Latent Gender Score

Process Data: Fit SEM and GDM

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## Load: Preprocessed Data

## SEM: Domain Knowledge Model

## SEM

Single pass, all endogeneous variables are continuous

[1] "SEM Model"

# measurement model for latent variable gender  
 gender =~ daily\_hours\_housework\_weekdays + daily\_hours\_childcare\_weekdays +  
 current\_monthly\_gross\_labor\_income + gross\_hourly\_wage + employment\_status\_imp +  
 highest\_educational\_degree + risk\_taking\_scale + political\_interest + current\_mat\_parent\_leave + num\_physician\_visits  
  
 # hypothesis: sex at birth -> gender, fix scale for gender, comparable to sex\_binary  
 gender ~ 1.0 \* sex\_binary  
  
 # regressions between other exogeneous variables and gender predictors  
 # hypotheses: +children => +housework, +partner => -housework (shares) or +housework  
 # hypotheses: +children => +childcare, +partner => -childcare (shares)  
 # hypotheses: +east => -income, -wage, +age => +income, +wage  
 daily\_hours\_housework\_weekdays ~ num\_children\_in\_household + partner  
 daily\_hours\_childcare\_weekdays ~ num\_children\_in\_household + partner  
 current\_monthly\_gross\_labor\_income ~ east\_german\_residence + age\_10y  
 gross\_hourly\_wage ~ east\_german\_residence + age\_10y  
  
 migraine\_incidence ~ sex\_binary + gender + sex\_or + partner + age\_10y + immigration\_history +  
 smoke\_before\_migraine + diabetes\_before\_migraine + hypertension\_before\_migraine  
 stroke\_incidence ~ sex\_binary + gender + sex\_or + partner + age\_10y + immigration\_history +  
 smoke\_before\_stroke + diabetes\_before\_stroke + hypertension\_before\_stroke

[1] "SEM Model without age for stratification by age, without current\_mat\_parent\_leave for 65+"

group: 4  
  
 # measurement model for latent variable gender  
 gender =~ daily\_hours\_housework\_weekdays + daily\_hours\_childcare\_weekdays +  
 current\_monthly\_gross\_labor\_income + gross\_hourly\_wage + employment\_status\_imp +  
 highest\_educational\_degree + risk\_taking\_scale + political\_interest + num\_physician\_visits  
  
 # hypothesis: sex at birth -> gender, fix scale for gender, comparable to sex\_binary  
 gender ~ 1.0 \* sex\_binary  
  
 # regressions between other exogeneous variables and gender predictors  
 # hypotheses: +children => +housework, +partner => -housework (shares) or +housework  
 # hypotheses: +children => +childcare, +partner => -childcare (shares)  
 # hypotheses: +east => -income, -wage, +age => +income, +wage  
 daily\_hours\_housework\_weekdays ~ num\_children\_in\_household + partner  
 daily\_hours\_childcare\_weekdays ~ num\_children\_in\_household + partner  
 current\_monthly\_gross\_labor\_income ~ east\_german\_residence   
 gross\_hourly\_wage ~ east\_german\_residence   
  
 migraine\_incidence ~ sex\_binary + gender + sex\_or + partner + immigration\_history +  
 smoke\_before\_migraine + diabetes\_before\_migraine + hypertension\_before\_migraine  
 stroke\_incidence ~ sex\_binary + gender + sex\_or + partner + immigration\_history +  
 smoke\_before\_stroke + diabetes\_before\_stroke + hypertension\_before\_stroke  
group: 3  
  
 # measurement model for latent variable gender  
 gender =~ daily\_hours\_housework\_weekdays + daily\_hours\_childcare\_weekdays +  
 current\_monthly\_gross\_labor\_income + gross\_hourly\_wage + employment\_status\_imp +  
 highest\_educational\_degree + risk\_taking\_scale + political\_interest + current\_mat\_parent\_leave + num\_physician\_visits  
  
 # hypothesis: sex at birth -> gender, fix scale for gender, comparable to sex\_binary  
 gender ~ 1.0 \* sex\_binary  
  
 # regressions between other exogeneous variables and gender predictors  
 # hypotheses: +children => +housework, +partner => -housework (shares) or +housework  
 # hypotheses: +children => +childcare, +partner => -childcare (shares)  
 # hypotheses: +east => -income, -wage, +age => +income, +wage  
 daily\_hours\_housework\_weekdays ~ num\_children\_in\_household + partner  
 daily\_hours\_childcare\_weekdays ~ num\_children\_in\_household + partner  
 current\_monthly\_gross\_labor\_income ~ east\_german\_residence   
 gross\_hourly\_wage ~ east\_german\_residence   
  
 migraine\_incidence ~ sex\_binary + gender + sex\_or + partner + immigration\_history +  
 smoke\_before\_migraine + diabetes\_before\_migraine + hypertension\_before\_migraine  
 stroke\_incidence ~ sex\_binary + gender + sex\_or + partner + immigration\_history +  
 smoke\_before\_stroke + diabetes\_before\_stroke + hypertension\_before\_stroke  
group: 2  
  
 # measurement model for latent variable gender  
 gender =~ daily\_hours\_housework\_weekdays + daily\_hours\_childcare\_weekdays +  
 current\_monthly\_gross\_labor\_income + gross\_hourly\_wage + employment\_status\_imp +  
 highest\_educational\_degree + risk\_taking\_scale + political\_interest + current\_mat\_parent\_leave + num\_physician\_visits  
  
 # hypothesis: sex at birth -> gender, fix scale for gender, comparable to sex\_binary  
 gender ~ 1.0 \* sex\_binary  
  
 # regressions between other exogeneous variables and gender predictors  
 # hypotheses: +children => +housework, +partner => -housework (shares) or +housework  
 # hypotheses: +children => +childcare, +partner => -childcare (shares)  
 # hypotheses: +east => -income, -wage, +age => +income, +wage  
 daily\_hours\_housework\_weekdays ~ num\_children\_in\_household + partner  
 daily\_hours\_childcare\_weekdays ~ num\_children\_in\_household + partner  
 current\_monthly\_gross\_labor\_income ~ east\_german\_residence   
 gross\_hourly\_wage ~ east\_german\_residence   
  
 migraine\_incidence ~ sex\_binary + gender + sex\_or + partner + immigration\_history +  
 smoke\_before\_migraine + diabetes\_before\_migraine + hypertension\_before\_migraine  
 stroke\_incidence ~ sex\_binary + gender + sex\_or + partner + immigration\_history +  
 smoke\_before\_stroke + diabetes\_before\_stroke + hypertension\_before\_stroke  
group: 1  
  
 # measurement model for latent variable gender  
 gender =~ daily\_hours\_housework\_weekdays + daily\_hours\_childcare\_weekdays +  
 current\_monthly\_gross\_labor\_income + gross\_hourly\_wage + employment\_status\_imp +  
 highest\_educational\_degree + risk\_taking\_scale + political\_interest + current\_mat\_parent\_leave + num\_physician\_visits  
  
 # hypothesis: sex at birth -> gender, fix scale for gender, comparable to sex\_binary  
 gender ~ 1.0 \* sex\_binary  
  
 # regressions between other exogeneous variables and gender predictors  
 # hypotheses: +children => +housework, +partner => -housework (shares) or +housework  
 # hypotheses: +children => +childcare, +partner => -childcare (shares)  
 # hypotheses: +east => -income, -wage, +age => +income, +wage  
 daily\_hours\_housework\_weekdays ~ num\_children\_in\_household + partner  
 daily\_hours\_childcare\_weekdays ~ num\_children\_in\_household + partner  
 current\_monthly\_gross\_labor\_income ~ east\_german\_residence   
 gross\_hourly\_wage ~ east\_german\_residence   
  
 migraine\_incidence ~ sex\_binary + gender + sex\_or + partner + immigration\_history +  
 smoke\_before\_migraine + diabetes\_before\_migraine + hypertension\_before\_migraine  
 stroke\_incidence ~ sex\_binary + gender + sex\_or + partner + immigration\_history +  
 smoke\_before\_stroke + diabetes\_before\_stroke + hypertension\_before\_stroke

## SEM: Outcomes

SEM (sem.mi) Regressions (unweighted/weighted)

| incidence | predictor | estimate | sig | estimate.w | sig.w |
| --- | --- | --- | --- | --- | --- |
| migraine | sex\_binary | 0.044 [0.031, 0.057] | \*\*\* | 0.048 [0.039, 0.057] | \*\*\* |
| migraine | gender | -0.001 [-0.009, 0.006] |  | 0.000 [-0.004, 0.005] |  |
| migraine | sex\_or | 0.010 [-0.022, 0.043] |  | 0.006 [-0.017, 0.030] |  |
| migraine | partner | 0.001 [-0.010, 0.013] |  | 0.002 [-0.006, 0.010] |  |
| migraine | age\_10y | 0.004 [0.000, 0.007] | \* | 0.005 [0.002, 0.007] | \*\*\* |
| migraine | immigration\_history | -0.004 [-0.011, 0.003] |  | -0.000 [-0.006, 0.005] |  |
| migraine | smoke\_before\_migraine | 0.015 [0.004, 0.027] | \*\* | 0.010 [0.002, 0.018] | \* |
| migraine | diabetes\_before\_migraine | -0.012 [-0.033, 0.009] |  | -0.013 [-0.026, -0.001] | \* |
| migraine | hypertension\_before\_migraine | -0.016 [-0.031, -0.002] | \* | -0.028 [-0.037, -0.018] | \*\*\* |
| stroke | sex\_binary | -0.010 [-0.018, -0.002] | \* | -0.013 [-0.018, -0.007] | \*\*\* |
| stroke | gender | 0.006 [0.001, 0.010] | \* | 0.006 [0.004, 0.009] | \*\*\* |
| stroke | sex\_or | 0.002 [-0.018, 0.021] |  | 0.003 [-0.007, 0.013] |  |
| stroke | partner | -0.008 [-0.014, -0.001] | \* | -0.008 [-0.013, -0.002] | \*\* |
| stroke | age\_10y | 0.009 [0.007, 0.011] | \*\*\* | 0.012 [0.010, 0.013] | \*\*\* |
| stroke | immigration\_history | -0.001 [-0.005, 0.003] |  | -0.002 [-0.005, 0.002] |  |
| stroke | smoke\_before\_stroke | 0.007 [0.001, 0.014] | \* | 0.009 [0.003, 0.014] | \*\* |
| stroke | diabetes\_before\_stroke | 0.008 [-0.005, 0.020] |  | 0.012 [-0.002, 0.026] |  |
| stroke | hypertension\_before\_stroke | -0.001 [-0.009, 0.008] |  | -0.003 [-0.011, 0.005] |  |

