

How to write an effective manuscript for peer review

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Yale Schools of Medicine and Public Health

GIFT Bootcamp 2024

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Outline

Pre-writing

Manuscript preparation

Tables and Figures

General tips

Writing process

Outline

Pre-writing

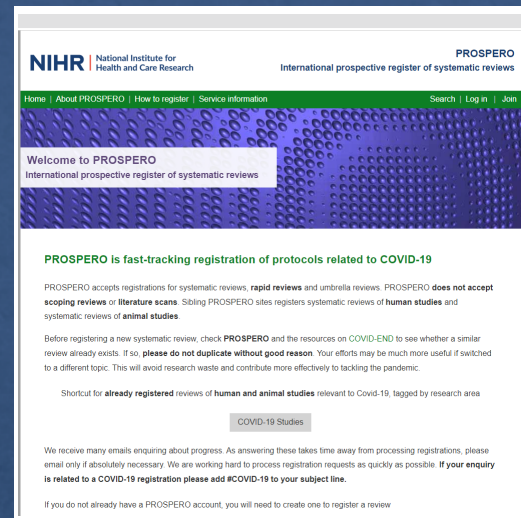
Manuscript preparation

Tables and Figures

General tips

Writing process

Protocol registration



◆ Complete timely registration of protocols!

◆ Ensures adherence with World Health Organization (WHO) policy required for clinical trials

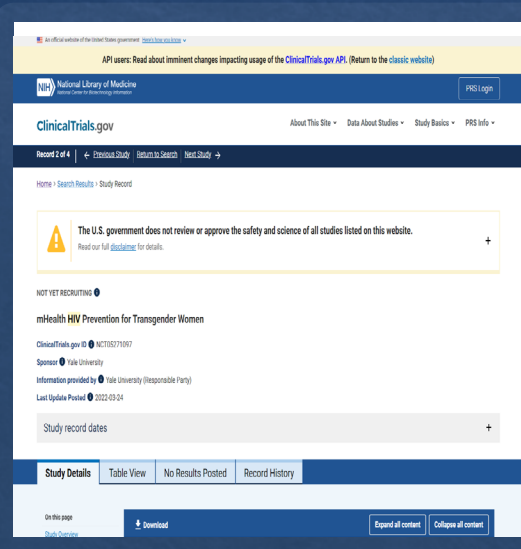
◆ Promotes transparent and accessible reporting of studies

◆ Failure to do so will interfere with publishing efforts

◆ Key websites:

◆ Clinical trials: clinicaltrials.gov

◆ Systematic reviews, rapid reviews, umbrella reviews: Prospero
<https://www.crd.york.ac.uk/prospéro/>



Reporting guidelines

- ❖ Familiarize yourself with reporting guidelines based on study type
- ❖ Useful to review when planning protocols and before starting your study
- ❖ Checklists required by some journals when publishing

The screenshot shows the Equator Network website interface. At the top, the logo for Equator Network is displayed alongside the tagline "Enhancing the QUALITY and Transparency Of health Research". A navigation menu includes links for Home, About us, Library, Toolkits, Courses & events, News, Blog, Librarian Network, and Contact. A breadcrumb trail indicates the current location: Home > Library > Reporting guideline.

The main content area features a search section titled "Search for reporting guidelines". It includes a search icon and a prompt to "Browse for reporting guidelines by selecting one or more of these drop-downs:". Three dropdown menus are provided for "Study type", "Clinical area", and "Section of report", each with a "Please select..." placeholder. Below these are two search buttons: "Search Reporting Guideline" and "Search Reporting Guidelines". A note at the bottom of the search section recommends searching in English and provides links for "Start again" and "Help".

Below the search section, it states "Displaying 576 reporting guidelines found." and "Most recently added records are displayed first." A list of five reporting guidelines is shown, each with a numbered icon and a title:

- 1 [CHEERS Value of Information \(CHEERS-VOI\) Reporting Standards – Explanation and Elaboration](#)
- 2 [Initial Standardized Framework for Reporting Social Media Analytics in Emergency Care Research](#)
- 3 [The adapted Autobiographical interview: A systematic review and proposal for conduct and reporting](#)
- 4 [Paediatric Ureteroscopy \(P-URS\) reporting checklist: a new tool to aid studies report the essential items on paediatric ureteroscopy for stone disease](#)
- 5 [Adult Ureteroscopy \(A-URS\) Checklist: A New Tool To Standardise Reporting in Endourology](#)

On the right side of the page, there is a sidebar titled "Reporting guidelines for main study types". It lists various study types with their corresponding reporting guidelines and extensions:

- [Randomised trials](#) (CONSORT, Extensions)
- [Observational studies](#) (STROBE, Extensions)
- [Systematic reviews](#) (PRISMA, Extensions)
- [Study protocols](#) (SPIRIT, PRISMA-P)
- [Diagnostic/prognostic studies](#) (STARD, TRIPOD)
- [Case reports](#) (CARE, Extensions)
- [Clinical practice guidelines](#) (AGREE, RIGHT)
- [Qualitative research](#) (SRQR, COREQ)
- [Animal pre-clinical studies](#) (ARRIVE)
- [Quality improvement studies](#) (SQUIRE, Extensions)
- [Economic evaluations](#) (CHEERS)

Below this sidebar is a section titled "Translations" with the text: "Some reporting guidelines are also available in languages other than English. Find out more in our [Translations section](#)."

At the bottom of the sidebar is a section titled "About the Library" with the text: "For information about Library scope and content..."

Free resource for learning about applying the reporting guidelines



The screenshot shows the PAHO Virtual Campus for Public Health website. At the top, there are logos for the Pan American Health Organization and the World Health Organization, followed by the PAHO logo and the Virtual Campus for Public Health logo. Navigation links include 'Español | English | Português', 'HOME PAGE', 'ABOUT US', and 'HELP DESK'. There are also buttons for 'CREATE ACCOUNT' and 'LOG IN'. The main content area features a 'VIRTUAL COURSE' section with a photo of people in a meeting. The course title is 'Enhance the visibility and value of your research for health with reporting guidelines'. The 'Introduction' section describes the course as a collaboration between the EQUATOR Network and PAHO/WHO, aimed at increasing research value and reducing waste. The 'Purpose' section states that the course aims to train participants in using research reporting guidelines throughout the research process.

PAHO VIRTUAL CAMPUS FOR PUBLIC HEALTH

Español | English | Português

HOME PAGE ABOUT US HELP DESK CREATE ACCOUNT LOG IN

VIRTUAL COURSE



Enhance the visibility and value of your research for health with reporting guidelines

Introduction

This course is the result of a collaboration between the [EQUATOR Network^{\[1\]}](#) and the Pan American Health Organization (PAHO) / World Health Organization (WHO). It aims to increase the value of research and reduce research waste by enabling people who are planning to conduct, report, edit, publish, or appraise research for health to comply with current research reporting standards. The course aims to help participants to deliver impactful high-quality research in line with the recommendations in PAHO's [Policy on Research for Health^{\[2\]}](#) and the WHO's [Strategy on Research for Health^{\[3\]}](#).

This is an introductory course. It does not replace formal training in research methods, such as graduate degrees in epidemiology. It provides an overview of good reporting practice at all stages of the research pathway. The ideal time to take this course is as an introductory activity before beginning and finalizing your research proposal or while planning a health research manuscript.

Purpose

This course aims to train participants to use research reporting guidelines at many stages of the research process, from planning their research proposal to sharing their research findings. Using reporting guidelines will make their research processes transparent, well-reported, and relevant for national and international health agendas.

Authorship

- ◆ Discuss early to set roles, responsibilities, and expectations
- ◆ Per the International Committee of Medical Journal Editors (ICMJE), authorship requires:
 - ◆ Substantial contributions to the conception or design of the work; or the acquisition, analysis or interpretation of the data for the work; AND
 - ◆ Final approval of the version to be published; AND
 - ◆ Drafting of the work or reviewing it critically for important intellectual content; AND
 - ◆ Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy and integrity of any part of the work are appropriately investigated and resolved; AND
 - ◆ Familiarity with contributions of other co-authors and have confidence in the integrity of their contributions.

Authorship

- ◇ Acknowledge those who do not meet all key criteria for authorship
- ◇ Authorship order matters:
 - ◇ First author – leads the work, completes first draft of manuscript
 - ◇ Senior author – serves in the mentoring role
 - ◇ Second author – leads analyses
 - ◇ Alphabetize other authors by last name
- ◇ Be mindful of team size to allow rigorous conduct of the work, avoid diluting contributions of team members
- ◇ Acknowledge use of artificial intelligence (e.g., ChatGPT) in cover letter and in the submitted work
- ◇ Do NOT put someone's name on your submitted work without first receiving their input and permission
- ◇ Inform all co-authors of progress with the publication process

How do you pick a target journal?

How do you pick a target journal?



WHO IS TARGET
AUDIENCE?



WHICH JOURNAL HAS
THE HIGHEST IMPACT
FACTOR?



WHAT IS THE TYPICAL
PEER REVIEW TIMELINE?



WHAT ARE
FORMATTING
REQUIREMENTS
(E.G., WORD LIMIT,
AUTHOR LIMIT)?



