## one\_way\_anova

(0.8980365004751797, 0.40753578189714934)

## t\_test

t\_statistic p\_value  
pre\_diabetes vs no\_diabetes 1.185860 0.235848  
diabetes vs no\_diabetes 0.845129 0.398149

## tukey\_hsd

Multiple Comparison of Means - Tukey HSD, FWER=0.05   
==============================================================  
 group1 group2 meandiff p-adj lower upper reject  
--------------------------------------------------------------  
 diabetes no\_diabetes -0.0056 0.6906 -0.0217 0.0104 False  
 diabetes pre\_diabetes 0.0056 0.8716 -0.0207 0.032 False  
no\_diabetes pre\_diabetes 0.0112 0.4836 -0.0117 0.0341 False  
--------------------------------------------------------------

## covariance\_analysis

sum\_sq df F PR(>F)  
C(no\_diabetes) 0.023249 1.0 1.940618 0.163759  
C(pre\_diabetes) 0.000013 1.0 0.001092 0.973636  
C(diabetes) 0.010910 1.0 0.910639 0.340062  
Age 0.144405 1.0 12.053463 0.000528  
Residual 23.541422 1965.0 NaN NaN

## interaction\_analysis

sum\_sq df F PR(>F)  
C(no\_diabetes) 0.003499 1.0 0.292097 0.588941  
C(pre\_diabetes) 0.009881 1.0 0.824852 0.363877  
C(diabetes) 0.010910 1.0 0.910771 0.340027  
Age 0.144405 1.0 12.055211 0.000528  
C(diabetes):Age 0.015393 1.0 1.285069 0.257097  
Residual 23.526029 1964.0 NaN NaN

## interaction\_analysis2

dfn dfd F PR(>F)  
diabetes 1.0 1827.0 0.247071 0.619205  
pre\_diabetes 1.0 1837.0 0.370256 0.542940

## chi\_square\_test

condition chi2 p\_value dof  
0 no\_diabetes 0.998130 0.317764 1  
1 pre\_diabetes 0.432981 0.510530 1  
2 diabetes 0.165497 0.684145 1

## relative\_risk\_analysis

condition relative\_risk ci p\_value  
0 no\_diabetes 0.010631 0.006496 2.291005e-73  
1 pre\_diabetes 0.022222 0.007078 3.485672e-11  
2 diabetes 0.016393 0.006775 3.834600e-20

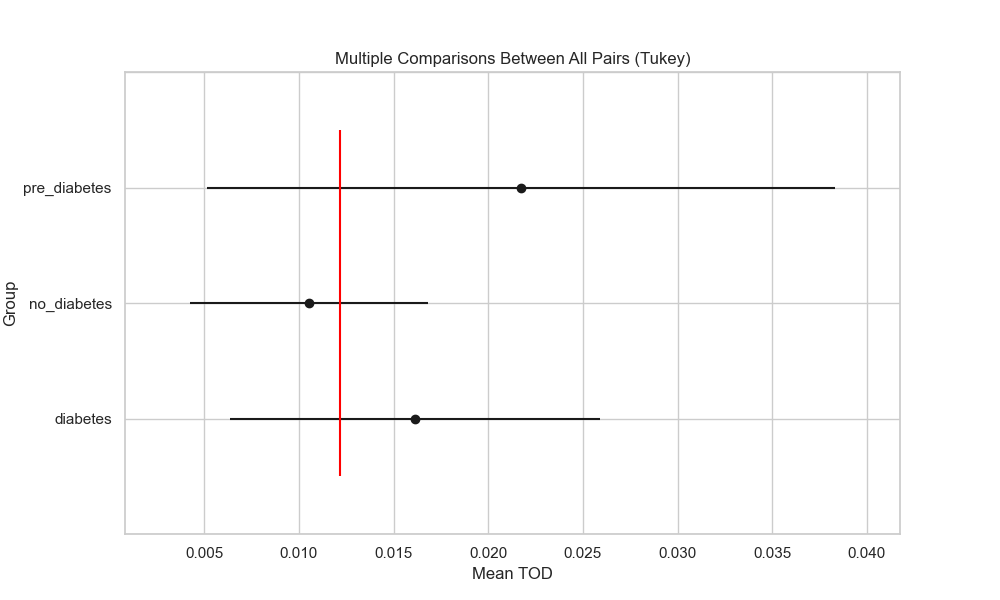
## odds\_ratio\_analysis

condition odds\_ratio ci p\_value  
0 no\_diabetes 1.710227 1.045022 0.222302  
1 pre\_diabetes 0.522099 0.166296 0.234170  
2 diabetes 0.706707 0.292054 0.569195