SEM (sem.mi) Regressions by Age Group, unweighted

| outcome | predictor | [65,Inf) | [50,65) | [35,50) | [18,35) |
| --- | --- | --- | --- | --- | --- |
| migraine\_incidence | sex\_binary | 0.052 | 0.046 | 0.044 | 0.025 |
| migraine\_incidence | gender | -0.001 | -0.004 | 0.005 | 0.001 |
| migraine\_incidence | sex\_or | 0.010 | 0.008 | -0.001 | 0.017 |
| migraine\_incidence | partner | 0.003 | -0.006 | -0.004 | 0.010 |
| migraine\_incidence | immigration\_history | 0.003 | -0.007 | 0.002 | -0.013 |
| migraine\_incidence | smoke\_before\_migraine | 0.018 | 0.021 | 0.010 | 0.009 |
| migraine\_incidence | diabetes\_before\_migraine | -0.009 | -0.017 | -0.010 | -0.015 |
| migraine\_incidence | hypertension\_before\_migraine | -0.015 | -0.005 | -0.022 | -0.001 |
| stroke\_incidence | sex\_binary | -0.023 | -0.002 | -0.010 | 0.000 |
| stroke\_incidence | gender | 0.010 | 0.001 | 0.005 | 0.000 |
| stroke\_incidence | sex\_or | 0.000 | -0.003 | 0.007 | -0.001 |
| stroke\_incidence | partner | -0.015 | -0.002 | -0.001 | 0.000 |
| stroke\_incidence | immigration\_history | -0.004 | -0.002 | -0.001 | 0.000 |
| stroke\_incidence | smoke\_before\_stroke | 0.023 | 0.002 | 0.008 | 0.001 |
| stroke\_incidence | diabetes\_before\_stroke | 0.006 | 0.006 | 0.009 | -0.001 |
| stroke\_incidence | hypertension\_before\_stroke | -0.002 | 0.002 | 0.003 | 0.001 |

SEM Models - Fit Info

| fit\_metric | all | wgh | age |
| --- | --- | --- | --- |
| RMSEA: Root Mean Square Error of Approximation | 0.072 | 0.076 | 0.058 |
| SRMSR: Standardized Root Mean Square Residual | 0.065 | 0.072 | 0.050 |
| AIC: Akaike Information Criterion | 1,704,879.455 | 1,738,556.122 | 1,539,687.301 |

## SEM: Gender Statistics and Plots

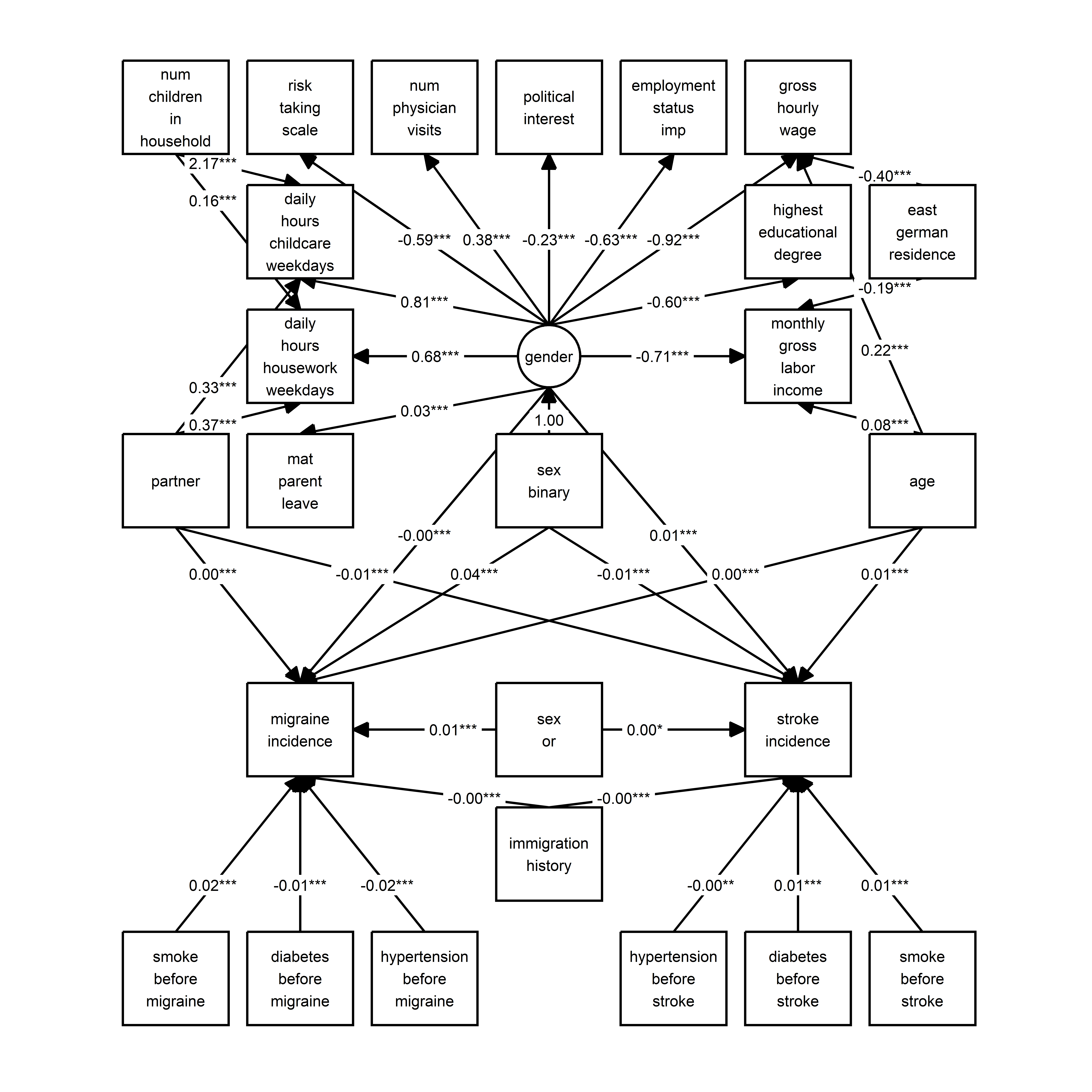
Scale of latent variable gender is fixed at same scale as sex\_binary, so mean gender for M = 0, for F = 1.

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(`geom\_path()`).

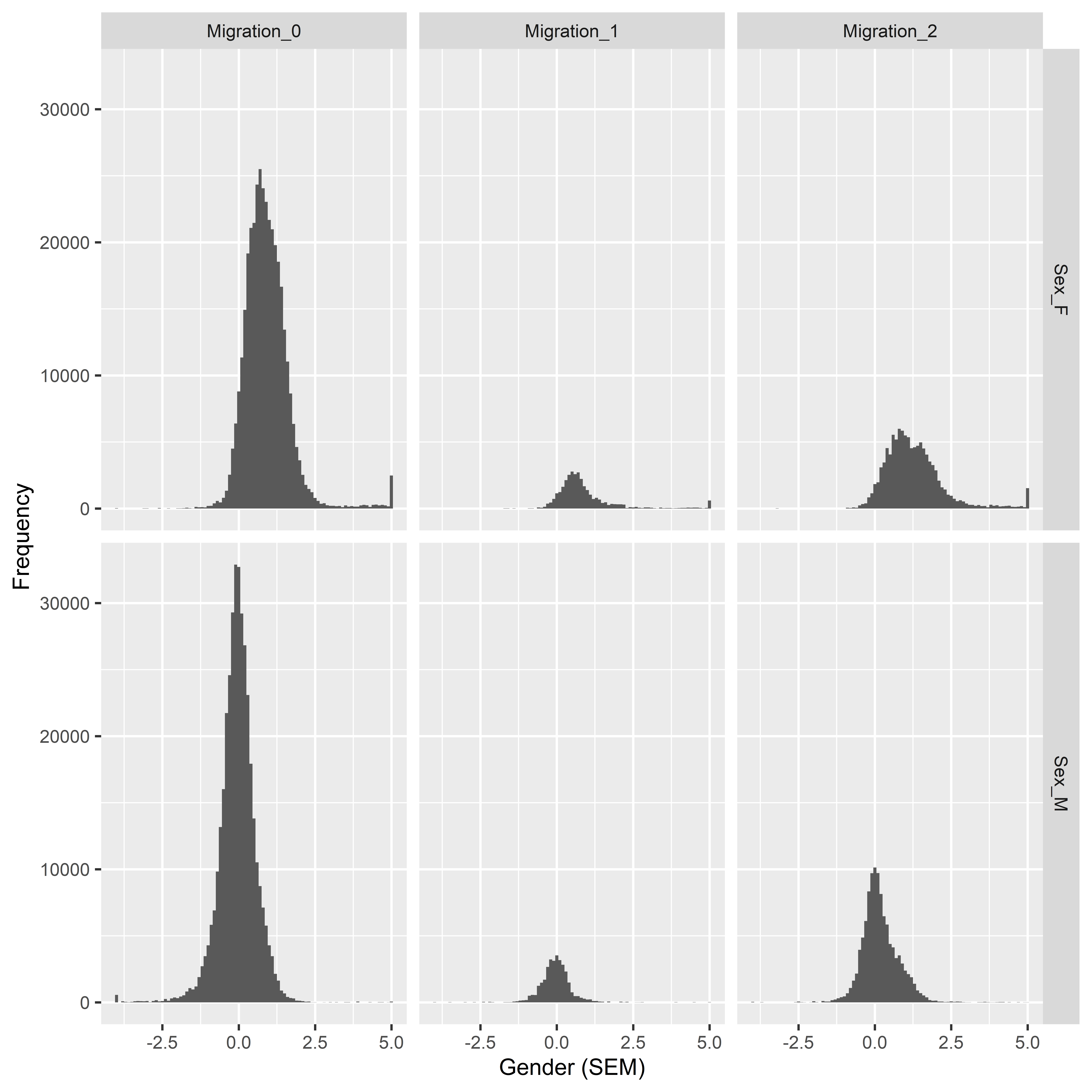
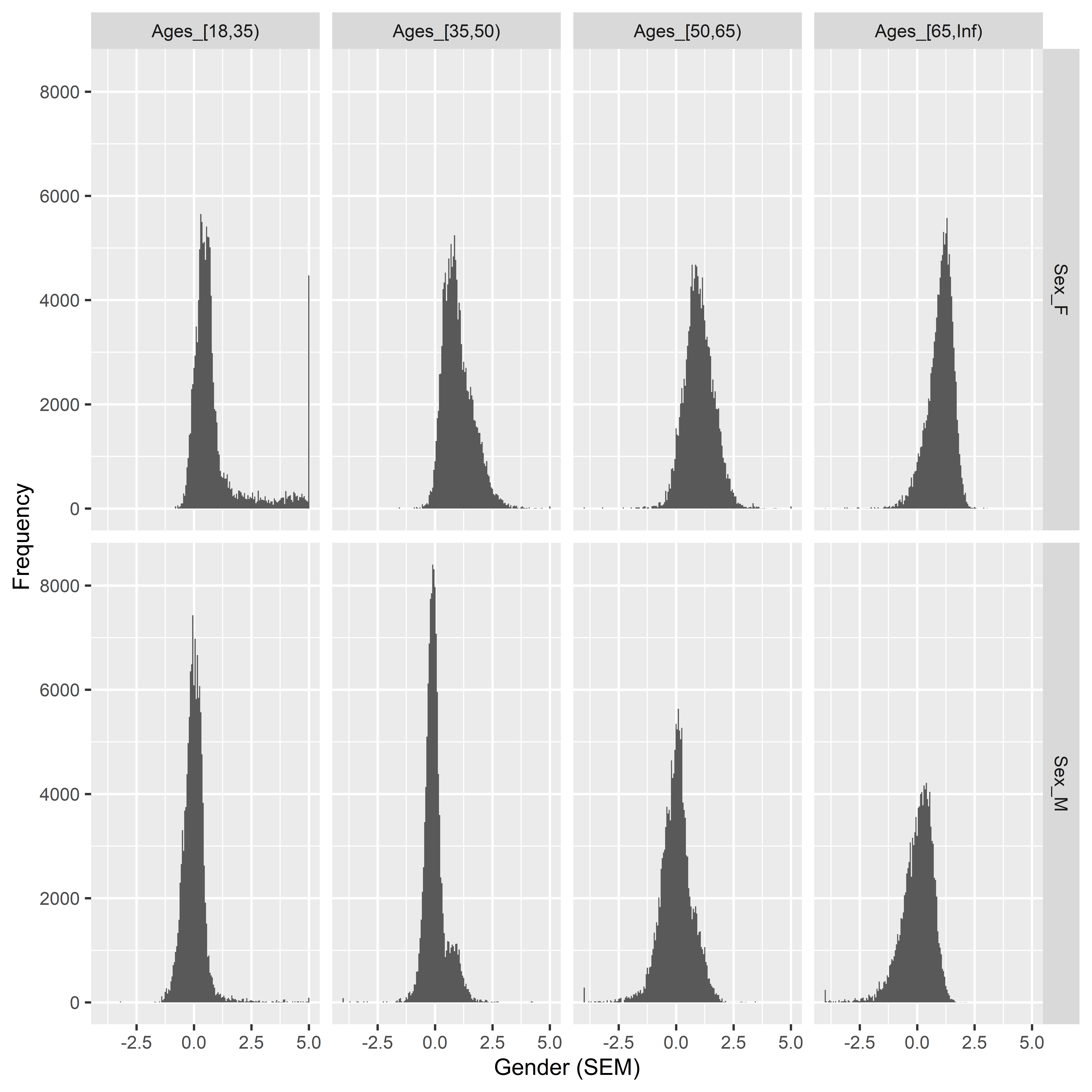
Warning: Removed 13 rows containing missing values or values outside the scale range  
(`geom\_label()`).



