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Characteristics of Patients with Major Depressive Disorder in AllofUs Database

Most genetic psychiatry research relies on data from individuals of European ancestry. The AllofUs (AoU) research program is a longitudinal research study that is making it possible to conduct studies using more diverse populations. The cohort of over 1 million participants includes populations who have been underrepresented in biomedical research.

Over 400000 participants have completed the basic demographics survey on AoU, with approximately 222000 identifying as White and 170000 identifying as Black, Hispanic, Asian or as more than one ethnicity. While AoU has put effort into creating a diverse sample, continued work is needed to bridge the gaps in research inclusivity.

Investigating the sociodemographics of AoU participants with psychiatric disorders specifically, we also find a considerable diverse population. In our current cohort looking into the polygenic risk score of Major Depressive Disorder, we include AoU participants with an electronic health record of one or more depressive episodes (derived from the International Statistical Classification of Diseases- ICD), and get a sample size of 41492. Data on factors that affect these participants such as insurance status and education level are included as well. Of the 41492 participants, 22.4% identify as Black, 20.3% Hispanic, 2.33% Asian, and 57.5% White. In addition, on further analysis, there is a high percentage of participants with varying education levels, in contrast to previous data banks that mostly recruited those who were college educated. Notably, 34.4% of the selected participants have no college education, while only 12.6% hold an advanced degree.

Overall, the AoU biobank holds promise in aiding researchers in a variety of fields, including in psychiatric genetics. Considering the historical neglect of including people of color in research studies, the AoU program ensures a greater inclusion of diverse participants in order to ultimately provide more precise care to all patients.