it as a data reference. The [dataset] identifier will not appear in your published article.

References in a special issue
Please ensure that the words 'this issue' are added to any references in the list (and any citations in the text) to other articles in the same Special Issue.

Reference management software
Most Elsevier journals have their reference template available in many of the most popular reference management software products. These include all products that support Citation Style Language styles, such as Mendeley. Using citation plug-ins from these products, authors only need to select the appropriate journal template when preparing their article, after which citations and bibliographies will be automatically formatted in the journal's style. If no template is yet available for this journal, please follow the format of the sample references and citations as shown in this Guide. If you use reference management software, please ensure that you remove all field codes before submitting the electronic manuscript. More information on how to remove field codes from different reference management software.

Users of Mendeley Desktop can easily install the reference style for this journal by clicking the following link:

When preparing your manuscript, you will then be able to select this style using the Mendeley plug-ins for Microsoft Word or LibreOffice.

Reference formatting
There are no strict requirements on reference formatting at submission. References can be in any style or format as long as the style is consistent. Where applicable, author(s) name(s), journal title/book title, chapter title/article title, year of publication, volume number/book chapter and the article number or pagination must be present. Use of DOI is highly encouraged. The reference style used by the journal will be applied to the accepted article by Elsevier at the proof stage. Note that missing data will be highlighted at proof stage for the author to correct. If you do wish to format the references yourself they should be arranged according to the following examples:

Reference style
Text: Citations in the text should follow the referencing style used by the American Psychological Association. You are referred to the Publication Manual of the American Psychological Association, Sixth Edition, ISBN 978-1-4338-0561-5, copies of which may be ordered online or APA Order Dept., P.O.B. 2710, Hyattsville, MD 20784, USA or APA, 3 Henrietta Street, London, WC3E 8LU, UK.
List: references should be arranged first alphabetically and then further sorted chronologically if necessary. More than one reference from the same author(s) in the same year must be identified by the letters 'a', 'b', 'c', etc., placed after the year of publication.
Examples:
Reference to a journal publication:
Reference to a journal publication with an article number:

Reference to a book:

Reference to a chapter in an edited book:

Reference to a website:

Reference to a dataset:

Reference to a conference paper or poster presentation:

*Journal abbreviations source*
Journal names should be abbreviated according to the List of Title Word Abbreviations.

**Video**
Elsevier accepts video material and animation sequences to support and enhance your scientific research. Authors who have video or animation files that they wish to submit with their article are strongly encouraged to include links to these within the body of the article. This can be done in the same way as a figure or table by referring to the video or animation content and noting in the body text where it should be placed. All submitted files should be properly labeled so that they directly relate to the video file's content. In order to ensure that your video or animation material is directly usable, please provide the file in one of our recommended file formats with a preferred maximum size of 150 MB per file, 1 GB in total. Video and animation files supplied will be published online in the electronic version of your article in Elsevier Web products, including ScienceDirect. Please supply 'stills' with your files: you can choose any frame from the video or animation or make a separate image. These will be used instead of standard icons and will personalize the link to your video data. For more detailed instructions please visit our video instruction pages. Note: since video and animation cannot be embedded in the print version of the journal, please provide text for both the electronic and the print version for the portions of the article that refer to this content.

**Supplementary material**
Supplementary material such as applications, images and sound clips, can be published with your article to enhance it. Submitted supplementary items are published exactly as they are received (Excel or PowerPoint files will appear as such online). Please submit your material together with the article and supply a concise, descriptive caption for each supplementary file. If you wish to make changes to supplementary material during any stage of the process, please make sure to provide an updated file. Do not annotate any corrections on a previous version. Please switch off the 'Track Changes' option in Microsoft Office files as these will appear in the published version.

**Research data**
This journal encourages and enables you to share data that supports your research publication where appropriate, and enables you to interlink the data with your published articles. Research data refers to the results of observations or experimentation that validate research findings. To facilitate reproducibility and data reuse, this journal also encourages you to share your software, code, models, algorithms, protocols, methods and other useful materials related to the project.
Below are a number of ways in which you can associate data with your article or make a statement about the availability of your data when submitting your manuscript. If you are sharing data in one of these ways, you are encouraged to cite the data in your manuscript and reference list. Please refer to the "References" section for more information about data citation. For more information on depositing, sharing and using research data and other relevant research materials, visit the research data page.