TRUE

SEM: Mean/SD for latent gender by sex\_binary

| age\_group | sex\_binary | mean\_gender | sd\_gender |
| --- | --- | --- | --- |
| Ages\_[18,35) | Sex\_F | 1 | 1.468 |
| Ages\_[18,35) | Sex\_M | 0 | 0.532 |
| Ages\_[35,50) | Sex\_F | 1 | 0.656 |
| Ages\_[35,50) | Sex\_M | 0 | 0.508 |
| Ages\_[50,65) | Sex\_F | 1 | 0.657 |
| Ages\_[50,65) | Sex\_M | 0 | 0.744 |
| Ages\_[65,Inf) | Sex\_F | 1 | 0.567 |
| Ages\_[65,Inf) | Sex\_M | 0 | 0.738 |

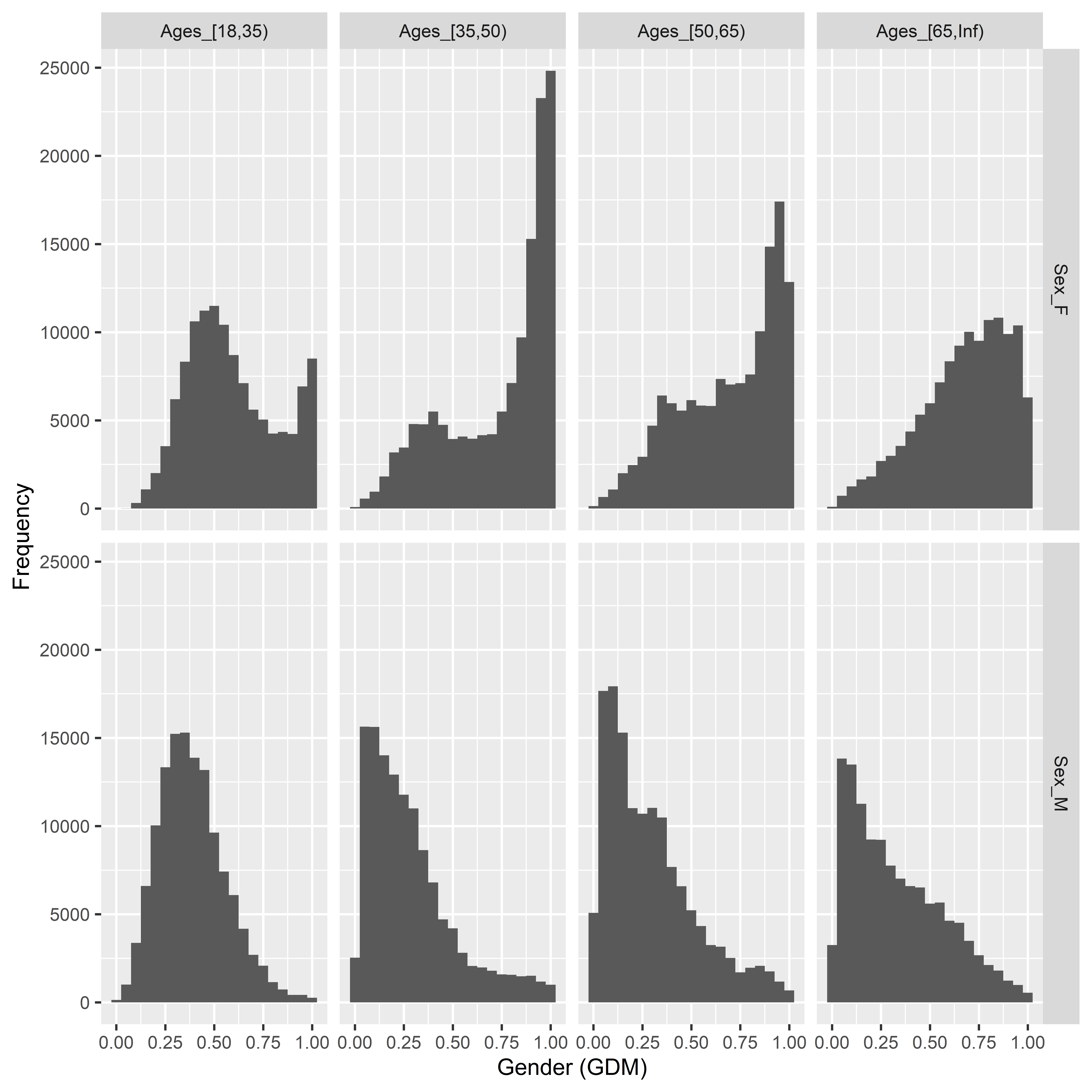
 ## GDM: Fit

[1] "GDM Model (stratification by age group), common outcomes model (without age)"

sex\_binary ~ age\_group \* ((daily\_hours\_housework\_weekdays + daily\_hours\_childcare\_weekdays) \* (num\_children\_in\_household + partner) +  
 (current\_monthly\_gross\_labor\_income + gross\_hourly\_wage) \* east\_german\_residence + employment\_status\_imp +  
 highest\_educational\_degree + risk\_taking\_scale + political\_interest + current\_mat\_parent\_leave + num\_physician\_visits)

migraine\_incidence ~ sex\_binary + gender + sex\_or + partner + immigration\_history +  
 smoke\_before\_migraine + diabetes\_before\_migraine + hypertension\_before\_migraine

stroke\_incidence ~ sex\_binary + gender + sex\_or + partner + immigration\_history +  
 smoke\_before\_stroke + diabetes\_before\_stroke + hypertension\_before\_stroke



TRUE

Migraine Incidence, 65+

| Variable | Contrast | RR | Signif |
| --- | --- | --- | --- |
| sex\_binary | (1) / (0) | 4.465 [4.215, 4.715] | \* |
| immigration\_history | (1) / (0) | 1.632 [1.322, 1.942] | \* |
| smoke\_before\_migraine | (1) / (0) | 1.519 [1.460, 1.578] | \* |
| immigration\_history | (2) / (0) | 1.190 [1.120, 1.261] | \* |
| sex\_or | (1) / (0) | 1.188 [0.998, 1.378] |  |
| partner | (1) / (0) | 1.060 [1.019, 1.102] | \* |
| gender | (+1) | 0.788 [0.722, 0.854] | \* |
| diabetes\_before\_migraine | (1) / (0) | 0.781 [0.738, 0.824] | \* |
| hypertension\_before\_migraine | (1) / (0) | 0.728 [0.699, 0.756] | \* |

Migraine Incidence, 50-64

| Variable | Contrast | RR | Signif |
| --- | --- | --- | --- |
| sex\_binary | (1) / (0) | 2.659 [2.534, 2.785] | \* |
| gender | (+1) | 1.448 [1.354, 1.543] | \* |
| smoke\_before\_migraine | (1) / (0) | 1.260 [1.218, 1.302] | \* |
| immigration\_history | (2) / (0) | 1.141 [1.094, 1.188] | \* |
| immigration\_history | (1) / (0) | 1.122 [1.005, 1.239] | \* |
| sex\_or | (1) / (0) | 0.996 [0.881, 1.111] |  |
| partner | (1) / (0) | 0.921 [0.889, 0.953] | \* |
| diabetes\_before\_migraine | (1) / (0) | 0.807 [0.747, 0.866] | \* |
| hypertension\_before\_migraine | (1) / (0) | 0.622 [0.596, 0.647] | \* |

Migraine Incidence, 35-50

| Variable | Contrast | RR | Signif |
| --- | --- | --- | --- |
| sex\_binary | (1) / (0) | 2.615 [2.479, 2.751] | \* |
| smoke\_before\_migraine | (1) / (0) | 1.556 [1.500, 1.612] | \* |
| gender | (+1) | 1.215 [1.130, 1.300] | \* |
| sex\_or | (1) / (0) | 1.178 [1.068, 1.289] | \* |
| immigration\_history | (1) / (0) | 0.910 [0.846, 0.973] | \* |
| partner | (1) / (0) | 0.890 [0.856, 0.925] | \* |
| hypertension\_before\_migraine | (1) / (0) | 0.889 [0.837, 0.941] | \* |
| immigration\_history | (2) / (0) | 0.690 [0.660, 0.719] | \* |
| diabetes\_before\_migraine | (1) / (0) | 0.620 [0.538, 0.702] | \* |

