

# Review of: "Maternal Misconceptions Against Infant Sunlight Exposure Are Still Bottlenecks in Northwest Ethiopia, by 2022"

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Potential competing interests: No potential competing interests to declare.

## REVIEWER'S COMMENTS ON "Maternal Misconceptions Against Infant Sunlight Exposure Are Still Bottlenecks in Northwest Ethiopia, 2022.

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## REVIEWER'S IMPRESSIONS OF THE PAPER.

**Background:** The authors demonstrated ownership of their work as they tried to let readers understand what their topic is about. After talking about neonatal jaundice, they specifically made readers know that their topic is on preventing rickets. That is excellent! They delved into the history of how sunlight was used in the past with the aim of treating or preventing the disease. They impressively also summarized the principle that sunlight uses as a therapy. Reading through, it can be seen that the investigators tried to reveal that though sunlight is used as a therapy for the disease, it has its merits and demerits. They then tried to use other previous studies to let readers appreciate why they had decided to do this investigation. That is also impressive!!!

**Methodology:** This is where the authors made it clear how they did the project. The study area, the target population, the sampling procedure, data collection tool(s), and so on were well described under this section.

**Results:** The results were excellently presented using tables appropriately. Their results presentation matches perfectly the total sample size that was initially stated, giving the impression that they understand what they were doing. What is even more impressive is the fact that it is very easy to understand their results presented, without any difficulty except for table 4.

**Discussions:** The discussion was excellently done as the authors did well by comparing their results with the research findings of other researchers. Where there are differences, they were able to explain why those differences might occur; and that is very impressive.

**Note:** The availability of a data statement was also clearly stated! The authors also indicated that they have gone through the right legal processes to conduct the project, which is good. The references were also well cited in a uniform manner.

## REVIEWER'S COMMENTS

**Background:** The background to the study is too small! There is a lot of information that could have been added, especially because they want their project to be used as a tool for health education. Though the authors did well, since there is another popular jaundice-related disease of infants known as erythroblastosis fetalis, they should have written a small amount about their similarities and differences. Then they should focus more on their main topic (rickets).

The specific objectives or specific research questions of the project are not clearly stated. It is only the main objective that is seen under the abstract. But aside from that, it is supposed to have been stated under the background to the study; together with the specific objectives. It is expected that they have designed their questionnaires using these specific objectives. Some readers might be able to guess that the authors used four (4) specific objectives based on how the results were structurally presented. It is not all readers who would be able to do so.

The authors just listed the merits and demerits of using sunlight as therapy for treating and preventing rickets. But they could not give any examples or further explanation of that.

**Methodology:** Though the authors gave a very good description of the study area, including a map of the area would have made it much easier for one to locate where the project was conducted. The authors also revealed that the hospital is providing health care delivery to a larger group of people. They further added the number of infants that are delivered at the facility. Readers might like to know whether this huge number has any positive or negative effect on the hospital's ability to provide quality health care delivery. Or, do the midwives of the hospital encourage mothers to expose their babies to sunlight or not?

The study population source was not clear! Were the researchers interviewing only mothers who are residents of the community, or were they interviewing any mother who attends the hospital for ANC and PNC services? Under the sample size determination, the researchers talked about assuming the prevalence that they used for calculating the sample size. It is not clear how they were able to assume the right prevalence and use it.

A typographic error is also detected. The calculated sample size "375" and "was", highlighted with a yellow color, were combined. Under the sampling procedure, the investigators stated that: "The sampling interval (K) was obtained by dividing the total number of mothers with their infants by the sample size at the vaccinated clinic in Debre Tabor Hospital,". The word "vaccinated," highlighted in yellow, is not necessary.

The data collection tool and procedure used, though very close to conducting interviews, do not match the investigators' sampling procedure where they talked about "interviews," highlighted in green. The official data collection tool for interviews is an interview guide.

**Abbreviations and Acronyms:** Some abbreviations like "PNC" or "BBE," that were used for the project, were not added and defined.

**Results:** Though the results were appropriately presented, authors should have let each table of results come

immediately before or after the explanation of results for each main variable or objective. For example, under the explanation of results for “Socio-demographic characteristics of mothers,” the results in the table for those variables should have come immediately before or after the explanation.

It is also observed that the authors did not provide a detailed explanation of their results. They just provided the results without explanation. The explanation of the results is what would make readers understand and appreciate what they really intend to convey to the general public.

Lastly, it is detected that the investigators struggled to let table 4: “Associated factors with sunlight exposure among mothers in Debre Tabor Comprehensive Specialized Hospital,” fit into the page. It is not compulsory to present all the results of a particular finding in a single way! For example, some of the variables under that table, like the “mother’s age,” can also be presented in charts or graphs.