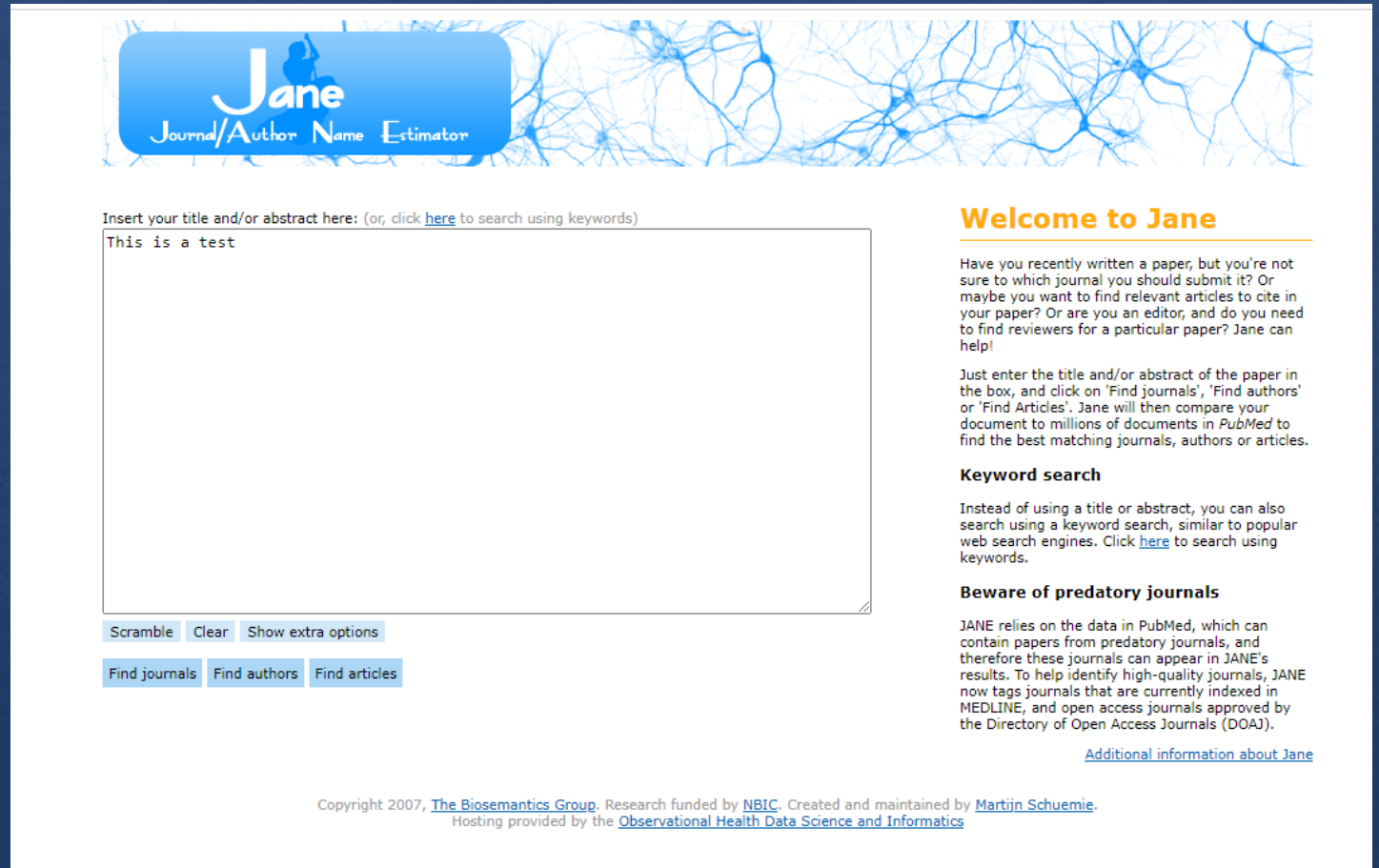
WHAT ARE THE COSTS
ASSOCIATED WITH
PUBLICATION?

Need help finding a target journal?

- Journal club articles
- Check your reference list
- List of journals in target field by impact factor
- JANE

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- Journal club articles
- Check your reference list
- List of journals in target field by impact factor
- JANE



Jane
Journal/Author Name Estimator

Insert your title and/or abstract here: (or, click [here](#) to search using keywords)

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Scramble Clear Show extra options

Find journals Find authors Find articles

Welcome to Jane

Have you recently written a paper, but you're not sure to which journal you should submit it? Or maybe you want to find relevant articles to cite in your paper? Or are you an editor, and do you need to find reviewers for a particular paper? Jane can help!

Just enter the title and/or abstract of the paper in the box, and click on 'Find journals', 'Find authors' or 'Find Articles'. Jane will then compare your document to millions of documents in *PubMed* to find the best matching journals, authors or articles.

Keyword search

Instead of using a title or abstract, you can also search using a keyword search, similar to popular web search engines. Click [here](#) to search using keywords.

Beware of predatory journals

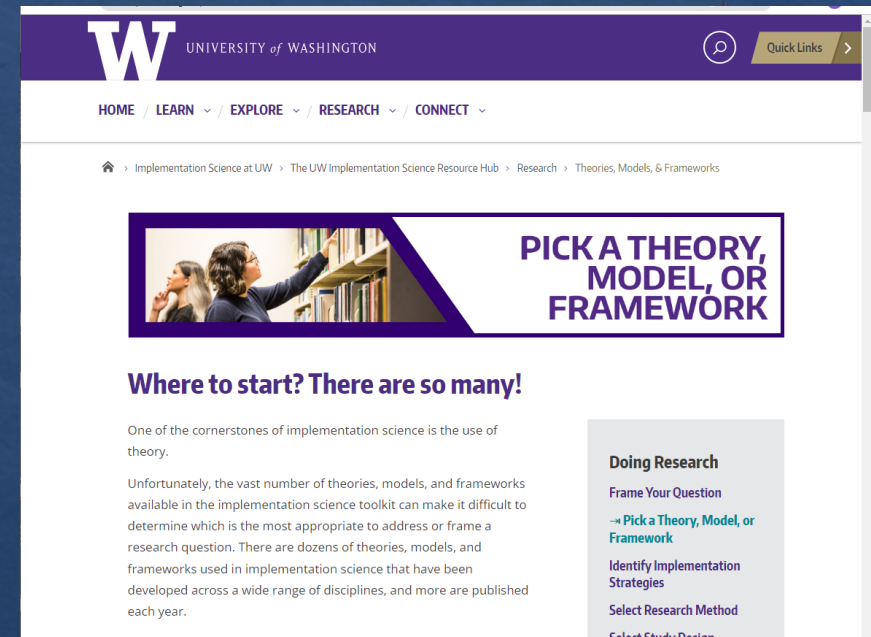
JANE relies on the data in PubMed, which can contain papers from predatory journals, and therefore these journals can appear in JANE's results. To help identify high-quality journals, JANE now tags journals that are currently indexed in MEDLINE, and open access journals approved by the Directory of Open Access Journals (DOAJ).

[Additional information about Jane](#)

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Literature search

- ◆ Use a reference manager (e.g., Endnote, Zotero, etc.)
- ◆ Highlight relevant clinical guidelines, systematic reviews
- ◆ Prioritize recent papers as relevant
- ◆ *Consider Implementation Science frameworks that may guide approach*



Outline

Pre-writing

Manuscript preparation

Tables and Figures

General tips

Writing process

Getting started

1

Review instructions for the authors on target journal website to guide manuscript preparation

2

Use submitted conference abstracts and talks as starting points

3

Start with section that is easiest for you

4

Create dedicated writing blocks on your calendar or write a few minutes every day (with a writing buddy)

5

Set fake deadlines

Manuscript components



INTRODUCTION



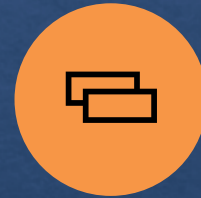
METHODS



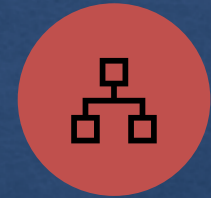
RESULTS



DISCUSSION



TABLES AND
FIGURES



ABSTRACT

Introduction

- ◆ Define the scope of the problem.
- ◆ Describe the current gap in the literature.
- ◆ Explicitly state your research question, associated hypotheses (as applicable), methods used to answer your question and why this is important.



Readiness to Provide Medications for Addiction Treatment in HIV Clinics: A Multisite Mixed-Methods Formative Evaluation

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INTRODUCTION

Substance use disorders threaten the health of people with HIV (PWH). Opioid use disorder (OUD) has been a driver of premature death among PWH in the past decade.¹ Alcohol use disorder (AUD) adversely affects each stage of the HIV care continuum and contributes to morbidity, mortality, and ongoing HIV transmission.^{2–4} Tobacco use disorder (TUD) is responsible for more years of life lost than treated HIV.^{5,6} Fortunately, there are evidence-based medications for addiction treatment (MAT) to address OUD,^{7,8} AUD,^{9–11} and TUD¹² that are recommended for PWH¹³ and can be provided in HIV clinical settings, along with brief behavioral services (eg, medication management).^{14,15} Yet, substantial gaps exist in prescribing of MAT and provision of substance use behavioral services to PWH.^{16–20} Although inadequate HIV clinician training is one important barrier to MAT implementation,^{21–23} few previous studies have sought to understand the range of factors impacting MAT implementation in HIV clinics from the perspectives of diverse

stakeholders^{24,25} as well as whether and how to best integrate MAT into HIV clinics.²⁶

To address this gap and as part of an implementation study, we conducted a formative evaluation to identify barriers and facilitators to readiness to provide MAT in HIV clinics from the perspectives of prescribers and non-prescribers. We conducted this work in 4 clinics in the northeastern United States involving both academic and community hospital-affiliated settings to directly inform future implementation efforts.

