

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Ophthalmologists' practice patterns and challenges in achieving optimal management for glaucoma in Nigeria: Results from a nationwide survey.
AUTHORS	Kyari, Fatima; Nolan, Winifred; Gilbert, Clare

VERSION 1 - REVIEW

REVIEWER	Laura Crawley Imperial College Healthcare NHS Trust London
REVIEW RETURNED	04-May-2016

GENERAL COMMENTS	<p>This is an interesting paper with clear aims and reporting. It adds to the current evidence available on the management of glaucoma on an international and national stage.</p> <p>There are a few spelling errors to be corrected (once- off should be one off)- minor details but correction preferred. The reference on page 7 stated (Paper,.... under review) IS there an update on the publication decision for this?</p> <p>p13- was it really a trabeculocanalotomy not a canaloplasty?</p>
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REVIEWER	Hannah B Faal Africa Vision Research Institute Durban South Africa
REVIEW RETURNED	13-May-2016

GENERAL COMMENTS	<p>The article needs minor revision and streamlining. It should be stated that one member group of the glaucoma team participated and the implications discussed in the findings and conclusions of the article.</p> <p>Questions</p> <p>7.If statistics are used are they appropriate and described fully?</p> <p>My expertise in statistics is not adequate to address this question. Another reviewer or statistician could help address this.</p> <p>13. Is the supplementary reporting complete (trial registration, funding details, CONSORT, STROBE or PRISMA checklist)—The Strobe checklist for cross sectional studies, may need to be used</p>
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	<p>more comprehensively to improve on the article.</p> <p>9 to 11. Do the results address the research question or objective?</p> <p>A clear definition of the terms <i>practice patterns, systems oriented approach</i> as used in this study would provide the framework of the study. This would then provide the links through each component of the study; objective, methods, results, discussion and conclusions.</p> <p>12. Are the study limitations discussed adequately?</p> <p>This could be improved by elaborating more on the group to whom questionnaires were sent eg the ophthalmologists who attended the annual conference which may be a unique group as opposed to those who do not attend conferences.</p> <p>Some of the challenges were patient related or dependent; however the identification of the challenges in this study was only from the providers perception. This can be discussed further in the study.</p> <p>Comments by page</p> <p>Page 3</p> <p>Purpose of study</p> <p>The paper describes management of glaucoma only in patients who come to health facilities and that should be stated.</p> <p>Study design and results</p> <p>Is it possible to categorise into provider related, patient related and health systems related issues? And use the categorisation in results and discussion?</p> <p>Page 7</p> <p>Sequence: problem, possible solution in Africa, international standard of solution</p> <p>Minor editing;</p> <p>Moving the second paragraph...<i>In order ...risk of blindness</i> . to after ... <i>low income earners</i>.</p> <p>Paragraph on NICE</p> <p>Separate into two paragraphs; first on diagnosis, second on treatment.</p> <p>The economics is also affected by the lifetime nature of treatment as well as the cost of drugs.</p> <p>The last paragraph should align with purpose of study. The use of the information targets a group not mentioned in the study and it would have been easier to show how the study subjects ie the ophthalmologists could use the results and specific ways they could influence others.</p> <p>Page 8</p> <p>Method</p>
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	<p>An explanation on why this particular method was chosen.</p> <p>Data collection is part of method?</p> <p>Page 9</p> <p>RESULTS</p> <p>Categorisation into provider related, patient related and health systems related has already been mentioned.</p> <p>Training in ophthalmology was reported as excellent by 17% and good by 62%; with 97% engaging in CME; the request was for more training.</p> <p>Current training however does not seem to have translated into written protocols, their use and challenges.</p> <p>Page 10</p> <p>Equipment for care and for training should have a section on its own.</p> <p>Glaucoma care should cover the management ie from examination through to cost of glaucoma treatment.</p> <p>Page 12</p> <p>Choice of treatment should be moved to just before Challenges in glaucoma care on page 14.</p> <p>Page 14</p> <p>Challenges</p> <p>Maintain the categorisation into provider related, patient related and health systems related.</p> <p>Training</p> <p>Since there are no specifics on training, it would seem to be a contradiction that respondents perceived that they had high quality and extensive training and yet demanded to have more training. This can be discussed.</p> <p>DISCUSSION</p> <p>The paper puts an emphasis on human resources for eye health for glaucoma care and explores this from the perception of one member of the health team ie the ophthalmologists. Was the team addressed in the questionnaire? This can be discussed further.</p> <p>Productivity—should this be discussed? What factors contribute to high volume?</p> <p>Patient related factors should be brought together, discussed and recommendations made.</p>
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	<p>Page 19/20</p> <p>Recommendation on follow up strategies should be backed by evidence or a recommendation made for research.</p> <p>CONCLUSION</p> <p>Systems -oriented approach as used in this article should be defined, run through the article and based on this appear in the conclusion.</p> <p>The conclusion should also include areas for future research.</p>
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REVIEWER	Anurag Shrivastava Montefiore Hospital Albert Einstein COM Bronx, NY USA
REVIEW RETURNED	02-Jun-2016

GENERAL COMMENTS	Well performed analysis with highly interesting results with impacts on global health needs. Will be a valued publication to have in the literature.
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VERSION 1 – AUTHOR RESPONSE

Reviewer: 1

Reviewer Name: Laura Crawley

Institution and Country: Imperial College Healthcare NHS Trust, London

Competing Interests: none declared

1. This is an interesting paper with clear aims and reporting.

It adds to the current evidence available on the management of glaucoma on an international and national stage.

