# Predicting Health Behavior Using Cognitive Ability, Behavioral Flexibility and Demographic Measures

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## Abstract

Cognitive ability, behavioral flexibility, and demographic variables were examined as predictors of thirteen individual health behaviors in five domains: substance use behaviors, alcohol behaviors, food consumption, dental care, and proactive behaviors. The sample was obtained from the 1991 wave of the Seattle Longitudinal Study. The total sample was divided into four age groups: young (22-42 years), middle-aged (43-62 years), young-old (63-72 years), and old-old (73-84 years). Results indicated that cognitive ability and demographic variables were significant predictors while behavioral flexibility variables were generally not found to be significant predictors of health behaviors. In addition, significant predictors of health behaviors varied for each age group and each health behavior. Predictability of health behaviors also appeared to vary by age group, implying that a better strategy for analyzing health behaviors would be to consider age groups separately.

# Predicting Health Behavior Using Cognitive Ability, Behavioral Flexibility and Demographic Measures

The main interest leading the current investigation was to identify variables that could be used to predict health behaviors. This current study examined cognitive ability, behavioral flexibility, and demographic variables as predictors of individual health behaviors. In general, while there does not appear to be an extensive body of literature linking cognitive ability and health behaviors, there are some examples of researchers who took upon this rare task. Salthouse, Kausler, and Saults (1990) and Perlmutter & Nyquist (1990) examined the association between health and cognition, and both studies were unable to find strong associations between the two variables.

Because cognitive ability variables do not appear to fully explain individual health behaviors, behavioral flexibility factors and demographic variables were proposed as possible factors that could provide additional explanation for individual health behaviors. Because there is a limited collection of literature concerning cognitive ability and health behaviors, there is almost a nonexistent collection of literature concerning the association between health behaviors and cognitive ability, behavioral rigidity, and demographics. However, studies have investigated the association of health behaviors with personality and with demographics. The association between personality and health behaviors has been predominantly assessed using the Big Five-Personality Model and Type A vs. Type B personalities. However, a limited amount of studies that have actually examined behavioral flexibility and health behaviors. Myers (1998) and Vingerhoets, Croon, Jeninga, and Menges (1990) both assessed the association between health and behavioral flexibility. Although Vingerhoets et al. (1990) did not find an association between rigidity and health habits, Myers (1998) was able to conclude that cardiac patients with greater cognitive

flexibility were seen as individuals with signs of good prognosis. In addition, demographic information has been able provide a clearer understanding of the question concerning the "who" underlying health behaviors (Hickey, Rakowski, & Julius, 1988; Ungemack, 1994; Reddy, Fleming & Adesso, 1992; Droomers, Schrijvers, Van de Meheen, & Mackenback, 1998; Marks & Lutgendorf, 1999). However, in the current analysis we were interested in examining demographics and their predictability of certain health behaviors relative to cognitive predictors and behavioral flexibility predictors.

Two specific questions were asked in relation to the association between health behaviors and cognitive ability, behavioral rigidity, and demographic variables in the total sample. For the total sample, when considering cognitive ability, behavioral flexibility, and demographic variables, which variables are significant predictors of individual health behaviors? Do the significant predictors vary by health behavior in the total sample? It was hypothesized that along with cognitive ability, behavioral flexibility and demographic variables would both be significant predictors of individual health behaviors. However specific predictors were not hypothesized to be associated with certain health behaviors.

The second part of this investigation explored variations in predicting health behaviors related to the age of the individuals under investigation. Perlmutter and Nyquist (1990) analysis of the association between health behaviors and cognition by age group indicated that associations between health behaviors and cognition vary by age group. Thus, three additional questions were addressed in this study. For the separate age groups, does the amount of variance explained in health behaviors vary? Do the significant predictors of individual health behaviors vary within each age group? For what specific health behaviors was the greatest amount of

variance explained within each age group? The difference in predictability of health behaviors due to age of individuals was expected, but the magnitude of predictability by age group was not predicted a prior. There were also no expectations for whether the predictors of individual health behaviors would vary across age groups and which health behaviors would have the most amount of variance explained.

## Method

### Participants

The current analysis used a subsample of participants from the Seattle Longitudinal Study, an ongoing longitudinal study of adult cognition. The participants of the Seattle Longitudinal Study are all members of an HMO (health maintenance organization) in Seattle Washington. The specific subsample used for the current analysis were participants of the sixth wave (1991) of the Seattle Longitudinal Study, with measures in all of the following areas: cognitive ability, behavioral flexibility, demographics and health behaviors. The total sample consisted of 588 participants with 262 males and 326 females. The sample had a mean age of 54.3 years and a mean education level of 15.3 years. The total sample was then broken down in to four age groups: Young Adults, Middle-Aged Adults, Young-Old Adults, and Old-Old Adults. Demographics for the Total Sample and Age Groups are shown in Table 1.

### Measures

The measures used for the present analysis were taken from the larger testing battery of the Seattle Longitudinal Study.

### Cognitive Abilities

From the larger testing battery, twenty-one cognitive tests were used to test six cognitive abilities. Six cognitive abilities were assessed: inductive reasoning, spatial ability, perceptual ability, numeric ability, verbal ability, and memory. The six-ability factor structure developed in previous research conducted by Schaie, Dutta, & Willis (1991) was utilized in the current analysis. Inductive reasoning was specifically assessed using: PMA Reasoning (Thurstone & Thurstone, 1949), ADEPT Letter Series (Blieszner, Willis, & Baltes, 1981), Word Series (Schaie 1985), and Number Series (Ekstrom, French, Harman, & Derman, 1976). Spatial Ability was assessed using: PMA Space (Thurstone 1948), Object Rotation (Schaie, 1985), Alphanumeric Rotation (Willis & Schaie, 1983), and Cube Comparison (Ekstrom et al., 1976). Perceptual Speed was assessed using: PMA Verbal Meaning (Thurstone 1948), Identical Pictures (Ekstrom et al, 1976), Finding A's (Ekstrom et al., 1976), and Number Comparison (Ekstrom et al., 1976) and PMA Word Fluency (Thurstone & Thurstone, 1949). Numeric Ability was assessed using: PMA Number (Thurstone 1948), Addition (Ekstrom et al., 1976), Subtraction and Multiplication (Ekstrom et al., 1976), and Number Comparison (Ekstrom et al., 1976). Verbal Ability was assessed using: PMA Verbal Meaning (Thurstone 1948), ETS Vocabulary V-2 (Ekstrom et al., 1976), ETS Vocabulary V-4 (Ekstrom et al., 1976) and PMA Word Fluency (Thurstone & Thurstone, 1949). Memory was assessed using: Immediate Recall (Zelinski, Gilewski, & Schaie, 1993), Delayed Recall (Zelinski, Gilewski, & Schaie, 1993), and PMA Word Fluency (Thurstone & Thurstone, 1949).

