

Research Article

History of Violence During Pregnancy Among Women Applying to a Women Hospital: A Cross-Sectional Study

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Abstract

Objectives: The violence observed before pregnancy seems to continue and even flare-up during pregnancy with reported prevalence as high as 33.3%. This study aimed to evaluate the prevalence of domestic violence among pregnant women applying to a hospital.

Methods: The study was conducted at the Nenehatun Gynecology and Obstetrics Hospital in Erzurum between September 2017 and February 2018 in a cross-sectional plan. Participants of the study consisted of pregnant women, who applied for regular elective follow-up visits. Consecutive women visiting the department of obstetrics during the study period (n=580) constituted the study population. Women who already participated in the survey, emergency applications, and applications during night shifts (n=169) were excluded.

Results: Results for 375 women were analyzed. More than half of the respondents (50.4%, n=189) had experienced violence during pregnancy. Verbal abuse was present in all violated women; none of the participants reported sexual violence. 10.7% (n=40) reported physical violence. 115 women (n=30.7) reported of having some sort of violence also before the pregnancy. In 81% of cases (n=153), the perpetrator was the spouse. None of the victims applied to the authorities. Higher educational status had a 12.8-fold decreasing effect on domestic violence risk.

Conclusion: Domestic violence among pregnant women in Eastern Turkey is still high. Efforts should continue to empower women, even implementing a positive discriminatory approach concerning women education and targeting the perpetrators to stop the violence. Abusers should receive a clear message that there is zero tolerance for domestic violence in the community.

Keywords: Domestic, pregnancy, spouse abuse, violence

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The most common form of today's violence is the domestic violence against women and children practiced by men.^[1] The prevalence of violence against pregnant women is estimated to be between 9% and 33.3%.^[2, 3] One study determined that 32.2% of the pregnant women experienced physical violence before conception, 28.4% of them in previous pregnancies, and 24.8% have been subjected to physical violence in their last pregnancies.^[2] In another study on pregnant women, 33.3% have been exposed to physical or sexual violence since the beginning of

pregnancy.^[3] Laelago et al.^[4] reported partner violence during pregnancy as 23% in Ethiopian women. The violence observed before pregnancy seems to continue and even flare-up during pregnancy.^[5]

Although women in all cultures may be exposed to violence during pregnancy, special risk groups constitute young, single, and divorced women with unwanted pregnancies, low education and socioeconomic status, or poor social support, who use alcohol or drugs and have a history of violence in their own family.^[6]

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Violence during pregnancy endangers the health of both the mother and the baby. Violence during pregnancy causes many problems such as premature labor in women, miscarriage, premature placental detachment, prenatal bleeding, and premature rupture of membranes.^[7] Violence during pregnancy also causes problems in the baby that may reduce the chance of survival such as low birth weight, bone fractures, and soft tissue damage, lung or spleen rupture, and fetal asphyxia.^[4]

This study aimed to evaluate the prevalence of domestic violence among pregnant women applying to a hospital.

Methods

Study Design

The study was conducted in a cross-sectional plan. Study reporting was done following the STROBE guidelines.^[8] All participants gave written individual informed consent to participate. The study protocol was approved by the Local Ethics Committee at Atatürk University Medical Faculty (IRB number: 3/1; Date: 15 August 2017).

Setting

The study was conducted at the Nenehatun Gynecology and Obstetrics Hospital in Erzurum between September 2017 and February 2018. The study hospital is the only and biggest public obstetric hospital facility in the region and serves a population of around 700 thousand inhabitants with 150 inpatient bed capacity (<http://nenehatunkdh.saglik.gov.tr/>). The obstetrics outpatient clinics welcome around 200 pregnancy follow-ups and assist around 10 births per day.

Participants

The participants of the study consisted of pregnant women, who applied for regular elective follow-up visits. Consecutive women visiting the department of obstetrics from the 1st of December, 2017 to 28th of February, 2018 (n=580) constituted the study population. Women who already participated in the survey, emergency applications, and applications during night shifts (n=169) were excluded (Fig. 1).

Variables

The primary outcome variable of the study was "exposure to domestic violence." Secondary outcome variables were exposure to physical, verbal, psychological, sexual, and economic violence. The independent study variables were demographic information about the women, their spouses, and families.