- Scope of the problem
- Why this is an important problem that merits attention

INTRODUCTION

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- Describe the literature gap

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- Goals of study, brief mention of approach, and rationale

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Manuscript components



INTRODUCTION



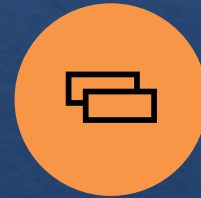
METHODS



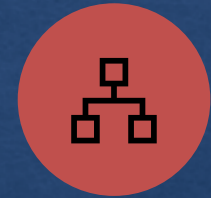
RESULTS



DISCUSSION



TABLES AND
FIGURES



ABSTRACT



Methods

- ◇ Brief overview of study design
- ◇ Settings and participants
 - ◇ Recruitment strategies
 - ◇ Inclusion and exclusion criteria
 - ◇ Ethical approval, reimbursement
- ◇ Procedures and data collection
 - ◇ Outcome(s): primary vs. secondary vs. exploratory
 - ◇ Independent variable of interest and covariates
 - ◇ Details of intervention vs. control conditions (as applicable)
- ◇ Statistical analyses
 - ◇ Sample size considerations
 - ◇ Secondary analyses, sensitivity analyses, post-hoc analyses
- ◇ Role of the funding source
- ◇ *Implementation studies commonly have multiple samples and integrate different types of data and outcomes*

Methods describing mixed-methods formative evaluation

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METHODS

Overview of WHAT-IF?

We conducted a mixed-methods formative evaluation²⁷ in the context of the *Working with HIV clinics to adopt Addiction Treatment using Implementation Facilitation? (WHAT-IF?)* study.²⁸ In brief, the study used a hybrid type 3 effectiveness-implementation design²⁹ with a stepped-wedge approach^{30,31} to evaluate the impact of implementation facilitation³² on promoting provision of evidence-based counseling and MAT to address OUD, AUD, and TUD in HIV clinics. The study protocol was approved by the Institutional Review Boards of Yale University and each participating site. Participants provided assent for the surveys and verbal informed consent for the focus groups.

The formative evaluation was guided by the Promoting Action on Research Implementation in Health Services (PARiHS) framework,³³ a commonly applied framework to support systematic evaluation of how perspectives regarding the *evidence* for a particular intervention may interact with the *context* for delivering that intervention and *facilitation* needs.

Settings and Participants

WHAT-IF? was conducted in HIV clinics located in New Haven and Hartford, Connecticut; Brooklyn, New York; and Providence, Rhode Island. The patient population across clinics ranges from approximately 375 to 1700 active patients. To obtain a broad perspective on factors that might affect implementation, prescribers (medical directors, nurse practitioners, physicians, and physician assistants) and non-prescribers (eg, nurses and counselors) who had been employed at the participating sites for at least 6 months before the study were invited to participate in a confidential, online survey and follow-up in-person focus group. Individuals were provided meals, or the equivalent (ie, gift card for restaurant), for their participation in these research activities.

Data Collection

Consistent with the stepped-wedge design, data were collected sequentially every 6 months at each site and during a 6-week interval from June 15, 2017, to February 5, 2019, before initiation of any study-related implementation activities. Using a sequential explanatory approach,³⁴ we first collected quantitative data followed by focus groups to contextualize and triangulate study findings.³⁵

Quantitative

The quantitative assessment collected self-reported data on demographic characteristics, training, and experiences with MAT. Ratings on a visual analog scale were used to assess readiness to provide MAT for each substance. For example, to assess readiness to provide medications for TUD, we asked: "How ready are you to prescribe or refer patients for medications (ie, nicotine replacement therapy, bupropion, and varenicline) for the treatment of tobacco use disorder?" where response options ranged from 0 (not ready) to 10 (ready) on a continuous scale and were dichotomized as less ready (0–<7) vs. more ready (≥ 7 –10).³⁶ Consistent with our previous work³⁶ in which we identified those who were most likely to benefit from intervention based on the distribution of the data (only top quintile considered "ready"), and to promote comparability across studies, we chose this cutoff of 7.

Using an adapted version of the Organizational Readiness to Change Assessment,³⁷ we assessed ratings on the perceived evidence supporting the use of MAT for each substance and the HIV clinic context for providing new practices. For example, for the evidence subscale regarding opioid treatment medications, we asked: "In my opinion prescribing of medications in my HIV clinic to decrease opioid use will improve health outcomes among patients with an opioid use disorder;" response options included a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The context scale contains 5 subscales: leadership culture, staff culture, leadership practice, evaluation accountability, and opinion leader culture; response options include a 5-point Likert scale, ranging from 1 (very infrequently) to 5 (very frequently). An additional item assessed "slack resources" to that support practice change. Subscale response options also included "do not know" or "not applicable," which were recoded as "neither agree nor disagree" or "neither frequently nor infrequently" to allow computation of subscale scores.³⁶

Finally, to assess perspectives on the most feasible model for improving addiction treatment in the HIV clinic, we asked: "In your opinion, which approach do you think would be most feasible to improve treatment for [opioid/alcohol/tobacco] use disorder?" with options including that each clinician provides treatment to patients in their panel for the given substance use disorder ("all trained"); one current clinician is appointed as the specialist ("designated on-site specialist"); a specialist is brought into the clinic ("outside on-site specialist"); no treatment is provided on-site and patients are referred out ("refer out"); or other.³⁸

Qualitative

Qualitative data were collected through a focus group at each site for a total of 4 focus groups, consistent with the number typically required to reach thematic saturation.³⁹ Participants were invited by the local study team through emails and announcements at routinely scheduled clinician and staff meetings. The focus group facilitators included members of the investigative team who did not work at the local site and identified themselves to the group as physician researchers trained in internal medicine, psychiatry, addiction,

and/or HIV. Grand tour (ie, broad) questions and probes were grounded in the PARiHS framework to assess perspectives on the evidence for MAT, the HIV clinical context's organizational readiness for providing evidence-based practices, and potential facilitation opportunities.³³ Focus groups were digitally recorded and professionally transcribed.

Data Analyses

Quantitative

First, participants' characteristics were summarized using mean, SD, median, and interquartile range (IQR) for continuous variable and frequency and percentage for categorical variables. Second, differences on readiness to provide MAT for OUD, AUD, and TUD were tested using generalized estimating equations controlling for sites and prescriber status. Third, differences between those who are more ready and less ready to provide medications were assessed using the *t* test or Wilcoxon rank sum test for continuous variables and the χ^2 or Fisher exact test for categorical variables. Comparisons of evidence and context subscale scores by readiness status were then conducted adjusting for site and prescriber status. Finally, we examined preferred models of care for providing MAT for each substance overall and by readiness status. Two-sided *P* values < 0.05 were considered statistically significant. All analyses were performed using SAS 9.4 (SAS Institute, Cary, NC).

Qualitative

Informed by the PARiHS framework, we used a rapid assessment process⁴⁰ followed by an inductive process of iterative coding to identify themes using content analysis.⁴¹ Members of the investigative team independently reviewed each transcript line by line to develop and refine the codebook and reach consensus on codes.³⁵ One investigator then applied these codes consistently to all transcripts, using NVivo software to facilitate data organization and retrieval. Themes were then generated based on coded quotations and discussion with the research team within the PARiHS framework.

Role of the Funding Source

The study was funded by the National Institute on Drug Abuse that had no role in data collection, analysis, interpretation, or reporting.

Methods describing mixed-methods formative evaluation

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Quantitative

The quantitative assessment collected self-reported data

- Study overview
- IRB approvals
- Implementation science framework

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Qualitative

Informed by the PARiHS framework, we used a rapid assessment process⁴⁰ followed by an inductive process of iterative coding to identify themes using content analysis.⁴¹ Members of the investigative team independently reviewed each transcript line by line to develop and refine the codebook and reach consensus on codes.³⁵ One investigator then applied these codes consistently to all transcripts, using NVivo software to facilitate data organization and retrieval. Themes were then generated based on coded quotations and discussion with the research team within the PARiHS framework.

Role of the Funding Source

The study was funded by the National Institute on Drug Abuse that had no role in data collection, analysis, interpretation, or reporting.

Methods describing mixed-methods formative evaluation

stakeholders^{24,25} as well as whether and how to best integrate MAT into HIV clinics.²⁶

To address this gap and as part of an implementation study, we conducted a formative evaluation to identify barriers and facilitators to readiness to provide MAT in HIV clinics from the perspectives of prescribers and non-prescribers. We conducted this work in 4 clinics in the northeastern United States involving both academic and community hospital-affiliated settings to directly inform future implementation efforts.

METHODS

Overview of WHAT-IF?