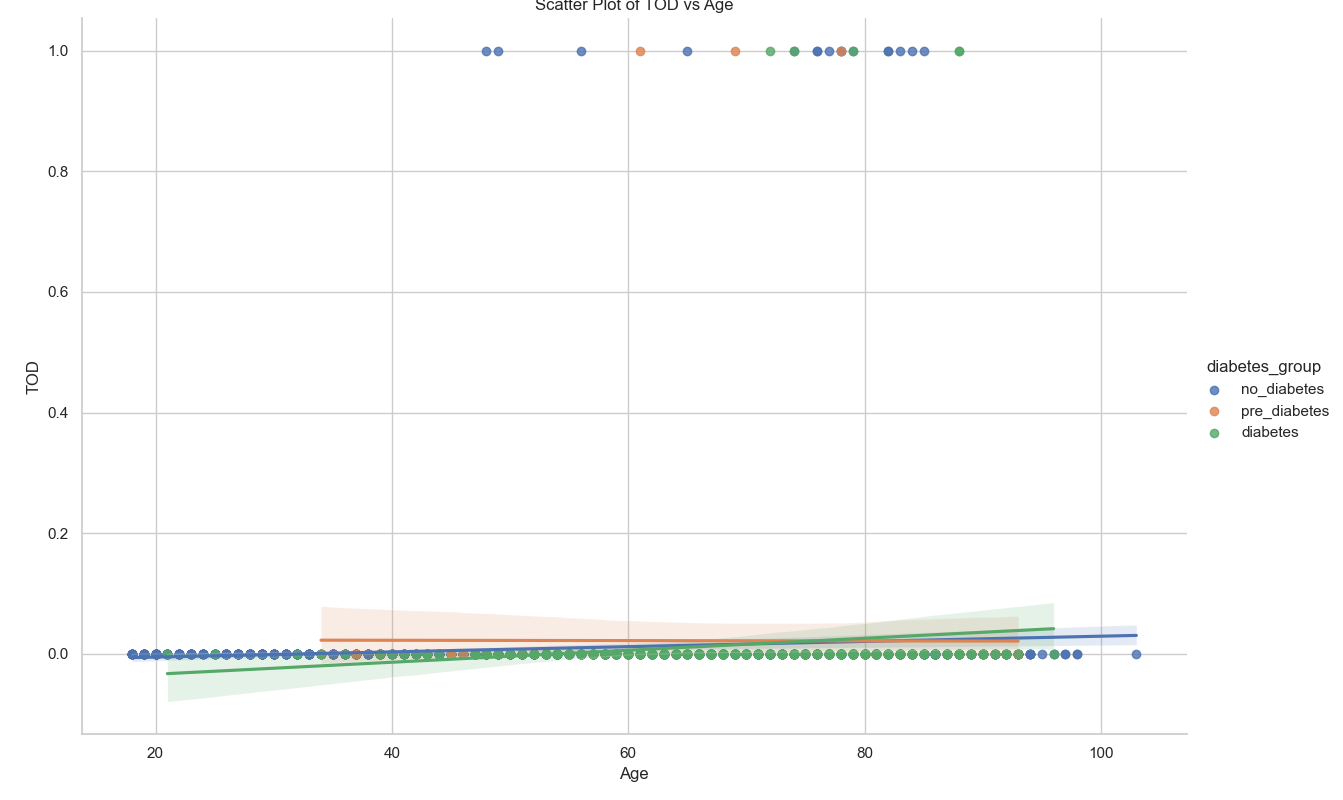
## relative\_risk\_by\_age

age\_group condition relative\_risk p\_value confidence\_interval  
3 40-60 No Diabetes 0.000000 1.000000 0.000000  
4 40-60 Pre-Diabetes inf 1.000000 NaN  
5 40-60 Diabetes inf 1.000000 NaN  
0 60+ No Diabetes 1.204013 0.649817 0.695485  
1 60+ Pre-Diabetes 0.666667 0.461612 0.211491  
2 60+ Diabetes 1.000772 1.000000 0.412829