Migraine Incidence, 18-35

| Variable | Contrast | RR | Signif |
| --- | --- | --- | --- |
| sex\_binary | (1) / (0) | 2.290 [2.166, 2.415] | \* |
| gender | (+1) | 1.628 [1.450, 1.805] | \* |
| sex\_or | (1) / (0) | 1.512 [1.397, 1.628] | \* |
| partner | (1) / (0) | 1.361 [1.293, 1.430] | \* |
| smoke\_before\_migraine | (1) / (0) | 1.262 [1.203, 1.320] | \* |
| immigration\_history | (1) / (0) | 1.026 [0.967, 1.084] |  |
| hypertension\_before\_migraine | (1) / (0) | 0.999 [0.881, 1.117] |  |
| diabetes\_before\_migraine | (1) / (0) | 0.536 [0.370, 0.702] | \* |
| immigration\_history | (2) / (0) | 0.231 [0.210, 0.253] | \* |

Stroke Incidence, 65+

| Variable | Contrast | RR | Signif |
| --- | --- | --- | --- |
| smoke\_before\_stroke | (1) / (0) | 1.647 [1.585, 1.709] | \* |
| diabetes\_before\_stroke | (1) / (0) | 1.173 [1.122, 1.223] | \* |
| immigration\_history | (1) / (0) | 1.070 [0.806, 1.334] |  |
| hypertension\_before\_stroke | (1) / (0) | 1.002 [0.964, 1.040] |  |
| sex\_or | (1) / (0) | 0.923 [0.775, 1.071] |  |
| immigration\_history | (2) / (0) | 0.891 [0.835, 0.946] | \* |
| sex\_binary | (1) / (0) | 0.852 [0.813, 0.890] | \* |
| partner | (1) / (0) | 0.665 [0.639, 0.691] | \* |
| gender | (+1) | 0.648 [0.593, 0.704] | \* |

Stroke Incidence, 50-64

| Variable | Contrast | RR | Signif |
| --- | --- | --- | --- |
| smoke\_before\_stroke | (1) / (0) | 2.400 [2.215, 2.586] | \* |
| diabetes\_before\_stroke | (1) / (0) | 1.854 [1.673, 2.034] | \* |
| sex\_or | (1) / (0) | 1.639 [1.318, 1.960] | \* |
| hypertension\_before\_stroke | (1) / (0) | 1.473 [1.361, 1.584] | \* |
| immigration\_history | (2) / (0) | 1.080 [0.978, 1.181] |  |
| immigration\_history | (1) / (0) | 1.023 [0.762, 1.283] |  |
| gender | (+1) | 0.944 [0.799, 1.090] |  |
| partner | (1) / (0) | 0.887 [0.817, 0.957] | \* |
| sex\_binary | (1) / (0) | 0.646 [0.585, 0.707] | \* |

Stroke Incidence, 35-50

| Variable | Contrast | RR | Signif |
| --- | --- | --- | --- |
| diabetes\_before\_stroke | (1) / (0) | 3.603 [2.730, 4.475] | \* |
| smoke\_before\_stroke | (1) / (0) | 2.431 [2.036, 2.826] | \* |
| hypertension\_before\_stroke | (1) / (0) | 1.722 [1.416, 2.027] | \* |
| sex\_binary | (1) / (0) | 0.924 [0.744, 1.104] |  |
| gender | (+1) | 0.854 [0.588, 1.119] |  |
| partner | (1) / (0) | 0.528 [0.448, 0.608] | \* |
| immigration\_history | (1) / (0) | 0.263 [0.146, 0.381] | \* |
| immigration\_history | (2) / (0) | 0.130 [0.089, 0.172] | \* |
| sex\_or | (1) / (0) | 0.100 [-0.013, 0.214] | \* |

Warning: glm.fit: Angepasste Wahrscheinlichkeiten mit numerischem Wert 0 oder 1  
aufgetreten

Stroke Incidence, 18-35

| Variable | Contrast | RR | Signif |
| --- | --- | --- | --- |
| gender | (+1) | 17.749 [2.617, 32.880] | \* |
| hypertension\_before\_stroke | (1) / (0) | 4.378 [2.247, 6.509] | \* |
| smoke\_before\_stroke | (1) / (0) | 4.109 [2.526, 5.691] | \* |
| immigration\_history | (1) / (0) | 2.750 [1.648, 3.852] | \* |
| sex\_binary | (1) / (0) | 1.376 [0.767, 1.985] |  |
| partner | (1) / (0) | 0.804 [0.475, 1.133] |  |
| immigration\_history | (2) / (0) | 0.800 [0.386, 1.214] |  |
| sex\_or | (1) / (0) | 0.000 [-0.000, 0.000] | \* |
| diabetes\_before\_stroke | (1) / (0) | 0.000 [-0.000, 0.000] | \* |

## Details

lavaan.mi object fit to 20 imputed data sets using:  
 - lavaan (0.6-19)  
 - lavaan.mi (0.1-0)  
See class?lavaan.mi help page for available methods.   
  
Convergence information:  
The model converged on 20 imputed data sets.  
Standard errors were available for all imputations.  
  
 Estimator ML  
 Optimization method NLMINB  
 Number of model parameters 50  
  
 Number of observations 51370  
  
Model Test User Model:  
  
 Test statistic 49803.313  
 Degrees of freedom 184  
 P-value 0.000  
 Pooling method D4  
  
Model Test Baseline Model:  
  
 Test statistic 79558.879  
 Degrees of freedom 222  
 P-value 0.000  
  
User Model versus Baseline Model:  
  
 Comparative Fit Index (CFI) 0.375  
 Tucker-Lewis Index (TLI) 0.245  
  
Loglikelihood and Information Criteria:  
  
 Loglikelihood user model (H0) -852389.727  
 Loglikelihood unrestricted model (H1) -818471.771  
   
 Akaike (AIC) 1704879.455  
 Bayesian (BIC) 1705321.795  
 Sample-size adjusted Bayesian (SABIC) 1705162.895  
  
Root Mean Square Error of Approximation:  
  
 RMSEA 0.072  
 90 Percent confidence interval - lower 0.072  
 90 Percent confidence interval - upper 0.073  
 P-value H\_0: RMSEA <= 0.050 0.000  
 P-value H\_0: RMSEA >= 0.080 0.000  
  
Standardized Root Mean Square Residual:  
  
 SRMR 0.065  
  
Parameter Estimates:  
  
 Standard errors Standard  
 Information Expected  
 Information saturated (h1) model Structured  
   
 Pooled across imputations Rubin's (1987) rules  
 Augment within-imputation variance Scale by average RIV  
 Wald test for pooled parameters t(df) distribution  
  
 Pooled t statistics with df >= 1000 are displayed with  
 df = Inf(inity) to save space. Although the t distribution  
 with large df closely approximates a standard normal  
 distribution, exact df for reporting these t tests can be  
 obtained from parameterEstimates.mi()   
  
  
Latent Variables:  
 Estimate Std.Err t-value df P(>|t|) ci.lower  
 gender =~   
 dly\_hrs\_hswrk\_ 0.672 0.030 22.409 23.858 0.000 0.610  
 dly\_hrs\_chldc\_ 0.806 0.050 16.153 26.082 0.000 0.703  
 crrnt\_mnthl\_\_\_ -0.709 0.029 -24.632 564.581 0.000 -0.765  
 gross\_horly\_wg -0.919 0.057 -16.092 27.335 0.000 -1.036  
 emplymnt\_stts\_ -0.630 0.028 -22.220 53.523 0.000 -0.687  
 hghst\_dctnl\_dg -0.602 0.032 -18.607 Inf 0.000 -0.665  
 risk\_takng\_scl -0.588 0.043 -13.681 85.559 0.000 -0.673  
 politicl\_ntrst -0.232 0.015 -15.187 138.160 0.000 -0.263  
 crrnt\_mt\_prnt\_ 0.027 0.002 11.118 29.907 0.000 0.022  
 nm\_physcn\_vsts 0.377 0.060 6.313 Inf 0.000 0.260  
 ci.upper  
   
 0.734  
 0.908  
 -0.652  
 -0.801  
 -0.573  
 -0.539  
 -0.502  
 -0.202  
 0.032  
 0.495  
  
Regressions:  
 Estimate Std.Err t-value df  
 gender ~   
 sex\_binary 1.000   
 daily\_hours\_housework\_weekdays ~   
 nm\_chldrn\_n\_hs 0.165 0.025 6.692 Inf  
 partner 0.368 0.038 9.658 Inf  
 daily\_hours\_childcare\_weekdays ~   
 nm\_chldrn\_n\_hs 2.174 0.051 42.310 Inf  
 partner 0.333 0.080 4.190 Inf  
 current\_monthly\_gross\_labor\_income ~   
 est\_grmn\_rsdnc -0.190 0.039 -4.904 Inf  
 age\_10y 0.084 0.008 9.935 199.983  
 gross\_hourly\_wage ~   
 est\_grmn\_rsdnc -0.396 0.110 -3.613 573.935  
 age\_10y 0.216 0.024 9.104 124.943  
 migraine\_incidence ~   
 sex\_binary 0.044 0.007 6.522 Inf  
 gender -0.001 0.004 -0.376 Inf  
 sex\_or 0.010 0.017 0.611 Inf  
 partner 0.001 0.006 0.249 Inf  
 age\_10y 0.004 0.002 2.143 Inf  
 immigrtn\_hstry -0.004 0.004 -1.136 Inf  
 smoke\_bfr\_mgrn 0.015 0.006 2.671 Inf  
 dibts\_bfr\_mgrn -0.012 0.011 -1.112 Inf  
 hyprtnsn\_bfr\_m -0.016 0.007 -2.222 Inf  
 stroke\_incidence ~   
 sex\_binary -0.010 0.004 -2.534 Inf  
 gender 0.006 0.002 2.492 Inf  
 sex\_or 0.002 0.010 0.162 Inf  
 partner -0.008 0.003 -2.173 Inf  
 age\_10y 0.009 0.001 8.533 Inf  
 immigrtn\_hstry -0.001 0.002 -0.660 Inf  
 smoke\_bfr\_strk 0.007 0.003 2.151 Inf  
 dibts\_bfr\_strk 0.008 0.006 1.208 Inf  
 hyprtnsn\_bfr\_s -0.001 0.004 -0.202 Inf  
 P(>|t|) ci.lower ci.upper  
   
 1.000 1.000  
   
 0.000 0.117 0.213  
 0.000 0.293 0.443  
   
 0.000 2.073 2.275  
 0.000 0.177 0.489  
   
 0.000 -0.267 -0.114  
 0.000 0.067 0.100  
   
 0.000 -0.611 -0.181  
 0.000 0.169 0.263  
   
 0.000 0.031 0.057  
 0.707 -0.009 0.006  
 0.541 -0.022 0.043  
 0.803 -0.010 0.013  
 0.032 0.000 0.007  
 0.256 -0.011 0.003  
 0.008 0.004 0.027  
 0.266 -0.033 0.009  
 0.026 -0.031 -0.002  
   