**About Whether the mothers are knowledgeable or Not:** Using the results and findings of the authors, it is not right for them to claim in the “conclusion and recommendation” that the mothers “did not have good knowledge and practices regarding sunlight exposure of infants.” This contradicts what they have rightly stated in the results of their abstract, that: “About 67.5% and 62.1% of the mothers had good knowledge and good practice about adequate sunlight exposure, respectively.” For a project with such findings, you cannot describe the participants as being not knowledgeable! What the authors could have said about the need for health education is to increase the awareness of mothers exposing their kids to sunlight.

**Discussions:** The only thing that was left out is that the authors could not refer readers to some of their results presented in the tables.

## REVIEWER’S SUGGESTIONS

**Abbreviations and Acronyms:** The investigators should go through their work to note and add all abbreviations like “PNC” or “BBE” that were used in the write-up of the project. It is also advisable to move the abbreviations up before the actual write-up. Once a reader sees them before reading, it would be easy for him or her to quickly locate meanings of acronyms used in the manuscript.

**Data Availability Statement:** The data availability statement, though stated, needs modification. Since the manuscript is going to be published as an “Open access” paper, they should not limit the data accessibility to only the corresponding author. The journal that is publishing the paper should be given the authority to share their data on request, too.

**Background:** The investigators should provide more information by writing about jaundice-related diseases of infants as a sub-heading. Under that, they should give the differences and similarities between the two major neonatal jaundices, “rickets” and “erythroblastosis fetalis.” After that, they should focus more on rickets by making readers know that their topic is on that. The authors should also state both their main objective and specific objectives clearly under here.

The authors, after writing that there are merits and demerits of using sunlight as therapy for treating or preventing rickets, should give examples or further explain. They should list both the merits and demerits of using sunlight for therapeutic

purposes.

**Methodology:** Authors should include a map of the study area for easier location. They should also make it clear whether the huge population to which the hospital provides health care delivery has any positive or negative impact on their ability to provide quality health care services. For example, it is revealed that many infants are delivered at the hospital. With respect to the project's topic, it should be made clear whether the midwives are encouraging mothers to expose their babies to sunlight or not. Under the inclusion and exclusion criteria section, the investigators should make it clear whether only expectant mothers and mothers living within the community/study area were sampled or if any mother visiting the hospital for ANC and PNC was included.

The investigators should review the literature to find prevalence rates from previous studies that are similar to theirs and use one of them to calculate the sample size. One typing mistake is seen under the methodology where "was" and "375" were combined (it is highlighted in yellow for easy identification). They should separate them and go through their work for similar errors and correct them before finally publishing the paper. The word "vaccinated," highlighted in yellow, can be removed without affecting what they intend to convey.

If the investigators want to continue with the data collection tool and procedure used for the project, then they should change the "interview" under their sampling collection procedure to "administration of questionnaires." If they also want to continue with the "interview" under their sample collection procedure, then they should change the "structured questionnaire" under the "Data collection tools and procedure" to "interview guide."

Aside from these, if the authors have time, they should try to add a diagrammatic presentation of their methodology. This will add to the originality of their manuscript.

**Limitations of the Study:** No limitation is provided for the study! The midwives or mid-husbands who provide health care delivery to the pregnant and lactating mothers should have been part of the study population. So, the investigators can bring that out as a key limitation of their project. For example, if these important subjects of the study were interviewed or administered questionnaires, the investigators could have been able to clarify whether they are already providing health education during their service delivery to these expectant and lactating mothers or not.

**Ethical Approval:** The investigators said that ethical clearance and approval were given, but they did not state the ethical clearance approval registration number. They should provide that. Also, ethical clearance is mostly given before data collection starts. So, it is supposed to be written under the methodology of the project; the authors rather wrote it after the results and discussions. They should move it to the methodology so that their project would follow internationally accepted standards of organization. Then, they should create an appendix and attach the ethical clearance approval letter there, after the references.

**Results:** Authors should present each table of results for each objective or finding immediately before or after the explanation of results for each of them. For example, under the explanation of results for "Socio-demographic characteristics of mothers", the results in the table for those variables should have come immediately before or after the

explanation.

Authors should also provide a detailed explanation of their results. They can review other researchers' results during the explanations of their results.

Lastly, to solve the difficulty of trying to let one of the tables (table 4): "Associated factors with sunlight exposure among mothers in Debre Tabor Comprehensive Specialized Hospital," fit into the page, some of the variables under that table, like the "mother's age," can be presented in a different way. The results presented in the table should be further explained for easy understanding. Also, the marital status of the results of table 1 (for example) can be presented in a chart or graph like a histogram.

**Discussions:** Investigators should try to refer readers to some of their findings presented in the tables as they discuss.

**About Whether the Mothers are Knowledgeable or Not:** For a project with the findings provided, one can describe the participants' knowledge as low, but not as not having good knowledge! Authors can advocate for having health education to increase awareness of mothers exposing their kids to sunlight, but not because participants do not have good knowledge.

The original manuscript, the one that is reviewed and highlighted, is added to help the authors easily identify areas that need modification. I hope these recommendations or suggestions would help add more modifications to the manuscript.

Thank you!