We conducted a mixed-methods formative evaluation²⁷ in the context of the *Working with HIV clinics to adopt Addiction Treatment using Implementation Facilitation? (WHAT-IF?)* study.²⁸ In brief, the study used a hybrid type 3 effectiveness-implementation design²⁹ with a stepped-wedge approach^{30,31} to evaluate the impact of implementation facilitation³² on promoting provision of evidence-based counseling and MAT to address OUD, AUD, and TUD in HIV clinics. The study protocol was approved by the Institutional Review Boards of Yale University and each participating site. Participants provided assent for the surveys and verbal informed consent for the focus groups.

The formative evaluation was guided by the Promoting Action on Research Implementation in Health Services (PARIHS) framework,³³ a commonly applied framework to support systematic evaluation of how perspectives regarding the *evidence* for a particular intervention may interact with the *context* for delivering that intervention and *facilitation* needs.

Settings and Participants

WHAT-IF? was conducted in HIV clinics located in New Haven and Hartford, Connecticut; Brooklyn, New York; and Providence, Rhode Island. The patient population across clinics ranges from approximately 375 to 1700 active patients. To obtain a broad perspective on factors that might affect implementation, prescribers (medical directors, nurse practitioners, physicians, and physician assistants) and non-prescribers (eg, nurses and counselors) who had been employed at the participating sites for at least 6 months before the study were invited to participate in a confidential, online survey and follow-up in-person focus group. Individuals were provided meals, or the equivalent (ie, gift card for restaurant), for their participation in these research activities.

Data Collection

Consistent with the stepped-wedge design, data were collected sequentially every 6 months at each site and during a 6-week interval from June 15, 2017, to February 5, 2019, before initiation of any study-related implementation activities. Using a sequential explanatory approach,³⁴ we first collected quantitative data followed by focus groups to contextualize and triangulate study findings.³⁵

Quantitative

The quantitative assessment collected self-reported data on demographic characteristics, training, and experiences with MAT. Ratings on a visual analog scale were used to assess readiness to provide MAT for each substance. For example, to assess readiness to provide medications for TUD, we asked: "How ready are you to prescribe or refer patients for medications (ie, nicotine replacement therapy, bupropion, and varenicline) for the treatment of tobacco use disorder?" where response options ranged from 0 (not ready) to 10 (ready) on a 10-cm horizontal line. Readiness was assessed for each substance (ready (0-<7) and not ready (>7)). Clinicians who were not ready to provide MAT in their previous work were more likely to benefit from the data (only for those who were not ready to provide MAT in their previous work).

Using a 5-point Likert scale, we assessed prescribers' and non-prescribers' perceived evidence-based practices. For example, we asked: "How often do you use evidence-based practices for opioid treatment?" with response options: "never," "rarely," "sometimes," "often," and "always." We also assessed prescribers' and non-prescribers' perceived barriers to providing MAT. We used a 5-point Likert scale, ranging from 1 (very infrequently) to 5 (very frequently). An additional item assessed "slack resources" to support practice change. Subscale response options also included "do not know" or "not applicable," which were recoded as "neither agree nor disagree" or "neither frequently nor infrequently" to allow computation of subscale scores.³⁶

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Qualitative data were collected through a focus group at each site for a total of 4 focus groups, consistent with the number typically required to reach thematic saturation.³⁹ Participants were invited by the local study team through emails and announcements at routinely scheduled clinician and staff meetings. The focus group facilitators included members of the investigative team who did not work at the local site and identified themselves to the group as physician researchers trained in internal medicine, psychiatry, addiction,

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Data Analysis

- Clinical context
- Inclusion and exclusion criteria
- Recruitment strategy
- Reimbursement

Results were summarized using the median and interquartile range (IQR) for continuous variables and percentage for categorical variables. Readiness to provide MAT was tested using general linear models for sites and prescribers who are more ready to provide MAT. Continuous variables were assessed using the t-test, and categorical variables were assessed using the chi-square test. Comparisons were made between scores by readiness to provide MAT for site and prescriber status. Finally, we examined preferred models of care for providing MAT for each substance overall and by readiness status. Two-sided *P* values < 0.05 were considered statistically significant. All analyses were performed using SAS 9.4 (SAS Institute, Cary, NC).

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Methods describing mixed-methods formative evaluation

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Finally, to assess perspectives on the most feasible

- Time period of data collection
- How quantitative and qualitative methods were integrated

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Role of the Funding Source

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- Measures with references
- Descriptions and rationale for how key variables were analyzed

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Role of the Funding Source

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Methods

data methods formative evaluation

- Rationale for sample size
- Procedures for data collection

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- Description of statistical tests and processes for analyses
- Software used

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Overview of WHAT-IF?

We conducted a mixed-methods formative evaluation²⁷ in the context of the *Working with HIV clinics to adopt Addiction Treatment using Implementation Facilitation? (WHAT-IF?)* study.²⁸ In brief, the study used a hybrid type 3 effectiveness-implementation design²⁹ with a stepped-wedge approach^{30,31} to evaluate the impact of implementation facilitation³² on promoting provision of evidence-based counseling and MAT to address OUD, AUD, and TUD in HIV clinics. The study protocol was approved by the Institutional Review Boards of Yale University and each participating site. Participants provided assent for the surveys and verbal informed consent for the focus groups.

The evidence for a particular intervention may interact with the context for delivering that intervention and facilitation needs.

Settings and Participants

WHAT-IF? was conducted in HIV clinics located in New Haven and Hartford, Connecticut; Brooklyn, New York; and Providence, Rhode Island. The patient population across clinics ranges from approximately 375 to 1700 active patients. To obtain a broad perspective on factors that might affect implementation, prescribers (medical directors, nurse practitioners, physicians, and physician assistants) and non-prescribers (eg, nurses and counselors) who had been employed at the participating sites for at least 6 months before the study were invited to participate in a confidential, online survey and follow-up in-person focus group. Individuals were provided meals, or the equivalent (ie, gift card for restaurant), for their participation in these research activities.

Data Collection

Consistent with the stepped-wedge design, data were collected sequentially every 6 months at each site and during a 6-week interval from June 15, 2017, to February 5, 2019, before initiation of any study-related implementation activities. Using a sequential explanatory approach,³⁴ we first collected quantitative data followed by focus groups to contextualize and triangulate study findings.³⁵

Quantitative

The quantitative assessment collected self-reported data on demographic characteristics, training, and experiences with MAT. Ratings on a visual analog scale were used to assess readiness to provide MAT for each substance. For example, to assess readiness to provide medications for TUD, we asked: "How ready are you to prescribe or refer patients for medications (ie, nicotine replacement therapy, bupropion, and varenicline) for the treatment of tobacco use disorder?" where response options ranged from 0 (not ready) to 10 (ready) on a continuous scale and were dichotomized as less ready (0–<7) vs. more ready (≥7–10).³⁶ Consistent with our previous work³⁶ in which we identified those who were most likely to benefit from intervention based on the distribution of the data (only top quintile considered "ready"), and to promote comparability across studies, we chose this cutoff of 7.

Using an adapted version of the Organizational Readiness to Change Assessment,³⁷ we assessed ratings on the perceived evidence supporting the use of MAT for each substance and the HIV clinic context for providing new practices. For example, for the evidence subscale regarding opioid treatment medications, we asked: "In my opinion prescribing of medications in my HIV clinic to decrease opioid use will improve health outcomes among patients with an opioid use disorder;" response options included a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

Resources" to that support practice change. Subscale response options also included "do not know" or "not applicable," which were recoded as "neither agree nor disagree" or "neither frequently nor infrequently" to allow computation of subscale scores.³⁶

Finally, to assess perspectives on the most feasible model for improving addiction treatment in the HIV clinic, we asked: "In your opinion, which approach do you think would be most feasible to improve treatment for [opioid/alcohol/tobacco] use disorder?" with options including that each clinician provides treatment to patients in their panel for the given substance use disorder ("all trained"); one current clinician is appointed as the specialist ("designated on-site specialist"); a specialist is brought into the clinic ("outside on-site specialist"); no treatment is provided on-site and patients are referred out ("refer out"); or other.³⁸

Qualitative

Qualitative data were collected through a focus group at each site for a total of 4 focus groups, consistent with the number typically required to reach thematic saturation.³⁹ Participants were invited by the local study team through emails and announcements at routinely scheduled clinician and staff meetings. The focus group facilitators included members of the investigative team who did not work at the local site and identified themselves to the group as physician researchers trained in internal medicine, psychiatry, addiction,

and/or HIV. Grand tour (ie, broad) questions and probes were grounded in the PARIHS framework to assess perspectives on the evidence for MAT, the HIV clinical context's organizational readiness for providing evidence-based practices, and potential facilitation opportunities.³³ Focus groups were digitally recorded and professionally transcribed.

Data Analyses

Quantitative

First, participants' characteristics were summarized using mean, SD, median, and interquartile range (IQR) for continuous variable and frequency and percentage for categorical variables. Second, differences on readiness to provide MAT for OUD, AUD, and TUD were tested using generalized estimating equations controlling for sites and prescriber status. Third, differences between those who are more ready and less ready to provide medications were assessed using the *t* test or Wilcoxon rank sum test for continuous variables and the χ^2 or Fisher exact test for categorical variables. Comparisons of evidence and context subscale scores by readiness status were then conducted adjusting for site and prescriber status. Finally, we examined preferred models of care for providing MAT for each substance overall and by readiness status. Two-sided *P* values < 0.05 were considered statistically significant. All analyses were performed using SAS 9.4 (SAS Institute, Cary, NC).