Behavioral Flexibility

The Test of Behavioral Rigidity (Schaie 1955, 1960; Schaie & Parham, 1975) was used to assess individual flexibility/rigidity characteristics (motor-cognitive flexibility, attitudinal flexibility, and psychomotor speed).

Demographics

The Life Complexity Inventory (Gribbin, Schaie, & Parham, 1980) was used to collect individual demographic characteristics (age, education, and gender).

Health Behaviors

The Health Behavior Questionnaire (HBQ) was used to assess individual health behaviors. Thirteen specific health behaviors were selected: Amount Caffeine, Amount Smoked, Alcohol Consumption, Amount/Type of Alcohol, Teeth Brushing, Teeth Flossing, Beef Consumption, Veal Consumption, Lamb Consumption, Pork Consumption, Egg Yolks, Cholesterol Checkups, and Flu Shots. These thirteen behaviors can be placed into five general domains: substance use behaviors, alcohol behaviors, food consumption, dental care, and proactive behaviors.

## Results

Hierarchical regression analyses were performed to determine the significant predictors and amount of variance for each health behavior using cognitive ability factors (step 1), behavioral flexibility factors (step 2), and selected demographic variables (step 3). Each of the three steps of the hierarchical regression analysis with the associated $\beta$ for each predictor and $R^2$

for each model are shown in Tables 2-14. However, the presented findings are primarily from the results of the final model.

Total Sample

In general, for the total sample cognitive ability and demographic variables were the significant predictors for health behaviors. Behavioral flexibility was not generally found to significantly predict health behaviors. In addition, significant predictors across health behaviors appeared to vary. There was no one predictor or pattern of predictors that remained consistent across health behaviors.

Cognitive ability continued to significantly predict individual health behaviors, regardless of the addition of the behavior flexibility and demographic variables. For Amount of Caffeine, numerical ability was the only significant cognitive ability predictor, ($p < .05$). For Alcohol Consumption, verbal ability was the only significant cognitive ability predictor, ($p < .05$). For Teeth Brushing, inductive reasoning ability was the only significant cognitive ability predictor, ($p < .05$). For Teeth Flossing, inductive reasoning, ($p < .01$) numerical ability ($p < .01$), and verbal ability ($p < .05$) were significant cognitive ability predictors. For Pork Consumption, verbal ability ($p < .05$) and memory ability ($p < .05$) were significant cognitive ability predictors. For Flu Shots, inductive reasoning ($p < .001$), perceptual speed ($p < .01$), numerical ability ($p < .001$), verbal ability ($p < .001$), and memory ability ($p < .001$) were significant cognitive ability predictors. In sum, of the thirteen health behaviors, six of them had at least one significant cognitive ability predictor.

Relatively, behavior flexibility factors were not found to be significant predictors across individual health behaviors. For Amount Smoked, attitudinal flexibility was the only significant behavioral flexibility predictor, ($p < .05$). For Alcohol Consumption, psychomotor speed was the

only significant behavioral flexibility predictor, ($p < .05$). For Amount/Type of Alcohol, psychomotor speed flexibility was the only significant behavioral flexibility predictor, ($p < .05$). In sum, of the thirteen health behaviors, three of them had significant behavioral flexibility ability predictors.

Demographic variables were generally found to be significant predictors of individual health behaviors. Gender was a significant predictor of five health behavior items: Amount of Caffeine ($p <. 001$), Alcohol Consumption ($p < .01$), Amount/Type of Alcohol ($p < .001$), Teeth Brushing ($p < .001$), Teeth Flossing ($p < .01$). Education was a significant predictor of three health behavior items: Amount Smoked ($p < .01$), Teeth Brushing ($p < .01$), Pork Consumption ($p < .001$). In sum, of the thirteen health behaviors, seven of them had significant demographic predictors.

Age Group

The significant predictors of heath behaviors varied for each age group. There was no specific health behavior where a predictor remained significant across all four age groups. In addition to variation in predictors, there was variation in the amount of variance explained for each health behavior by age group. The amount of variance explained varied by age group and generally followed a curvilinear pattern. A true curvilinear pattern appeared for the amount of variance, with middle-aged adults having the least amount of variance explained and younger and older groups having relatively more variance explained. The true curvilinear pattern can be seen in the following health behaviors: Amount of Caffeine ($R^2 = .13, .07, .08, .100$ respectively, Amount Smoked ($R^2 = .17, .05, .10, .10$) respectively, Veal Consumption ($R^2 = .10, .04, .18, .12$) respectively, Egg Yolks ($R^2 = .09, .05, .09, .07$) respectively, and Cholesterol Checkups ($R^2 = .07, .04, .12, .10$) respectively. For several other health behaviors, although a true curvilinear

pattern was not found, a similar pattern was depicted: Amount/Type of Alcohol ($R^2$ = .04, .12, .10, .14) respectively Teeth Brushing ($R^2$ = .08, .12, .21, .17) respectively, Teeth Flossing ($R^2$ = .07, .07, .06, 21) respectively, Beef Consumption ($R^2$ = .10, .11, .11, .06) respectively, Lamb Consumption ($R^2$ = .04, .04, .03, .16) respectively, Pork Consumption ($R^2$ = .08, .12, .15, .11) respectively, and Flu Shots ($R^2$ = .03, .08, .07, .17) respectively, with the middle-aged group not having either the highest or lowest accounted variance. For Alcohol Consumption, an opposite curvilinear pattern was found ($R^2$ = .04, .20, .08, .15) respectively, with the middle-aged group having the highest amount of variance explained.

