



Original Article Template

We offer this template to assist all authors of Original Articles being submitted to the Journal of Osteopathic Medicine in preparing their work for efficient peer review. If any of the information outlined in this template is missing from your submission, your manuscript may be returned to you for resolution prior to peer review.

Please refer to our [Instructions for Authors](#) for more information about various technical criteria and a more general overview of each article type.

Please also take great care to ensure that your research, data analysis, and language conform adequately to our requirements for racial and ethnic categorization of patients.

As a reminder, every Original Article must contain:

- *A separate [title page](#) with full disclosure information, as outlined below*
- *A blinded main manuscript file without identifying information for the authors and/or their institutions, to include:*
 - *A structured [Abstract](#)*
 - *An [Introduction section](#)*
 - *A [Methods](#) section*
 - *A [Results](#) section*
 - *A [Discussion](#) section, including limitations*
 - *A [Conclusions](#) section*
 - *A [References](#) section in strict AMA format with 50 or fewer references*
- *Any relevant high-quality [Figures, Tables, Appendices, and Videos](#) as separate files, with flow diagrams encouraged (and required for randomized, controlled trials)*

TITLE PAGE

Article Domain Category [CHOOSE ONE]: Behavioral Health, Cardiopulmonary Medicine, General, Innovations, Medical Education, Musculoskeletal Medicine, Neuromusculoskeletal Medicine/ Osteopathic Manipulative Treatment (OMT), Obstetrics/Gynecology, Pediatrics, Public Health and Primary Care

Article Type: Original Article

Tables/# Figures/# Appendices

Article Title

- Each word capitalized, except prepositions

(Running Title)

- In parentheses and italicized under the main title
- A shortened version of your title that would appear in the header on a published manuscript
- No more than 50 words
 - *eg, (Running Title:)*

Author Bylines

- Periods after middle initials, comma before degrees, each author separated by semicolon
- No Fellowship credentials are permitted.
- Authors should be listed with the credentials that were valid at the time the study was completed, even if they have graduated.
 - *eg, Jane A. Johnson, MA; Janet B. Jones, DO*

Author Affiliations

- Each author should be listed with her/his affiliations on a separate line.
- The listing should include division, department, institution, city, and state where applicable.
 - *eg, Dr. Janet B. Jones, DO, A.T. Still Research Institute and the Department of Osteopathic Manipulative Medicine at the A.T. Still University Kirksville College of Osteopathic Medicine in Missouri.*
- Please add the ORCID ID for each author to her/his affiliation line and provide the Twitter handle of any authors/institutions who would like to be tagged in social media efforts to promote your work.

Financial Disclosures

- List "None reported." or detail those of each individual author.
- Payment alone is not a criterion for disclosure, nor is relevance to the study subject. All affiliations outside of regular employment disclosed in the affiliations section listed above must be disclosed here. We follow AMA guidelines for this category, which state:

"Authors are expected to provide detailed information about all relevant financial interests, activities, relationships, and affiliations (other than those affiliations listed in the title page of the manuscript) including, but not limited to, employment, affiliation, funding and grants received or pending, consultancies, honoraria or payment, speakers' bureaus, stock ownership or options, expert testimony, royalties, donation of medical equipment, or patents planned, pending, or issued. Following the guidelines of the ICMJE, the definitions and terms of such disclosures include: (1) Any potential conflicts of interest 'involving the work under consideration for publication' (during the time involving the work, from initial conception and planning to present); (2) Any 'relevant financial activities outside the submitted work' (over the 3 years prior to submission); and (3) Any 'other relationships or activities that readers could perceive to have influenced, or that give the appearance of potentially influencing' what is written in the submitted work (based on all relationships that were present during the 3 years prior to submission)."