Qualitative

Informed by the PARIHS framework, we used a rapid assessment process⁴⁰ followed by an inductive process of iterative coding to identify themes using content analysis.⁴¹ Members of the investigative team independently reviewed each transcript line by line to develop and refine the codebook and reach consensus on codes.³⁵ One investigator then applied these codes consistently to all transcripts, using NVivo software to facilitate data organization and retrieval. Themes were then generated based on coded quotations and discussion with the research team within the PARIHS framework.

Role of the Funding Source

The study was funded by the National Institute on Drug Abuse that had no role in data collection, analysis, interpretation, or reporting.

- Role of funding source

Manuscript components



INTRODUCTION



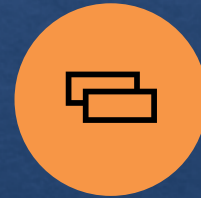
METHODS



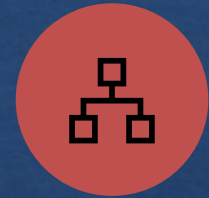
RESULTS



DISCUSSION



TABLES AND
FIGURES



ABSTRACT

Results

- ◇ Include comment on % enrolled among those invited and completeness of data
- ◇ Sample characteristics followed by results of analyses
 - ◇ Unadjusted then adjusted analyses
 - ◇ Main analyses then sensitivity, sub-group, post-hoc analyses
- ◇ No need to describe all findings in the text that are reported otherwise in tables and figures, but do reference tables and figures in the text
- ◇ Use sub-headings to guide reader
- ◇ Provide results of statistical tests
- ◇ Avoid “statistically significant,” “significant” is enough
- ◇ Ensure the reference group is clear when making comparisons

RESULTS

Participant Demographics and Professional Characteristics

Across the 4 clinics, 85 of the 131 invited individuals completed the survey (65% response rate). We then excluded administrative staff (n = 8) and those missing data on all readiness rulers (n = 6). Among the final analytic sample (n = 71), 48% were prescribing clinicians (n = 2 medical directors, n = 2 nurse practitioners, n = 28 physicians, and n = 2 physician assistants) and 52% nonprescribers [n = 3 clinical

- Response rate
- Participant characteristics

Models for Adopting MAT in HIV Clinics

Across substances, more than 90% favored providing addiction treatment on-site in the HIV clinic, but with variable models being most commonly endorsed as the preferred approach (Fig. 3). For instance, for providing treatment for OUD, 37% preferred a “designated on-site specialist” and 30% preferred an “outside on-site specialist.” For providing treatment for AUD, 41% preferred the model involving an “outside on-site specialist” and 30% preferred the “all trained” model. For providing treatment for TUD, the model considered to be most feasible involved having “all trained”; this was preferred by 46%. Preferred models varied by readiness to adopt medications for TUD, with no observed differences for OUD or AUD (see Tables 1–3, Supplemental Digital Content, <http://links.lww.com/QAI/B637>).

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- Overall finding
- Reference figure
- Give an example to facilitate interpretation by the reader

Discussion

- ◇ State how results extend the literature and summarize key findings:
 - ◇ *To our knowledge, this is the first study to... We found main finding #1, #2 and #3... This is important because....*
- ◇ Describe how the findings compare and contrast to existing literature and expectations
 - ◇ Describe discordant or surprising findings
- ◇ Implications for future research, practice, and policy
- ◇ Limitations
 - ◇ Generalizability of findings based on the study sample
 - ◇ Measurement concerns
 - ◇ Biases inherent to the method of data collection (e.g., social desirability bias)
 - ◇ Contextual factors (e.g., COVID-19, new guidelines or regulations)
- ◇ Conclusions

DISCUSSION

To the best of our knowledge, this is the first study to use mixed methods to comprehensively assess factors affect-

education regarding the role of medications with limited behavioral services in the treatment of patients with substance use disorders; and inconsistent availability of on-site dedicated specialists. Third, key facilitators to provision of MAT included recognition of the adverse health consequences of tobacco and opioid use; presence of local champions; and a culture of data-driven care with multidisciplinary teams. Fourth, the overwhelming majority favored integrating addiction treatment on-site into the HIV clinic across substances. However, perceptions on the most feasible approach to do this varied across substances and clinics. Given the diverse infrastructure of these participating HIV clinics, these data lay the essential foundation for informing future interventions and implementation efforts to enhance MAT for PWH.

There has been consistent guidance across multiple international organizations, such as the World Health Organization, and national organizations, including the National Academy of Sciences, Substance Abuse and Mental Health Services Administration, and the Department of Health and Human Services Ryan White HIV/AIDS Program, regarding the importance of addressing substance use among PWH and integrating MAT with HIV care.^{43,44} Our study builds on previous literature in the HIV clinic context^{21–24,45} and beyond^{36,46–48} to identify the multilayered factors that may affect MAT provision and opportunities to improve program readiness to promote MAT. As documented in these previous studies,^{21–23,49} HIV clinicians and staff in the current study reported addressable gaps in their knowledge, understanding, and direct clinical experience that translated into suboptimal adoption of MAT. Specifically, there is a need to enhance awareness and

understanding regarding the benefits of MAT with brief medication management as effective treatments for some patients through education and training^{50–58} that may occur with academic detailing and learning collaboratives.^{59,60}

Beyond training, however, our study reveals several additional key strategies that may be relevant for medical directors, institutional leaders, and policymakers. First, multidisciplinary teams can be leveraged to identify patients who may benefit from MAT. For example, nonprescribers can screen patients with brief, validated tools^{61–63} on intake to identify patients who may benefit from MAT. Second, leadership at each site to help inform and tailor our implementation facilitation²⁸; the evaluation of which is underway. Our study should be considered in the context of its limitations. First, data collection occurred before the

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- How this study fits in with existing literature
- Summarize main findings
- Why this is relevant

models for integrating MAT into HIV clinics depending on the substance, clinician expertise, and resources. Our findings, for example, suggest that clinicians prefer to be trained to provide MAT to address tobacco use. However, that less than half prefer this model for TUD indicate that even with given clinic, flexible models may be needed to optimize MAT provision. Finally, efforts to strengthen partnerships with pharmacists may be helpful given concerns raised about medication complexity and protocols. The results from these formative evaluations were directly shared with cli-

and participants were reminded that their responses would not affect their employment, our findings may be subject to response bias.

CONCLUSIONS

Efforts to promote MAT implementation in HIV clinics may benefit from formative evaluations and multitargeted approaches that are flexible and responsive based on the substance, clinical expertise, and resources. Policies that support and incentivize substance use-related care as a quality metric may be an important first step.

DISCUSSION

- Contextualize the findings as it relates to existing guidelines and prior research

To the best of our knowledge, this study is the first to use mixed methods to

assess barriers to MAT provision in HIV clinics. Our findings highlight the need for education regarding MAT, the importance of behavioral services in the treatment of patients with substance use disorders; and inconsistent availability of on-site dedicated specialists. Third, key facilitators to provision of MAT included recognition of the adverse health consequences of tobacco and opioid use; presence of local champions; and a culture of data-driven care with multidisciplinary teams. Fourth, the overwhelming majority favored integrating addiction treatment on-site into the HIV clinic across substances. However, perceptions on the most feasible approach to do this varied across substances and clinics. Given the diverse infrastructure of these participating HIV clinics, these data lay the essential foundation for informing future interventions and implementation efforts to enhance MAT for PWH.

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Our study should be considered in the context of its limitations. First, data collection occurred before the COVID-19 pandemic, which has resulted in major disruptions to the health care system and may further restrict access to MAT through HIV clinics. Second, we did not have adequate power to compare readiness by substance across the clinics and our findings may not be generalizable to HIV clinics located in rural settings or other regions of the United States. Third, although all surveys were anonymous and participants were reminded that their responses would not affect their employment, our findings may be subject to response bias.

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- Implications of the findings:
 - Now what?
 - What might be done based on our findings?

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- Limitations (and strengths)
 - COVID-19 impact
 - Power concerns for certain analyses
 - Generalizability based on location of clinics
 - Social desirability bias

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• Conclusions: 1-2 sentences

Discussion

- ◆ Avoid hyperboles
- ◆ Do not present any new findings in the discussion
- ◆ All studies have limitations – it is good to acknowledge them!
- ◆ Ensure implications and conclusions are linked to the data, do not overstate your findings

Manuscript components



INTRODUCTION



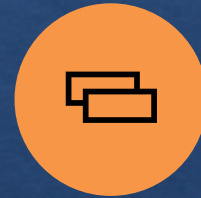
METHODS



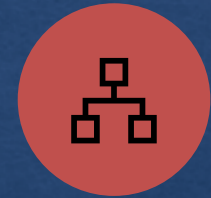
RESULTS



DISCUSSION



TABLES AND
FIGURES



ABSTRACT

Tables and figures

- ◇ What's the key finding and best way to present it (for the paper and slide decks)?
- ◇ Check journal instructions – typically limited a total of figures and tables for main paper
- ◇ Each table and figure should be able to stand alone
- ◇ Minimize acronyms
- ◇ Make denominators clear (titles, column headings)
- ◇ Use figure type that best conveys your findings (e.g., line graph, pie chart, bar graph)

Table vs. figure?

