

Peer Review

Review of: "Summer Birth and Clinical Characteristics in Schizophrenia: A Cross-Sectional Study"

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Review of Qeios XSCM20 by Haouala AB et al.

I: The authors define seasons by their extreme weather and temperature, leading to more variation in ultraviolet radiation (UVR). As Tunisia is at approximately 33 degrees N latitude, it is more challenging to find differences in the incidence of distinct types of schizophrenia related to seasons than at higher latitudes. Research suggests that differing levels of UVR exposure during conception and early gestation could influence the central nervous system, potentially resulting in increased neuronal pruning during puberty and early adulthood. The point here is that one must look at environmental conditions early in development when the embryo is most sensitive.

II: What is the number of patients diagnosed with schizophrenia (a total of 333) who were born during the summer season? I do not see Figure 2 in the supplied manuscript, which I believe would supply this information.

III: In most locations, schizophrenia has an equal incidence between males and females. The authors need to address the wide disparity of 88.6 % males and 11.4 % (only 38) females in the study. With such small numbers of females, it would be statistically challenging to detect negative symptoms in comparing genders, which others have reported.

IV: As the paper addresses the correlation between summer births and schizophrenia, it would be beneficial to compare this group with individuals born in late winter or early spring regarding certain clinical characteristics. It would be important to hypothesize a mechanism arising from the environment for the differences between those groups.

V: The authors must emphasize the low N in the study, which makes for challenging statistical analysis.

VI: The term “season” can mean more weather-related phenomena when closer to the Equator (i.e., monsoons), while in a higher latitude, there are distinct equinoxes and solstices which are related to length-of-day as well as weather features. At the Equator, there are no distinct seasons. The length of day and night remains constant throughout the year. The paper should make this distinction clear.

Recent studies reveal that both genetics and environmental factors influence schizophrenia. This study appears to add to this body of evidence, particularly at a low latitude for which few papers are available.

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Declarations

Potential competing interests: No potential competing interests to declare.