The study questions were prepared by the researchers after a rigorous literature search and expert input. The 29-item

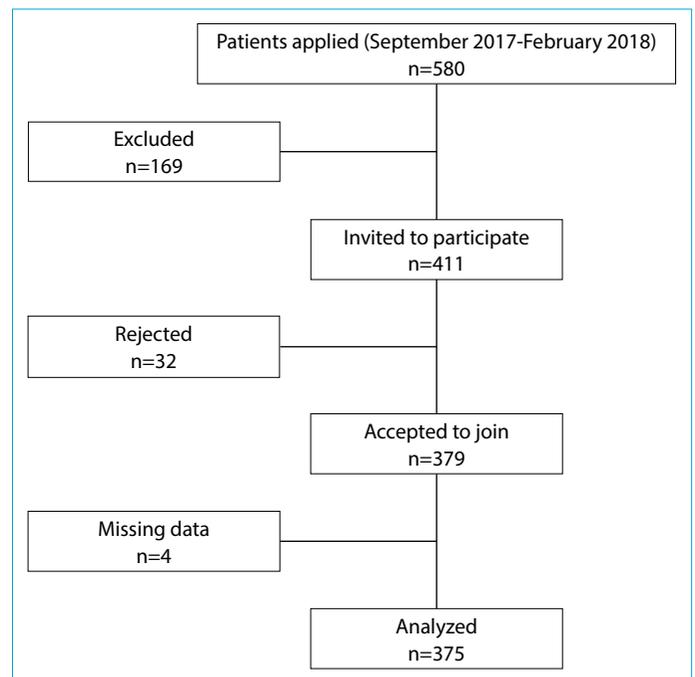


Figure 1. Study flow diagram.

questionnaire was tested in a sample of 10 pregnant women to check for conceptualization and understanding. Some minor modifications of wording were done as to the opinions of pilot participants. Cronbach's Alpha internal reliability coefficient of the questionnaire was calculated as 0.602.

Data collection was performed by a face-to-face researcher-administered questionnaire in a silent room. Care was taken to interview the pregnant women while they were alone, but due to cultural barriers this was not possible in all cases; attendant from the family (in most cases the mother in law) was present in some instances. To prevent inter-observer bias, all interviews were conducted by the same researcher.

Bias

In the questionnaire, there was brief information about the research to ensure that the research data were obtained correctly, and participants were guaranteed that no identities were recorded on the data collection form. To prevent bias, error checking and debugging were done after the data was entered into the computer.

Study Size

The required sample size was calculated based on a 28%^[9] expected prevalence of domestic violence among pregnant women in Turkey. As to the information obtained from the local health directorate of Erzurum, the total number of pregnant women in Erzurum was estimated as 15000. Given a finite population of 15000, an expected prevalence of 28%, and a margin of error of 5%, a sample size of 305

cases is required to estimate domestic violence in the study population with a confidence interval of 95%.^[10]

Statistical Methods

The data were analyzed using the SPSS 25.0 software. The results were presented as frequencies, percentages, means, and standard deviations (SD). The Kolmogorov–Smirnov test was performed to test if the numerical variables were normally distributed. The independent samples t-test was used to compare data meeting parametric assumptions. The Mann-Whitney U test was used for skewed variables, and the Chi-Square test was used for categorical variables. A logistic regression analysis was performed to check for variables independently affecting domestic violence. A p value of <0.05 was considered as statistically significant.

Results

Participants

Results for 375 participants were analyzed. The mean (\pm SD) age of the women was 28.06 ± 5.74 years (range: 17–46 years). Most of the participants 244 (65.1%) were from the city center. The median month of pregnancy was 7 (min. 1, max. 9). Most of the participants (48.5%; $n=182$) had married after self-acquaintance followed by arranged marriages (40.5%; $n=152$). Only 2.9% ($n=11$) admitted that they were not happy with the current marriage. Sociodemographic features of the women are given Table 1.

Descriptive Data

More than half of the respondents had experienced violence during pregnancy. The most common type of abuse was verbal; none of the participants reported sexual violence (Fig. 2). 115 women ($n=30.7$) said of having some sort of violence also before the pregnancy. In 81% of cases ($n=153$), the perpetrator was the spouse. None of the participants applied to the police or other authorities because of violence (Table 2).