Depending on the age group under investigation, the amount of variance explained for each health behavior varied. In the young-aged adults the greatest variance was explained for Smoking ($R^2$ = .17), Caffeine Consumption ($R^2$ = .13), Veal Consumption ($R^2$ = .10), Alcohol Consumption ($R^2$ = .10), and Beef Consumption ($R^2$ = .09). In the middle-aged adults the greatest variance was explained for Teeth Brushing ($R^2$ = .12), Pork Consumption ($R^2$ = .12), Amount/Type of Alcohol ($R^2$ = .12), Alcohol Consumption ($R^2$ = .11), Beef Consumption ($R^2$ = .10), and Teeth Flossing ($R^2$ = .07). In the young-old adults the greatest variance is explained for Teeth Brushing ($R^2$ = .21), Veal Consumption ($R^2$ = .18), Pork Consumption ($R^2$ = .15), Cholesterol Checkups ($R^2$ = .12), Beef Consumption ($R^2$ = 11), and Smoking ($R^2$ = 10). In old-old adults the greatest variance was explained for Teeth Flossing ($R^2$ = .21), Teeth Brushing ($R^2$ = .17), Flu-Shots ($R^2$ = .17), Lamb Consumption ($R^2$ = .16), Alcohol Consumption ($R^2$ = .16), and Amount/Type of Alcohol ($R^2$ = .14).

## Discussion

In response to the major question addressed in this study, when considering cognitive ability, behavioral flexibility, and demographic variables, cognitive ability and demographic variables tended to be the significant predictors of health behaviors. Despite the fact that this finding implies that our hypothesis was incorrect, it does provide a further understanding of variables that can be utilized to predict health behaviors. More variance was systematically explained by cognitive ability factors and demographic variables than by behavioral flexibility. Although cognitive ability predictors were only able to account for a limited amount of variance in health behaviors in this study, the findings are comparable to prior work (Salthouse, Kausler, & Saults 1990; Perlmutter & Nyquist, 1990). Therefore, the finding of this study imply that only a small, but significant, amount of variance can be explained using cognitive ability and demographics.

The findings of this study also pointed to the fact that significant predictors varied by health behavior. With the predictors used in this study, we were unable to find an underlying predictor or set of predictors for all the health behaviors. There are possible implications for this finding. First, each health behavior is unique in the fact that each health behavior has its own set of predictors. Second, the predictors that were examined in this study are not the core predictors, leaving room to explore other possible predictors.

As hypothesized, the amount of variance for health behavior across age groups does seem to vary, which parallels Perlmutter and Nyquist's (1990) findings. When examining the amount of variance accounted for health behaviors by age group, a curvilinear pattern was generally observed. The lowest variance was usually explained for the middle-aged adults, with more variance being accounted for younger and older groups. Therefore, as a whole, the selected predictors of cognitive ability, behavioral flexibility, and demographics explain more variance for individuals in the extreme age groups. There also was no consistency in significant predictors across age groups. Therefore, dynamics underlying health behaviors at different ages may vary. This finding makes the task of studying health behaviors across the lifespan more complex, but does provide evidence for the need to study age groups separately rather than as a whole. Due to the differences in predictability of health behaviors based on age group, analyzing such behaviors separately for different age groups could provide a more comprehensive understanding of individual health behaviors.

Limitations & Future Directions

The cross-sectional design is an obvious limitation of the present study. The age group findings indicated that when health behaviors are assessed by age group, there are varying significant predictors and amount of variance explained. However, this finding may not hold true in a longitudinal design. Following individuals' health behavior pattern across the lifespan may provide more consistent predictors and accounted variance. Therefore a good next step would be to map individuals' health behaviors across time for significant predictors and accounted variance.

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Table 1
Means and Ranges of Demographics for Total Sample by Age Group

| Group | N | Age | | Gender | | Education | |
|---|---|---|---|---|---|---|---|
| | | Mean | Range | Males | Females | Mean | Range |
| Total Sample | 588 | 54.3 yrs. | 25-81 | 262 | 326 | 15.3 yrs. | 0-20 |
| Young Adults | 169 | 33.5 yrs. | 22-42 | 72 | 97 | 15.7 yrs. | 11-20 |
| Middle-Aged Adults | 197 | 52.3 yrs. | 43-62 | 94 | 103 | 15.8 yrs. | 9-20 |
| Young-Old Adults | 120 | 67.3 yrs. | 63-72 | 53 | 67 | 14.8 yrs. | 9-20 |
| Old-Old Adults | 102 | 77.7 yrs. | 73-84 | 43 | 59 | 14.1 yrs. | 0-20 |

Table 2.
Amount Caffeine: Standardized Regression Coefficients

| Variable | STEP 1 | | | | | STEP 2 | | | | | STEP 3 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | T | Y | M | YO | OO | T | Y | M | YO | OO | T | Y | M | YO | OO |
| Inductive | .00 | .08 | .03 | -.01 | -.11 | .00 | .06 | .05 | -.01 | -.11 | -.02 | .07 | .00 | -.05 | -.17 |
| Spatial | -.07 | -.06 | -.06 | -.05 | -.09 | -.08 | -.06 | -.07 | -.05 | -.08 | .02 | .00 | .01 | .02 | .00 |
| Perceptual Speed | .05 | .00 | .09 | -.05 | .19 | .09 | -.01 | .14 | .00 | .22 | .03 | -.06 | .07 | .00 | .16 |
| Numerical | .09 | .09 | .08 | .10 | .10 | .09 | .11 | .09 | .10 | .12 | .10 | .11 | .11 | .08 | .16 |
| Verbal | -.01 | -.24 | .07 | .00 | .11 | -.01 | -.26 | .11 | .04 | .11 | -.03 | -.27 | .09 | -.04 | .20 |
| Memory | .04 | .26 | -.08 | .10 | -.08 | .06 | .24 | -.06 | .12 | -.07 | .01 | .21 | -.11 | .10 | -.08 |
| Motor-Cog. Flexibility | -- | -- | -- | -- | -- | .03 | .02 | .00 | .07 | .03 | .05 | .02 | .05 | .06 | .07 |
| Attitudinal Flexibility | -- | -- | -- | -- | -- | .01 | .12 | -.04 | -.05 | .01 | .00 | .13 | -.05 | -.08 | .03 |
| Psycho-Motor Speed | -- | -- | -- | -- | -- | -.09 | .01 | -.13 | -.13 | -.08 | -.13 | -.04 | -.16 | -.18 | -.10 |
| Education | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .09 | .12 | .08 | .24 | -.08 |
| Gender | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .18 | .16 | .20 | .11 | .22† |
| $R^2$ | .01 | .08 | .02 | .01 | .04 | .01 | .10 | .03 | .03 | .05 | .04 | .12 | .06 | .07 | .10 |

