

Psychological symptoms of menopause are linked to excessive daytime sleepiness in Afro-Colombian women

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Excessive daytime sleepiness [EDS] is the difficulty a person experiences in maintaining alertness during the day. Related factors include obstructive sleep apnea, alcohol use, some medications, and other sleep disorders. However, there are few studies evaluating EDS in Latin American women of menopausal age.

Objective

To evaluate the association between the psychological symptoms of menopause and EDS in Afro-descendant women living in the Colombian Caribbean.

Methodology

Cross-sectional study belonging to the research project Quality of Life in Menopause and Colombian Ethnicities (CAVIMEC), approved by the ethics committee of the University of Cartagena, Colombia.

The sample size was calculated with the Colombian population census.

Women who self-identified as Afro-descendants, residing in populations of the Colombian Caribbean, with Fitzpatrick skin phototype V and aged between 40-59 years were invited to participate anonymously, voluntarily and after signing the informed consent, by interviewers in door-to-door visits. Those with reading and writing limitations, pregnant women or with children <5 years old were excluded.

The survey included sociodemographic variables and two scales. First, the Menopause Rating Scale (MRS) to identify severe psychological symptoms of menopause (anxiety, depressed mood, irritability, and physical and mental fatigue) and severe psychological impairment. Second, the Epworth Sleepiness Scale to identify EDS and pathological EDS (PEDS).

Bivariate logistic regression was performed to evaluate the association between severe psychological impairment and EDS and PEDS. In addition, adjusted logistic regression was considered, considering EDS (dependent variable) and psychological symptoms of menopause (independent variables). A similar analysis was performed for PEDS.

A total of 420 women were included in the study. 65.9% had EDS and 47.6% had PEDS.

Association with excessive daytime sleepiness. Bivariate logistic regression

| | EDS ¹ | PEDS ² |
|--|----------------------------------|----------------------------------|
| Anxiety ³ | 3.60 [1.83-7.08] ^a | 3.50 [2.02-6.05] ^a |
| Irritability ³ | 2.98 [1.21-7.31] ^b | 2.58 [1.26-5.28] ^b |
| Physical and mental fatigue ³ | 1.97 [1.06-3.63] ^b | 2.07 [1.21-3.54] ^b |
| Depressive mood ³ | 1.78 [0.90-3.53] ^d | 1.67 [0.97-3.02] ^e |

Data are presented in OR [95% CI]

¹Excessive daytime sleepiness. Score ≥ 8 on the Epworth Sleepiness Scale.

²Pathological excessive daytime sleepiness. Score ≥ 10 on the Epworth Sleepiness Scale

³Severe symptomatology, score ≥ 3 on the item respective of the Menopause Rating Scale (MRS).

^a $p < 0.001$. ^b $p < 0.01$. ^c $p < 0.05$. ^d $p = 0.09$. ^e $p = 0.08$.

Association with excessive daytime sleepiness Logistic Regression

| | EDS ¹ | PEDS ² |
|--|----------------------------------|----------------------------------|
| Anxiety ³ | 2.83 [1.36-5.85] ^a | 2.83 [1.54-5.18] ^a |
| Severe psychological impairment ⁴ | 1.07 [1.00-1.14] ^b | 1.09 [1.02-1.16] ^b |

Data are presented in OR [95% CI]

¹Excessive daytime sleepiness. Score ≥ 8 on the Epworth Sleepiness Scale.

²Pathological excessive daytime sleepiness. Score ≥ 10 on the Epworth Sleepiness Scale.

³Severe symptomatology, score ≥ 3 in the item corresponding to the Menopause Rating Scale (MRS).

⁴Score > 6 in the psychological field Menopause Rating Scale (MRS).

^a $p < 0.001$. Adjusted logistic regression including the four psychological symptoms of menopause: anxiety, irritability, physical and mental fatigue and depressed mood. The last three were not significant ($p > 0.05$).

^b $p < 0.01$. Bivariate logistic regression.

Conclusion

In a group of middle-aged Afro-descendant women, an association was found between severe psychological impairment and excessive daytime sleepiness