BAHCESEHIR UNIVERSITY SCHOOL OF MEDICINE
RESEARCH METHODOLOGY FINAL EVALUATION FORM

Name Surname: ▇▇▇▇▇▇▇▇
Student ID: ▇▇▇▇▇▇

Please write the name of the journal which you choose for literature search
Frontiers in Public Health

QUESTIONS	ANSWERS
TITLE AND CITATION	
1. Write the full title of the article	How Much Education Is Needed to Delay Women's Age at Marriage and First Pregnancy?
2. Citation of your choosen article (Please use APA Style)	Marphatia, A., Saville, N., Amable, G., Manandhar, D., Cortina-Borja, M., Wells, J., & Reid, A. (2020). How Much Education Is Needed to Delay Women's Age at Marriage and First Pregnancy?. Frontiers In Public Health, 7. https://doi.org/10.3389/fpubh.2019.00396
3. DOI number of article	10.3389/fpubh.2019.00396
INTRODUCTION AND AIM	
4. What are the main objective(s) of the study?	The main objective was to find out how much education is needed in order for a woman to decide not to marry early. The article focused on filling multiple gaps in previous studies about the same topic, these gaps are: Finding out number of education years needed to delay marriage to the universal minimum age of 18. Secondly, they wanted to find out the relationship between education, marriage age, and first pregnancy as it is crucial to understand whether more education will help them to delay first pregnancy until a healthy age for both the mother and the child. Lastly, the effects of the husband's education on the uneducated women's decisions like the time of the first pregnancy.
5. What are the hypotheses of the study?(If hypothesis are not written, please write "it is not written")	There were four hypotheses in this article: - Women who are more educated, decide to marry at a later age - Marriage age has a major influence on the relationship between women's education and her first pregnancy - The power and the autonomy of a woman are increased with her increased educational achievement; hence leading to a later marriage and pregnancy - A woman who is uneducated will also have later age at marriage and first pregnancy endorsed by her husband's education
METHODS	
1. What is the type of the study?	Randomized Controlled Trial (Experimental Study)
2. Describe the study population mentioned in the article.(Please describe the study population from which the sample was selected)	The sample was chosen from the Madhesi population of Terai zone in Nepal. Most girls in Terai do not attend middle school, and many marry early before the universal minimum age of 18; that area has the lowest median age at marriage of 16.5 years. The population of focus mainly included Maithili-speaking young women of reproductive age, especially newly married women. The women of that population usually have restrictions due to the cultural beliefs, they also have no freedom over their decision-making.
3. If selected, write the sampling method used in the study (If not, please identify it).	Cluster sampling
4. What are the inclusion criteria(s) for participants?	Women between ages 10 and 49 years old, those without operative family planning and ones in which their husbands had not had vasectomy
5. What are the exclusion criteria(s) for participants?	Women with: Multiple pregnancies (only one pregnancy per woman was included) Missing data on education, marriage and first pregnancy age Age less than 23 years and older than 30 years Marriage age less than 10 years First pregnancy more than 12 years after marriage

6.	**Which statistical analyses conducted in the study? (Please write only the names of statistical tests)**	• Median • Interquartile range IQR • Chi-squared test • Non-parametric k sample analysis • Spearman's rank correlation coefficient • Kaplan-Meier (Survival plots & log-rank test) • Multivariable logistic regression • Cox proportional hazards regression
RESULTS		
1.	**Write the number of participants mentioned in the study.**	6,406 participants
2.	**Write the response rate and missing data proportion (If it is not written in the article, please write "it is not written")**	Out of initial 25,090 women sample, 3,833 women had missing data and hence were excluded from the study.
DISCUSSION		
1.	**Write the potential bias sources of the study. (If it is not written in the article, please write your own ideas)**	Ecological bias may be identified, related to selecting a sample at the lower social end in Nepal, as the cluster sampling method only focused on uneducated young women; thus, it may not be representative of the whole population especially with the rapid development of education in that area. Another source of bias could be related to the way the samples were categorized. The study initially only wanted to focus on the educational level of women and the effect of that on the marriage age; however, they later categorized the samples according to their ethnicity as "disadvantaged, middle, and advantaged", this categorization does not serve the study and since the randomized trial was not blinded, it could lead to source of bias when interpreting the obtained information and results. Lastly, recall bias could play a role in this study as the information was obtained from the sample through the phone and the questions were related to the past of the women; consequently, recall bias and information bias could be caused by both the women and the fieldworkers.
2.	**Write the limitations of the study. (If it is not written in the article, please write your own ideas)**	Underestimation of relationship between early marriage and education due to some cofounding factors (like family problems) that may have an effect on delaying marriage even in uneducated women. The quality of education at schools in Terai was not considered despite that it could have a major effect on the study. Information error due to missing information about women's past (like exact age at marriage…etc).
3.	**Write the strengths of the study. (If it is not written in the article, please write your own ideas)**	The large sample size consisting of 6,406 women from Terai in Nepal. Having specific data on every women's education, marriage age, and first pregnancy. Strict exclusion criteria of sample to not interfere with results New policies were implied in the population through this study. The data of educated and uneducated women in the sample were analyzed separately and compared to ensure accurate interpretation of the results.
COMMENT **In this section please write you own idea. (Even if it is not mentioned in the article)**		
1.	**What are the dependent variable(s) of the study?**	There were two main groups of focus of the study in this article, educated and uneducated women, and the variables changes accordingly. Age at marriage (dependent in the study related to uneducated women), age of first pregnancy (dependent in both educated and uneducated women)
2.	**What are independent variable(s) of the study?**	Educational level of women in the sample from Nepal, the study investigated the effect of this independent variable on the dependent marriage age in uneducated women. However, in educated women the main focus was on the effect of marriage age (independent variable in this case) on the age of first pregnancy (dependent in this case)