Note. T = Total Sample (N = 588); Y = Young adults (N = 169); M = Middle-aged (N = 197); YO = Young-old (N = 169); OO = Old-old (N = 102). Underlined values are significant at $p < .05$; † $p < .10$.

Table 3.

Amount Smoked: Standardized Regression Coefficients

| Variable | STEP 1 | | | | | STEP 2 | | | | | STEP 3 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | T | Y | M | YO | OO | T | Y | M | YO | OO | T | Y | M | YO | OO |
| Inductive | -.11 | -.03 | .06 | .03 | -.15 | -.06 | -.03 | .06 | .11 | -.17 | -.07 | -.01 | .03 | .10 | -.18 |
| Spatial | .00 | .05 | .06 | .07 | .06 | .00 | .09 | .06 | .05 | .06 | .02 | .10 | .08 | .07 | .07 |
| Perceptual Speed | .09 | .39 | -.04 | .15 | .01 | .08 | .37 | -.08 | .09 | .03 | .08 | .35 | -.09 | .10 | .06 |
| Numerical | .00 | -.24 | .00 | -.06 | .03 | -.01 | -.27 | -.01 | -.13 | .04 | -.03 | -.27 | -.03 | -.14 | .01 |
| Verbal | .07 | .05 | -.07 | -.19† | .22† | .09 | .05 | -.06 | -.20 | .21 | .05 | .00 | -.09 | -.22† | .12 |
| Memory | .05 | .05 | .10 | .10 | .13 | .04 | .02 | .10 | .06 | .13 | .03 | .03 | .07 | .06 | .14 |
| Motor-Cog. Flexibility | -- | -- | -- | -- | -- | -.06 | -.10 | -.03 | -.01 | .07 | -.07 | -.09 | -.01 | -.02 | .07 |
| Attitudinal Flexibility | -- | -- | -- | -- | -- | -.08 | .03 | -.11 | -.22 | -.01 | -.10 | .03 | -.13 | -.23 | -.05 |
| Psycho-Motor Speed | -- | -- | -- | -- | -- | .04 | .09 | .12 | .18 | -.03 | .00 | .04 | .08 | .17 | -.07 |
| Education | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .14 | .15 | .17 | .07 | .21† |
| Gender | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .03 | .03 | .07 | .01 | .00 |
| $R^2$ | .01 | .13 | .01 | .04 | .06 | .02 | .15 | .03 | .10 | .07 | .03 | .16 | .05 | .10 | .10 |

Note. T = Total Sample (N = 588); Y = Young adults (N = 169); M = Middle-aged (N = 197); YO = Young-old (N = 169); OO = Old-old (N = 102). Underlined values are significant at $p < .05$; † $p < .10$.

Table 4.
Alcohol Consumption: Standardized Regression Coefficients

| Variable | STEP 1 | | | | | STEP 2 | | | | | STEP 3 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | T | Y | M | YO | OO | T | Y | M | YO | OO | T | Y | M | YO | OO |
| Inductive | -.14 | -.09 | .00 | -.16 | -.02 | -.05 | -.07 | .09 | -.11 | .01 | -.07 | -.07 | .04 | -.12 | -.02 |
| Spatial | -.08 | -.02 | -.06 | -.01 | -.16 | -.06 | -.02 | -.06 | .00 | -.14 | .01 | .00 | .01 | .02 | -.09 |
| Perceptual Speed | .09 | .15 | .03 | .12 | .14 | .17 | .16 | .10 | .17 | .18 | .11 | .13 | .04 | .14 | .13 |
| Numerical | -.01 | .00 | -.03 | -.10 | -.06 | -.02 | .00 | -.02 | -.08 | -.03 | .00 | .02 | .00 | -.06 | .00 |
| Verbal | -.16 | -.28 | -.17 | -.17 | -.26 | -.13 | -.26 | -.08 | -.10 | -.26† | -.11 | -.23 | -.09 | -.09 | -.17 |
| Memory | .04 | .19 | .00 | .11 | -.02 | .07 | .20 | .01 | .11 | -.01 | .04 | .19 | -.03 | .09 | -.02 |
| Motor-Cog. Flexibility | -- | -- | -- | -- | -- | -.07 | -.01 | -.12 | -.02 | -.02 | -.04 | .00 | -.06 | -.01 | .00 |
| Attitudinal Flexibility | -- | -- | -- | -- | -- | -.08 | -.04 | -.14 | -.08 | .07 | -.06 | .00 | -.16 | -.09 | .10 |
| Psycho-Motor Speed | -- | -- | -- | -- | -- | -.16 | -.04 | -.16 | -.15 | -.14 | -.16 | -.02 | -.19 | -.13 | -.14 |
| Education | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -.04 | -.09 | .07 | -.03 | -.14 |
| Gender | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .13 | .04 | .20 | .08 | .15 |
| $R^2$ | .05 | .08 | .03 | .06 | .10 | .07 | .09 | .08 | .08 | .11 | .08 | .09 | .10 | .08 | .15 |

Note. T = Total Sample (N = 588); Y = Young adults (N = 169); M = Middle-aged (N = 197); YO = Young-old (N = 169); OO = Old-old (N = 102). Underlined values are significant at $p < .05$; † $p < .10$.

