As effect sizes (correlation coefficients) are all rather small, we are working with a max corr of: for and a min for (only significant)

After a basic correlation screening, only variables that showed some correlation with the dependent variables and not too much correlation with each other were kept and are being described here:

After looking into the correlation matrix

🡪 only significant correlation should be kept (hpcs/hmcs)

🡪 not too high intercorrelations!

* Livk\_all has no stat. sign. Effect on hmcs, außerdem korreliert es recht stark mit hask\_agegoup4/5, also evtl auswählen? (auf hpcs korreliert es stärker als die agegroup variablen, andererseits misst es ja eher die zahl der kindeer nicht der altergruppe, altee kinder korrelieren aber wahrsch. mit vielen kindern)

High: alles über 0.15 (! Über 0.2)

* Hpcs:
  + ! employed 0.28
  + ! hhincnet 0.22
  + ! childhood health 0.21
  + nsmoking\_all 0.19
  + parent stress 0.19
  + yeduc 0.19
  + weight\_high 0.17
  + sleep 0.16
  + sport1 0.15
* Hmcs:
  + ! employed 0.22
  + ! parent stress high 0.22
  + ! parentsupport\_partner\_high 0.2
  + Moneystress 0.18
  + childhood health 0.16
  + childcare\_sat\_avg + 0.15

A close up of a piece of paper

Description automatically generated

Variable Profiles

Health Score Means of the continuous variables (+ MISSINGS):

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Physical Health Score** | | | | **Mental Health Score** | | | |
|  | min | max | mean | sd | min | max | mean | sd |
| DEPENDENT VARIABLES |  |  |  |  |  |  |  |  |
| hpcs | 9 | 62 | 49.45 | 10.14 | 8 | 61 | 50.72 | 9.75 |
| hmcs | -1 | 65 | 49.29 | 10.48 | -1 | 65 | 50.90 | 9.28 |
| INDEPENDENT VARIABLES |  |  |  |  |  |  |  |  |
| number of all kids, 1-4+ | 0 | 5 | 1.79 | 1.12 | 0 | 5 | 1.64 | 1.22 |
| age at first birth | 15 | 43 | 27.55 | 5.32 | 13 | 43 | 29.96 | 5.48 |
|  |  |  |  |  |  |  |  |  |
| Currently smoking | 0 | 1 | 0.25 | 0.43 | 0 | 1 | 0.34 | 0.47 |
| Doing Sports | 0 | 4 | 1.91 | 1.29 | 0 | 4 | 1.85 | 1.26 |
| Seeing Friends | 0 | 4 |  |  | 0 | 4 |  |  |
| Childhood Health | 0 | 4 |  |  | 0 | 4 |  |  |
| Financial Problems | 0 | 1 |  |  | 0 | 1 |  |  |
| Eductaion | 1 | 4 |  |  | 1 | 4 |  |  |
| Occupational Status | 1 | 6 |  |  | 1 | 6 |  |  |
| Single | 0 | 1 |  |  | 0 | 1 |  |  |
| Number of breastfed children | 0 | 2 |  |  | 0 | 2 |  |  |
| Observations | 1187 |  |  |  | 929 |  |  |  |

When differences between independent groups (nominal) are to be investigated in relation to a metric variable, a recommended method is the two-sample t-test with equal variances (physical health) resp. unequal variances (mental health). While the t-test premise of normally distributed health attributes within the samples was admittedly not given, as a Shapiro-Wilk-Test showed, the results were yet confirmed by an additional non-parametric test Mann-Whitney-U-Test (*Z*=-1.262, *p*=.21 and *Z*=-.17, *p*=.85).

Surprisingly having child(ren) of the oldest age group is stronger and negatively associated with health than having children in any other agegroups. This contradicts the idea that especially babies and toddlers take their toll on parents health by depriving them of sleep and control, and that adult children could act as a source of support for their parents.

