

COGNITIVE INSIGHTS:CHARTNG THE COGNITIVE HEALTH OF DIABETIC AND CONTROL GROUPS

Gender

☐ Female

☐ Male

Race

☐ African American

☐ Asian

☐ Latino

☐ White

Group

☐ Control

☐ DM

Age group

☐ 50

☐ 60

☐ 70

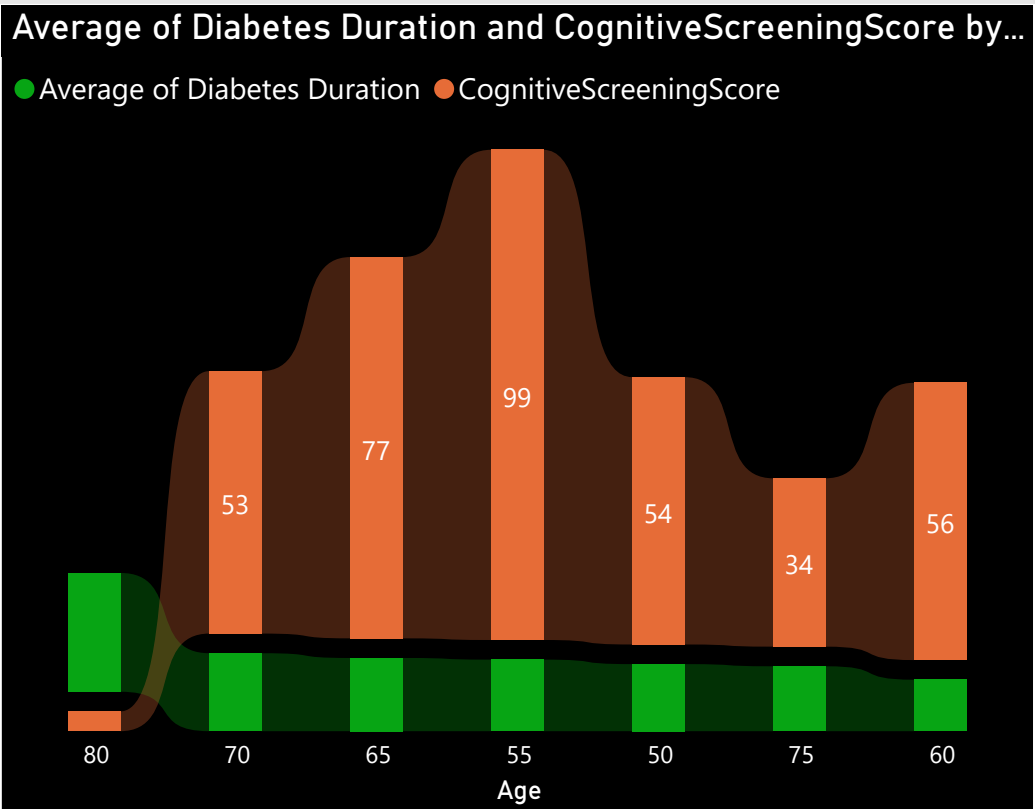
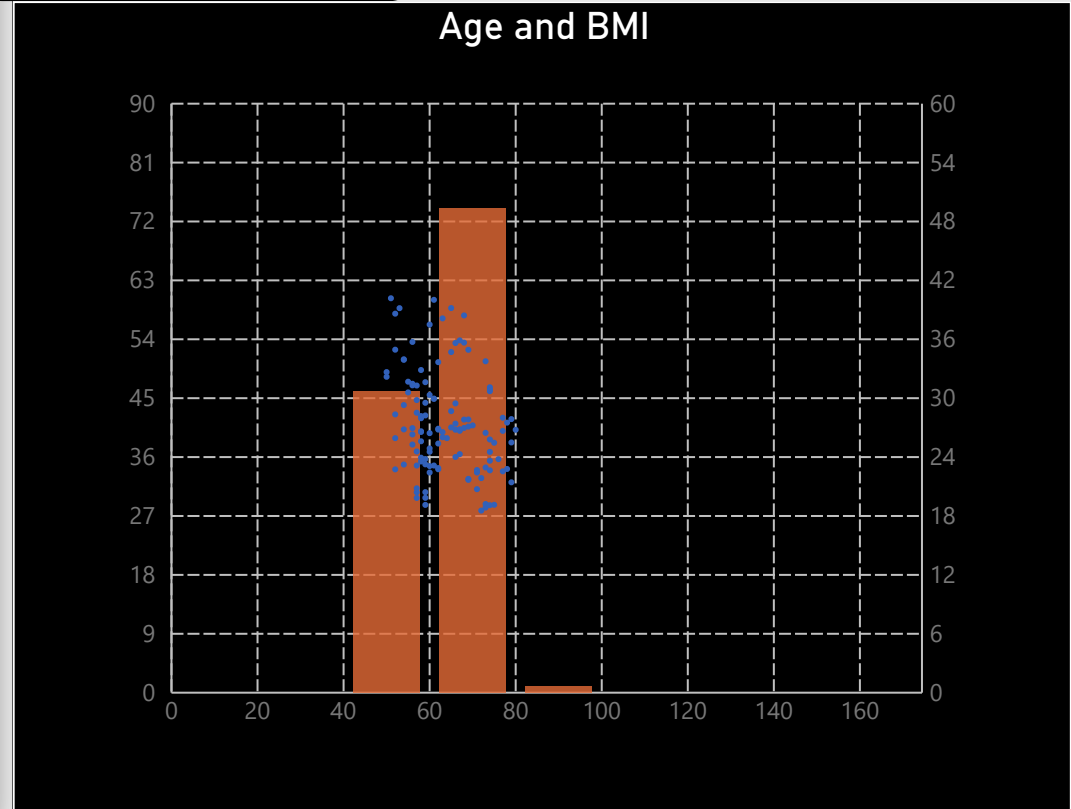
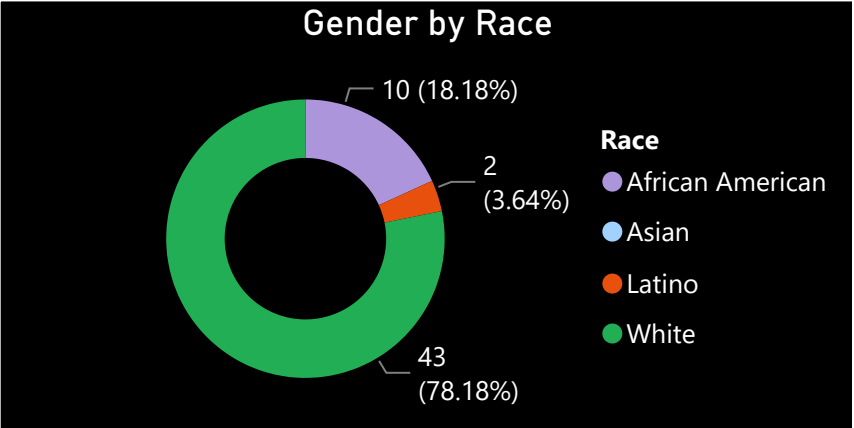
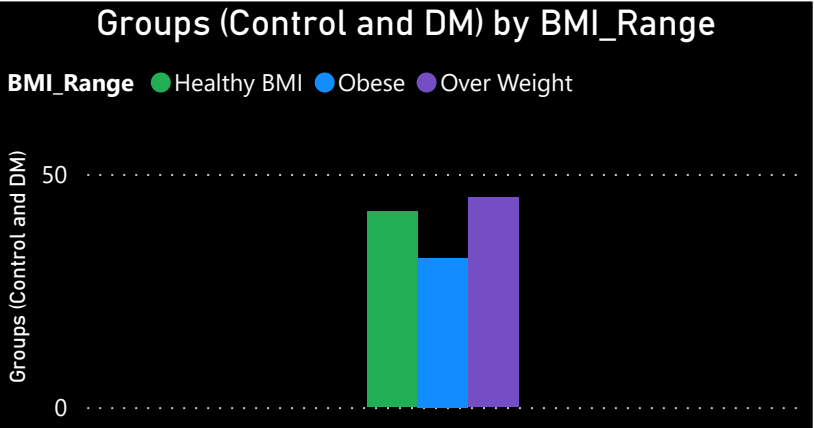
☐ 80