Thank you

2. There are a few spelling errors to be corrected (once- off should be one off)- minor details but correction preferred.

Correction done

3. The reference on page 7 stated (Paper,.... under review) IS there an update on the publication decision for this?

This has been updated as reference number 2.

4. p13- was it really a trabeculocanalotomy not a canaloplasty?

Canaloplasty. Corrected.

Reviewer: 2

Reviewer Name: Hannah B Faal

Institution and Country: Africa Vision Research Institute, Durban, South Africa

Competing Interests: None

1. See file attached.

See responses below

2. The article needs minor revision and streamlining. It should be stated that one member group of the glaucoma team participated and the implications discussed in the findings and conclusions of the article.

This has been addressed now

Reviewer: 3

Reviewer Name: Anurag Shrivastava

Institution and Country: Montefiore Hospital, Albert Einstein COM, Bronx, NY USA

Competing Interests: None declared

1. Well performed analysis with highly interesting results with impacts on global health needs. Will be a valued publication to have in the literature.

Thank you

Manuscript ID- bmjopen-2016-012230

Reviewer: H FAAL

Date: May 13, 2016

Questions

7.If statistics are used are they appropriate and described fully?

My expertise in statistics is not adequate to address this question. Another reviewer or statistician could help address this.

13. Is the supplementary reporting complete (trial registration, funding details, CONSORT, STROBE or PRISMA checklist)—The Strobe checklist for cross sectional studies, may need to be used more comprehensively to improve on the article.

The STROBE checklist has been completed and attached

9 to 11. Do the results address the research question or objective?

A clear definition of the terms practice patterns, systems oriented approach as used in this study would provide the framework of the study. This would then provide the links through each component of the study; objective, methods, results, discussion and conclusions.

The definitions have been added.

In Introduction paragraph 4: "Practice pattern is the category of conditions used by doctors to diagnose and formulate a plan of care, in this case for glaucoma, within their scope of professional practice.[18] It is defined as patterns of practice related to diagnosis and treatment as especially influenced by cost of the service requested and provided.[19] Benchmarking practice patterns according to recommended guidelines has important implications for quality of care."

In Introduction, last paragraph: "We discuss ophthalmologists' practice patterns using the systems thinking concept to try to understand how care provision can be influenced by linkages and interactions between the six components of the health system.[23]"

12. Are the study limitations discussed adequately?

This could be improved by elaborating more on the group to whom questionnaires were sent eg the ophthalmologists who attended the annual conference, which may be a unique group as opposed to those who do not attend conferences.

Ophthalmologists who did not attend the 2010 conference were also surveyed. This has been clarified:

In Methods 1st paragraph: "Distribution was to all ophthalmologists participating at the 2010 OSN conference and subsequently by email and phone interviews for initial non-responders and also those not attending the 2010 OSN conference."

Some of the challenges were patient related or dependent; however the identification of the challenges in this study was only from the providers' perception. This can be discussed further in the study.

This has now been stated.

In Methods, 2nd paragraph: "Information was obtained regarding providers' patterns of care provision"

And in Discussion, 2nd paragraph: "This paper focuses on the human resources for glaucoma care from the perspective of the ophthalmologist. Other allied eye health personnel and the team for glaucoma care were not addressed in this survey."

Comments by page

Page 3

Purpose of study

The paper describes management of glaucoma only in patients who come to health facilities and that should be stated.

This has now been stated

In Introduction, last paragraph: "The paper describes management of glaucoma only in patients who come to health facilities where there is an ophthalmologist."

Study design and results

Is it possible to categorise into provider related, patient related and health systems related issues? And use the categorisation in results and discussion?

The challenges in glaucoma care in the results section are now categorised into provider-related, patient-related and systems-related; and also discussed along those lines in the Discussion.

Page 7

Sequence: problem, possible solution in Africa, international standard of solution

Minor editing;

Moving the second paragraph...In order ...risk of blindness. to after ... low income earners.

Done

Paragraph on NICE

Separate into two paragraphs; first on diagnosis, second on treatment.

Done

The economics is also affected by the lifetime nature of treatment as well as the cost of drugs.
This is now stated for further clarity

In Introduction, 2nd to last paragraph: "The economic burden on the patient is influenced by the lifetime nature of the treatment as well as the cost of medications."

The last paragraph should align with purpose of study. The use of the information targets a group not mentioned in the study and it would have been easier to show how the study subjects ie the ophthalmologists could use the results and specific ways they could influence others.
The last paragraph has been edited accordingly.