 0.011 -0.018 -0.002  
 0.013 0.001 0.010  
 0.871 -0.018 0.021  
 0.030 -0.014 -0.001  
 0.000 0.007 0.011  
 0.509 -0.005 0.003  
 0.032 0.001 0.014  
 0.227 -0.005 0.020  
 0.840 -0.009 0.008  
  
Covariances:  
 Estimate Std.Err t-value df P(>|t|) ci.lower  
 .migraine\_incidence ~~   
 .stroke\_incidnc 0.001 0.000 2.758 Inf 0.006 0.000  
 ci.upper  
   
 0.002  
  
Variances:  
 Estimate Std.Err t-value df P(>|t|) ci.lower  
 .dly\_hrs\_hswrk\_ 1.451 0.035 41.398 28.756 0.000 1.380  
 .dly\_hrs\_chldc\_ 6.904 0.146 47.258 86.996 0.000 6.613  
 .crrnt\_mnthl\_\_\_ 0.949 0.027 35.493 20.501 0.000 0.893  
 .gross\_horly\_wg 9.042 0.193 46.934 19.097 0.000 8.639  
 .emplymnt\_stts\_ 1.333 0.032 41.753 Inf 0.000 1.270  
 .hghst\_dctnl\_dg 2.474 0.054 45.856 94.429 0.000 2.367  
 .risk\_takng\_scl 5.785 0.120 48.170 Inf 0.000 5.550  
 .politicl\_ntrst 0.685 0.014 47.661 Inf 0.000 0.656  
 .crrnt\_mt\_prnt\_ 0.020 0.000 48.799 481.683 0.000 0.019  
 .nm\_physcn\_vsts 13.737 0.278 49.474 125.198 0.000 13.187  
 .migraine\_ncdnc 0.039 0.001 49.746 Inf 0.000 0.037  
 .stroke\_incidnc 0.014 0.000 49.680 Inf 0.000 0.013  
 .gender 0.932 0.073 12.776 31.700 0.000 0.783  
 ci.upper  
 1.523  
 7.194  
 1.004  
 9.445  
 1.395  
 2.582  
 6.020  
 0.713  
 0.021  
 14.286  
 0.040  
 0.014  
 1.080

lavaan.mi object fit to 20 imputed data sets using:  
 - lavaan (0.6-19)  
 - lavaan.mi (0.1-0)  
See class?lavaan.mi help page for available methods.   
  
Convergence information:  
The model converged on 20 imputed data sets.  
Standard errors were available for all imputations.  
  
 Estimator ML  
 Optimization method NLMINB  
 Number of model parameters 229  
  
 Number of observations per group:   
 [65,Inf) 12213  
 [35,50) 13038  
 [50,65) 13763  
 [18,35) 12356  
  
Model Test User Model:  
  
 Test statistic 30479.434  
 Degrees of freedom 682  
 P-value 0.000  
 Pooling method D4  
  
Model Test Baseline Model:  
  
 Test statistic 61609.221  
 Degrees of freedom 817  
 P-value 0.000  
  
User Model versus Baseline Model:  
  
 Comparative Fit Index (CFI) 0.510  
 Tucker-Lewis Index (TLI) 0.413  
  
Loglikelihood and Information Criteria:  
  
 Loglikelihood user model (H0) -769614.651  
 Loglikelihood unrestricted model (H1) -745438.699  
   
 Akaike (AIC) 1539687.301  
 Bayesian (BIC) 1541713.220  
 Sample-size adjusted Bayesian (SABIC) 1540985.455  
  
Root Mean Square Error of Approximation:  
  
 RMSEA 0.058  
 90 Percent confidence interval - lower 0.058  
 90 Percent confidence interval - upper 0.059  
 P-value H\_0: RMSEA <= 0.050 0.000  
 P-value H\_0: RMSEA >= 0.080 0.000  
  
Standardized Root Mean Square Residual:  
  
 SRMR 0.050  
  
Parameter Estimates:  
  
 Standard errors Standard  
 Information Expected  
 Information saturated (h1) model Structured  
   
 Pooled across imputations Rubin's (1987) rules  
 Augment within-imputation variance Scale by average RIV  
 Wald test for pooled parameters t(df) distribution  
  
 Pooled t statistics with df >= 1000 are displayed with  
 df = Inf(inity) to save space. Although the t distribution  
 with large df closely approximates a standard normal  
 distribution, exact df for reporting these t tests can be  
 obtained from parameterEstimates.mi()   
  
  
  
Group 1 [[65,Inf)]:  
  
Latent Variables:  
 Estimate Std.Err t-value df P(>|t|) ci.lower  
 gender =~   
 dly\_hrs\_hswrk\_ 0.554 0.064 8.618 50.495 0.000 0.425  
 dly\_hrs\_chldc\_ 0.032 0.028 1.150 Inf 0.250 -0.023  
 crrnt\_mnthl\_\_\_ -0.586 0.051 -11.597 323.354 0.000 -0.685  
 gross\_horly\_wg -1.084 0.137 -7.886 82.609 0.000 -1.357  
 emplymnt\_stts\_ -0.247 0.033 -7.477 725.263 0.000 -0.312  
 hghst\_dctnl\_dg -0.856 0.079 -10.846 235.637 0.000 -1.011  
 risk\_takng\_scl -0.830 0.105 -7.934 306.829 0.000 -1.036  
 politicl\_ntrst -0.378 0.039 -9.718 139.422 0.000 -0.455  
 nm\_physcn\_vsts 0.129 0.163 0.791 964.614 0.429 -0.191  
 ci.upper  
   
 0.684  
 0.087  
 -0.486  
 -0.811  
 -0.182  
 -0.700  
 -0.624  
 -0.301  
 0.448  
  
Regressions:  
 Estimate Std.Err t-value df  
 gender ~   
 sex\_binary 1.000   
 daily\_hours\_housework\_weekdays ~   
 nm\_chldrn\_n\_hs -0.091 0.237 -0.384 Inf  
 partner 0.226 0.088 2.567 Inf  
 daily\_hours\_childcare\_weekdays ~   
 nm\_chldrn\_n\_hs 0.695 0.126 5.535 Inf  
 partner 0.082 0.047 1.749 Inf  
 current\_monthly\_gross\_labor\_income ~   
 est\_grmn\_rsdnc -0.217 0.064 -3.393 273.614  
 gross\_hourly\_wage ~   
 est\_grmn\_rsdnc -0.564 0.227 -2.483 143.518  
 migraine\_incidence ~   
 sex\_binary 0.052 0.016 3.358 Inf  
 gender -0.001 0.009 -0.114 Inf  
 sex\_or 0.010 0.054 0.185 Inf  
 partner 0.003 0.012 0.271 Inf  
 immigrtn\_hstry 0.003 0.010 0.358 Inf  
 smoke\_bfr\_mgrn 0.018 0.013 1.426 Inf  
 dibts\_bfr\_mgrn -0.009 0.015 -0.605 Inf  
 hyprtnsn\_bfr\_m -0.015 0.013 -1.213 Inf  
 stroke\_incidence ~   
 sex\_binary -0.023 0.016 -1.410 Inf  
 gender 0.010 0.010 1.067 549.715  
 sex\_or -0.000 0.057 -0.002 Inf  
 partner -0.015 0.013 -1.114 Inf  
 immigrtn\_hstry -0.004 0.010 -0.392 Inf  
 smoke\_bfr\_strk 0.023 0.013 1.746 Inf  
 dibts\_bfr\_strk 0.006 0.016 0.370 Inf  
 hyprtnsn\_bfr\_s -0.002 0.013 -0.151 Inf  
 P(>|t|) ci.lower ci.upper  
   
 1.000 1.000  
   
 0.701 -0.556 0.374  
 0.010 0.054 0.399  
   
 0.000 0.449 0.941  
 0.080 -0.010 0.173  
   
 0.001 -0.344 -0.091  
   
 0.014 -1.013 -0.115  
   
 0.001 0.022 0.082  
 0.910 -0.019 0.017  
 0.853 -0.096 0.116  
 0.786 -0.021 0.028  
 0.721 -0.016 0.022  
 0.154 -0.007 0.042  
 0.545 -0.039 0.021  
 0.225 -0.040 0.009  
   
 0.159 -0.055 0.009  
 0.286 -0.009 0.029  
 0.998 -0.112 0.112  
 0.265 -0.040 0.011  
 0.695 -0.024 0.016  
 0.081 -0.003 0.049  
 0.711 -0.026 0.037  
 0.880 -0.028 0.024  
  
Covariances:  
 Estimate Std.Err t-value df P(>|t|) ci.lower  
 .migraine\_incidence ~~   
 .stroke\_incidnc 0.002 0.001 1.595 Inf 0.111 -0.000  
 ci.upper  
   
 0.004  
  
Intercepts:  
 Estimate Std.Err t-value df P(>|t|) ci.lower  
 .dly\_hrs\_hswrk\_ 1.422 0.078 18.349 276.506 0.000 1.270  
 .dly\_hrs\_chldc\_ 0.086 0.039 2.204 Inf 0.028 0.010  
 .crrnt\_mnthl\_\_\_ 0.394 0.042 9.452 97.597 0.000 0.311  
 .gross\_horly\_wg 1.393 0.132 10.527 167.588 0.000 1.132  
 .emplymnt\_stts\_ 0.412 0.029 14.046 Inf 0.000 0.354  
 .hghst\_dctnl\_dg 4.258 0.063 68.067 932.124 0.000 4.135  
 .risk\_takng\_scl 4.726 0.092 51.440 Inf 0.000 4.546  
 .politicl\_ntrst 1.740 0.032 53.936 618.379 0.000 1.677  
 .nm\_physcn\_vsts 3.502 0.157 22.259 Inf 0.000 3.194  
 .migraine\_ncdnc 0.016 0.016 0.978 Inf 0.328 -0.016  
 .stroke\_incidnc 0.052 0.017 3.049 Inf 0.002 0.018  
 ci.upper  
 1.575  
 0.163  
 0.477  
 1.654  
 0.469  
 4.380  
 4.906  
 1.803  
 3.811  
 0.047  
 0.085  
  
Variances:  
 Estimate Std.Err t-value df P(>|t|) ci.lower  
 .dly\_hrs\_hswrk\_ 1.877 0.089 21.112 281.465 0.000 1.702  
 .dly\_hrs\_chldc\_ 0.557 0.024 22.999 Inf 0.000 0.509  
 .crrnt\_mnthl\_\_\_ 0.648 0.039 16.751 20.231 0.000 0.567  
 .gross\_horly\_wg 9.481 0.441 21.483 19.610 0.000 8.559  
 .emplymnt\_stts\_ 0.573 0.026 21.792 Inf 0.000 0.522  
 .hghst\_dctnl\_dg 1.916 0.103 18.531 Inf 0.000 1.713  
 .risk\_takng\_scl 5.484 0.254 21.565 Inf 0.000 4.986  
 .politicl\_ntrst 0.588 0.029 20.187 Inf 0.000 0.531  
 .nm\_physcn\_vsts 19.140 0.832 23.009 476.083 0.000 17.505  
 .migraine\_ncdnc 0.038 0.002 23.020 Inf 0.000 0.035  
 .stroke\_incidnc 0.043 0.002 22.985 Inf 0.000 0.039  
 .gender 0.771 0.127 6.086 72.389 0.000 0.519  
 ci.upper  
 2.052  
 0.604  
 0.729  
 10.403  
 0.625  
 2.119  
 5.983  
 0.645  
 20.774  
 0.042  
 0.047  
 1.024  
  