Table 5.
Amount/Type of Alcohol: Standardized Regression Coefficients

| Variable | STEP 1 | | | | | STEP 2 | | | | | STEP 3 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | T | Y | M | YO | OO | T | Y | M | YO | OO | T | Y | M | YO | OO |
| Inductive | -.15 | -.09 | .05 | -.23 | -.24 | -.08 | -.07 | .11 | -.22 | -.22 | -.11 | -.07 | .06 | -.25 | -.29 |
| Spatial | -.04 | -.01 | -.11 | .04 | -.06 | -.03 | .00 | -.12 | .05 | -.06 | .07 | .04 | .00 | .12 | .02 |
| Perceptual Speed | .05 | .02 | .00 | .06 | .20 | .11 | .02 | .04 | .18 | .20 | .03 | -.02 | -.04 | .13 | .15 |
| Numerical | .02 | .06 | .05 | -.03 | -.06 | .02 | .05 | .07 | .02 | -.05 | .04 | .08 | .10 | .03 | -.02 |
| Verbal | -.10 | -.07 | -.24 | .02 | -.15 | -.07 | -.06 | -.19 | .12 | -.19 | -.06 | -.02 | -.20 | .11 | -.12 |
| Memory | .07 | .12 | .03 | .16 | .01 | .09 | .13 | .04 | .20† | .02 | .04 | .10 | .00 | .15 | .01 |
| Motor-Cog. Flexibility | -- | -- | -- | -- | -- | -.06 | -.05 | -.06 | .01 | -.05 | -.02 | -.03 | .00 | .02 | -.02 |
| Attitudinal Flexibility | -- | -- | -- | -- | -- | -.01 | -.02 | -.04 | .00 | .13 | -.01 | .00 | -.04 | -.01 | .14 |
| Psycho-Motor Speed | -- | -- | -- | -- | -- | -.14 | -.03 | -.13 | -.33 | -.03 | -.15 | -.04 | -.14 | -.33 | -.05 |
| Education | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .00 | -.03 | .03 | .03 | -.03 |
| Gender | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .19 | .13 | .25 | .14 | .22 |
| $R^2$ | .02 | .02 | .06 | .04 | .08 | .03 | .02 | .07 | .08 | .09 | .06 | .03 | .11 | .10 | .14 |

Note. T = Total Sample (N = 588); Y = Young adults (N = 169); M = Middle-aged (N = 197); YO = Young-old (N = 169); OO = Old-old (N = 102). Underlined values are significant at $p < .05$; † $p < .10$.

Table 6.
Teeth Brushing: Standardized Regression Coefficients

| Variable | STEP 1 | | | | | STEP 2 | | | | | STEP 3 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | T | Y | M | YO | OO | T | Y | M | YO | OO | T | Y | M | YO | OO |
| Inductive | -.10 | .08 | -.13 | -.07 | -.34† | -.16 | .05 | -.14 | -.05 | -.44 | -.19 | .05 | -.17 | -.12 | -.52 |
| Spatial | -.07 | -.04 | .00 | -.30 | .07 | -.08 | -.05 | .01 | -.30 | .04 | .02 | .00 | .10 | -.12 | .13 |
| Perceptual Speed | .11 | .08 | -.03 | .11 | .04 | .06 | .06 | -.05 | .11 | .02 | .02 | .04 | -.12 | .03 | .01 |
| Numerical | .04 | -.10 | .11 | .12 | .14 | .05 | -.09 | .11 | .13 | .11 | .04 | -.11 | .14 | .15 | .09 |
| Verbal | .07 | .01 | .21 | .21† | .06 | .04 | -.02 | .17 | .22† | .03 | .01 | -.05 | .17 | .14 | .00 |
| Memory | .06 | .06 | .14 | -.02 | -.02 | .05 | .02 | .11 | -.03 | -.02 | .00 | -.01 | .08 | -.13 | -.01 |
| Motor-Cog. Flexibility | -- | -- | -- | -- | -- | .04 | .04 | -.01 | -.06 | .18 | .07 | .02 | .04 | -.05 | .22† |
| Attitudinal Flexibility | -- | -- | -- | -- | -- | .05 | .12 | .11 | .00 | -.15 | .02 | .09 | .10 | -.06 | -.19† |
| Psycho-Motor Speed | -- | -- | -- | -- | -- | .08 | .08 | .05 | .00 | .18 | .03 | .00 | .04 | -.03 | .12 |
| Education | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .14 | .20 | -.02 | .22 | .21† |
| Gender | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .21 | .15 | .19 | .34 | .21 |
| $R^2$ | .02 | .02 | .07 | .11 | .05 | .02 | .04 | .08 | .11 | .11 | .06 | .07 | .11 | .20 | .16 |

Note. T = Total Sample (N = 588); Y = Young adults (N = 169); M = Middle-aged (N = 197); YO = Young-old (N = 169); OO = Old-old (N = 102). Underlined values are significant at $p < .05$; † $p < .10$.

Table 7.
Teeth Flossing: Standardized Regression Coefficients

| Variable | STEP 1 | | | | | STEP 2 | | | | | STEP 3 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | T | Y | M | YO | OO | T | Y | M | YO | OO | T | Y | M | YO | OO |
| Inductive | -.22 | -.10 | -.11 | -.10 | -.35 | -.20 | -.13 | -.15 | -.03 | -.32† | -.22 | -.11 | -.20 | -.05 | -.36 |
| Spatial | -.05 | -.03 | -.03 | -.03 | .00 | -.05 | -.01 | -.04 | -.03 | .01 | .02 | .03 | .05 | .02 | .06 |
| Perceptual Speed | -.06 | .00 | .00 | .14 | -.23 | -.04 | -.03 | .00 | .20 | -.18 | -.08 | -.08 | -.08 | .15 | -.16 |
| Numerical | .13 | .11 | .00 | .02 | .29 | .13 | .10 | .01 | .06 | .32 | .14 | .12 | .04 | .09 | .29 |
| Verbal | .10 | .11 | .04 | -.05 | .19† | .11 | .08 | .02 | .02 | .28 | .11 | .07 | .03 | .04 | .22 |
| Memory | .05 | .00 | .08 | .04 | .12 | .06 | -.05 | .10 | .04 | .12 | .03 | -.06 | .06 | .00 | .13 |
| Motor-Cog. Flexibility | -- | -- | -- | -- | -- | -.01 | -.03 | .11 | -.09 | .03 | .01 | -.01 | .18 | -.07 | .04 |
| Attitudinal Flexibility | -- | -- | -- | -- | -- | -.01 | .08 | .02 | -.06 | -.17 | -.01 | .10 | .01 | -.07 | -.21† |
| Psycho-Motor Speed | -- | -- | -- | -- | -- | -.05 | .17 | -.03 | -.17 | -.15 | -.08 | .12 | -.04 | -.15 | -.20 |
| Education | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .04 | .07 | -.02 | -.05 | .23† |
| Gender | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .14 | .13 | .24 | .13 | .10 |
| $R^2$ | .06 | .02 | .01 | .01 | .14 | .06 | .04 | .02 | .04 | .17 | .08 | .06 | .07 | .05 | .20 |