Support

- List “None reported.” or detail those of each individual author.
- Support includes both grants and provision of any material used in the study.
- You must provide qualitative (but not quantitative or accounting) details about how your funding was distributed for the study. This can include things like faculty protected time or patient compensation.
 - Of note, patient compensation must also be disclosed clearly in your [Methods](#) section.
 - We follow AMA guidelines for this category, which state:

“All financial and material support for the research and the work should be clearly and completely identified in...the manuscript. At the time of submission, information on the funding source (including grant identification) must also be completed via the online manuscript submission and review system. The specific role of the funding organization or sponsor in each of the following should be specified: design and conduct of the study; collection, management, analysis, and interpretation of the data; preparation, review, or approval of the manuscript; and decision to submit the manuscript for publication.”
 - *eg, The current study was funded by a grant from the American Osteopathic Association (grant No. ____).*

Ethical Approval

- This section should include a listing of your Institutional Review Board review process. If it was deemed exempt, please state that. If it was reviewed and approved, please state that. Please provide the IRB number as well.
 - This information should also be stated at the beginning of your [Methods](#) section. You may choose to blind the statement (removing the name of the institution) in that area to assure double-blinded peer review.
- This section should also include your clinical trial registry number. We require clinical trial registry before enrollment of the first patient for every original study involving any intervention in human patients. Without clinical trial registry, your manuscript will be unsubmitted or rejected. Post hoc registration is acceptable in some cases, but registry must be completed prior to submission.
 - This information must also be stated clearly at the beginning of your [Methods](#) section. See our [Instructions for Authors](#) for more details: *“For prospective clinical trials, including pilot studies, the Methods section must state the name of the public registry in which the trial was listed before participant recruitment began.”*

Informed Consent

- Provide a succinct summary here of your informed consent process.
 - *eg, All patients/participants in this study provided written informed consent prior to participation.*
- Full details must be given in your [Methods](#) section, including timing, format (paper, electronic), and collection process (by the treating physician, by the allied health staff).

Correspondence Address

- Include institution and street address with full 10-digit zip code, as well as email.
 - *eg, Address correspondence to Jane A. Johnson, MA, A.T. Still Research Institute, A.T. Still University, 800 W Jefferson St, Kirksville, MO, 63501-1443. Email: jjohnson@XX.edu*

Author Contributions

- Please provide author contributions in this exact format, adding author names where indicated by XX. All authors are required to affirm the final statement.
 - XX provided substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data; XX drafted the article or revised it critically for important intellectual content; XX gave final approval of the version of the article to be published; and **all authors** agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Acknowledgments

- If you are thanking anyone for contributions to your study that do not rise to the level of authorship, include the person's name, degree, and department/role, and specify what you are thanking them for.

Below: ABSTRACT



MAIN MANUSCRIPT: ABSTRACT

Original Articles must contain a structured Abstract with the following categories. The Abstract should contain 500 words or fewer.

Context: 3-5 brief sentences providing background information about why your study was undertaken, including conflicts or gaps in the existing literature and/or standards of patient care that made it important and necessary.

Objective: Preferably 1 sentence (no more than 2) succinctly stating your goals or outcomes measures for this study. Should begin, "To..." An example: "To determine whether osteopathic manipulative treatment (OMT) can decrease the overall length of stay (LOS) for term neonates by accelerating the transition to full oral feeds."

Methods: This section should succinctly but *fully* describe your [Methods](#). Please take care not to include [Results](#) here. Traditionally, this section includes a characterization of your methodology (survey, retrospective chart review, prospective intervention), the number of patients/participants enrolled in your study, a brief description of how they were selected or recruited (including inclusion/exclusion criteria), an overview of any randomization or grouping procedures, and a description of the treatment or intervention you implemented. This should also include a brief description of your statistical analysis methods.

Results: This section should succinctly but *fully* describe your [Results](#), including quantitative data. A general description stating "X difference was statistically significant" is insufficient. While summary data is acceptable, numbers must be provided. This includes the response rate (if survey-based), the final number of participants after exclusion, comparative values addressing your outcomes measure(s), *P* values where applicable, and more. Data may also include patient ages, sexes, or races/ethnicities, if that information is relevant to your study. Please take great care to ensure that your data points and language (both here and in the main text Results) conform adequately to our requirements for racial and ethnic categorization of patients.

Conclusion: 2-3 brief sentences stating the conclusions supported by your data. Please take great care not to overstate your conclusions or overreach the scope of your study.

BELOW: INTRODUCTION



MAIN MANUSCRIPT: INTRODUCTION

This section begins the main text of your manuscript. It is generally the portion that contains the **highest number of references to existing literature**, because it is the section used to “set the stage” for your study and **provide all background and context**.

