



EVALUATING MOOD DISORDERS AND FUNCTIONAL WELL-BEING OF PATIENTS WITH PREMATURE OVARIAN INSUFFICIENCY



Vania Nwokolo, MD¹, Veronica Gomez-Lobo, MD², and Jacqueline C. Yano Maher, MD²
¹Obstetrics and Gynecology, Howard University Hospital, Washington, DC
²Eunice Kennedy Shriver National Institute of Child Health and Human Development, National Institutes of Health, Bethesda, MD, USA

Background

- Premature ovarian insufficiency (POI) is diagnosed in women less than 40 years old, with amenorrhea for more than 4 months, and FSH levels in the menopausal range (1).
- POI is associated with negative physical (early bone loss, menopausal symptoms, and loss of fertility) and psychological effects (2).

Objective

The goal of this research project was to identify and evaluate mood disorders in patients diagnosed with POI and assess their functional well-being.

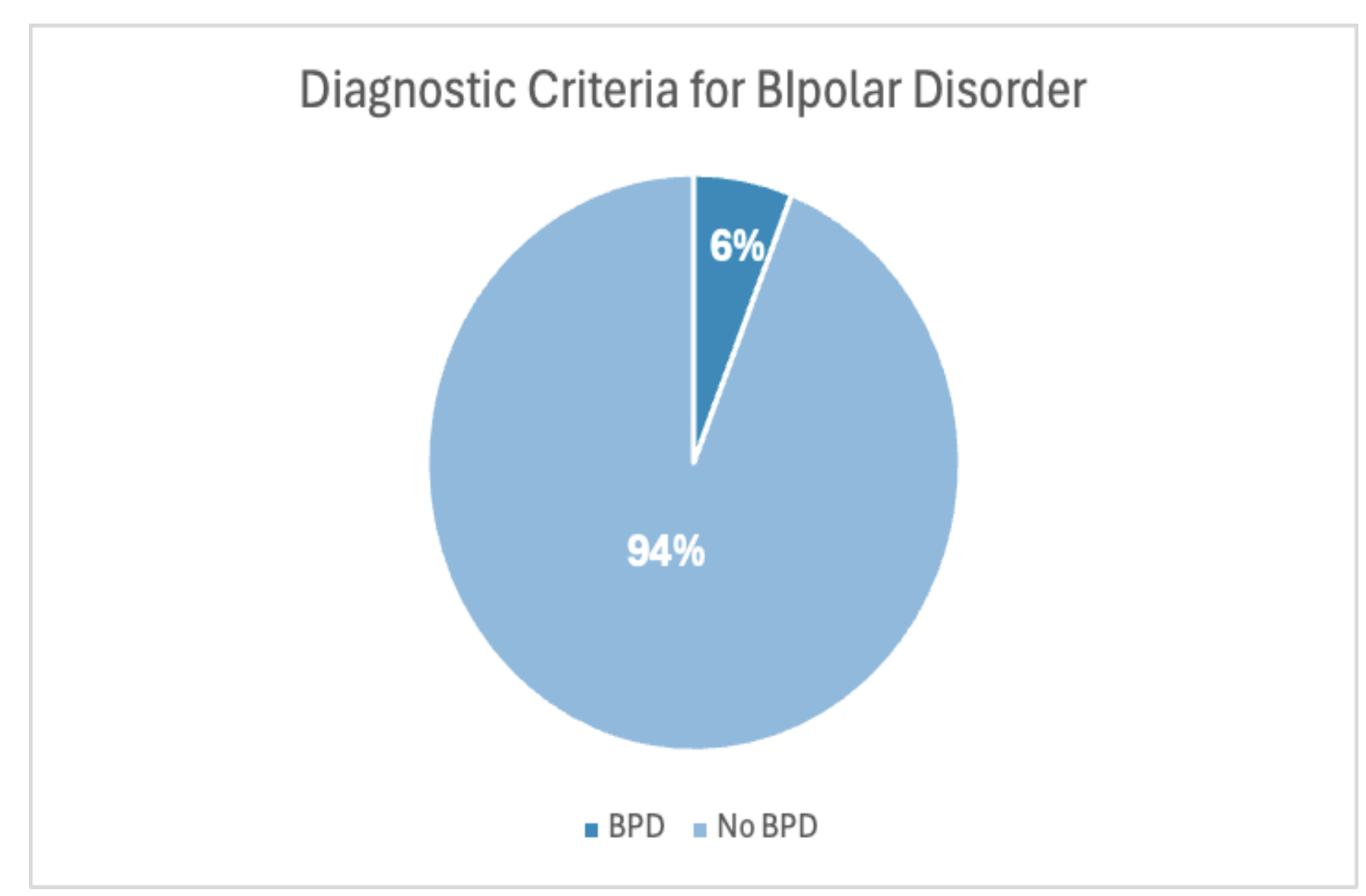
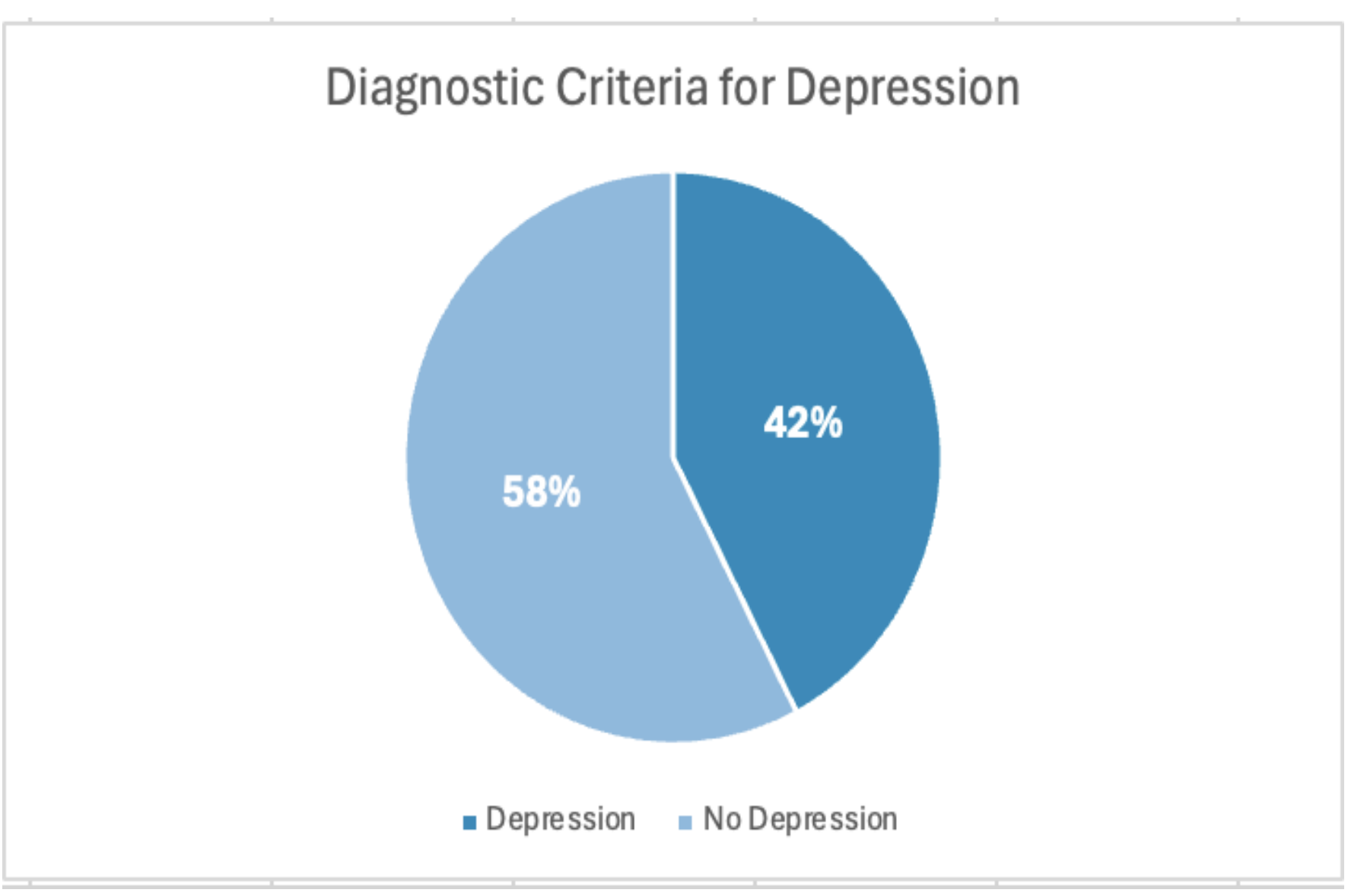
Materials and Methods