	When best to use	Advantages
Table	<ul style="list-style-type: none">▪ Used to compare individual values▪ Requires precise values▪ Involves multiple units of measures	<ul style="list-style-type: none">▪ Displaying more complex data with precision and flexibility▪ Requires less technical skill or facilities to prepare
Figures	<ul style="list-style-type: none">▪ Used to communicate a message that is contained in the shape of the data▪ Used to reveal the relationship among values	<ul style="list-style-type: none">▪ Simplicity and clarity▪ Memorable visual images▪ Able to show complex relationships

Figures

- ◆ Include descriptive title
- ◆ Label axes
- ◆ Create legend to explain meaning of different colors
- ◆ Make y-axis 100% as possible (as applicable)
- ◆ Use consistent scales across figures to facilitate comparison
- ◆ Do not distort the relationship with your scales

Horizontal bar graph

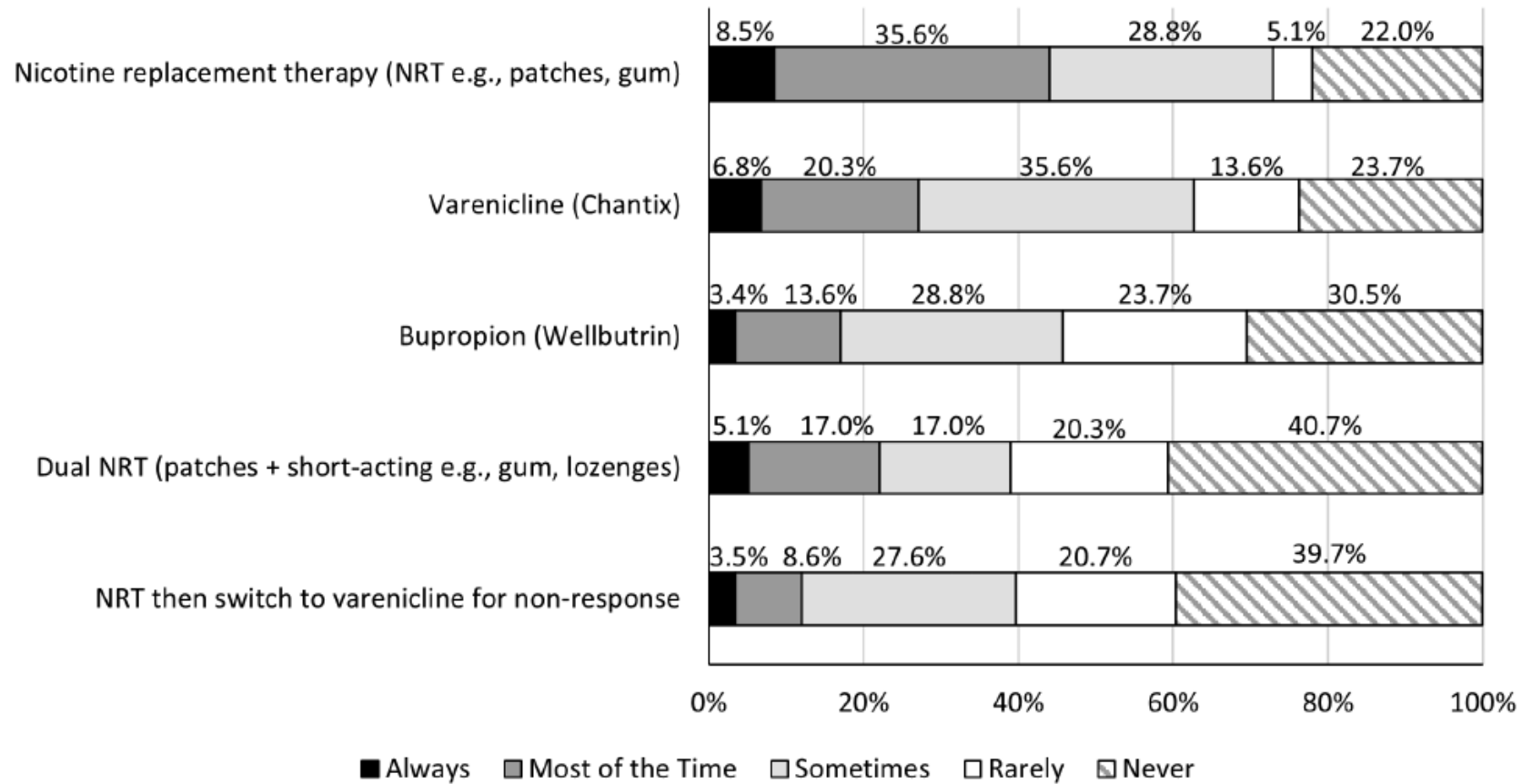
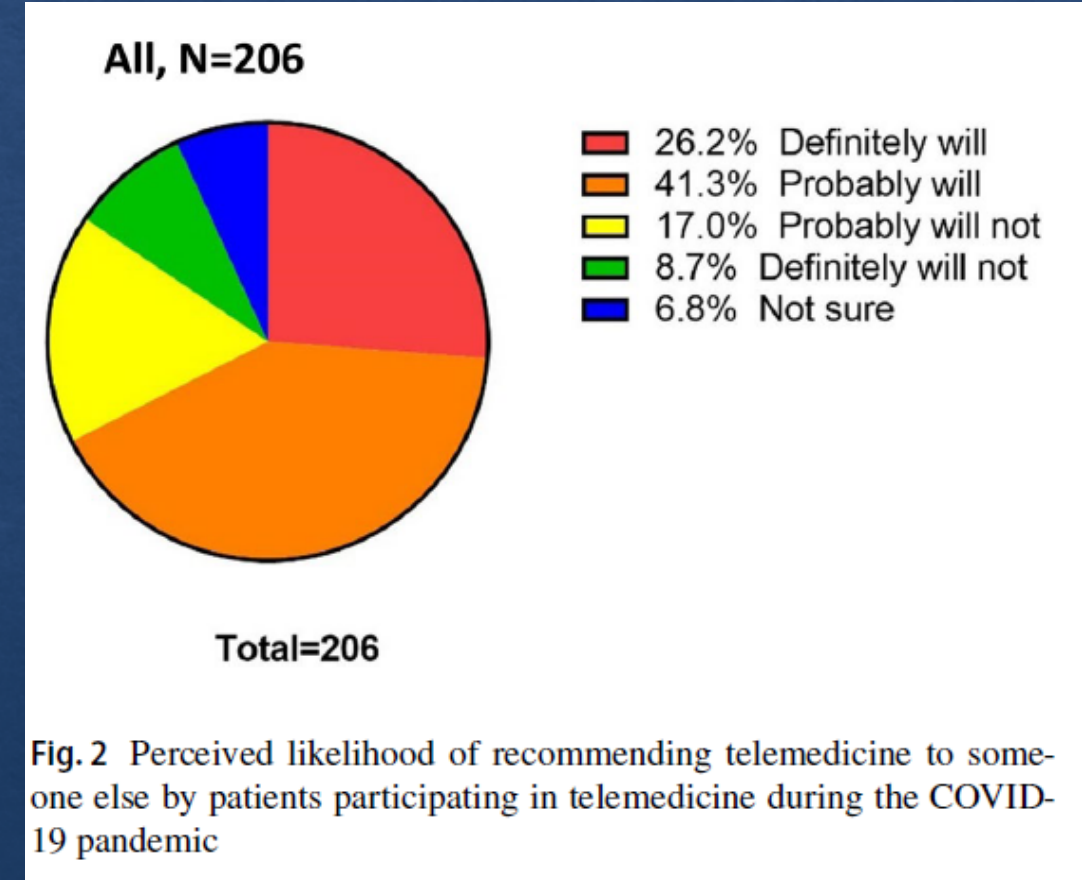
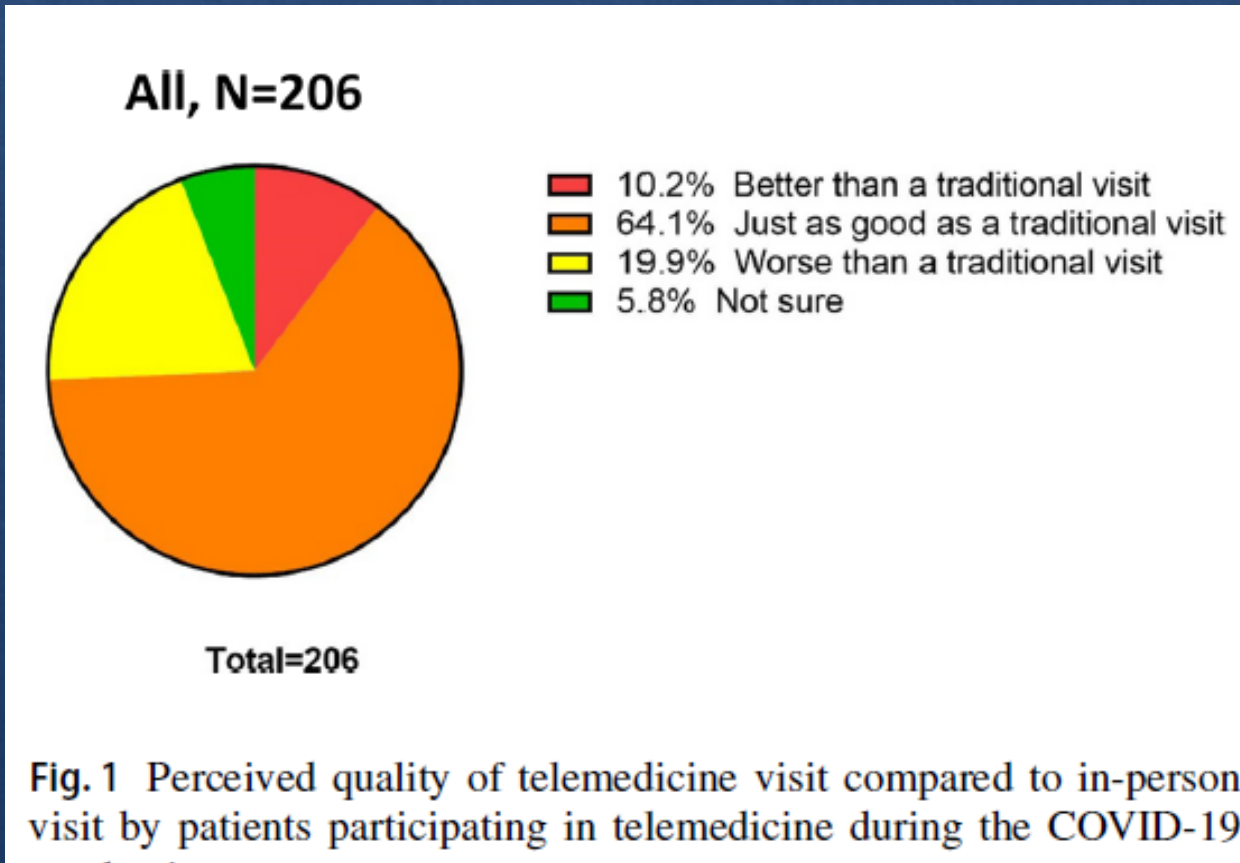