Outcome Data

Age, the age of the spouse, and duration of the current marriage were significantly different between the women exposed and non-exposed to domestic violence, while there were no significant differences concerning the age at marriage. Also, the educational status of the women and her spouse, family type, and type of marriage showed substantial differences regarding exposure to domestic violence (Table 3). Additionally, significantly more women who experienced domestic violence as a child (23.5%, $n=4/17$ vs. 3.4%, $n=12/358$) were practicing violence to their children (Chi-Square=16.176, $p<0.001$).

Table 1. Sociodemographic features of the participants

	Mean/n	SD/%
Age	28.06	5.75
Age at marriage (years)	22.01	4.23
Duration of current marriage	6.11	5.40
Total number of pregnancies	2.43	1.67
Number of living children	1.95	1.16
Age of spouse	31.93	6.20
Place of residence		
Rural	66	17.6
District	65	17.3
City center	244	65.1
Educational status		
Illiterate	19	5.1
Primary school	99	26.4
Secondary school	87	23.2
High school	97	25.9
Vocational school	15	4.0
University	58	15.5
Educational status of spouse		
Illiterate	4	1.1
Primary school	60	16.0
Secondary school	63	16.8
High school	148	39.5
Vocational school	15	4.0
University	85	22.7
Employment status		
Yes	43	11.5
No	332	88.5
Employment status of spouse		
Yes	351	93.6
No	24	6.4
Family type		
Nuclear family	260	69.3
Extended family	115	30.7
Type of marriage		
After self-acquaintance	182	48.5
Arrange marriage without consent	20	5.3
Arranged marriage with consent	152	40.5
Eloped	21	5.6
Are you happy with your marriage?		
Yes	364	97.1
No	11	2.9

SD: Standard deviation.

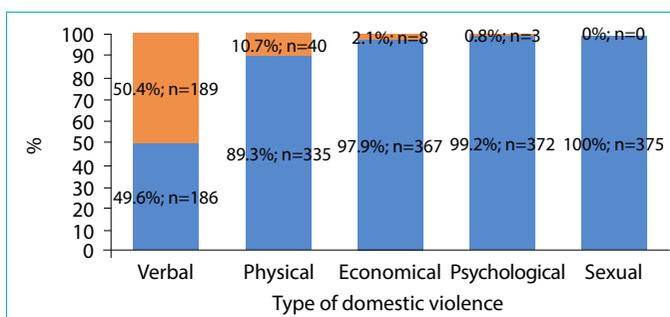


Figure 2. Distribution of different types of domestic violence.

Table 2. Descriptive presentation of the outcome and control variables

	n	%
Have you ever been exposed to violence in your current or previous pregnancies?		
Yes	189	50.4
No	186	49.6
Who have you been exposed to violence by?		
Spouse	153	81.0
Mother/father	0	0.0
Mother/father in law	36	19.0
Brother/sibling	0	0.0
Whom did you say that you were violated?		
Family	21	11.1
Neighbors	12	6.4
Police	0	0.0
Nobody	156	82.5
Have you ever left home because of violence?		
Yes	11	5.8
No	178	94.2
Did you apply to any authorities because of violence?		
Yes	0	0.0
No	189	100.0
History of domestic violence as a child		
Yes	17	4.5
No	358	95.5
Do you apply violence to your children?		
Yes	16	4.3
No	359	95.7
History of domestic violence of the spouse		
Yes	31	8.3
No	344	91.7
Does the spouse apply violence to the children?		
Yes	17	4.5
No	358	95.5
Alcohol/drug misuse of the spouse		
Yes	57	15.2
No	318	84.8

The majority of women (51.9%, n=98) did not show any reaction to the last domestic violence they remember. Ninety-one women (48.1%) of the women reacted to the last violent incidence. However, of the women who responded, 66 (72.5%) made a verbal response, 20 (22.0%) just cried, and five women (5.5%) showed some other response (e.g., called for help or left the house). We also asked the women reasons for not reacting to violence. Thirty nine (39.8%) said "For my children", 14 (14.3%) did not respond because of the hesitation to be embarrassed against the family, 7 (7.1%) considered the condition as acceptable, 6 (6.1%) accepted it as their faith, 3 (3.1%) forbore hoping that he will

change, and 29 (29.6%) did not give any reason.