For physical health a significant regression equation was found (*F*(4, 2111)=3.88, *p*=.004) with an *R²* of .007. The model accounted for about .7 percent of the variation of physical health. All dummy groups were significant predictors of physical health, showing positive regression coefficients. As expected, parents of two children had the highest effect size (*Coef*=3.59), meaning that they had an average health plus of 3.59 points on the SF-12-Scale compared to parents of four and more children who lay at 47.09.

**REPORTING**

**the results of a correlation, include the following:**

1. the degrees of freedom in parentheses.
2. the r value (the correlation coefficient)
3. the p value.
4. (*t*(2114)=-1.09, *p*=.28)
5. of no practical and statistical significance.

REPORTING

a regression result:

For physical health a significant regression equation was found (*F*(4, 2111)=3.88, *p*=.004) with an *R²* of .007. The model accounted for about .7 percent of the variation of physical health.

* Indicate whether assumptions for the test are met (????? Linearity and normality)
* Report the degrees of freedom
* The test statistic
* The p value and if the resukt is statistically significant
* Include the coeefficients (and standard eerror) separately or in form of an equation
* Repot R2 or R2 adjusted or change in r2 adjusted if performing a hierarchical teechniwue

“a simple linear regression was calculated to analyse … preliminary analyses were performed to ensure there was no violoation of the assumption of normality and linearity.

A significant regression equation was found (F (1,12) = 25.926, p = 0.001) with an R2 of 0.673. Participants predicted weightis equal to -234.68 + 5.43 (height) pounds when height is measured in inches. Parzicipants mean weight increase 5.43 pounds for each inch of height.”

“a multiple linear regression was calculated to predict participants weight based upon their height and sex.

preliminary analyses were performed to ensure there was no violoation of the assumption of normality and linearity and multicollinearity.

A significant regression equation was found (F (x, x) = 982.4, p = 0.00), with an R2 of 0.993.

Praticipants predicted weight is eequal to 47.1 – 39.133(sex) + 2.1 (height) where Sex is coded as 1 = Malee and 2 = Femalee and Height is measured in inches.

Participants mean weight increased 2.1. pounds for each inch of height and males weighed 39.13 pounds more than females. Both sex and heigh were significant predictors.

“hierarchical multiple regression was calculated to assess the ability of x and c to predict levels of y after controlling for the influence of h and j.

Preliminary analysis were performed to ensure there was no violation of the assumption of normality, linearity, multicollieearity and homoscedasticity.

H and j were entered into Step 1 and explained 6% of the variance in y.

After entry of x and c at Step 2 the total variance eexplained by the model was 47.7% F()=, ==. X and c explained an additional 42% of the variance in y, after controlling for h and j , r2 change = 0.42, F change (2,421) = 166, p=

In the final model, only x and c were statistically significant, with x score recording a higher beta value (beta = -.44, p=.000) than the c score (beta = , p= )

WORDING

“In order to determine the relationship between 3 predictor variables and thee outcome of health score….

“The goal of determining the ability of x x x to predict health scores was explored by performing a hierarchical multiple regression

“A standard multiple regression was performed (to asses the ability of age and stress to predict quality of life

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SEITE 36 Forschungfragen umformulieren:

Q1: Are parents generally healthier than the childless?

H1: Childless show generally slightly worse physical and mental health compared to parents.

Q2: What is the best time frame for having a first child?

H2: Early first-birth parents (up to 22 years) generally have the worst physical and mental health outcomes. The best age for women should be around 30 and slightly later for men.

Q2: Which is the optimal number of children?

Q5: Are women’s and men’s health affected differently by their fertility patterns?

Q6: Are physical and mental health affected differently by fertility patterns?

H3: The optimum age for first birth is around the age of 30. For men the optimum age might be a bit higher, for women a bit lower.

H2: Among parents, having 1 or 4+ children is associated with worse physical and mental health outcomes compared to having 2 or 3 children.

H5: Women are generally affected more by their fertility history than men (positive and negative) due to the higher physical and social involment.

H6: Mental health might be affected more by short term effects (like having a small child) than physical health OR Physical and mental Health are affected similarly, since both highly correlate with each other.