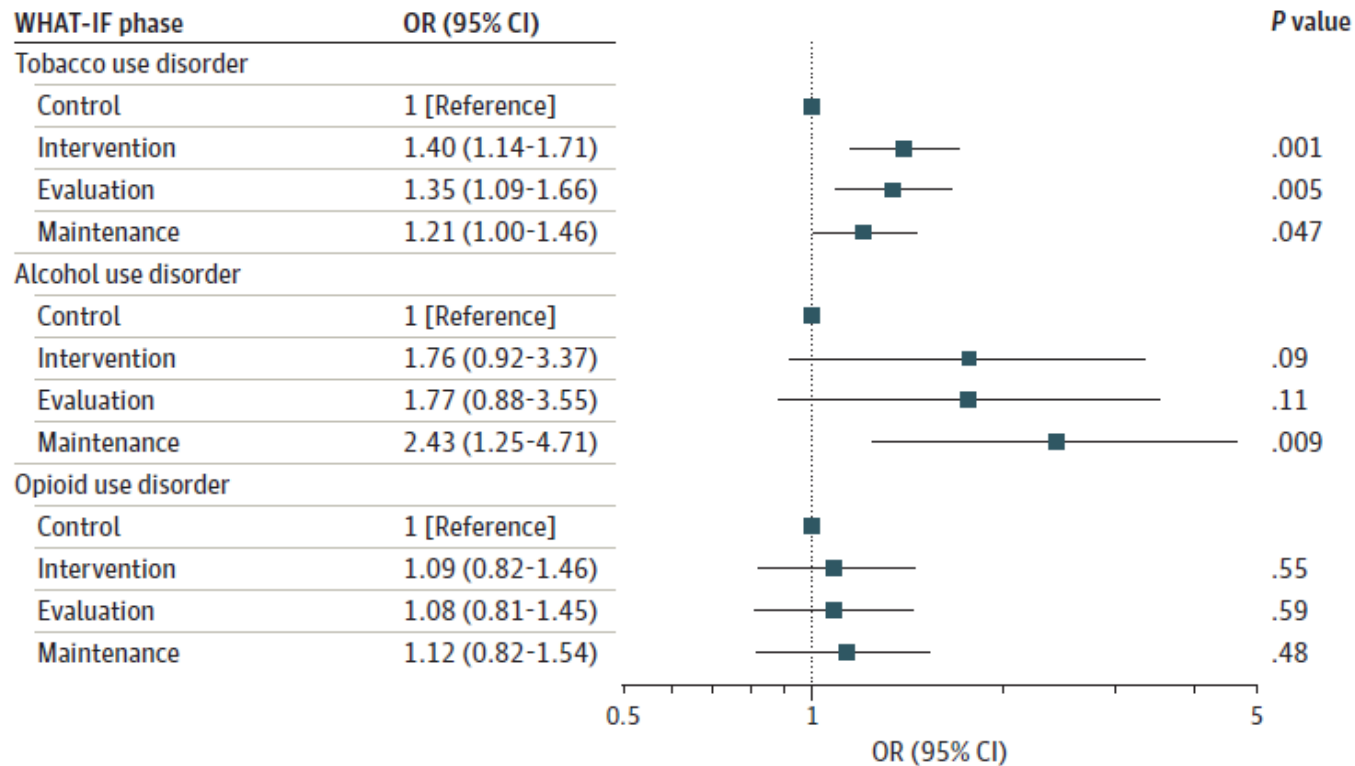
Fig 3 | Self-reported frequency of prescribing medications for TUD among HIV healthcare providers treating patients who smoke. *TUD* tobacco use disorder.

Pie chart



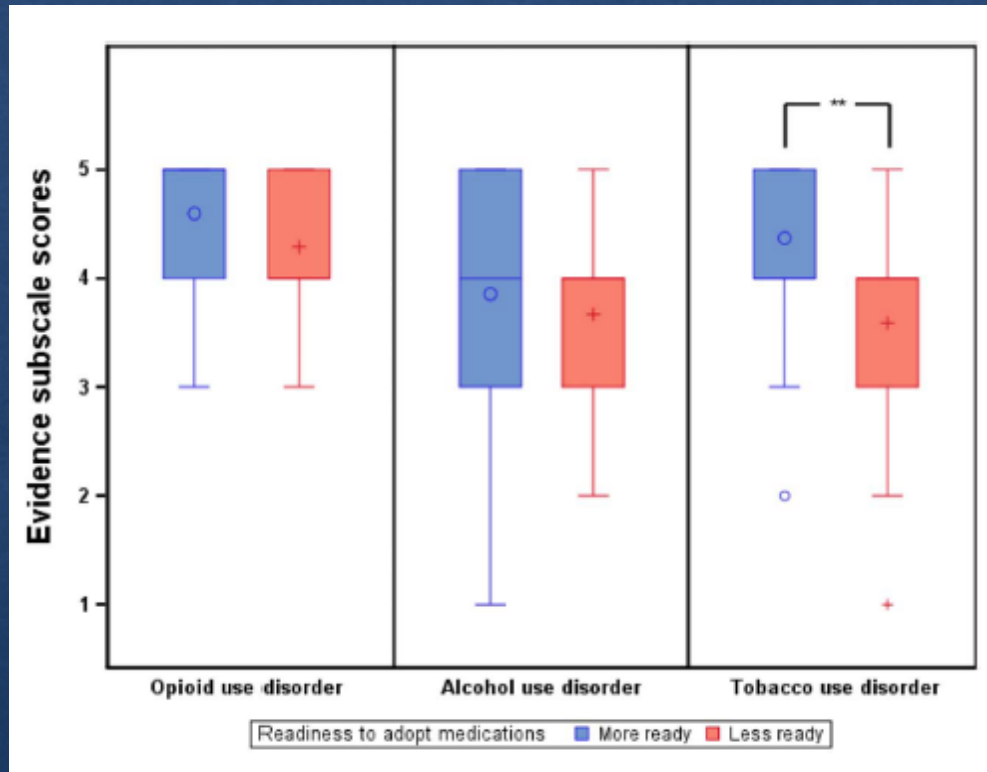
Forest plot

Figure 1. Provision of Medications for Addiction Treatment Among Treatment-Eligible Patients Across Sites by Study Period



OR indicates odds ratio; WHAT-IF, Working with HIV Clinics to adopt Addiction Treatment using Implementation Facilitation.

Box plots



Manuscript components



INTRODUCTION



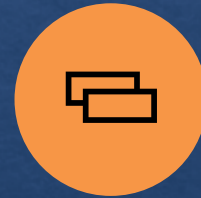
METHODS



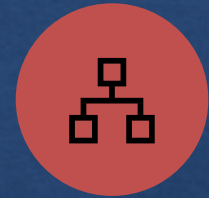
RESULTS



DISCUSSION



TABLES AND
FIGURES



ABSTRACT

Abstract

- ◆ Often the only aspect of the manuscript that will be read!
- ◆ Follow journal guidelines for word count, structured vs. unstructured abstract
- ◆ Provide data in results section
- ◆ Keep the conclusions tightly linked to the findings – do not go beyond the data
- ◆ Submitting conference abstracts help facilitate the manuscript writing process – helpful to make the abstract the first thing you write!