77
Total population

63.78
Average of Age

27.39
Average of BMI

12
Total Cognitive Tests



DEMOGRAPHIC VS. COGNITIVE TEST

Visit_Number

Age (bins)

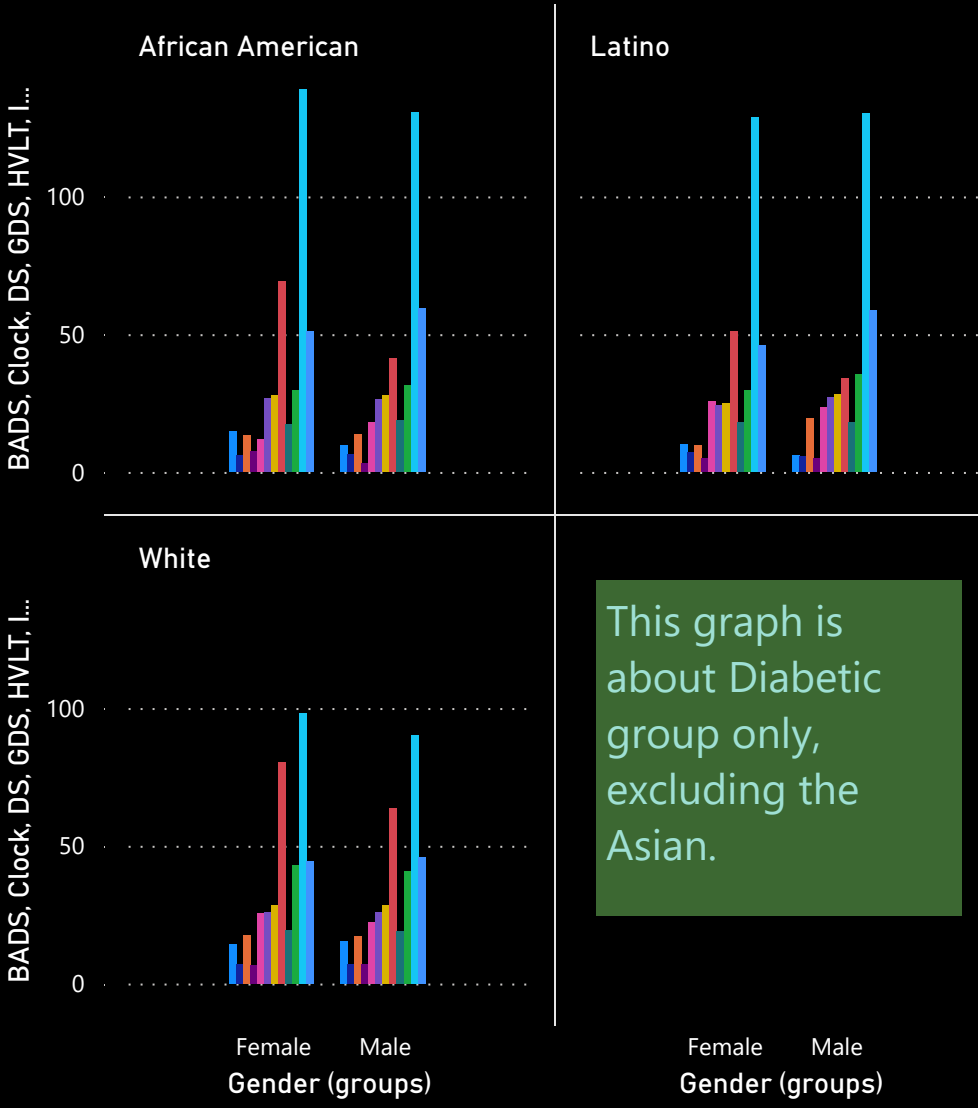
Group

Gender

Race

BADS, Clock, DS, GDS, HVLTL, IADL, MMSE, NIS, Average of RCFT: Total Correct, Average of WTAR: Raw Score, Average of TM: Part B Time and Average of TM:Part A Time by Gender (groups) and Race

● BADS ● Clock ● DS ● GDS ● HVLTL ● IADL ● MMSE ● NIS ● Average of R...