  
Group 2 [[35,50)]:  
  
Latent Variables:  
 Estimate Std.Err t-value df P(>|t|) ci.lower  
 gender =~   
 dly\_hrs\_hswrk\_ 1.121 0.073 15.308 537.952 0.000 0.977  
 dly\_hrs\_chldc\_ 2.131 0.172 12.409 972.127 0.000 1.794  
 crrnt\_mnthl\_\_\_ -0.715 0.056 -12.864 772.274 0.000 -0.824  
 gross\_horly\_wg -0.591 0.090 -6.547 22.876 0.000 -0.778  
 emplymnt\_stts\_ -0.839 0.054 -15.648 Inf 0.000 -0.944  
 hghst\_dctnl\_dg -0.577 0.071 -8.073 763.984 0.000 -0.717  
 risk\_takng\_scl -0.603 0.099 -6.104 Inf 0.000 -0.797  
 politicl\_ntrst -0.294 0.034 -8.573 Inf 0.000 -0.362  
 crrnt\_mt\_prnt\_ 0.069 0.008 8.715 Inf 0.000 0.053  
 nm\_physcn\_vsts 0.474 0.135 3.508 Inf 0.000 0.209  
 ci.upper  
   
 1.265  
 2.468  
 -0.606  
 -0.404  
 -0.734  
 -0.436  
 -0.409  
 -0.227  
 0.084  
 0.739  
  
Regressions:  
 Estimate Std.Err t-value df  
 gender ~   
 sex\_binary 1.000   
 daily\_hours\_housework\_weekdays ~   
 nm\_chldrn\_n\_hs 0.149 0.048 3.089 Inf  
 partner 0.090 0.091 0.988 Inf  
 daily\_hours\_childcare\_weekdays ~   
 nm\_chldrn\_n\_hs 1.917 0.135 14.241 Inf  
 partner -0.160 0.255 -0.625 Inf  
 current\_monthly\_gross\_labor\_income ~   
 est\_grmn\_rsdnc -0.178 0.085 -2.100 Inf  
 gross\_hourly\_wage ~   
 est\_grmn\_rsdnc -0.254 0.169 -1.504 Inf  
 migraine\_incidence ~   
 sex\_binary 0.046 0.016 2.901 Inf  
 gender -0.004 0.010 -0.378 Inf  
 sex\_or 0.008 0.036 0.216 Inf  
 partner -0.006 0.014 -0.409 Inf  
 immigrtn\_hstry -0.007 0.007 -1.068 Inf  
 smoke\_bfr\_mgrn 0.021 0.013 1.652 Inf  
 dibts\_bfr\_mgrn -0.017 0.037 -0.477 Inf  
 hyprtnsn\_bfr\_m -0.005 0.019 -0.274 Inf  
 stroke\_incidence ~   
 sex\_binary -0.002 0.004 -0.392 Inf  
 gender 0.001 0.003 0.475 Inf  
 sex\_or -0.003 0.009 -0.377 528.116  
 partner -0.002 0.003 -0.586 Inf  
 immigrtn\_hstry -0.002 0.002 -1.117 Inf  
 smoke\_bfr\_strk 0.002 0.003 0.699 Inf  
 dibts\_bfr\_strk 0.006 0.009 0.729 Inf  
 hyprtnsn\_bfr\_s 0.002 0.005 0.335 Inf  
 P(>|t|) ci.lower ci.upper  
   
 1.000 1.000  
   
 0.002 0.054 0.243  
 0.323 -0.089 0.269  
   
 0.000 1.653 2.181  
 0.532 -0.660 0.341  
   
 0.036 -0.345 -0.012  
   
 0.133 -0.585 0.077  
   
 0.004 0.015 0.078  
 0.706 -0.024 0.016  
 0.829 -0.063 0.078  
 0.682 -0.032 0.021  
 0.285 -0.020 0.006  
 0.099 -0.004 0.045  
 0.633 -0.089 0.054  
 0.784 -0.042 0.032  
   
 0.695 -0.009 0.006  
 0.635 -0.004 0.006  
 0.706 -0.021 0.014  
 0.558 -0.009 0.005  
 0.264 -0.005 0.001  
 0.485 -0.004 0.008  
 0.466 -0.011 0.024  
 0.738 -0.008 0.011  
  
Covariances:  
 Estimate Std.Err t-value df P(>|t|) ci.lower  
 .migraine\_incidence ~~   
 .stroke\_incidnc 0.001 0.000 1.996 Inf 0.046 0.000  
 ci.upper  
   
 0.001  
  
Intercepts:  
 Estimate Std.Err t-value df P(>|t|) ci.lower  
 .dly\_hrs\_hswrk\_ 0.849 0.087 9.777 Inf 0.000 0.679  
 .dly\_hrs\_chldc\_ -0.286 0.233 -1.227 Inf 0.220 -0.743  
 .crrnt\_mnthl\_\_\_ 0.748 0.049 15.427 Inf 0.000 0.653  
 .gross\_horly\_wg 0.745 0.088 8.496 29.422 0.000 0.566  
 .emplymnt\_stts\_ 2.645 0.041 64.289 Inf 0.000 2.564  
 .hghst\_dctnl\_dg 4.297 0.064 67.430 Inf 0.000 4.172  
 .risk\_takng\_scl 5.075 0.090 56.421 Inf 0.000 4.899  
 .politicl\_ntrst 1.345 0.030 44.171 Inf 0.000 1.285  
 .crrnt\_mt\_prnt\_ 0.003 0.007 0.413 Inf 0.680 -0.011  
 .nm\_physcn\_vsts 2.448 0.125 19.564 Inf 0.000 2.203  
 .migraine\_ncdnc 0.024 0.016 1.504 Inf 0.133 -0.007  
 .stroke\_incidnc 0.004 0.004 1.109 Inf 0.267 -0.003  
 ci.upper  
 1.020  
 0.171  
 0.843  
 0.925  
 2.726  
 4.422  
 5.251  
 1.405  
 0.017  
 2.693  
 0.055  
 0.012  
  
Variances:  
 Estimate Std.Err t-value df P(>|t|) ci.lower  
 .dly\_hrs\_hswrk\_ 1.303 0.073 17.922 560.950 0.000 1.161  
 .dly\_hrs\_chldc\_ 11.525 0.538 21.425 Inf 0.000 10.471  
 .crrnt\_mnthl\_\_\_ 1.143 0.054 21.105 88.682 0.000 1.036  
 .gross\_horly\_wg 4.856 0.245 19.824 19.019 0.000 4.344  
 .emplymnt\_stts\_ 0.652 0.038 17.238 Inf 0.000 0.578  
 .hghst\_dctnl\_dg 2.847 0.123 23.092 Inf 0.000 2.605  
 .risk\_takng\_scl 5.957 0.254 23.423 Inf 0.000 5.458  
 .politicl\_ntrst 0.640 0.028 22.981 Inf 0.000 0.585  
 .crrnt\_mt\_prnt\_ 0.033 0.001 22.947 Inf 0.000 0.031  
 .nm\_physcn\_vsts 11.984 0.506 23.673 120.778 0.000 10.982  
 .migraine\_ncdnc 0.042 0.002 23.782 Inf 0.000 0.038  
 .stroke\_incidnc 0.003 0.000 23.781 Inf 0.000 0.002  
 .gender 0.540 0.069 7.873 Inf 0.000 0.406  
 ci.upper  
 1.446  
 12.580  
 1.251  
 5.369  
 0.726  
 3.089  
 6.455  
 0.694  
 0.036  
 12.987  
 0.045  
 0.003  
 0.675  
  
  
Group 3 [[50,65)]:  
  
Latent Variables:  
 Estimate Std.Err t-value df P(>|t|) ci.lower  
 gender =~   
 dly\_hrs\_hswrk\_ 0.729 0.060 12.163 65.751 0.000 0.609  
 dly\_hrs\_chldc\_ 0.285 0.052 5.474 622.715 0.000 0.183  
 crrnt\_mnthl\_\_\_ -1.009 0.077 -13.028 Inf 0.000 -1.160  
 gross\_horly\_wg -1.326 0.166 -7.999 Inf 0.000 -1.651  
 emplymnt\_stts\_ -0.589 0.050 -11.733 219.682 0.000 -0.688  
 hghst\_dctnl\_dg -0.710 0.068 -10.449 Inf 0.000 -0.843  
 risk\_takng\_scl -0.735 0.090 -8.173 Inf 0.000 -0.911  
 politicl\_ntrst -0.317 0.033 -9.599 Inf 0.000 -0.382  
 crrnt\_mt\_prnt\_ 0.000 0.001 0.422 Inf 0.673 -0.002  
 nm\_physcn\_vsts 0.468 0.135 3.457 Inf 0.001 0.203  
 ci.upper  
   
 0.849  
 0.388  
 -0.857  
 -1.001  
 -0.490  
 -0.577  
 -0.559  
 -0.253  
 0.002  
 0.733  
  
Regressions:  
 Estimate Std.Err t-value df  
 gender ~   
 sex\_binary 1.000   
 daily\_hours\_housework\_weekdays ~   
 nm\_chldrn\_n\_hs 0.100 0.057 1.739 Inf  
 partner 0.105 0.076 1.375 Inf  
 daily\_hours\_childcare\_weekdays ~   
 nm\_chldrn\_n\_hs 1.145 0.070 16.247 Inf  
 partner -0.040 0.094 -0.430 Inf  
 current\_monthly\_gross\_labor\_income ~   
 est\_grmn\_rsdnc -0.306 0.102 -2.981 Inf  
 gross\_hourly\_wage ~   
 est\_grmn\_rsdnc -0.557 0.310 -1.796 Inf  
 migraine\_incidence ~   
 sex\_binary 0.044 0.015 2.920 Inf  
 gender 0.005 0.009 0.608 Inf  
 sex\_or -0.001 0.042 -0.020 Inf  
 partner -0.004 0.014 -0.322 Inf  
 immigrtn\_hstry 0.002 0.008 0.295 Inf  
 smoke\_bfr\_mgrn 0.010 0.013 0.799 Inf  
 dibts\_bfr\_mgrn -0.010 0.023 -0.436 Inf  
 hyprtnsn\_bfr\_m -0.022 0.014 -1.591 Inf  
 stroke\_incidence ~   
 sex\_binary -0.010 0.007 -1.358 Inf  
 gender 0.005 0.004 1.214 Inf  
 sex\_or 0.007 0.020 0.336 Inf  
 partner -0.001 0.007 -0.142 Inf  
 immigrtn\_hstry -0.001 0.004 -0.190 Inf  
 smoke\_bfr\_strk 0.008 0.006 1.343 Inf  
 dibts\_bfr\_strk 0.009 0.011 0.808 Inf  
 hyprtnsn\_bfr\_s 0.003 0.006 0.444 Inf  
 P(>|t|) ci.lower ci.upper  
   