Abstract

Background: We sought to characterize readiness, barriers to, and facilitators of providing medications for addiction treatment (MAT) in HIV clinics.

Setting: Four HIV clinics in the northeastern United States.

Methods: Mixed-methods formative evaluation conducted June 2017–February 2019. Surveys assessed readiness [visual analog scale, less ready (0–<7) vs. more ready (≥ 7 –10)]; evidence and context ratings for MAT provision; and preferred addiction treatment model. A subset ($n = 37$) participated in focus groups.

Results: Among 71 survey respondents (48% prescribers), the proportion more ready to provide addiction treatment medications varied across substances [tobacco (76%), opioid (61%), and alcohol (49%) treatment medications (P values < 0.05)]. Evidence subscale scores were higher for those more ready to provide tobacco [median (interquartile range) = 4.0 (4.0, 5.0) vs. 4.0 (3.0, 4.0), $P = 0.008$]

treatment medications, but not significantly different for opioid [5.0 (4.0, 5.0) vs. 4.0 (4.0, 5.0), $P = 0.11$] and alcohol [4.0 (3.0, 5.0) vs. 4.0 (3.0, 4.0), $P = 0.42$] treatment medications. Median context subscale scores ranged from 3.3 to 4.0 and generally did not vary by readiness status (P values > 0.05). Most favored integrating MAT into HIV care but preferred models differed across substances. Barriers to MAT included identification of treatment-eligible patients, variable experiences with MAT and perceived medication complexity, perceived need for robust behavioral services, and inconsistent availability of on-site specialists. Facilitators included knowledge of adverse health consequences of opioid and tobacco use, local champions, focus on quality improvement, and multidisciplinary teamwork.

Conclusions: Efforts to implement MAT in HIV clinics should address both gaps in perspectives regarding the evidence for MAT and contextual factors and may require substance-specific models.

Key Words: HIV, alcohol, opioid, tobacco, qualitative, implementation science

Outline

Pre-writing

Manuscript preparation

Tables and Figures

General tips

Writing process

General tips

- ◆ Be clear and avoid jargon --- more understandable is better!
- ◆ Use consistent terminology to minimize confusion
- ◆ Be familiar with standards in the field and use person first language
 - ◆ **DO NOT USE TERMS**, including: “Drug Abuse” “Addict” “HIV patient”
- ◆ Define all acronyms and abbreviations at first mention
- ◆ Ensure uniformity with terms and order throughout your manuscript
 - ◆ Abstract should match the body of the manuscript
 - ◆ Methods should match the results
 - ◆ Order of variables should be consistent throughout

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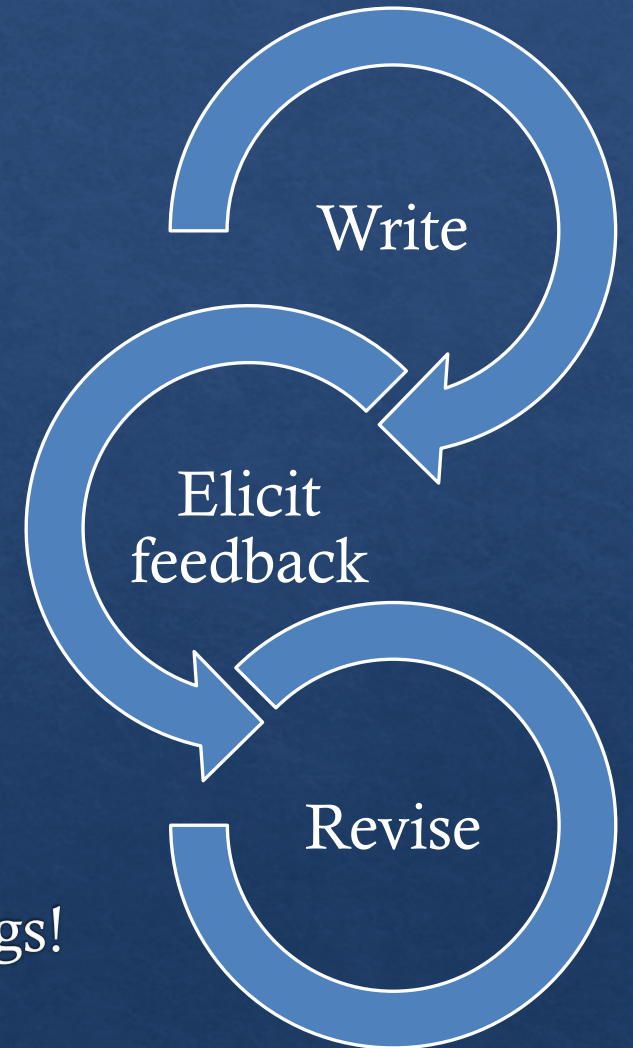
Tables and Figures

General tips

Writing process

Writing process

- ◆ Prepare draft
- ◆ Get feedback from senior author
- ◆ Revise and circulate to co-authors
- ◆ Revise again and recirculate
- ◆ Submit to journal with cover letter
- ◆ Respond to reviews
- ◆ Review proofs: especially check your data and references
- ◆ Publish.... but don't stop there to disseminate your findings!



Responding to reviews

- ◇ Rejections are common, turn around quickly for another journal
- ◇ Be gracious
- ◇ Provide point-by-point responses
- ◇ Make it easy on the editor and reviewers
- ◇ Be timely

Resources



Pergamon

Child Abuse & Neglect 30 (2006) 455–459

Child Abuse
& Neglect

Editorial

Writing for *Child Abuse & Neglect*: Suggestions for success

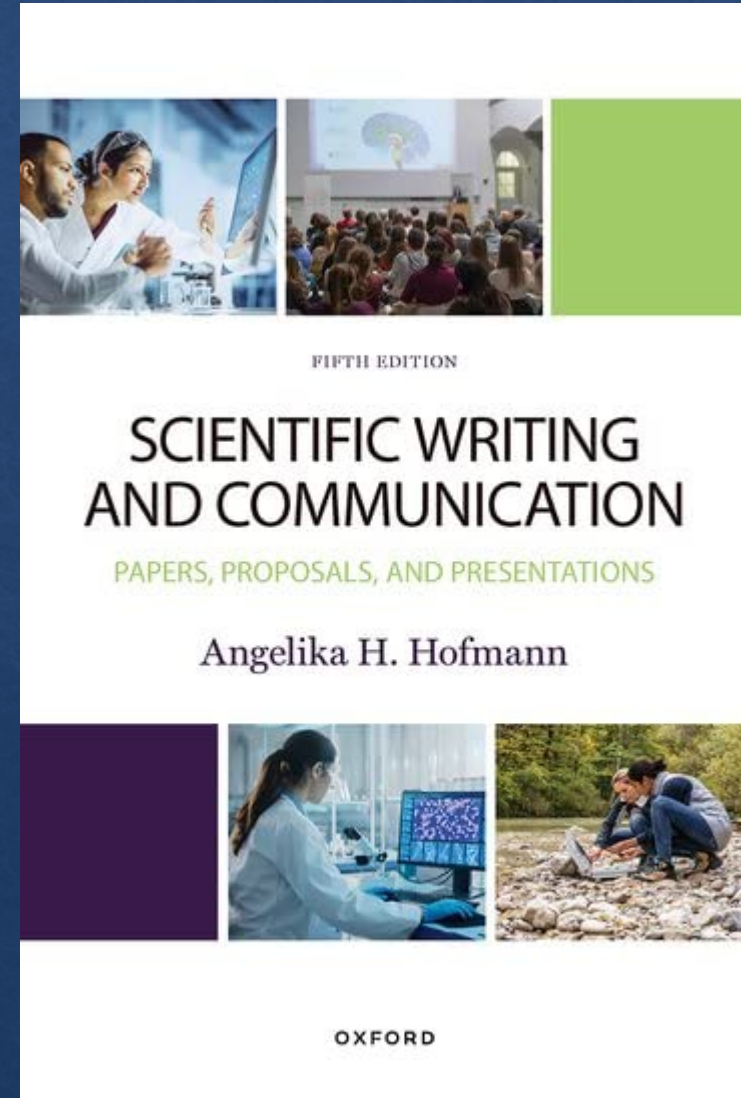
As Editor-in-Chief of the *Journal* for over 5 years, I have read hundreds of manuscripts and thousands of reviewers' comments. Based on this experience, I have learned what makes a good manuscript and what makes a good review and believe that it would be helpful for the readers of the *Journal* if I outlined some of the salient points. This editorial focuses on writing, and a subsequent one will focus on the review process and what makes a good review.

A good manuscript depends on a good research idea, a well-executed project, and a well-written presentation. A presentation that communicates clearly can make the ideas and project shine; in contrast, a poorly written presentation can detract substantially from the rest of the effort.

I will highlight some of the key deficits that I regularly see in submitted manuscripts and offer suggestions for improvements. Neither



to be exhaustive.



Questions and discussion

Box plots

