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Exploring Risk Factors for Major Depressive Disorder for Female Patients Aged 18 or Older Living in Ocean County, New Jersey

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Exploring risk factors for major depressive disorder for female patients aged 18 or older living in Ocean County, New Jersey

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Abstract

Background: The incidence and prevalence of major depressive disorder has been increasing worldwide, in the United States of America, and on a local level. The population of Ocean County, New Jersey, a predominantly Caucasian, female, middle-aged population, may be at increased risk of developing major depressive disorder. **Purpose:** To explore the social determinants of health and risk factors for major depressive disorder for female patients aged 18 or older living in Ocean County, New Jersey. **Methods:** This literature review mainly used PubMed and Scopus for journal articles and utilized governmental databases for additional population data. **Results:** Analyses conducted on social determinants of health revealed that access to healthcare and attaining higher education were protective factors. Overall, being female, middle-aged, developing comorbid substance use (alcohol or drug use), and being socially isolated were associated with increased risk of developing major depressive disorder. The COVID-19 pandemic has been observed to worsen incidence of major depressive disorder. **Conclusion:** This research has shown that social determinants of health and risk factors impact the incidence major depressive disorder in Ocean County, New Jersey. Further research will need to be conducted to further stratify risk in additional counties.

Methods

A systematic literature review was performed for articles published between 2005-2021 using PubMed, Scopus, national, state, and local governmental data, private organizational publications, community needs assessments, hospital system community needs assessments, Ocean County governmental publications, the Centers for Disease Control and Prevention, the New Jersey State Health Assessment Data, and the United States Department of Health and Human Services with keywords: “major depressive disorder OR MDD OR depression OR mental health” AND “females over 18 OR females” AND “New Jersey OR NJ” AND “Ocean County OR Ocean County, NJ” AND “social determinants of health OR healthcare access OR education access OR education quality OR degree OR housing OR housing insecurity OR the built environment OR roadways OR traffic OR hospital OR gender OR age OR race OR substance use OR drugs OR social isolation OR coronavirus OR COVID-19.”

Inclusion Criteria

Types of studies

A variety of different research studies were used while conducting this literature review. Studies used for this literature review included primary research studies, cohort studies, meta-analyses, longitudinal studies, multilevel analyses, and research-to-practice perspectives. Journal articles were primarily peer-reviewed. A substantial portion of the data obtained from governmental sources was gathered using cross-sectional studies.

Types of participants

The focus of this literature review was on females aged 18 or older in Ocean County, New Jersey. However, data on males was also used in order to compare gender differences. Individuals who were of non-Hispanic Asian, Hispanic, non-Hispanic White, and non-Hispanic Black descent were primarily evaluated.

Types of interventions

Limits were not placed on the type of intervention type used by these studies in order to obtain as much relevant and useful data in order to evaluate the risks and social determinants of health for major depressive disorder.

Types of outcome measures

Studies were reviewed with the outcomes of assessing biological risk factors, social risk factors, and social determinants of health for major depressive disorder. The impact of access to healthcare and the influence of the built environment on developing major depressive disorder was evaluated. The outcome of comorbid substance use disorder, social isolation, and the COVID-19 pandemic on developing major depressive disorder was also evaluated.

Results

Healthcare Access

- 17.4% of individuals in Ocean County did not have health care insurance of any kind.¹
- Residents of Ocean County, NJ cited “lack of awareness of services (24.66%), stigma (61.64%), and long waitlists (58.90%)” as barriers to obtaining mental health services.²
- Ocean County, NJ was also noted to rank higher in their Roadway Congestion Index than most of its southern and central NJ county counterparts.³
- 68% of Ocean County residents reports that transportation was a hurdle in attaining health care while 54.8% reported transportation as a barrier to attaining psychiatric care.²

Gender Differences

- 11.9% of males in Ocean County, NJ were diagnosed with depression while 18.4% of females were diagnosed with depression.⁴

Racial Differences

- 84.1% of the population of Ocean County identified as non-Hispanic White¹⁰
- New Jersey residents diagnosed with depression were as follows: 13.35% of non-Hispanic Whites, 12.52% of non-Hispanic African Americans, and 11.07% of Hispanics.⁵

Age Differences

- Major depressive disorder was found to be highest in individuals aged 18-34.⁶

Social Isolation

- Multiple studies have showed that social isolation can lead to increased risk for depression^{7,8}
- Prevalence rates of depressive symptoms were three times higher during the pandemic than before⁹

Discussion

Main Findings

- **Socioeconomic Status:** As the population of Ocean County is predominantly females¹⁰ whose annual salaries are significantly less than that of their male counterparts¹¹, this population could be disproportionately at risk for developing major depressive disorder.
- **Built Environment:** Living in congested neighborhoods with higher densities of auto commuters, traffic delays, and not being a private automobile driver were associated with higher risk of depression.^{12,13}
- Major hurdle to care in Ocean County is transportation and access to hospitals²
- **Gender:** Females were found to have twice the prevalence of major depressive disorder than their male counterparts^{10,14,15}
- Females of any racial group were found to be at higher risk of major depressive disorder¹⁶
- **Comorbid Conditions:** Developing major depressive disorder increased your risk for developing a substance use disorder and vice versa.¹⁷
- **COVID-19 Pandemic:** Social isolation was significantly associated with depression.¹⁸ Risk factors identified for developing major depressive disorder during the COVID-19 pandemic were younger age, female, and living in an urban area.^{19,20,21}
- **Limitations:** Lack of up-to-date data on incidence of major depressive disorders on some racial groups and lack of age stratification at the county level in New Jersey.

Conclusion

- In order to improve the incidence of major depressive disorder and improve long term health outcomes for females aged 18 or over in Ocean County, NJ, a multidisciplinary life-long approach to holistic healthcare needs to be implemented.
- Understanding the natural history of major depressive disorder and risk factors in this population can improve long term health outcomes for this population.
- Additional studies should be conducted on the impact of social isolation, widespread illness, and pandemic-grade illnesses on major depressive disorder to prepare for future events.
- Ultimately, the individual identification of social determinants of health and risk factors influencing the risk of a patient developing major depressive disorder will depend on primary care physicians.

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