How much variations are there for different Races, gender and age groups with different BMIs when tested for cognitive tests.

Is dysexecutive syndrome affected by person's BMI and Age in Diabetic patients?

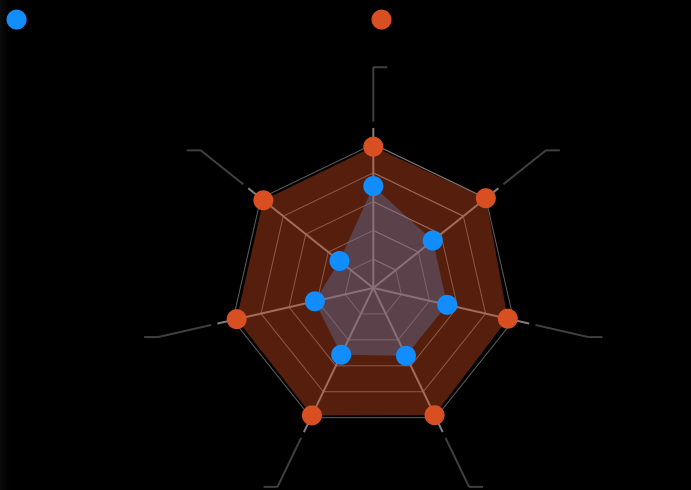
Does Age have any impact on Average scores of BADS test and Average scores of IADL tests in Diabetic and Non-diabetic patients?

Correlation between Ages and BMI with BADS

Age (bins)	Healthy Weight	Obese	Overweight	Total
50	2	10	13	8
55		15	16	15
60	13	15	22	17
65	0	18	16	17
70	19	10		15
75	12		12	12
80			8	8
Total	10	15	17	15

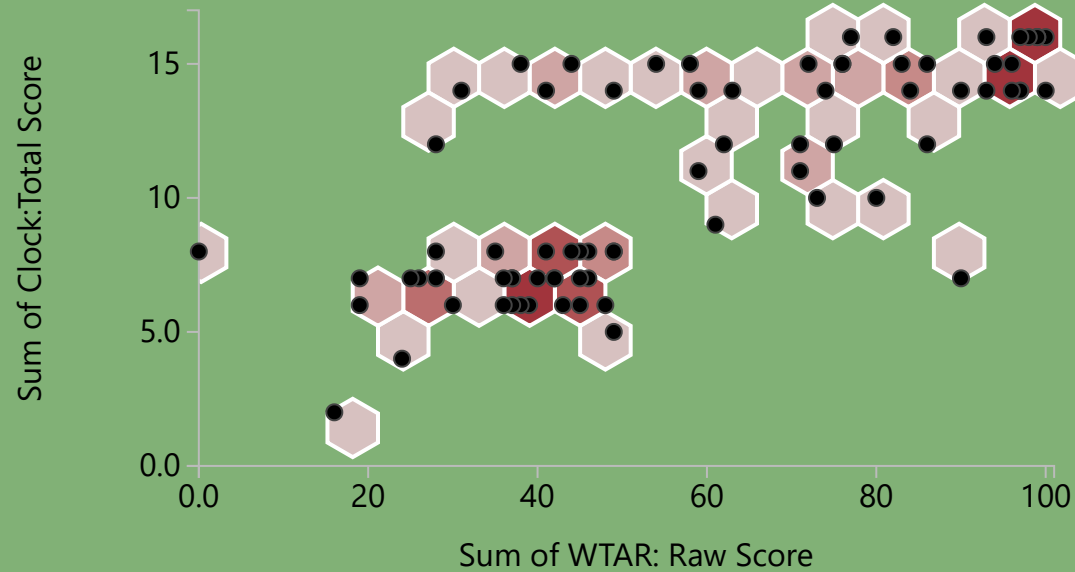
Comparison of Functional Cognitive Tests

Average of BADS:Total Responses and Average of IADL by Age (groups)