Note. T = Total Sample (N = 588); Y = Young adults (N = 169); M = Middle-aged (N = 197); YO = Young-old (N = 169); OO = Old-old (N = 102). Underlined values are significant at $p < .05$; † $p < .10$.

Table 8.
Beef Consumption: Standardized Regression Coefficients

| Variable | STEP 1 | | | | | STEP 2 | | | | | STEP 3 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | T | Y | M | YO | OO | T | Y | M | YO | OO | T | Y | M | YO | OO |
| Inductive | .10 | .12 | -.02 | .14 | .00 | .10 | .11 | -.06 | .23 | .01 | .09 | .09 | -.11 | .19 | .05 |
| Spatial | -.12 | -.15 | -.08 | .01 | -.19 | -.11 | -.11 | -.07 | .00 | -.18 | -.07 | -.09 | .07 | .10 | -.23 |
| Perceptual Speed | .04 | .00 | -.04 | -.03 | .13 | -.01 | -.03 | -.11 | -.02 | .15 | -.03 | -.02 | -.23 | -.04 | .18 |
| Numerical | .00 | -.11 | .08 | .11 | .03 | .00 | -.13 | .06 | .16 | .04 | .00 | -.14 | .09 | .15 | .02 |
| Verbal | .03 | .07 | .18 | -.01 | -.03 | .01 | .05 | .13 | .04 | -.01 | .00 | .07 | .11 | -.01 | -.07 |
| Memory | .04 | .14 | .04 | -.07 | -.07 | .01 | .08 | .02 | -.10 | -.07 | .00 | .05 | -.02 | -.14 | -.06 |
| Motor-Cog. Flexibility | -- | -- | -- | -- | -- | -.08 | -.12 | .02 | -.21† | .00 | -.07 | -.13 | .08 | -.21† | -.02 |
| Attitudinal Flexibility | -- | -- | -- | -- | -- | .07 | .15 | .03 | -.01 | -.01 | .07 | .14 | .04 | -.05 | -.02 |
| Psycho-Motor Speed | -- | -- | -- | -- | -- | .11 | .13 | .18 | -.04 | -.05 | .11 | .14 | .18 | -.08 | -.04 |
| Education | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .04 | -.03 | .04 | .18† | .05 |
| Gender | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .06 | .02 | .25 | .17 | -.14 |
| $R^2$ | .01 | .05 | .03 | .03 | .03 | .02 | .09 | .05 | .07 | .03 | .03 | .09 | .10 | .10 | .05 |

Note. T = Total Sample (N = 588); Y = Young adults (N = 169); M = Middle-aged (N = 197); YO = Young-old (N = 169); OO = Old-old (N = 102). Underlined values are significant at $p < .05$; † $p < .10$.

Table 9.
Veal Consumption: Standardized Regression Coefficients

| Variable | STEP 1 | | | | | STEP 2 | | | | | STEP 3 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | T | Y | M | YO | OO | T | Y | M | YO | OO | T | Y | M | YO | OO |
| Inductive | .09 | .00 | .02 | .02 | .10 | .10 | -.05 | .07 | .10 | .07 | .09 | -.12 | .02 | .06 | .09 |
| Spatial | .06 | .18 | -.02 | .13 | -.10 | .07 | .18 | -.01 | .13 | -.11 | .08 | .20 | .05 | .22† | -.13 |
| Perceptual Speed | .00 | -.20 | -.09 | .12 | .26 | .00 | -.23 | -.07 | .15 | .27 | .00 | -.18 | -.13 | .13 | .29 |
| Numerical | -.02 | .14 | .00 | .00 | -.23† | -.01 | .18 | .01 | .07 | -.24† | -.03 | .15 | .02 | .06 | -.26† |
| Verbal | .01 | -.01 | .00 | .07 | -.04 | .01 | -.07 | .01 | .14 | .00 | .00 | -.02 | .00 | .07 | -.03 |
| Memory | .00 | .14 | .00 | -.25 | .16 | .00 | .09 | -.01 | -.28 | .16 | -.01 | .02 | -.05 | -.32 | .17 |
| Motor-Cog. Flexibility | -- | -- | -- | -- | -- | -.03 | .09 | -.08 | -.25 | .09 | -.04 | .01 | -.03 | -.25 | .08 |
| Attitudinal Flexibility | -- | -- | -- | -- | -- | .05 | .28 | .05 | .09 | -.17 | .03 | .24 | .03 | .06 | -.18 |
| Psycho-Motor Speed | -- | -- | -- | -- | -- | -.01 | .05 | -.04 | -.12 | .03 | -.01 | .10 | -.07 | -.15 | .03 |
| Education | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .04 | -.09 | .08 | .19† | .05 |
| Gender | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .03 | .01 | .18 | .16 | -.07 |
| $R^2$ | .02 | .07 | .00 | .07 | .08 | .02 | .15 | .01 | .14 | .11 | .02 | .10 | .03 | .17 | .12 |

Note. T = Total Sample (N = 588); Y = Young adults (N = 169); M = Middle-aged (N = 197); YO = Young-old (N = 169); OO = Old-old (N = 102). Underlined values are significant at $p < .05$; † $p < .10$.