 1.000 1.000  
   
 0.082 -0.013 0.212  
 0.169 -0.045 0.254  
   
 0.000 1.007 1.283  
 0.667 -0.224 0.143  
   
 0.003 -0.506 -0.105  
   
 0.073 -1.164 0.051  
   
 0.004 0.015 0.074  
 0.543 -0.012 0.022  
 0.984 -0.084 0.082  
 0.748 -0.031 0.022  
 0.768 -0.013 0.018  
 0.424 -0.015 0.035  
 0.663 -0.055 0.035  
 0.112 -0.048 0.005  
   
 0.174 -0.024 0.004  
 0.225 -0.003 0.013  
 0.737 -0.033 0.047  
 0.887 -0.014 0.012  
 0.849 -0.008 0.007  
 0.179 -0.004 0.020  
 0.419 -0.013 0.030  
 0.657 -0.010 0.016  
  
Covariances:  
 Estimate Std.Err t-value df P(>|t|) ci.lower  
 .migraine\_incidence ~~   
 .stroke\_incidnc 0.001 0.001 1.688 Inf 0.091 -0.000  
 ci.upper  
   
 0.002  
  
Intercepts:  
 Estimate Std.Err t-value df P(>|t|) ci.lower  
 .dly\_hrs\_hswrk\_ 1.033 0.073 14.109 385.260 0.000 0.889  
 .dly\_hrs\_chldc\_ 0.038 0.084 0.451 Inf 0.652 -0.127  
 .crrnt\_mnthl\_\_\_ 1.140 0.063 18.212 Inf 0.000 1.018  
 .gross\_horly\_wg 1.468 0.164 8.973 Inf 0.000 1.147  
 .emplymnt\_stts\_ 2.451 0.041 60.474 Inf 0.000 2.371  
 .hghst\_dctnl\_dg 4.392 0.058 76.136 Inf 0.000 4.279  
 .risk\_takng\_scl 5.203 0.082 63.803 Inf 0.000 5.043  
 .politicl\_ntrst 1.583 0.029 54.843 Inf 0.000 1.526  
 .crrnt\_mt\_prnt\_ 0.001 0.001 0.682 Inf 0.495 -0.001  
 .nm\_physcn\_vsts 2.773 0.132 20.979 Inf 0.000 2.514  
 .migraine\_ncdnc 0.030 0.016 1.866 Inf 0.062 -0.002  
 .stroke\_incidnc 0.009 0.008 1.106 Inf 0.269 -0.007  
 ci.upper  
 1.177  
 0.203  
 1.263  
 1.789  
 2.530  
 4.506  
 5.363  
 1.640  
 0.003  
 3.032  
 0.061  
 0.024  
  
Variances:  
 Estimate Std.Err t-value df P(>|t|) ci.lower  
 .dly\_hrs\_hswrk\_ 1.225 0.062 19.830 89.993 0.000 1.102  
 .dly\_hrs\_chldc\_ 2.103 0.087 24.034 Inf 0.000 1.931  
 .crrnt\_mnthl\_\_\_ 1.645 0.092 17.876 25.501 0.000 1.456  
 .gross\_horly\_wg 17.981 0.776 23.169 19.236 0.000 16.358  
 .emplymnt\_stts\_ 0.973 0.047 20.677 Inf 0.000 0.881  
 .hghst\_dctnl\_dg 2.266 0.103 22.103 Inf 0.000 2.065  
 .risk\_takng\_scl 5.225 0.224 23.360 Inf 0.000 4.787  
 .politicl\_ntrst 0.605 0.027 22.695 Inf 0.000 0.553  
 .crrnt\_mt\_prnt\_ 0.001 0.000 24.435 Inf 0.000 0.001  
 .nm\_physcn\_vsts 15.519 0.639 24.290 100.723 0.000 14.252  
 .migraine\_ncdnc 0.045 0.002 24.430 Inf 0.000 0.042  
 .stroke\_incidnc 0.010 0.000 24.407 Inf 0.000 0.010  
 .gender 0.799 0.118 6.769 240.175 0.000 0.567  
 ci.upper  
 1.348  
 2.274  
 1.835  
 19.604  
 1.065  
 2.467  
 5.663  
 0.657  
 0.001  
 16.787  
 0.049  
 0.011  
 1.032  
  
  
Group 4 [[18,35)]:  
  
Latent Variables:  
 Estimate Std.Err t-value df P(>|t|) ci.lower  
 gender =~   
 dly\_hrs\_hswrk\_ 0.412 0.048 8.522 Inf 0.000 0.317  
 dly\_hrs\_chldc\_ 1.776 0.183 9.679 Inf 0.000 1.416  
 crrnt\_mnthl\_\_\_ -0.073 0.018 -3.988 153.179 0.000 -0.110  
 gross\_horly\_wg -0.045 0.049 -0.923 167.245 0.357 -0.141  
 emplymnt\_stts\_ -0.311 0.043 -7.201 587.059 0.000 -0.396  
 hghst\_dctnl\_dg -0.060 0.041 -1.452 278.765 0.148 -0.142  
 risk\_takng\_scl -0.279 0.068 -4.137 Inf 0.000 -0.412  
 politicl\_ntrst -0.075 0.023 -3.322 Inf 0.001 -0.119  
 crrnt\_mt\_prnt\_ 0.098 0.010 9.363 Inf 0.000 0.078  
 nm\_physcn\_vsts 0.225 0.075 3.019 723.495 0.003 0.079  
 ci.upper  
   
 0.507  
 2.136  
 -0.037  
 0.051  
 -0.227  
 0.021  
 -0.147  
 -0.031  
 0.119  
 0.372  
  
Regressions:  
 Estimate Std.Err t-value df  
 gender ~   
 sex\_binary 1.000   
 daily\_hours\_housework\_weekdays ~   
 nm\_chldrn\_n\_hs 0.248 0.050 4.986 Inf  
 partner 0.419 0.081 5.143 Inf  
 daily\_hours\_childcare\_weekdays ~   
 nm\_chldrn\_n\_hs 1.658 0.130 12.799 Inf  
 partner 1.563 0.212 7.389 888.882  
 current\_monthly\_gross\_labor\_income ~   
 est\_grmn\_rsdnc -0.059 0.055 -1.079 Inf  
 gross\_hourly\_wage ~   
 est\_grmn\_rsdnc -0.183 0.156 -1.169 Inf  
 migraine\_incidence ~   
 sex\_binary 0.025 0.012 2.172 Inf  
 gender 0.001 0.005 0.279 Inf  
 sex\_or 0.017 0.023 0.735 Inf  
 partner 0.010 0.012 0.822 Inf  
 immigrtn\_hstry -0.013 0.006 -2.008 Inf  
 smoke\_bfr\_mgrn 0.009 0.011 0.760 Inf  
 dibts\_bfr\_mgrn -0.015 0.060 -0.251 Inf  
 hyprtnsn\_bfr\_m -0.001 0.027 -0.048 Inf  
 stroke\_incidence ~   
 sex\_binary 0.000 0.001 0.215 Inf  
 gender 0.000 0.001 0.223 Inf  
 sex\_or -0.001 0.003 -0.183 Inf  
 partner 0.000 0.002 0.002 Inf  
 immigrtn\_hstry 0.000 0.001 0.046 Inf  
 smoke\_bfr\_strk 0.001 0.001 0.521 Inf  
 dibts\_bfr\_strk -0.001 0.008 -0.194 Inf  
 hyprtnsn\_bfr\_s 0.001 0.003 0.401 Inf  
 P(>|t|) ci.lower ci.upper  
   
 1.000 1.000  
   
 0.000 0.151 0.346  
 0.000 0.259 0.578  
   
 0.000 1.404 1.912  
 0.000 1.148 1.979  
   
 0.281 -0.167 0.048  
   
 0.243 -0.490 0.124  
   
 0.030 0.002 0.048  
 0.780 -0.008 0.011  
 0.462 -0.028 0.061  
 0.411 -0.014 0.033  
 0.045 -0.025 -0.000  
 0.447 -0.013 0.031  
 0.802 -0.133 0.103  
 0.962 -0.055 0.052  
   
 0.829 -0.003 0.003  
 0.824 -0.001 0.001  
 0.855 -0.006 0.005  
 0.998 -0.003 0.003  
 0.963 -0.002 0.002  
 0.603 -0.002 0.004  
 0.846 -0.016 0.013  
 0.688 -0.005 0.008  
  
Covariances:  
 Estimate Std.Err t-value df P(>|t|) ci.lower  
 .migraine\_incidence ~~   
 .stroke\_incidnc 0.000 0.000 1.228 Inf 0.219 -0.000  
 ci.upper  
   
 0.000  
  
Intercepts:  
 Estimate Std.Err t-value df P(>|t|) ci.lower  
 .dly\_hrs\_hswrk\_ 0.869 0.049 17.763 Inf 0.000 0.773  
 .dly\_hrs\_chldc\_ -0.576 0.146 -3.947 Inf 0.000 -0.863  
 .crrnt\_mnthl\_\_\_ -0.102 0.024 -4.230 647.906 0.000 -0.150  
 .gross\_horly\_wg -0.015 0.068 -0.214 258.955 0.830 -0.148  
 .emplymnt\_stts\_ 1.799 0.044 40.666 Inf 0.000 1.713  
 .hghst\_dctnl\_dg 3.251 0.053 61.168 Inf 0.000 3.147  
 .risk\_takng\_scl 5.490 0.082 67.103 Inf 0.000 5.329  
 .politicl\_ntrst 1.128 0.028 40.312 Inf 0.000 1.073  
 .crrnt\_mt\_prnt\_ -0.002 0.008 -0.189 Inf 0.850 -0.017  
 .nm\_physcn\_vsts 2.505 0.093 26.850 903.137 0.000 2.322  
 .migraine\_ncdnc 0.019 0.010 1.978 Inf 0.048 0.000  
 .stroke\_incidnc -0.000 0.001 -0.014 Inf 0.989 -0.002  
 ci.upper  
 0.965  
 -0.290  
 -0.055  
 0.119  
 1.886  
 3.355  
 5.650  
 1.182  
 0.014  
 2.688  
 0.038  
 0.002  
  
Variances:  
 Estimate Std.Err t-value df P(>|t|) ci.lower  
 .dly\_hrs\_hswrk\_ 1.080 0.053 20.243 Inf 0.000 0.975  
 .dly\_hrs\_chldc\_ 5.406 0.451 11.984 Inf 0.000 4.521  
 .crrnt\_mnthl\_\_\_ 0.443 0.019 22.863 19.848 0.000 0.402  
 .gross\_horly\_wg 3.616 0.157 23.088 20.162 0.000 3.289  
 .emplymnt\_stts\_ 1.458 0.066 21.955 Inf 0.000 1.328  
 .hghst\_dctnl\_dg 2.590 0.112 23.129 Inf 0.000 2.371  
 .risk\_takng\_scl 5.889 0.257 22.919 Inf 0.000 5.385  
 .politicl\_ntrst 0.701 0.030 23.013 Inf 0.000 0.641  
 .crrnt\_mt\_prnt\_ 0.025 0.002 15.322 Inf 0.000 0.022  
 .nm\_physcn\_vsts 7.838 0.340 23.030 26.291 0.000 7.139  
 .migraine\_ncdnc 0.029 0.001 23.153 Inf 0.000 0.026  
 .stroke\_incidnc 0.000 0.000 23.154 Inf 0.000 0.000  
 .gender 1.743 0.360 4.839 Inf 0.000 1.037  
 ci.upper  
 1.185  
 6.291  
 0.483  
 3.942  
 1.588  
 2.810  
 6.393  
 0.761  
 0.028  
 8.538  
 0.031  
 0.001  
 2.448

lavaan.mi object fit to 20 imputed data sets using:  
 - lavaan (0.6-19)  
 - lavaan.mi (0.1-0)  
See class?lavaan.mi help page for available methods.   
  