- From 1991–2017 an NIH protocol studied patients with POI.
- Data was obtained from 899 patients within the NICHD Data and Specimen Hub database.
- POI was confirmed in 881 of the patients:
 - 206 women completed the validated Mood Disorder Questionnaires screening for depression and bipolar disorder (BPD)
 - 142 patients completed a Functional Well Being Survey (FWBS).
- The FWBS consisted of 7 questions and utilized a Likert scale, where 0 represents “Not at all”, 1 represents “A little bit”, 2 represents “Somewhat”, 3 represents “Quite a bit”, and 4 represents “Very Much”.
- Data were analyzed using descriptive statistics with means and standard deviations.

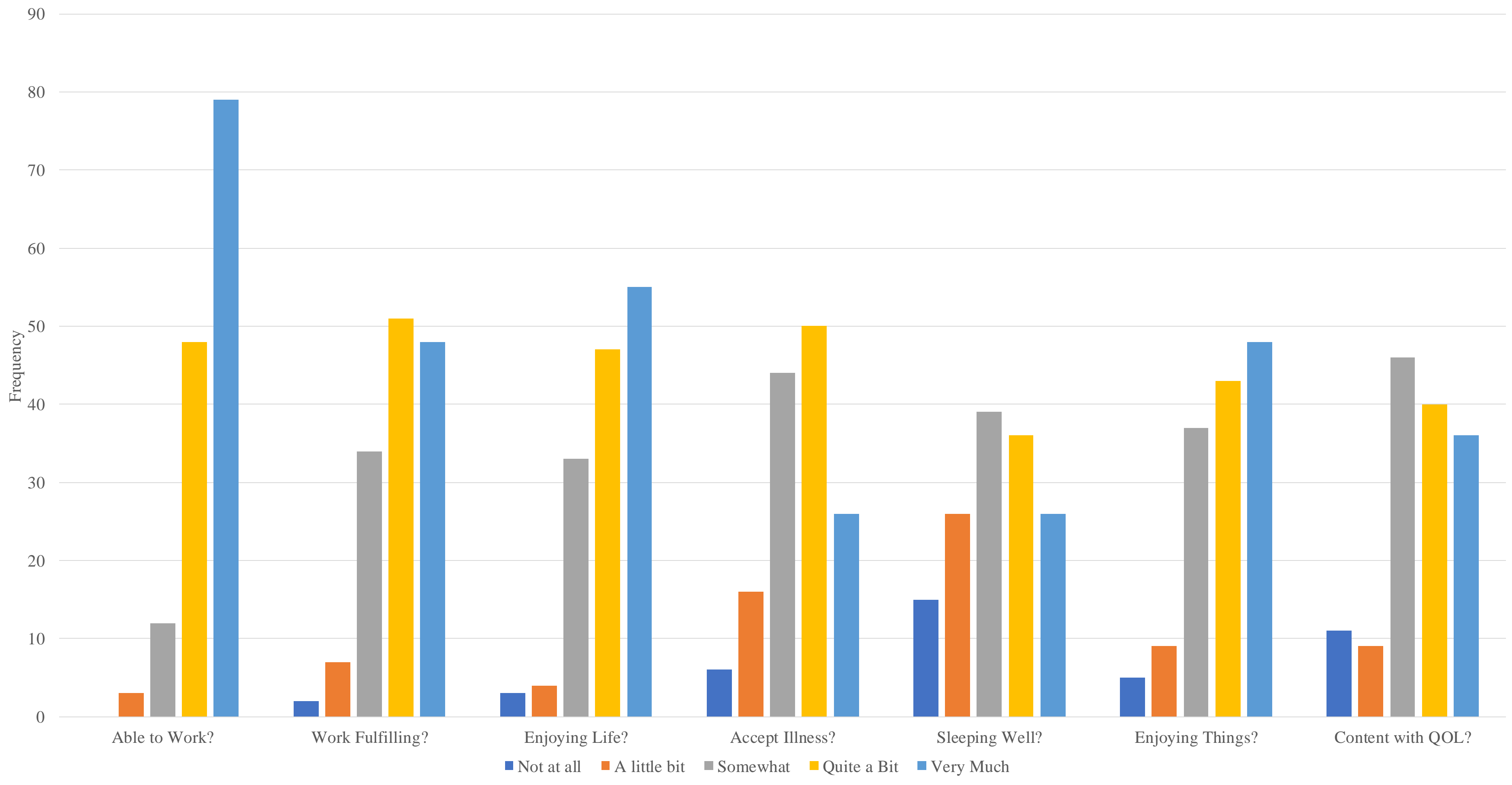
Tables and Graphs

Demographics	Total (%)
White	111 (78%)
Black or African American	20 (14%)
Asian	7 (5%)
Other	4 (3%)
Native Hawaiian/Pacific Islander	0 (0%)
Latino or Hispanic	5 (4%)
Non-Latino/Hispanic	132 (93%)
Unknown	5 (4%)
Average Age at Diagnosis	29.6
Average Age at Questionnaire	33.2

Table 1: Patient Demographics



Graphs 1 & 2: Meeting Diagnostic Criteria for Major Depressive Disorder & Bipolar Disorder



Graph 3: Functional Well-Being Survey

Results

- Average age at POI diagnosis for both sets of patients was 29.6 and the average age at the time of questionnaire and survey completion was 33.2 (Table 1)
- Regarding depressive symptoms, 80.4% felt tired or had little energy, 73.9% had trouble sleeping, & 61.3% felt down or depressed; 42.4% of patients met diagnostic criteria for depression (Graph 1)
- Regarding BPD manic symptoms, 52.5% had irritable mood, 43.8% had racing thoughts, & 47.1% were easily distracted; 6% met diagnostic criteria for BPD (Graph 2)
- In the FWBS, when collapsing answers “very much” and “quite a bit,” 53.5% accepted their illness, 89.4% were able to work, 71.8% were able to enjoy life, and 53.5% were content with the quality of their life.
