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OPEN PEER REVIEW

Clinical and Laboratory Positive Predictive Value of Symptom Management of STI in Iran: A Community-Based Survey

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About this report

This open peer review (OPR) report shows the public comments made on this article during peer review, by the reviewers, the associate editor and the editor-in-chief, for every revision round, together with the authors' replies. Comments appear only with the consent of the people who wrote them. Reviewers who chose to sign their report are named; the others are shown as "Referee". Comments are edited for language only, and confidential remarks to the editors are not included.

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1 Original submission

2 comments · 12 Aug 2024 – 15 Aug 2024

Mostafa Khafaei Reviewer

MINOR REVISION 12 Aug 2024

¬ Review of the Article: Clinical and Laboratory Positive Predictive Value of Symptom Management of STI in Iran: A Community-Based Survey¬;

The study aims to evaluate the clinical and laboratory positive predictive value (PPV) of symptom-based management for sexually transmitted infections (STIs) in the general population of Marvdasht, Iran. The methodology employed includes a cross-sectional design involving 3,879 participants aged 18-50, randomly selected from both urban and rural areas. The study is structured in three stages: self-reporting of STI symptoms, clinical evaluation by a physician, and laboratory confirmation of the clinically diagnosed cases.

¬Methodological Weaknesses:¬
- ¬Exclusion of Asymptomatic Individuals:¬ Excluding asymptomatic subjects might have limited the study's ability to assess the full spectrum of STI presentation and reduced the generalizability of the results to all potential cases in the population.
- ¬Potential Bias in Self-Reporting:¬ The reliance on self-reported symptoms could introduce reporting bias, where participants may underreport or overreport symptoms based on personal perceptions or stigma associated with STIs.
- ¬Limited Laboratory Confirmation:¬ The study reports very low laboratory-based PPVs, particularly in men, where some syndromes had a PPV of 0%. This raises questions about the diagnostic accuracy of the laboratory methods used or the prevalence of the infections in the studied population.

¬Results Overview:¬
- The clinically based PPV for STIs was 67.74% in men and 85.36% in women, suggesting that clinical evaluations were more accurate in diagnosing STIs in women than in men.
- The highest clinically based PPV in men was observed for abnormal anal discharge (32.35%), while in women, the highest was for abnormal cervical secretions (59.39%).
- Laboratory-based PPV was notably low, with 0% in men and 5.04% in women, indicating a significant discrepancy between clinical diagnoses and laboratory confirmations.

¬ Recommendation for Revision:
This article appears to be well-structured with a clear focus on evaluating the accuracy of symptom-based STI management. However, the following areas should be revised:

1. ¬Clarification on Laboratory Testing Methods:¬ The article should provide more detail on the laboratory testing methods used, especially given the unexpectedly low PPVs. This would help clarify whether the issue lies in the testing methods or the low prevalence of the infections.

2. ¬Discussion on Exclusion of Asymptomatic Participants:¬ The decision to exclude asymptomatic individuals should be better justified in the context of how it may have impacted the study's findings.

3. ¬Addressing Self-Reporting Bias:¬ A discussion on the potential for bias in self-reported symptoms and how this was managed or could have affected the results would strengthen the article.

Given these suggestions, this article requires a minor revision before it is ready for publication.

Associate Editor MINOR REVISION 15 Aug 2024

Minor Revision

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Revision 1

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

Manuscript reference number: No. 148625

Title: Clinical and Laboratory Positive Predictive Value of Symptom Management of STI in Iran: A Community-Based Survey

Dear Dr. Behzad Einollahi

Thank you for allowing us to revise the paper we would like to submit for publication in the International Journal of Nephro-Urology Monthly. We are grateful to the reviewers and the Editors for their constructive and positive comments on our paper. We have addressed each of the comments in our revision, which has improved the article further. Below we detail our changes and respond to each of the comments in turn.

Comments from the Editors and Reviewers:

Reviewer 1

My comments are attached.

Regards

Authors

Thank you for the most important recommendation. We added additional information based on the comments mentioned in the attached file, each part's corrections were done in the article file and can be seen as track changes, and is given in the table below.

Comment of Reviewer 1	Authors
Clarification on Laboratory Testing Methods:¬ The article should provide more detail on the laboratory testing methods used, especially given the unexpectedly low PPVs. This would help clarify whether the issue lies in the testing methods or the low prevalence of the infections.	Thank you for the most important recommendation. PCR and NAAT(PCR) diagnostic tests were used in this study. which is stated in the study Methods section.
Discussion on Exclusion of Asymptomatic Participants:¬ The decision to exclude asymptomatic individuals should be better justified in the context of how it may have impacted the study's findings.	Thank you for the most important recommendation. One of the main limitations of our study is the lack of examination of asymptomatic individuals, which is stated in the study limitations section.
Addressing Self-Reporting Bias:¬ A discussion on the potential for bias in self-reported symptoms and how this was managed or could have affected the results would strengthen the article.	Thank you for the most important recommendation. Self-reporting causes an underestimation in the results, but in this study, it was tried by choosing trained interviewers (midwifery expert for questioning women and male nurse expert for men) and also asking questions when the person meets the conditions of answering. We were trying to reduce the amount of this error.
Limited Laboratory Confirmation:¬ The study reports very low laboratory-based PPVs, particularly in men, where some syndromes had a PPV of 0%. This raises questions about the diagnostic accuracy of the laboratory methods used or the prevalence of the infections in the studied population.	Thank you for the most important recommendation. This was an important issue in our results, which after consulting with the involved professors and experts of the project, they stated that the problem could be caused by the use of antibiotics in people for these syndromes or other simultaneous diseases that the results of laboratory tests turned out to be negative. which was stated in the limitations of the study. And that in the first visit of the patient, laboratory diagnosis is rarely effective in differentiating the disease because co-infections are common.

2 Revision 1

1 comment · 1 Sep 2024

Associate Editor

ACCEPT 1 Sep 2024

Accept