Table 10.
Lamb Consumption: Standardized Regression Coefficients

| Variable | STEP 1 | | | | | STEP 2 | | | | | STEP 3 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | T | Y | M | YO | OO | T | Y | M | YO | OO | T | Y | M | YO | OO |
| Inductive | .08 | .00 | .21 | -.07 | .21 | .04 | .00 | .22 | -.12 | .17 | .04 | -.06 | .20 | -.14 | .22 |
| Spatial | .01 | .00 | .01 | -.07 | .00 | .00 | -.02 | .00 | -.07 | .00 | .00 | .00 | -.01 | -.02 | -.05 |
| Perceptual Speed | .13 | -.16 | -.06 | .15 | .32† | .12 | -.14 | -.03 | .13 | .36 | .16 | -.10 | -.02 | .12 | .38 |
| Numerical | -.01 | .16 | .00 | .03 | -.17 | .00 | .18 | .01 | .02 | -.15 | -.02 | .14 | .02 | .02 | -.15 |
| Verbal | -.08 | -.07 | -.13 | .00 | -.18 | -.09 | -.08 | -.13 | -.03 | -.17 | -.09 | -.03 | -.11 | -.06 | -.18 |
| Memory | -.01 | .17 | .00 | .00 | -.11 | .00 | .19 | .00 | .00 | -.10 | -.01 | .12 | .00 | -.02 | -.10 |
| Motor-Cog. Flexibility | -- | -- | -- | -- | -- | .07 | .07 | .00 | .04 | .13 | .07 | .01 | .04 | .04 | .11 |
| Attitudinal Flexibility | -- | -- | -- | -- | -- | .01 | .03 | .06 | .05 | -.09 | .00 | -.01 | .04 | .03 | -.08 |
| Psycho-Motor Speed | -- | -- | -- | -- | -- | -.01 | -.06 | -.09 | .05 | -.06 | .00 | -.04 | -.10 | .03 | -.03 |
| Education | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -.03 | -.08 | -.07 | .09 | -.07 |
| Gender | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .01 | .05 | .07 | .09 | -.14 |
| $R^2$ | .03 | .03 | .02 | .01 | .12 | .03 | .05 | .03 | .02 | .14 | .04 | .03 | .04 | .03 | .16 |

Note. T = Total Sample (N = 588); Y = Young adults (N = 169); M = Middle-aged (N = 197); YO = Young-old (N = 169); OO = Old-old (N = 102). Underlined values are significant at $p < .05$; † $p < .10$.

Table 11.
Pork Consumption: Standardized Regression Coefficients

| Variable | STEP 1 | | | | | STEP 2 | | | | | STEP 3 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | T | Y | M | YO | OO | T | Y | M | YO | OO | T | Y | M | YO | OO |
| Inductive | .13 | -.06 | .05 | .30 | .33† | .08 | -.09 | .07 | .27† | .28 | .06 | -.09 | .02 | .23 | .29 |
| Spatial | -.06 | .00 | -.05 | -.13 | -.14 | -.07 | .00 | -.03 | -.13 | -.17 | -.03 | .03 | .03 | -.07 | -.19 |
| Perceptual Speed | .19 | .20 | .14 | .00 | .06 | .11 | .17 | .08 | -.03 | .00 | .11 | .17 | .04 | -.02 | .01 |
| Numerical | .03 | -.04 | .14 | .02 | .05 | .03 | -.04 | .12 | .01 | .00 | .01 | -.08 | .12 | -.01 | .00 |
| Verbal | -.03 | .03 | -.07 | .01 | -.03 | -.07 | .00 | -.10 | -.04 | -.11 | -.11 | -.03 | -.12 | -.13 | -.15 |
| Memory | -.07 | .04 | -.01 | -.27 | -.25† | -.11 | .00 | -.04 | -.27 | -.26 | -.14 | -.03 | -.09 | -.29 | -.26 |
| Motor-Cog. Flexibility | -- | -- | -- | -- | -- | -.01 | .02 | -.12 | .00 | .01 | -.01 | .00 | -.06 | -.02 | .00 |
| Attitudinal Flexibility | -- | -- | -- | -- | -- | .08 | .11 | .01 | .09 | .07 | .05 | .07 | .00 | .06 | .05 |
| Psycho-Motor Speed | -- | -- | -- | -- | -- | .18 | .13 | .18 | .12 | .23 | .13 | .06 | .14 | .07 | .22 |
| Education | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .17 | .19 | .11 | .25 | .06 |
| Gender | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .08 | .08 | .18 | .08 | -.05 |
| $R^2$ | .05 | .03 | .05 | .08 | .07 | .07 | .05 | .08 | .10 | .10 | .09 | .08 | .11 | .14 | .10 |

Note. T = Total Sample (N = 588); Y = Young adults (N = 169); M = Middle-aged (N = 197); YO = Young-old (N = 169); OO = Old-old (N = 102). Underlined values are significant at $p < .05$; † $p < .10$.

Table 12.
Egg Yolks: Standardized Regression Coefficients

| Variable | STEP 1 | | | | | STEP 2 | | | | | STEP 3 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | T | Y | M | YO | OO | T | Y | M | YO | OO | T | Y | M | YO | OO |
| Inductive | .13 | .02 | .18 | .20 | .11 | .13 | .07 | .16 | .25 | .04 | .13 | .03 | .14 | .26 | .04 |
| Spatial | .03 | .17 | .00 | -.11 | -.01 | .03 | .17 | .00 | -.11 | -.02 | .00 | .17 | -.05 | -.16 | -.03 |
| Perceptual Speed | -.05 | -.08 | -.08 | .09 | -.02 | -.02 | -.05 | -.09 | .12 | .00 | .00 | -.04 | -.03 | .15 | .00 |
| Numerical | -.02 | -.02 | -.08 | .00 | -.08 | -.02 | -.03 | -.08 | -.01 | -.06 | -.03 | -.01 | -.12 | -.02 | -.07 |
| Verbal | -.04 | .06 | -.12 | -.20† | .09 | -.04 | .10 | -.14 | -.16 | .02 | -.04 | .17 | -.17 | -.16 | .02 |
| Memory | -.06 | -.08 | .11 | -.17 | -.23† | -.04 | -.04 | .11 | -.17 | -.22† | -.03 | -.07 | .09 | -.14 | -.22 |
| Motor-Cog. Flexibility | -- | -- | -- | -- | -- | .05 | -.05 | .03 | .00 | .16 | .04 | -.06 | .02 | .00 | .16 |
| Attitudinal Flexibility | -- | -- | -- | -- | -- | -.01 | -.06 | .03 | -.13 | .04 | -.02 | -.04 | .00 | -.12 | .03 |
| Psycho-Motor Speed | -- | -- | -- | -- | -- | -.07 | -.14 | .01 | -.04 | -.01 | -.07 | -.07 | -.03 | -.05 | -.01 |
| Education | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .01 | -.22 | .20 | .00 | .00 |
| Gender | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -.05 | -.01 | -.05 | -.09 | -.01 |
| $R^2$ | .01 | .03 | .02 | .06 | .05 | .01 | .05 | .02 | .08 | .07 | .01 | .08 | .05 | .08 | .07 |