Using the enter method, a logistic regression analysis with exposure to domestic violence as the dependent variable, and age, age of spouse, duration of marriage, educational status of self and spouse, family type, and type of marriage as independent variables, demonstrated that the educational status of the pregnant women was the only independent predictor of violence (Table 4). For the logistic regression analysis, the educational status was recoded merging categories as illiterate/primary school, secondary school/high school, and vocational school/university. Educational status secondary school/high school compared to illiterate/primary school had a 12.8-fold (1/0.078) while educational status vocational school/university level compared to illiterate/primary school had a 2.8-fold (1/0.355) decreasing effect on the domestic violence risk.

Discussion

Key Results

This study confirms the previous literature concerning the extent of domestic violence during pregnancy, providing some differences and new insights. The overall prevalence of domestic violence during pregnancy in the current study was 50.4%. All abused victims experienced verbal violence followed by physical (10.7%) and economic abuse (2.1%). No cases of sexual abuse were reported. Educational status of the women and drug/alcohol abuse of the spouse showed as the independent predictors of violence.

Limitations

Some limitations of this study can be mentioned as follows: First, the sample was based on hospital applications. However, given the sample size and the hospital serving most of the pregnant women in the region, the sample can be considered as representative for the population. Also, emergency applicants were not included, some of which can be postulated as being due to domestic violence. Additionally, we asked for lifelong domestic violence during pregnancy, which could have confounders such as second marriage and numbers of pregnancies. Although an effort was given to have anonymous interviews with the participants in a silent room, relatives could not be prevented from participating in some cases. Finally adding a representative sample of non-pregnant women could compare the results with the general population.

Interpretation

Demographic features of the sample are comparable to the general Turkish population. Turkey has a relatively young population with a median age at first marriage reported for

Table 3. Comparison of the independent variables between women exposed and non-exposed to domestic violence

	Ever exposed to violence during pregnancy		t / Z / χ^2	p
	Yes Mean \pm SD/median (min-max)/n (%)	No Mean \pm SD/median (min-max)/n (%)		
Age	29 (18-46)	26 (17-42)	-4.322	<0.001
Age of spouse	32 (20-56)	30 (20-56)	-3.703	<0.001
Age at marriage (years)	22.06 \pm 4.62	21.95 \pm 3.78	-0.272	0.785
Duration of current marriage (years)	6 (1-28)	4 (1-22)	-4.362	<0.001
Educational status				
Illiterate	19 (100)	0 (0)	113.160	<0.001
Primary school	82 (82.8)	17 (17.2)		
Secondary school	26 (29.9)	61 (70.1)		
High school	25 (25.8)	72 (74.2)		
Vocational school	1 (6.7)	14 (93.3)		
University	36 (62.1)	22 (37.9)		
Educational status of spouse				
Illiterate	4 (100)	0 (0)	36.897	<0.001
Primary school	45 (75)	15 (25)		
Secondary school	42 (66.7)	21 (33.3)		
High school	58 (39.2)	90 (60.8)		
Vocational school	6 (40)	9 (60)		
University	34 (40)	51 (60)		
Employment status				
Employed	24 (55.8)	19 (44.2)	0.569	0.450
Unemployed	165 (49.7)	167 (50.3)		
Employment status of spouse				
Employed	175 (49.9)	176 (50.1)	0.646	0.422
Unemployed	14 (58.3)	10 (41.7)		
Family type				
Nuclear family	116 (44.6)	144 (55.4)	11.349	0.001
Extended family	73 (63.5)	42 (36.5)		
Type of marriage				
After self-acquaintance	76 (41.8)	106 (58.2)	12.887	0.005
Arrange marriage without consent	12 (60)	8 (40)		
Arranged marriage with consent	92 (60.5)	60 (39.5)		
Eloped	9 (42.9)	12 (57.1)		
Happiness from the current marriage				
Yes	181 (49.7)	183 (50.3)	2.260	0.133
No	8 (72.7)	3 (27.3)		
Was the pregnancy planned?				
Yes	142 (49.1)	147 (50.9)	0.807	0.369
No	47 (54.7)	39 (45.3)		
Awareness of the Law 6284				
Yes	98 (47.3)	109 (52.7)	1.727	0.189
No	91 (54.2)	77 (45.8)		
History of domestic violence as a child				
Yes	11 (64.7)	6 (35.3)	1.458	0.227
No	178 (49.7)	180 (50.3)		

Table 3. CONT.