Of note, throughout your manuscript, **references must appear in chronological order** – the order in which the information they support appears in the text - beginning with 1. No reference may be skipped; references should not be listed in alphabetical order and then supplanted into the text.

Every statement in the manuscript that contains factual information must be supported by an appropriate reference. You may be asked by reviewers or the Editorial Office to support your claims/statements if references are missing; this may require adding new references and subsequently renumbering the existing list.

While Original Articles are not literature reviews, they naturally demand a working knowledge of the other literature that exists in your study sphere. **This section should be comprehensively referenced, as stated above, preferably with literature published within the last 10 years unless your specific topic demands historical references.**

- When you reference prior study results, you must include the population n for the study and any other relevant data (usually percentages) to add context. You must also take care not to present previous study results as universal, which would overstate their conclusions.
 - As an example, a sentence reading “*For instance, older nursing home residents who receive regular OMT have reduced hospitalizations and medication usage.*¹⁴” should become, “*For instance, in a previous study of 152 nursing home residents age 65 and older, weekly OMT sessions reduced hospitalizations and medication usage by 54% and 57%, respectively.*¹⁴”
- Please also take care when you are citing multiple references to ensure that the reference appears immediately next to the data it supports.
 - For example, rather than, “*This finding is consistent with existing data showing that that shows healthcare costs and utilization increase with increasing age and that women tend to have higher utilization of healthcare than men.*²⁵⁻²⁷” your sentence should say, “*This finding is consistent with existing data showing that that shows healthcare costs²⁵ and utilization²⁶ increase with increasing age and that women tend to have higher utilization of healthcare than men.*²⁷”
- On a similar note, there should be number agreement between your verbiage and the references.
 - If your sentence says, “In prior studies...” there should be multiple references within the sentence; otherwise, the language should be revised to the singular “study.”

After reading your Introduction, reviewers (and readers, if your paper is published) should clearly understand *at least* the following:

- How your manuscript contributes to or fills a knowledge gap in the existing literature
- Which studies came before that had a direct influence or impact on your study
- Whether there is ‘disagreement’ or controversy in the existing literature on your topic
- Which clinical observations in your own practice led to the idea for this study
- How you selected this topic
- Any anatomical (including somatic) information that is necessary to comprehend your treatment protocol

At the end of your Introduction, you should state your hypothesis.

BELOW: METHODS



MAIN MANUSCRIPT: METHODS

Your Methods section should begin with basic ethical approval descriptions. This includes the following required information:

- A sentence or 2 about **Institutional Review Board evaluation and approval**. This should include the name of the IRB (blinded during peer review but supplied for publication if accepted), whether the IRB approved it or deemed it exempt, and the IRB number assigned to your study.
- A sentence or 2 about **study funding**, including grant numbers.
- A sentence or 2 about **clinical trial registry**, including registration site and number. We require clinical trial registry before enrollment of the first patient for every original study involving any intervention in human patients. This includes pilot studies. If you did not register your clinical trial prior to enrollment, post hoc registration will be accepted in some circumstances, but should be completed before submission. Without clinical trial registry, your manuscript will be rejected or unsubmitted.
- 2-3 sentences about **informed consent**. This includes a full description of when patients were consented, whether this was completed in paper or electronic form, which staff member or author(s) collected the consents, and any other relevant information.
- A sentence or 2 about any **patient/participant compensation** you provided, including amount and form (cash, gift card, etc.).

You may then elect to include or forego other subcategories in this section, including things like Study Population, Treatment Groups, Survey Design, Statistical Analysis, and more. Again, these are not required, but if it makes sense to divide your Methods section into a few subcategories, please feel free to include them.

Regardless of whether subcategories are specified, your Methods section must contain (but not be limited to) the following information:

- How patients were enrolled or participants recruited
- Inclusion/exclusion criteria
- Whether patients were consecutive
- All list of all data you collected
- A full description of all statistical methods used to analyze data, including a power analysis where appropriate
- Information about whether your study tools (including surveys) were previously validated
- Author initials when treatments, evaluations, or survey analysis is referenced. Which authors participated and how?

