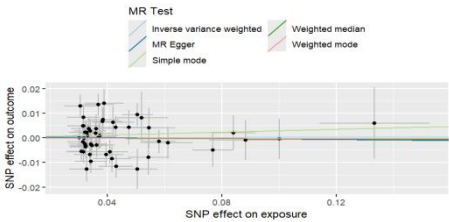
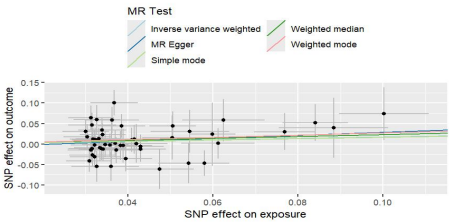


Supplementary Figure S4. The scatter plots of the association between Cardiovascular Disease with depression and anxiety in MR analysis.

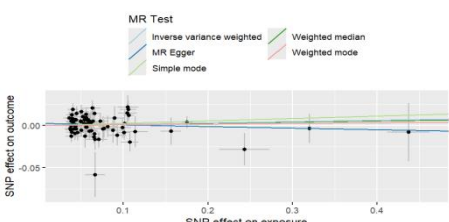
CVD on MDD(PGC)



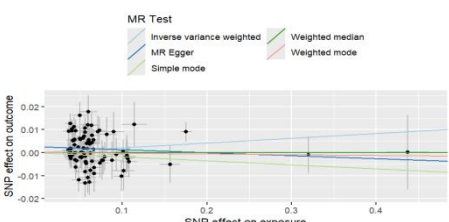
CVD on Anxiety(PGC)



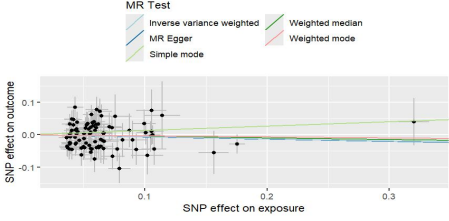
CAD on Depression(FinnGen)



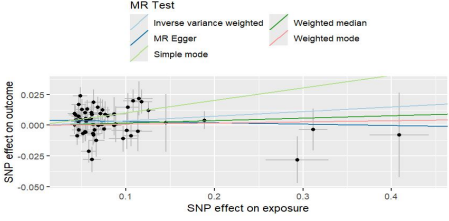
CAD on MDD(PGC)



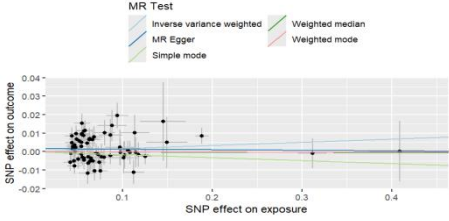
CAD on Anxiety(PGC)



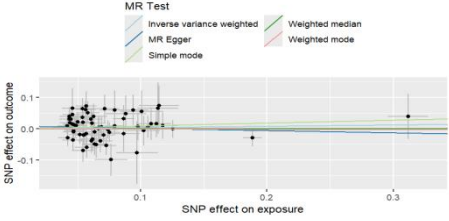
MI on Depression(FinnGen)



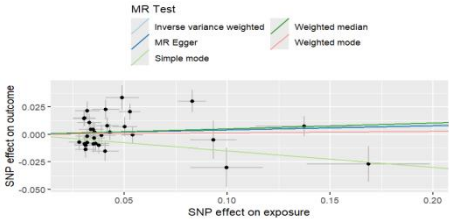
MI on MDD(PGC)



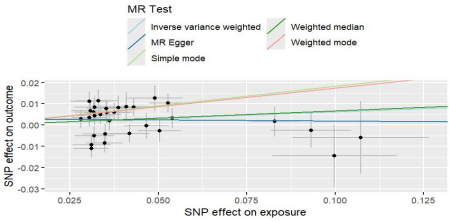
MI on Anxiety(PGC)



HF on Depression(FinnGen)



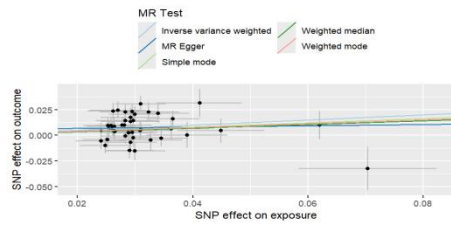
HF on MDD(PGC)