	Ever exposed to violence during pregnancy		t / Z / χ^2	p
	Yes Mean \pm SD/median (min-max)/n (%)	No Mean \pm SD/median (min-max)/n (%)		
Do you apply violence to your children?				
Yes	10 (62.5)	6 (37.5)	0.979	0.322
No	179 (49.9)	180 (50.1)		
History of domestic violence of the spouse				
Yes	15 (48.4)	16 (51.6)	0.055	0.815
No	174 (50.6)	170 (49.4)		
Does the spouse apply violence to the children?				
Yes	11 (64.7)	6 (35.3)	1.458	0.227
No	178 (49.7)	180 (50.3)		
Alcohol/drug misuse of the spouse				
Yes	22 (38.6)	35 (61.4)	3.746	0.053
No	167 (52.5)	151 (47.5)		

Law §6284: Law on the protection of the family and the prevention of violence against women. SD: Standard deviation.

Table 4. Logistic regression analysis computer output

	B	Wald	p	Exp (B)	95% C.I. for Exp(B)	
					Lower	Upper
Age	-0.006	0.023	0.880	0.994	0.914	1.081
Age of spouse	0.016	0.182	0.670	1.016	0.943	1.095
Duration of current marriage	0.050	1.583	0.208	1.051	0.973	1.136
Family type	0.368	1.560	0.212	1.445	0.811	2.577
Type of marriage		1.773	0.621			
Type of marriage (1)	0.062	0.009	0.924	1.064	0.301	3.762
Type of marriage (2)	0.360	1.467	0.226	1.434	0.800	2.569
Type of marriage (3)	0.427	0.563	0.453	1.532	0.503	4.670
Drug use of the spouse	1.108	8.587	0.003	3.028	1.443	6.353
Educational status		57.034	<0.001			
Educational status (1)*	-2.552	48.129	<0.001	0.078	0.038	0.160
Educational status (2)**	-1.036	4.184	0.041	0.355	0.132	0.958
Educational status of spouse		1.238	0.538			
Educational status of spouse (1)	-0.092	0.047	0.828	0.912	0.398	2.091
Educational status of spouse (2)	-0.467	0.824	0.364	0.627	0.229	1.719
Constant	-0.553	0.339	0.560	0.575		

Exp (B): Odds ratio; CI: Confidence interval; *: Educational status secondary school/high school level compared to illiterate/primary school; **: Educational status vocational school/university level compared to illiterate/primary school.

women as 21 years.^[11] As to 2013 data,^[11] the proportion of arranged marriages in Turkey is 46.5% (39.6% with consent, 6.9% without consent). The gap between male and female education in Turkey is preserved throughout the years (male/female ratio 2008:^[12] 5.1/4.5, 2013:^[11] 6.9/4.7 years). As expected, the educational level of men was higher in our study.

In Turkey, almost every 4 out of 10 married women have

been subjected to physical abuse by their spouses.^[13] According to a comprehensive survey, 39% of the married women in Turkey were subjected to physical abuse at any stage of their lives.^[14]

As it happened in our sample, domestic abuse can be triggered by pregnancy, amplifying the health risks.^[5] However, it was also postulated that pregnancy can lead to a hiatus of domestic violence when the abuser does not

want to harm the unborn child.^[15] Thus, the risk of domestic violence for pregnant women is greatest immediately after childbirth. A research done in 2007 reported that 28.9% of the sample were exposed to at least one case of physical violence throughout matrimony, 30.5% were exposed to verbal insult and 4.4% exposed to sexual abuse during the present pregnancy.^[9] Partner violence during pregnancy among Ethiopian women was reported as 23%, psychological violence being the most common form (20%) followed by physical (15%) and sexual (12%).^[4]

Compared to the literature, our results demonstrate much less physical and sexual violence but significantly higher verbal violence. We attributed the lack of sexual abuse in our sample to the absence of the concept of sexual violence within marriage. Although we didn't query, extramarital births hardly exist in Turkey.^[16] To our observation, and supported by empirical findings, it is the concern and duty of the Turkish women to sexually satisfy her husband.^[17] Therefore, substantial underreporting can be expected concerning sexual violence.