A word on data collection and analysis: please take care to ensure that any demographic information you collect, analyze, include, and discuss in your paper is relevant to your outcomes, especially as it pertains to race and ethnicity. Our requirements are as follows:

- “Because many individuals may have mixed heritage, a racial or ethnic distinction should not be considered absolute, and ideally it should be based on a person’s self-designation.” [\[AMA\]](#)
- Authors must disclose who classified participants’ race/ethnicity, which categories or classifications were used, and whether the options were predetermined (and by whom).
- “Non-” convenience categories will not be used when discussing race or reporting results, in both text and Tables/Figures.
- “The reasons that race/ethnicity were assessed in the study also should be described (eg, in the Methods section and/or in table footnotes).” [\[AMA\]](#) It is no longer adequate to assess or report participant race and ethnicity without a burden of proof as to its necessity.

When preparing your manuscript, please consider the following guidelines from the AMA:

- Rather than say a patient has a complaint, describe the patient's primary concern.
- Do not use shorthand (eg, exam for examination, preemie for premature infant, prepped for prepared).
- Patients aren't "put on" medication, they're managed with medication. Further, conditions are treated, but patients are managed.

In short, your Methods should fully describe your study such that a reader could entirely reproduce it.

Common mistakes in the Methods section include:

- Including Results (or referencing Figures/Tables that present Results)
- Neglecting to include full information about IRB review, trial registration, funding, informed consent, and patient compensation
- Neglecting to fully describe your patient recruitment and inclusion/exclusion processes
- Omitting a description of your data analysis methods, including which authors participated (by initials; may be concealed during peer review)
- Omitting a description of your statistical analysis (including power analysis) methods
- Omitting a description of the specific software or equipment you used
- Omitting a full description of the treatment given, especially for OMT interventions, including which authors participated (by initials; may be concealed during peer review)

BELOW: RESULTS



MAIN MANUSCRIPT: RESULTS

This is, of course, the section in which you fully present the results of your study. It usually begins with a response or participation rate and may include demographic data where relevant. As noted in the [Methods](#) section, please take particular care to consider whether race/ethnicity and gender were relevant to your study; it is no longer adequate to assess or report participant race and ethnicity without a burden of proof as to its necessity.

This narrative presentation must:

- Include full and transparent reporting of all data, not just percentage or n values – both must be given. Means, medians, ranges, standard deviations, *P* values, and confidence intervals should all be reported consistently and transparently where available. Please carefully review this example.
 - eg, “Notably, neonates in the OMT group were never intubated, but about half (53%) of historical controls had been intubated for a median of 2 days ($P=.01$).” This sentence is missing an n value to correlate with 53%, and it does not include a range or mean alongside the median. It does not include the number of neonates in the OMT group. Further, the percentage is rounded without the first decimal (see below). Finally, it includes “notably” in the sentence, which strays into the area of context and importance, both of which should be reserved for the Discussion (see below). Revised appropriately, the sentence would read, “None of the 9 neonates (0%) in the OMT group were intubated, but 19 of 36 (52.8%) of historical controls had been intubated for a median of 2 days (mean, 1.8 days; range, 1-5 days; $P=.01$).”
- Not solely rely on Figures or Tables, which are meant to succinctly summarize and support data already presented in the narrative section. If you present it in a Figure or Table, it must also be presented in the narrative form.
- Include “call-outs” to Figures and Tables where appropriate.
 - These Figures may include – and in fact, you are encouraged to include – a diagram showing patient flow through your study. One example is the [CONSORT](#) chart.
- Contain values carried through to the first decimal point (eg, 1.1, not 1 or 1.06).
- Include all relevant data, not just “positive” results (ie, those that supported your hypothesis or have statistical significance).
- Include quantitative support (ie, data) for any claim of significance.
- Include data for both groups when a comparison is made, especially for gender and racial/ethnic comparisons.
 - Please use an equitable approach in reporting data. It is no longer sufficient to report only majorities and leave readers to calculate minority data, since this presupposes the majority (whether race or sex) as the default. Where the number of White participants is reported, so must the number of other participants be reported with equal clarity.
 - “Non-” convenience categories should not be used when discussing race or reporting results, in both text and Tables/Figures.
 - Black and African American are not equivalent, nor are Hispanic and Latino or similar racial categories. African American and Hispanic designations relate to countries of origin, and unless patients are specifically queried about country of birth, these categorizations are potentially inaccurate.