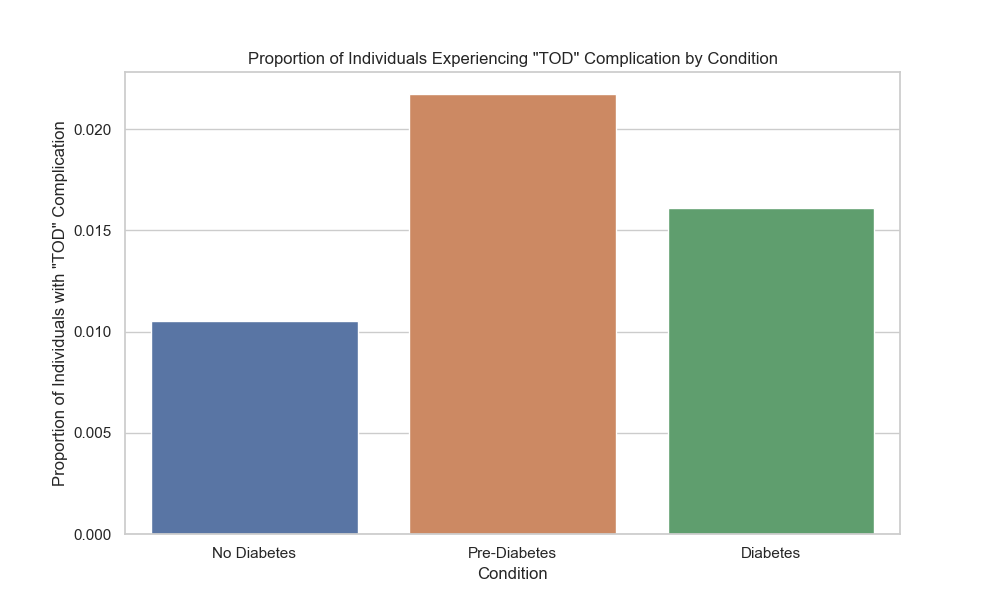
## visualize\_tukey\_results



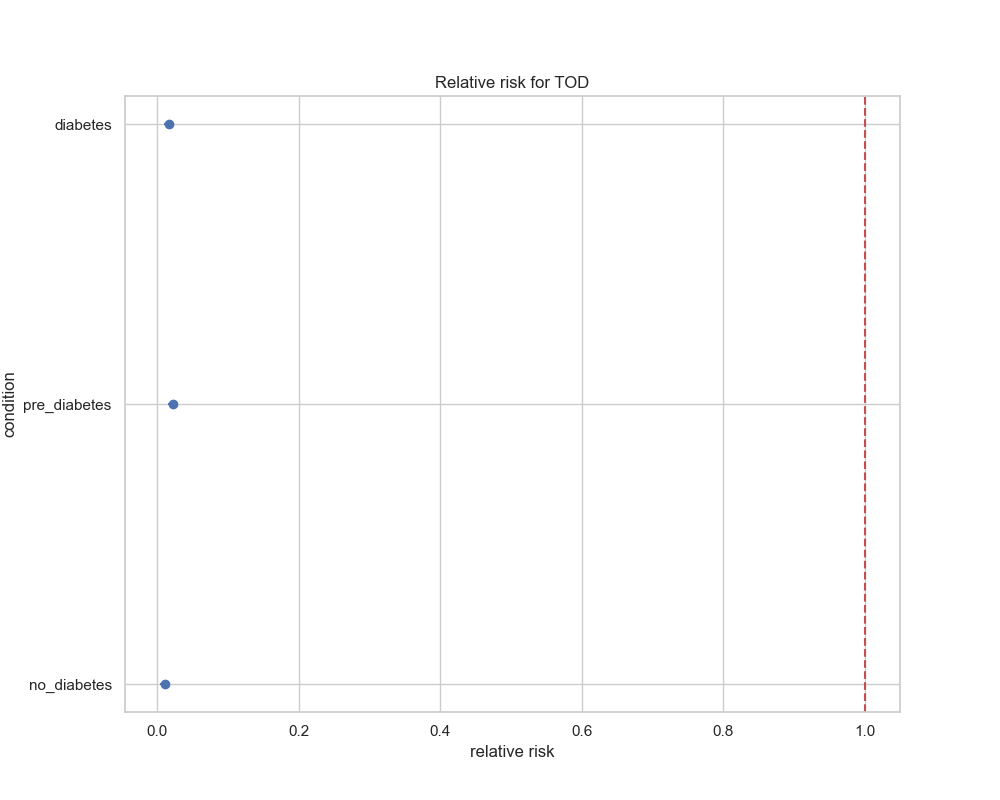
## plot\_interaction\_analysis



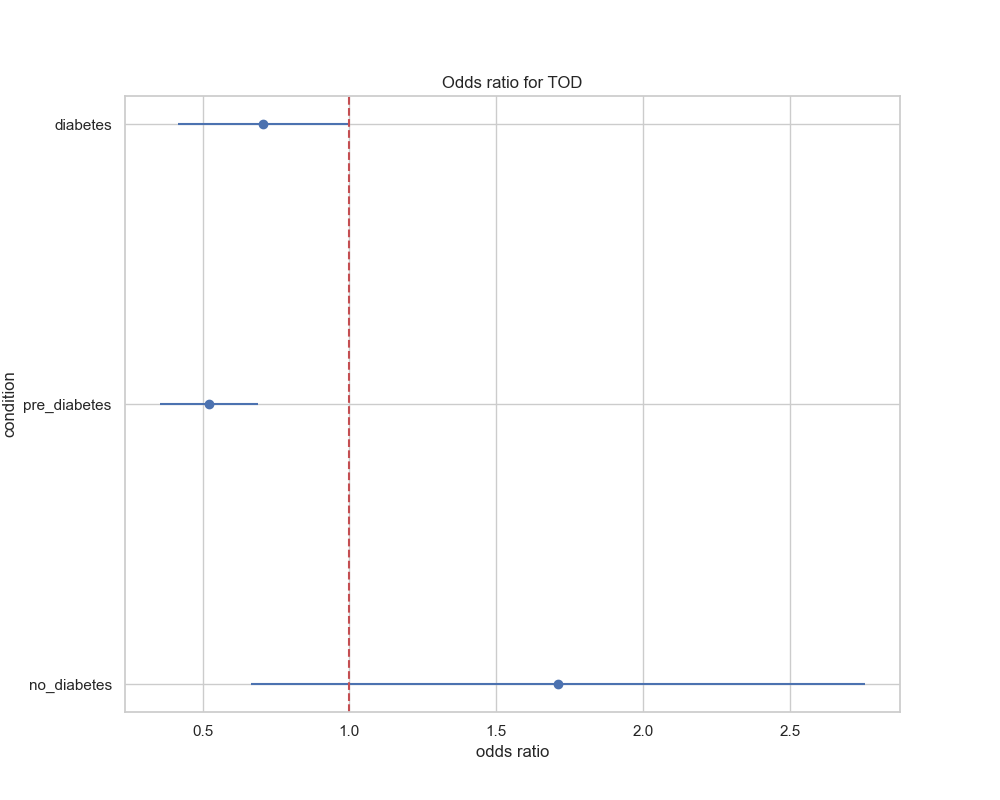
## visualize\_chi\_square\_results



## visualize\_relative\_risk\_results



## visualize\_odds\_ratio\_results



## visualize\_relative\_risk\_by\_age\_results