We attributed the decline in the violence against pregnant women to the extensive legal, political, as well as civil initiatives taken during the recent years in Turkey to combat violence against women (VAW). The new law number 6248, transfers significant power to the judges and police authorities for protecting women at risk. Additionally, Violence Prevention Following Centers (ŞÖNİM) were established under The General Directorate of Women's Status^[18]. However, the fact that none of the participants applied to the police or other authorities because of violence suggests that despite the legal base, there might be other factors hindering women from involving authorities.

Age, the age of the spouse, and duration of the current marriage were significantly higher among the victims of abuse. However, since we queried lifelong violence, this is an expected finding. Low educational attainment of any of the couples was a factor increasing the probability of violence. The spread of mass education was suggested to shift gendered dynamics, thereby lowering women's likelihood of experiencing domestic violence.^[19]

Violence was more common among extended families. Although the proportion of extended families is decreasing in the Turkish lifestyle, Eastern Turkey and especially Erzurum is known with the more traditional lifestyles and semi-feudal structure. Family size has been shown as a significant risk factor for domestic violence.^[20] Traditionally brides are subject to the authority of men and older women in the family, where the position of older women as generational superiors can conflict with their loyalties to younger women. In this context, domestic violence can in-

clude not only the husband and wife but female kin as well. No matter whether with or without the consent of the woman, arranged marriages bore significantly higher risk of domestic violence, which is in accordance with the literature.^[19, 20] Although not directly related to the study question, we determined that significantly more women who experienced domestic violence as a child were showing the same behavior to their children. Both men and women with a history of abuse during childhood are prone to be violent parents when they grow up.^[22-24]

More than half of the women did not react to the last experience of violence. When we look at the reactions shown, it comes out that they are subtle reactions of verbal response or crying. The reasons for not reacting to violence give us some insight on why women continue to stay in the abusive environment. Most reasons are related to traditions, culture, and beliefs. Traditional and cultural bonds, as well as lack of empowerment, play an important role why women do not react and stay in the abusive environment.^[25] Thus it is not of much help asking a woman "Why do you keep silent?" or "Why do you stay?" Instead, it is suggested^[26] to target the perpetrator and say "We will not tolerate your abusive behavior."

Violence against women is fused with many variables. Social factors, destabilization of gender norms and roles, substance use, separation from family, unemployment, marriage types, forced marriages, and lack of punishment have been shown to be significant factors in VAW.^[14, 27-31] Hence, it is a challenging task to study all possible variables in one study. Young, single, and divorced women with unwanted pregnancies, low education and socioeconomic status, poor social support, alcohol or drug abuse, husband having an affair, and a history of violence in the family were shown before to set up special risk groups.^[2, 6] Among the factors included in our multivariate analysis, educational status of the women and drug/alcohol abuse of the spouse showed as the independent predictors of violence.

Conclusion

The results of this study indicate that domestic violence among pregnant women from an Eastern province of Turkey is still high. Although physical abuse seems to be decreasing when compared with previous figures, the findings, in general, suggest that despite the policy changes and country-wide sensitizations campaigns abused pregnant women in Turkey are still helpless and thus keeping to stay with their perpetrators. Being strongly bound by traditions and cultural rules and lack all means of empowerment play essential roles in the current situation. We believe that the results of this study have implications for healthcare providers,

social workers, policy makers, and educators as well. Efforts should continue to empower women, even implementing a positive discriminatory approach concerning women education and targeting the perpetrators to stop the violence. Abusers should receive a clear message that there is zero tolerance for domestic violence in the community.

Disclosures

Ethics Committee Approval: The study protocol was approved by the Local Ethics Committee at Atatürk University Medical Faculty (IRB number: 3/1; Date: 15 August 2017).

Peer-review: Externally peer-reviewed.

Conflict of Interest: None declared.

Authorship Contributions: Concept – E.O.C.; Design – E.O.C.; Supervision – E.O.C.; Materials – B.G.K.; Data collection &/or processing – B.G.K.; Analysis and/or interpretation – E.O.C., E.B.Y., B.B.; Literature search – E.O.C., E.B.Y., B.B., B.G.K.; Writing – E.O.C., E.B.Y., B.B.; Critical review – E.O.C., E.B.Y.

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