Note. T = Total Sample (N = 588); Y = Young adults (N = 169); M = Middle-aged (N = 197); YO = Young-old (N = 169); OO = Old-old (N = 102). Underlined values are significant at $p < .05$; † $p < .10$.

Table 13.
Cholesterol Checkup: Standardized Regression Coefficients

| Variable | STEP 1 | | | | | STEP 2 | | | | | STEP 3 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | T | Y | M | YO | OO | T | Y | M | YO | OO | T | Y | M | YO | OO |
| Inductive | -.08 | -.05 | -.02 | -.01 | .13 | -.06 | -.06 | -.05 | .06 | .10 | -.05 | -.03 | -.07 | .08 | .13 |
| Spatial | -.08 | .03 | -.03 | -.09 | .01 | -.08 | .05 | -.03 | -.10 | .01 | -.11 | .02 | -.03 | -.18 | -.01 |
| Perceptual Speed | -.12 | -.06 | -.13 | .37 | -.22 | -.10 | -.08 | -.14 | .34 | -.16 | -.08 | -.07 | -.13 | .42 | -.15 |
| Numerical | .07 | -.03 | -.02 | -.14 | .17 | .07 | -.04 | -.02 | -.18 | .21 | .06 | -.03 | -.04 | -.21 | .21 |
| Verbal | .11 | .27 | .07 | -.07 | -.20† | .12 | .26 | .07 | -.05 | -.23† | .12 | .22 | .04 | -.08 | -.22 |
| Memory | -.06 | -.10 | .00 | -.15 | .09 | -.05 | -.13 | .01 | -.17† | .11 | -.04 | -.09 | .00 | -.12 | .11 |
| Motor-Cog. Flexibility | -- | -- | -- | -- | -- | -.01 | -.04 | .06 | -.03 | .12 | -.02 | -.03 | .07 | -.06 | .11 |
| Attitudinal Flexibility | -- | -- | -- | -- | -- | -.03 | .05 | -.01 | -.17 | .03 | -.03 | .05 | -.03 | -.15 | .04 |
| Psycho-Motor Speed | -- | -- | -- | -- | -- | -.03 | .07 | .02 | .09 | -.14 | -.04 | .07 | .00 | .06 | -.12 |
| Education | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .02 | .04 | .11 | .08 | -.06 |
| Gender | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -.05 | -.07 | .03 | -.17 | -.08 |
| $R^2$ | .07 | .05 | .02 | .05 | .06 | .07 | .06 | .02 | .08 | .08 | .07 | .06 | .03 | .11 | .09 |

Note. T = Total Sample (N = 588); Y = Young adults (N = 169); M = Middle-aged (N = 197); YO = Young-old (N = 169); OO = Old-old (N = 102). Underlined values are significant at $p < .05$; † $p < .10$.

Table 14.
Flu Shots: Standardized Regression Coefficients

| Variable | STEP 1 | | | | | STEP 2 | | | | | STEP 3 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | T | Y | M | YO | OO | T | Y | M | YO | OO | T | Y | M | YO | OO |
| Inductive | -.25 | -.14 | .08 | -.16 | -.26 | -.22 | -.14 | .05 | -.13 | -.35† | -.24 | -.14 | .03 | -.13 | -.38 |
| Spatial | -.15 | .02 | -.08 | -.05 | .03 | -.14 | .01 | -.09 | -.06 | .01 | -.11 | .04 | -.06 | -.06 | .05 |
| Perceptual Speed | -.21 | .05 | -.18 | .08 | .06 | -.18 | .06 | -.18 | .02 | .04 | -.19 | .04 | -.20 | .03 | .05 |
| Numerical | .17 | .00 | .00 | .20† | -.07 | .18 | .01 | .00 | .17 | -.08 | .17 | .00 | .00 | .16 | -.11 |
| Verbal | .13 | .13 | -.07 | -.04 | -.05 | .13 | .12 | -.11 | -.07 | -.14 | .13 | .12 | -.12 | -.07 | -.21 |
| Memory | -.15 | -.04 | -.02 | -.07 | -.08 | -.14 | -.03 | -.03 | -.10 | -.08 | -.16 | -.06 | -.05 | -.09 | -.07 |
| Motor-Cog. Flexibility | -- | -- | -- | -- | -- | -.01 | .04 | .05 | -.04 | .14 | .00 | .03 | .07 | -.04 | .15 |
| Attitudinal Flexibility | -- | -- | -- | -- | -- | .00 | .01 | .11 | -.05 | .05 | -.01 | .01 | .11 | -.05 | .01 |
| Psycho-Motor Speed | -- | -- | -- | -- | -- | -.07 | -.03 | .00 | .16 | .13 | -.09 | -.07 | -.01 | .16 | .08 |
| Education | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .03 | .07 | .04 | .01 | .21† |
| Gender | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .07 | .10 | .05 | .00 | .08 |
| $R^2$ | .34 | .01 | .06 | .05 | .11 | .34 | .02 | .07 | .07 | .13 | .35 | .03 | .07 | .07 | .16 |

Note. T = Total Sample (N = 588); Y = Young adults (N = 169); M = Middle-aged (N = 197); YO = Young-old (N = 169); OO = Old-old (N = 102). Underlined values are significant at $p < .05$; † $p < .10$.