In Introduction, last paragraph: "The information obtained will be disseminated to ophthalmologists and also used for advocacy to hospital managers and policy makers. The systems thinking approach provides new opportunities to understand processes and enable shared development of interventions [24] by these groups to improve services for glaucoma care."

Page 8

Method

An explanation on why this particular method was chosen.

This is noted.

In Methods, 1st paragraph: "These avenues for data collection were used for convenient access to ophthalmologists."

Data collection is part of method?

Page 9

RESULTS

Categorisation into provider related, patient related and health systems related has already been mentioned.

This has been addressed for challenges in glaucoma care

Training in ophthalmology was reported as excellent by 17% and good by 62%; with 97% engaging in CME; the request was for more training.

Current training however does not seem to have translated into written protocols, their use and challenges.

Noted.

In Discussion, paragraph 3: "However, current training has not yet translated into written protocols, their use and challenges."

Page 10

Equipment for care and for training should have a section on its own.

Done

Glaucoma care should cover the management ie from examination through to cost of glaucoma treatment.

Done. However, cost and choice of treatment were reported under implications of health financing in

order to outline issues according to the health systems component.

Page 12

Choice of treatment should be moved to just before Challenges in glaucoma care on page 14.
Done

Page 14

Challenges

Maintain the categorisation into provider related, patient related and health systems related.
This categorisation is now undertaken here.

Training

Since there are no specifics on training, it would seem to be a contradiction that respondents perceived that they had high quality and extensive training and yet demanded to have more training.
This can be discussed.
Noted in discussion.

In Discussion, paragraph 4: "In this study, training in ophthalmology was reported as excellent by 17% and good by 62%. However, it is noteworthy that there was no specific or detailed information on training. It may seem contradictory that there was request for more training in glaucoma care by some respondents. Young ophthalmologists need to be encouraged to develop competencies in glaucoma early in their careers, with self-audit being an integral component of the training. Prospective monitoring is also essential and can gauge surgical competencies and outcomes."

DISCUSSION

The paper puts an emphasis on human resources for eye health for glaucoma care and explores this from the perception of one member of the health team ie the ophthalmologists.
This is now stated to set the tone of the discussion.

In Discussion, paragraph 2: "This paper focuses on the human resources for glaucoma care from the perspective of the ophthalmologist. Other allied eye health personnel and the team for glaucoma care were not addressed in this survey."

Was the team addressed in the questionnaire? This can be discussed further.
No it was not. And discussed as a limitation as it was outside the scope of this study. A recommendation for further research involving teams was made.

In Discussion, last 2 paragraphs: "The eye care team was not addressed in this study.

Further areas of operational research would be the development and investigation of glaucoma care teams involving primary eye care workers for early case detection in the community and other allied eye health personnel for refraction and vision care, counselling, health education and follow up of glaucoma suspects and patients. This study could also form the baseline to assess the impact on practice patterns following the introduction and dissemination of clinical guidelines."

Productivity—should this be discussed? What factors contribute to high volume?
Factors that contribute to high volume could only be speculative from results obtained in this study and stated thus.

In Discussion, paragraph beginning with There was wide variation in the number of glaucoma surgeries reported...: “The reduced cost seemed to be an important factor contributing to the high volume. Glaucoma surgery needs to be included in universal health coverage and health insurance schemes.”

Patient related factors should be brought together, discussed and recommendations made.
Done.

In Discussion: “Patient- related factors contribute to the main challenges of glaucoma care. An important reason for late presentation by patients with glaucoma is lack of awareness about glaucoma.[15] It would be useful to develop a health education pamphlet for the local context, suitable for all including those who are not literate.[27] There is also a need to develop primary-level and community-based case-finding strategies to improve opportunities for early intervention.[35]”

Page 19/20

Recommendation on follow up strategies should be backed by evidence or a recommendation made for research.

I am not aware of research in improvement of follow-up strategies, thus recommendation made.

CONCLUSION

Systems -oriented approach as used in this article should be defined, run through the article and based on this appear in the conclusion.

Done, as best as we could

The conclusion should also include areas for future research.

Included in the Conclusion:

“Strategies to improve glaucoma management also include development of healthcare financing strategies through universal health coverage and health insurance schemes; operational/implementation research to develop methods for early diagnosis and robust referral/feedback systems; and patients’ health information systems.”

VERSION 2 – REVIEW

REVIEWER	Hannah Faal Africa Vision Research Institute Durban South Africa
REVIEW RETURNED	30-Jul-2016

GENERAL COMMENTS	This is a a timely article which provides the evidence for interventions by specified groups to address glaucoma in sub Saharan Africa. It also highlights areas for further research. It adds to the body of knowledge on prevention of visual loss from glaucoma
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	<p>in the African context.</p> <p>Minor editing needs to be done eg page2 reference to AAO and Abdelrahman; need to insert spaces between words on other pages.</p>
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