Interdependence of Different Tests with respect to Demographics

Sum of WTAR: Raw Score, Sum of Clock:Total Score and First Gender (groups) by Patient_ID

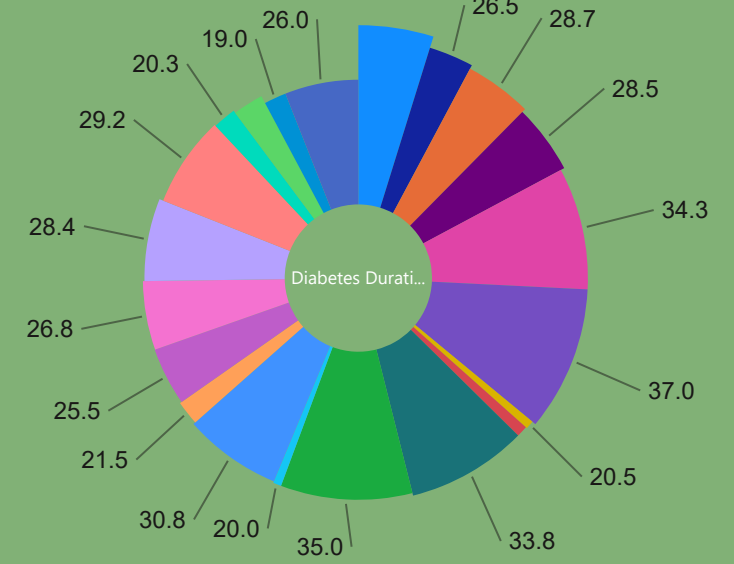


• Is there a correlation between two neurological tests? What about if we divide with Gender?

• Does duration of diabetes decreases the capability of brain functioning?

• Does a patient who has lower score of Reading test can be predicted to be lower on Verbal Fluency test also?

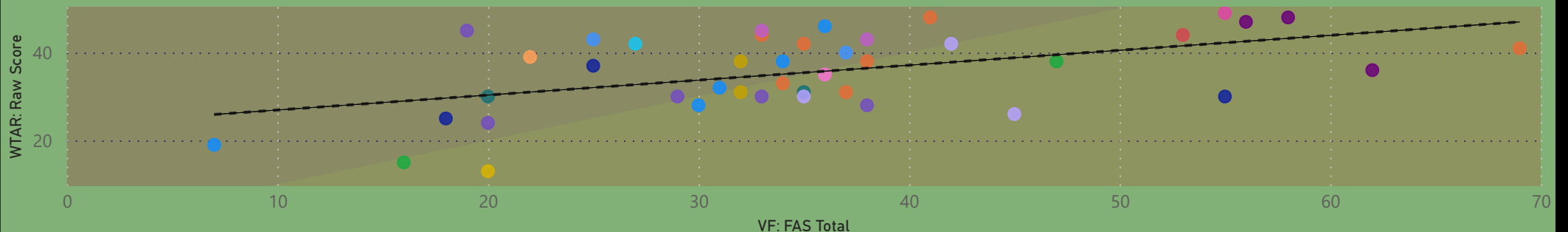
Average of RCFT: Total Correct and Average of GDS:Total Response by Diabetes Duration



Relationship between Verbal Fluency and Reading Test with Diabetes Duration (display is for diabetes duration above 10)