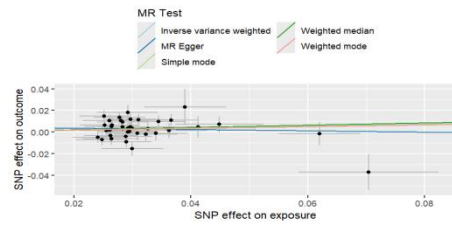
The MR Test plot displays the relationship between the SNP effect on exposure (x-axis) and the SNP effect on outcome (y-axis). The x-axis ranges from 0.05 to 0.20, and the y-axis ranges from -0.4 to 0.2. Five methods are compared: Inverse variance weighted (blue line), MR Egger (orange line), Simple mode (green line), Weighted median (red line), and Weighted mode (pink line). The Inverse variance weighted method shows a negative slope, while the other four methods show a positive slope. The MR Egger method includes a vertical intercept at approximately 0.01 on the x-axis.

The MR Test plot displays the relationship between the SNP effect on exposure (x-axis) and the SNP effect on outcome (y-axis). The x-axis ranges from 0.04 to 0.08, and the y-axis ranges from -0.01 to 0.03. Five regression lines are shown, representing different MR methods: Inverse variance weighted (blue), MR Egger (red), Simple mode (green), Weighted median (purple), and Weighted mode (pink). The Simple mode line shows a positive slope, while the others are relatively flat. Vertical error bars are present for each data point.

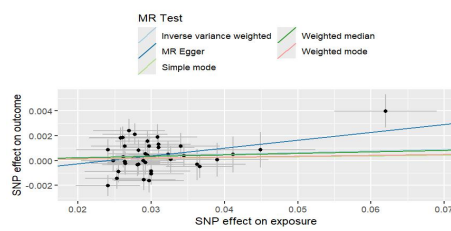
MDD(PGC) on MI



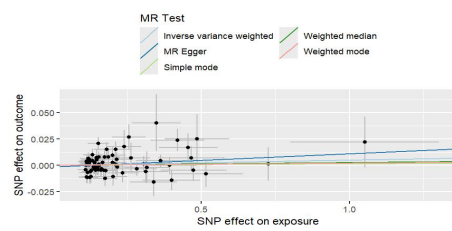
MDD(PGC) on HF



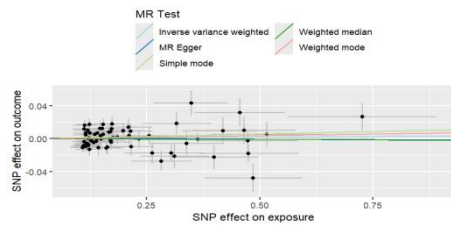
MDD(PGC) on Hypertension



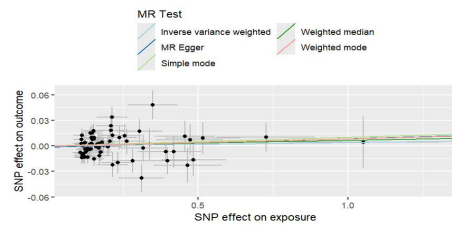
Anxiety(PGC) on CVD



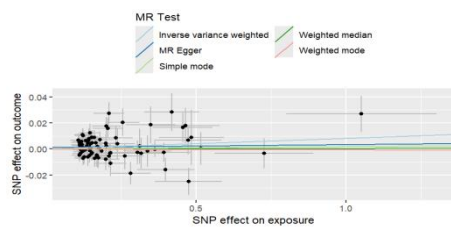
Anxiety(PGC) on CAD



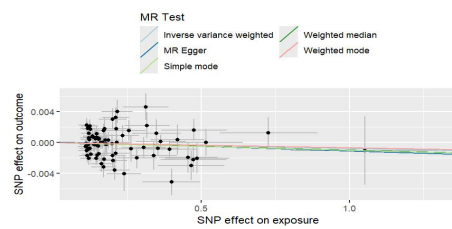
Anxiety(PGC) on MI



Anxiety(PGC) on HF



Anxiety(PGC) on Hypertension



CVD, cardiovascular disease. CAD, coronary artery disease. MI, myocardial infarction. HF, heart failure. MDD, major depressive disorder. PGC, Psychiatric Genomics Consortium.