

Analytical Stata Syntax for Reactions to Amyloid PET Scan Results and Levels of Anxiety and Depressive Symptoms among Care Partners to Persons with Cognitive Impairment: CARE IDEAS Study

* Final Version Updated 2021-10-12 by Emma Belanger for manuscript

***** QUAL DESCRIPTIVES**

clear

use "P:\carei\eb\Emotional well being\Descriptives Qual Sub-Sample.dta"

tab part_analyzed
keep if part_analyzed == 1

*INDEPENDENT VARIABLES: 1) Scan results, 2) Level of cog impairment, 3) Everyday functioning

*SCAN RESULTS patients(categorical | AF_AMYLOID_RESULT):

* note one is inconclusive, kept in sample for now
tab AF_AMYLOID_RESULT, m

tab IMPAIRMENT_LEVEL, m

summarize REC_part_ECOG_avg, detail

*covariates
tab REC_part_AGE_4cat, m
tab REC_part_RACE_ETHN, m
tab REC_part_EDU_4cat, m
tab REC_part_MARSTAT, m
tab part_Gender2, m

clear

***** QUANTITATIVE ANALYSIS**

*Load data using file path
use "P:\carei\eb\CAREIDEAS_IDEAS_FINAL_30_Sep_2018.dta"

set more off

*Exclude those who don't have a care partner

keep if cpait_RESULTCATEGORY == "Complete" & part_RESULTCATEGORY == "Complete"

*Drop missing values for final analytical sample

*OUTCOME VARIABLE: Anxiety in Care partners (continuous or categorical variables)

*ANXIETY(categorical variable)

drop if REC_part_STAI_high ==.e | REC_part_STAI_high ==.r

* PHQ-2

drop if REC_part_PHQ2 ==.e | REC_part_PHQ2 ==.r | REC_part_PHQ2 == .d

*INDEPENDENT VARIABLES: 1) Scan results, 2) Level of cog impairment, 3) Everyday functioning

*SCAN RESULTS patients(categorical | AF_AMYLOID_RESULT):

tab AF_AMYLOID_RESULT, m

tab AF_AMYLOID_RESULT, m nol

drop if AF_AMYLOID_RESULT ==3 | AF_AMYLOID_RESULT ==.

gen positive_amyloid =0 if AF_AMYLOID_RESULT ==2

replace positive_amyloid =1 if AF_AMYLOID_RESULT ==1

*COGNITIVE IMPAIRMENT patients (categorical | IMPAIRMENT_LEVEL):

tab IMPAIRMENT_LEVEL, m

gen dementia =0 if IMPAIRMENT_LEVEL ==1

replace dementia=1 if IMPAIRMENT_LEVEL ==2

*EVERYDAY FUNCTIONING care partners(continuous | REC_part_ECOG_avg)

tab REC_part_ECOG_avg,m

drop if REC_part_ECOG_avg ==.d | REC_part_ECOG_avg ==.r

*COVARIATES (age, gender, race, education) :

*AGE 4 cat (REC_part_AGE_4cat)

*GENDER (part_Gender2)

*RACE/ethnicity 4 cat (REC_part_RACE_ETHN)

*EDUCATION 4 cat (REC_part_EDU_4cat)

*Excluding missing for all covariates (check codebook nol/.r refused .n/ dk.d)

drop if REC_part_AGE_4cat ==.d | REC_part_AGE_4cat ==.r

drop if REC_part_RACE_ETHN ==.e | REC_part_RACE_ETHN ==.r

drop if REC_part_EDU_4cat ==.d | REC_part_EDU_4cat ==.r

* DESCRIPTIVES

* dep vars

tab REC_part_PHQ2, m

tab REC_part_STAI_high, m

* ind vars

tab positive_amyloid, m

tab dementia, m

summarize REC_part_ECOG_avg, detail

*covariates

tab REC_part_AGE_4cat, m

tab REC_part_RACE_ETHN, m

tab REC_part_EDU_4cat, m

tab REC_part_MARSTAT, m

tab part_Gender2, m

*** ODDS RATIOS for having high anxiety

/* BIVARIATE

logistic REC_part_STAI_high ib2.REC_part_AGE_4cat, or

logistic REC_part_STAI_high ib2.part_Gender2 , or

logistic REC_part_STAI_high i.REC_part_RACE_ETHN, or

logistic REC_part_STAI_high i.REC_part_EDU_4cat, or

*/

*unadjusted models

logistic REC_part_PHQ2 i.dementia, or

logistic REC_part_PHQ2 i.positive_amyloid, or

logistic REC_part_PHQ2 REC_part_ECOG_avg, or

logistic REC_part_STAI_high i.dementia, or

logistic REC_part_STAI_high i.positive_amyloid, or
logistic REC_part_STAI_high REC_part_ECOG_avg, or

*corr dementia positive_amyloid REC_part_ECOG_avg REC_part_ZARIT
REC_part_AGE_4cat part_Gender2 REC_part_RACE_ETHN REC_part_EDU_4cat
*corr REC_part_ECOG_avg REC_part_ZARIT

* MULTIVARIABLE

logistic REC_part_STAI_high dementia positive_amyloid REC_part_ECOG_avg
ib2.REC_part_AGE_4cat ib2.part_Gender2 i.REC_part_RACE_ETHN i.REC_part_EDU_4cat,
or
logistic REC_part_PHQ2 dementia positive_amyloid REC_part_ECOG_avg
ib2.REC_part_AGE_4cat ib2.part_Gender2 i.REC_part_RACE_ETHN i.REC_part_EDU_4cat,
or

* MULTIVARIATE with interaction term

gen_dementiapositive = dementia*positive
assert dementiapositive == 0 if dementia == 0

logistic REC_part_STAI_high dementiapositive dementia positive_amyloid
REC_part_ECOG_avg ib2.REC_part_AGE_4cat ib2.part_Gender2 i.REC_part_RACE_ETHN
i.REC_part_EDU_4cat, or
logistic REC_part_PHQ2 dementiapositive dementia positive_amyloid REC_part_ECOG_avg
ib2.REC_part_AGE_4cat ib2.part_Gender2 i.REC_part_RACE_ETHN i.REC_part_EDU_4cat,
or

*STRATIFIED ANALYSES among MCI / dementia

logistic REC_part_STAI_high positive_amyloid REC_part_ECOG_avg
ib2.REC_part_AGE_4cat ib2.part_Gender2 i.REC_part_RACE_ETHN i.REC_part_EDU_4cat if
dementia == 0, or
logistic REC_part_STAI_high positive_amyloid REC_part_ECOG_avg
ib2.REC_part_AGE_4cat ib2.part_Gender2 i.REC_part_RACE_ETHN i.REC_part_EDU_4cat if
dementia == 1, or

*only for anxiety because interaction term is not positive on PHQ2

*logistic REC_part_PHQ2 positive_amyloid REC_part_ECOG_avg ib2.REC_part_AGE_4cat
ib2.part_Gender2 i.REC_part_RACE_ETHN i.REC_part_EDU_4cat if dementia == 0, or

*logistic REC_part_PHQ2 positive_amyloid REC_part_ECOG_avg ib2.REC_part_AGE_4cat
ib2.part_Gender2 i.REC_part_RACE_ETHN i.REC_part_EDU_4cat if dementia == 1, or