Diabetes Duration, VF: FAS Total and WTAR: Raw Score

Diabetes Duration 10 11 12 13 14 15 17 18 19 20 21 22 23 24 27 30 32



SMALL MULTIPLES VARIANCE CHARTS BY RACE and GENDER

Gender

- ☐ Female
- ☐ Male

Race

- ☐ African Amer...
- ☐ Asian
- ☐ Latino
- ☐ White

Group

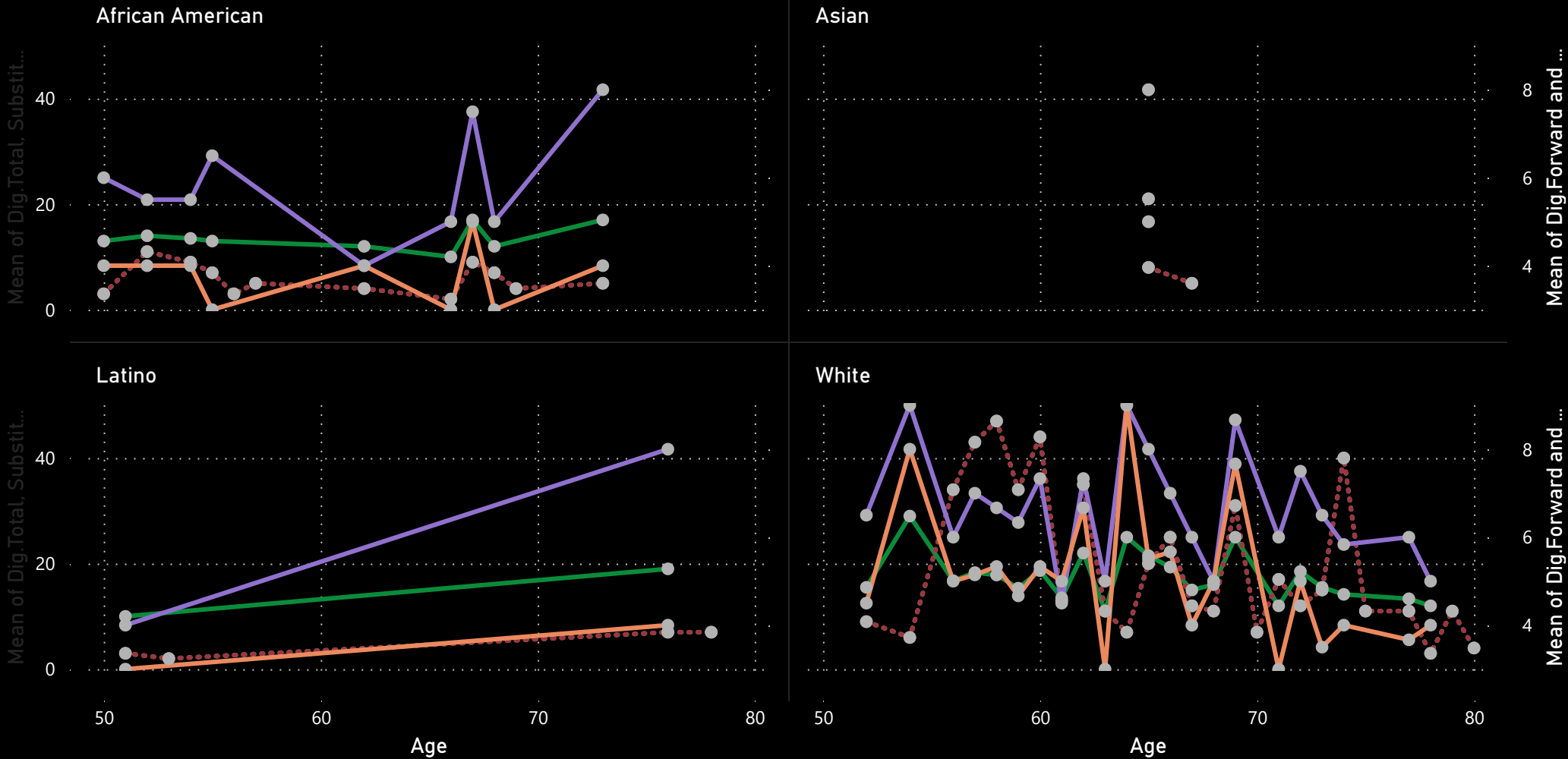
- ☐ Control
- ☐ DM

Age group

- ☐ 50
- ☐ 60
- ☐ 70
- ☐ 80

Mean of Dig.Total, Substitution Error, Insertion error, Mean of Dig.Forward and Mean of Dig.Backward by Age and Race

● Mean of Dig.Total ● Substitution Error ● Insertion error ● Mean of Dig.Forward ● Mean of Dig.Backward



The dotted line represents substitution error, which is the reason DS: Forward+ DS: Backward is not equal to total.