Data linking
If you have made your research data available in a data repository, you can link your article directly to the dataset. Elsevier collaborates with a number of repositories to link articles on ScienceDirect with relevant repositories, giving readers access to underlying data that gives them a better understanding of the research described.

There are different ways to link your datasets to your article. When available, you can directly link your dataset to your article by providing the relevant information in the submission system. For more information, visit the database linking page.

For supported data repositories a repository banner will automatically appear next to your published article on ScienceDirect.

In addition, you can link to relevant data or entities through identifiers within the text of your manuscript, using the following format: Database: xxxx (e.g., TAIR: AT1G01020; CCDC: 734053; PDB: 1XFN).

Mendeley Data
This journal supports Mendeley Data, enabling you to deposit any research data (including raw and processed data, video, code, software, algorithms, protocols, and methods) associated with your manuscript in a free-to-use, open access repository. During the submission process, after uploading your manuscript, you will have the opportunity to upload your relevant datasets directly to Mendeley Data. The datasets will be listed and directly accessible to readers next to your published article online.

For more information, visit the Mendeley Data for journals page.

Data in Brief
You have the option of converting any or all parts of your supplementary or additional raw data into one or multiple data articles, a new kind of article that houses and describes your data. Data articles ensure that your data is actively reviewed, curated, formatted, indexed, given a DOI and publicly available to all upon publication. You are encouraged to submit your article for Data in Brief as an additional item directly alongside the revised version of your manuscript. If your research article is accepted, your data article will automatically be transferred over to Data in Brief where it will be editorially reviewed and published in the open access data journal, Data in Brief. Please note an open access fee of 600 USD is payable for publication in Data in Brief. Full details can be found on the Data in Brief website. Please use this template to write your Data in Brief.

Data statement
To foster transparency, we encourage you to state the availability of your data in your submission. This may be a requirement of your funding body or institution. If your data is unavailable to access or unsuitable to post, you will have the opportunity to indicate why during the submission process, for example by stating that the research data is confidential. The statement will appear with your published article on ScienceDirect. For more information, visit the Data Statement page.

AFTER ACCEPTANCE

Online proof correction
To ensure a fast publication process of the article, we kindly ask authors to provide us with their proof corrections within two days. Corresponding authors will receive an e-mail with a link to our online proofing system, allowing annotation and correction of proofs online. The environment is similar to MS Word: in addition to editing text, you can also comment on figures/tables and answer questions from the Copy Editor. Web-based proofing provides a faster and less error-prone process by allowing you to directly type your corrections, eliminating the potential introduction of errors. If preferred, you can still choose to annotate and upload your edits on the PDF version. All instructions for proofing will be given in the e-mail we send to authors, including alternative methods to the online version and PDF.
We will do everything possible to get your article published quickly and accurately. Please use this proof only for checking the typesetting, editing, completeness and correctness of the text, tables and figures. Significant changes to the article as accepted for publication will only be considered at this stage with permission from the Editor. It is important to ensure that all corrections are sent back to us in one communication. Please check carefully before replying, as inclusion of any subsequent corrections cannot be guaranteed. Proofreading is solely your responsibility.

**Offprints**
The corresponding author will, at no cost, receive a customized Share Link providing 50 days free access to the final published version of the article on ScienceDirect. The Share Link can be used for sharing the article via any communication channel, including email and social media. For an extra charge, paper offprints can be ordered via the offprint order form which is sent once the article is accepted for publication. Both corresponding and co-authors may order offprints at any time via Elsevier's Author Services. Corresponding authors who have published their article gold open access do not receive a Share Link as their final published version of the article is available open access on ScienceDirect and can be shared through the article DOI link.

**AUTHOR INQUIRIES**
Visit the Elsevier Support Center to find the answers you need. Here you will find everything from Frequently Asked Questions to ways to get in touch. You can also check the status of your submitted article or find out when your accepted article will be published.

© Copyright 2018 Elsevier | https://www.elsevier.com