Convergence information:  
The model converged on 20 imputed data sets.  
Standard errors were available for all imputations.  
  
 Estimator ML  
 Optimization method NLMINB  
 Number of model parameters 50  
  
 Number of observations 51370  
 Sampling weights variable weight\_factor  
  
Model Test User Model:  
  
 Standard Scaled  
 Test statistic 55237.738 12310.753  
 Degrees of freedom 184 184  
 P-value 0.000 0.000  
 Average scaling correction factor 4.487  
 Pooling method D4   
 Pooled statistic "standard"   
 "yuan.bentler.mplus" correction applied AFTER pooling  
  
Model Test Baseline Model:  
  
 Test statistic 89539.693 36389.002  
 Degrees of freedom 222 222  
 P-value 0.000 0.000  
 Scaling correction factor 2.461  
  
User Model versus Baseline Model:  
  
 Comparative Fit Index (CFI) 0.384 0.665  
 Tucker-Lewis Index (TLI) 0.256 0.595  
   
 Robust Comparative Fit Index (CFI) 0.389  
 Robust Tucker-Lewis Index (TLI) 0.262  
  
Loglikelihood and Information Criteria:  
  
 Loglikelihood user model (H0) -869228.061 -869228.061  
 Scaling correction factor 54.691  
 for the MLR correction   
 Loglikelihood unrestricted model (H1) -836878.939 -836878.939  
 Scaling correction factor 15.164  
 for the MLR correction   
   
 Akaike (AIC) 1738556.122 1738556.122  
 Bayesian (BIC) 1738998.462 1738998.462  
 Sample-size adjusted Bayesian (SABIC) 1738839.561 1738839.561  
  
Root Mean Square Error of Approximation:  
  
 RMSEA 0.076 0.036  
 90 Percent confidence interval - lower 0.076 0.036  
 90 Percent confidence interval - upper 0.077 0.036  
 P-value H\_0: RMSEA <= 0.050 0.000 1.000  
 P-value H\_0: RMSEA >= 0.080 0.000 0.000  
   
 Robust RMSEA 0.076  
 90 Percent confidence interval - lower 0.075  
 90 Percent confidence interval - upper 0.077  
 P-value H\_0: Robust RMSEA <= 0.050 0.000  
 P-value H\_0: Robust RMSEA >= 0.080 0.000  
  
Standardized Root Mean Square Residual:  
  
 SRMR 0.072 0.072  
  
Parameter Estimates:  
  
 Standard errors Sandwich  
 Information bread Observed  
 Observed information based on H1  
 Information saturated (h1) model Structured  
   
 Pooled across imputations Rubin's (1987) rules  
 Augment within-imputation variance Scale by average RIV  
 Wald test for pooled parameters t(df) distribution  
  
 Pooled t statistics with df >= 1000 are displayed with  
 df = Inf(inity) to save space. Although the t distribution  
 with large df closely approximates a standard normal  
 distribution, exact df for reporting these t tests can be  
 obtained from parameterEstimates.mi()   
  
  
Latent Variables:  
 Estimate Std.Err t-value df P(>|t|) ci.lower  
 gender =~   
 dly\_hrs\_hswrk\_ 0.530 0.023 22.896 55.265 0.000 0.484  
 dly\_hrs\_chldc\_ 0.496 0.033 14.835 73.706 0.000 0.430  
 crrnt\_mnthl\_\_\_ -0.590 0.022 -27.287 Inf 0.000 -0.633  
 gross\_horly\_wg -0.777 0.067 -11.548 Inf 0.000 -0.909  
 emplymnt\_stts\_ -0.633 0.026 -23.973 378.195 0.000 -0.685  
 hghst\_dctnl\_dg -0.551 0.023 -23.947 Inf 0.000 -0.596  
 risk\_takng\_scl -0.525 0.026 -20.454 134.257 0.000 -0.576  
 politicl\_ntrst -0.158 0.009 -17.826 574.972 0.000 -0.175  
 crrnt\_mt\_prnt\_ 0.014 0.002 9.272 80.406 0.000 0.011  
 nm\_physcn\_vsts 0.417 0.033 12.666 882.646 0.000 0.353  
 ci.upper  
   
 0.577  
 0.563  
 -0.548  
 -0.645  
 -0.581  
 -0.506  
 -0.474  
 -0.140  
 0.017  
 0.482  
  
Regressions:  
 Estimate Std.Err t-value df  
 gender ~   
 sex\_binary 1.000   
 daily\_hours\_housework\_weekdays ~   
 nm\_chldrn\_n\_hs 0.163 0.016 9.886 Inf  
 partner 0.338 0.023 14.609 Inf  
 daily\_hours\_childcare\_weekdays ~   
 nm\_chldrn\_n\_hs 2.570 0.064 39.932 Inf  
 partner 0.227 0.042 5.417 Inf  
 current\_monthly\_gross\_labor\_income ~   
 est\_grmn\_rsdnc -0.194 0.014 -14.314 650.554  
 age\_10y 0.075 0.004 18.036 174.957  
 gross\_hourly\_wage ~   
 est\_grmn\_rsdnc -0.406 0.046 -8.896 207.135  
 age\_10y 0.238 0.015 15.712 416.111  
 migraine\_incidence ~   
 sex\_binary 0.048 0.005 10.256 Inf  
 gender 0.000 0.002 0.057 Inf  
 sex\_or 0.006 0.012 0.526 Inf  
 partner 0.002 0.004 0.473 Inf  
 age\_10y 0.005 0.001 3.717 Inf  
 immigrtn\_hstry -0.000 0.003 -0.169 Inf  
 smoke\_bfr\_mgrn 0.010 0.004 2.386 Inf  
 dibts\_bfr\_mgrn -0.013 0.006 -2.082 Inf  
 hyprtnsn\_bfr\_m -0.028 0.005 -5.699 Inf  
 stroke\_incidence ~   
 sex\_binary -0.013 0.003 -4.410 Inf  
 gender 0.006 0.001 5.133 224.593  
 sex\_or 0.003 0.005 0.553 Inf  
 partner -0.008 0.003 -2.674 Inf  
 age\_10y 0.012 0.001 11.689 Inf  
 immigrtn\_hstry -0.002 0.002 -1.016 Inf  
 smoke\_bfr\_strk 0.009 0.003 3.228 Inf  
 dibts\_bfr\_strk 0.012 0.007 1.720 Inf  
 hyprtnsn\_bfr\_s -0.003 0.004 -0.732 Inf  
 P(>|t|) ci.lower ci.upper  
   
 1.000 1.000  
   
 0.000 0.130 0.195  
 0.000 0.293 0.384  
   
 0.000 2.444 2.696  
 0.000 0.145 0.310  
   
 0.000 -0.221 -0.168  
 0.000 0.067 0.083  
   
 0.000 -0.496 -0.316  
 0.000 0.208 0.267  
   
 0.000 0.039 0.057  
 0.954 -0.004 0.005  
 0.599 -0.017 0.030  
 0.636 -0.006 0.010  
 0.000 0.002 0.007  
 0.865 -0.006 0.005  
 0.017 0.002 0.018  
 0.037 -0.026 -0.001  
 0.000 -0.037 -0.018  
   
 0.000 -0.018 -0.007  
 0.000 0.004 0.009  
 0.580 -0.007 0.013  
 0.007 -0.013 -0.002  
 0.000 0.010 0.013  
 0.310 -0.005 0.002  
 0.001 0.003 0.014  
 0.085 -0.002 0.026  
 0.464 -0.011 0.005  
  
Covariances:  
 Estimate Std.Err t-value df P(>|t|) ci.lower  
 .migraine\_incidence ~~   
 .stroke\_incidnc 0.001 0.000 2.710 Inf 0.007 0.000  
 ci.upper  
   
 0.002  
  
Variances:  
 Estimate Std.Err t-value df P(>|t|) ci.lower  
 .dly\_hrs\_hswrk\_ 1.437 0.071 20.115 Inf 0.000 1.297  
 .dly\_hrs\_chldc\_ 5.732 0.315 18.182 Inf 0.000 5.114  
 .crrnt\_mnthl\_\_\_ 0.499 0.069 7.238 135.313 0.000 0.363  
 .gross\_horly\_wg 8.042 2.678 3.003 Inf 0.003 2.791  
 .emplymnt\_stts\_ 1.315 0.022 60.683 Inf 0.000 1.272  
 .hghst\_dctnl\_dg 2.154 0.031 69.579 352.487 0.000 2.093  
 .risk\_takng\_scl 5.506 0.058 95.217 Inf 0.000 5.393  
 .politicl\_ntrst 0.685 0.008 91.076 Inf 0.000 0.670  
 .crrnt\_mt\_prnt\_ 0.017 0.001 15.975 Inf 0.000 0.015  
 .nm\_physcn\_vsts 15.148 1.243 12.189 Inf 0.000 12.713  
 .migraine\_ncdnc 0.049 0.002 27.845 Inf 0.000 0.045  
 .stroke\_incidnc 0.021 0.001 17.349 Inf 0.000 0.018  
 .gender 1.133 0.074 15.253 91.777 0.000 0.986  
 ci.upper  
 1.578  
 6.350  
 0.635  
 13.292  
 1.357  
 2.215  
 5.620  
 0.700  
 0.019  
 17.584  
 0.052  
 0.023  
 1.281

## Done

Time difference of 31.59028 mins