- When collapsing answers “not at all” or “a little bit” 15.4% had a hard time accepting their POI diagnosis and 28.9% were not sleeping well.

Conclusion

- POI patients appear to have higher depression scores than reproductive-aged women (42% vs. 5%) but were similar to menopausal women (42% vs. 39%).
- The rate of BPD was 6% of patients in our POI cohort, which was higher than the general adult female population (2.8%).
- For FWB, most patients accepted their diagnosis and enjoyed their lives despite their diagnosis. Sleeping was an issue noted in the depression questionnaire and FWBS.
- Time-lapse may have contributed since well-being was assessed approximately 3.6 years after diagnosis.
- POI is a condition that negatively impacts future fertility outcomes and can also be associated with a higher incidence of depression and BPD.
- Timely screening for mood disorders in this population is vital to avoid delays in connecting patients to resources (i.e. mental health providers).

References

1. Chon, S. J., Umair, Z., & Yoon, M.-S. (2021). Premature ovarian insufficiency: Past, present, and future. *Frontiers in Cell and Developmental Biology*, 9. <https://doi.org/10.3389/fcell.2021.672890>
2. Torrealday, S., Kodaman, P., & Pal, L. (2017). Premature ovarian insufficiency - an update on recent advances in understanding and management. *F1000Research*, 6, 2069. <https://doi.org/10.12688/f1000research.11948.1>
3. ESHRE, ASRM, CREWHIRL and IMS Guideline Group on POI, Panay, N., Anderson, R. A., Bennie, A., Cedars, M., Davies, M., Ee, C., Gravholt, C. H., Kalantaridou, S., Kallen, A., Kim, K. Q., Misrahi, M., Mousa, A., Nappi, R. E., Rocca, W. A., Ruan, X., Teede, H., Vermeulen, N., Vogt, E., & Vincent, A. J. (2024). Evidence-based guideline: premature ovarian insufficiency¹. *Climacteric: the journal of the International Menopause Society*, 27(6), 510–520. <https://doi.org/10.1080/13697137.2024.2433213>