Common mistakes in the Results section include:

- Neglecting to include *all* data points (such as the n value correlating with any percentage you present) and rounding percentages
- Beginning discussion of the importance of certain results or providing context for them, which should happen in the Discussion only
- Neglecting to present data in the narrative text, referring readers solely to Figures or Tables to find the data you reference

BELOW: DISCUSSION



MAIN MANUSCRIPT: DISCUSSION

While your Introduction provides an opportunity to present the background of your research, your Discussion provides an opportunity give context to your Results, explain their significance, highlight unique or unusual aspects of what you found, and place your findings in the larger scope of previously published research by showcasing the similarities and differences.

In essence, your Discussion tells your reader why your research matters.

There is no firm guideline about the length of a Discussion in any paper. You may use as much space as you need, within overall word count constraints for your article type, to discuss and contextualize your study. However, the Discussion should not be redundant. Please refrain from restating (other than to briefly call readers' attention to it if you need to explain a specific aspect) information that has been presented elsewhere in the manuscript. The Discussion is not a place to "rehash" your Results without context.

Your Discussion is also a good place to highlight the ways you think your Results are clinically applicable – and to specify the type of osteopathic physicians who might use it.

You must also forthrightly discuss your study's limitations in your Discussion section, preferably with a subsection labeled "Limitations."

Common mistakes in the Discussion section include:

- Claiming primacy ("first," "only," etc.)
- Overstating the significance of your results
- Restating information you've already shared, most commonly in the Introduction or the Results
- Neglecting to adequately outline the ways your results are similar to or differ from any similar prior studies
- Neglecting to adequately outline your study's natural biases or limitations

BELOW: CONCLUSIONS



MAIN MANUSCRIPT: CONCLUSIONS

Your Conclusions section should be brief – usually no more than 7 sentences long.

It should contain no new information: no new results, no new references, no new items for context or discussion.

It should be an efficient statement of what you found, what the significance of those findings is, and how your study might benefit osteopathic medical practice.

Common mistakes in the Conclusions section include:

- Including new data
- Including references
- Overstating the significance of your results
- Restating information you've already shared, most commonly in the Discussion or Results

BELOW: REFERENCES



REFERENCES

References must be supplied in strict AMA format and must contain a DOI link at the end of the reference (where available).

[This link](#) should assist you in formatting your references properly before submission. Note that there are separate tabs available at the link for each type of reference source.

References *must be* numbered in the order in which they appear in the text. They *must be* consecutive, with no missing references. Your article may be returned to you before peer review if the references are numbered improperly.

BELOW: FIGURES, TABLES, APPENDICES, AND VIDEOS



FIGURES, TABLES, APPENDICES, AND VIDEOS

Appropriate Figures and Tables are encouraged to support (but not replace) your text.

For Original Articles, you are encouraged to supply a chart demonstrating the flow of patients through your study. [CONSORT](#) is one example, but even if your study is not a randomized controlled trial, flow charts can be helpful for readers to understand how inclusion/exclusion criteria affected the patient population.

All Figures must be supplied in a high-quality format; please see the Figures and Tables section on our main [Instructions for Authors](#) page for details.

Tables can be submitted in a single, separate Word document (utilizing the “Tables” feature in your Microsoft Word document).

Figures should be submitted individually as image files.

Every Table should have a title; every Figure should have a descriptive Legend that can be clearly understood by the reader without referencing the main text of the document.

Tables should include all pertinent data (eg, n , P value, percentage, standard deviation, etc.) carried through to the first decimal.

If any portion of a Figure or Table has been previously published, you must obtain permission to reprint before submission, and include the form as part of your submission to *JOM*. You must also disclose this in your Figure or Table legend.

You are permitted to include Appendices of any variety – copies of surveys distributed for your study, raw data, and more. These will be published online alongside your main article but will not be copyedited for content.

You are encouraged to consider whether a video might support your article, especially if you are presenting the results of an OMT intervention! We welcome videos, as they are of particular interest to *JOM* readers.