```
1 .
2 .
3 .
4 .
5 .
6 . *-------  Female Energy Level  crhtw model --------------------------
7 . /*
  >   EQ(12) Modelling WHPel by OLS-CS
  >         The dataset is: /Users/robertyaffee/Documents/data/research/chwk/phas
  > e3/
  >         data/ox/workingdatasets/MARS/gals.dta
  >         The estimation sample is: 1 - 340
  >         Dropped 2 observation(s) with missing values from the sample
  >
  >                    Coefficient  Std.Error      HACSE  t-HACSE  t-prob Part.R^
  > 2
  > BSIglobsi              28.5985      3.949      3.857     7.42  0.0000   0.146
  > 6
  > BSIips                -1.33902     0.7460     0.6556    -2.04  0.0419   0.012
  > 9
  > emplw25                23.1581      5.522      5.261     4.40  0.0000   0.057
  > 1
  > emplw33                28.9798      25.30      2.900     9.99  0.0000   0.237
  > 8
  > occ2w1                 10.8977      4.690      4.590     2.37  0.0182   0.017
  > 3
  > inc3w2                -9.02795      3.282      3.210    -2.81  0.0052   0.024
  > 1
  > deaw2                  4.47647      1.784      2.234     2.00  0.0459   0.012
  > 4
  > accdw3                -6.72365      4.353      3.188    -2.11  0.0357   0.013
  > 7
  > shhlw2                0.0867197    0.03800    0.03520     2.46  0.0143   0.018
  > 6
  > phlthw2               -0.436809    0.08038    0.06958    -6.28  0.0000   0.109
  > 7
  > mhlthw1                0.198210    0.07891    0.06954     2.85  0.0046   0.024
  > 8
  > physdisagw3            0.374375     0.1103     0.1043     3.59  0.0004   0.038
  > 7
  > PTSDw2                -0.533917     0.1833     0.1439    -3.71  0.0002   0.041
  > 2
  > airw1                 0.0924607    0.05055    0.04664     1.98  0.0483   0.012
  > 1
  > polprw2               -0.167809    0.04557    0.04104    -4.09  0.0001   0.049
  > 7
  > radhw1        U     -0.0204423    0.06275    0.05732   -0.357  0.7216   0.0004
  > radhw2        U      -0.151482     0.1335     0.1294    -1.17  0.2426   0.0043
  > radhw3        U       0.209236     0.1122     0.1116     1.88  0.0616   0.0109
```

```
  >
  > sigma                  25.0654  RSS                 201046.978
  > log-likelihood        -1559.22
  > no. of observations         338  no. of parameters           18
  > mean(WHPel)            32.1325  se(WHPel)              34.2849
  > When the log-likelihood constant is NOT included:
  > AIC                    6.49476  SC                     6.69835
  > HQ                     6.57590  FPE                    661.730
  > When the log-likelihood constant is included:
  > AIC                    9.33263  SC                     9.53623
  > HQ                     9.41377  FPE                    11302.0
  >
  > Normality test:   Chi^2(2)  =   8.5411 [0.0140]*
  > Hetero test:      F(31,305) =   1.5532 [0.0343]*
  > Hetero-X test:    F(122,214)=   1.3075 [0.0444]*
  > RESET23 test:     F(2,318)  =   2.6783 [0.0702]
  >
  > */
8 .
9 . *---------------------- Male Energy Level ----------------------------------
  > --
10 . /*
  > EQ(14) Modelling WHPel by OLS-CS
  >        The dataset is: /Users/robertyaffee/Documents/data/research/chwk/phas
  > e3/
  >        data/ox/workingdatasets/MARS/guys.dta
  >        The estimation sample is: 1 - 340
  >        Dropped 10 observation(s) with missing values from the sample
  >
  >                   Coefficient  Std.Error      HACSE  t-HACSE  t-prob Part.R^
  > 2
  > BSItotal             -4.00730      1.048      1.140    -3.51  0.0005   0.039
  > 3
  > BSIposymp             5.29711      1.125      1.208     4.38  0.0000   0.059
  > 8
  > BSIips               -2.91551     0.9161      1.164    -2.50  0.0128   0.020
  > 3
  > BSIhos               -2.92816     0.6954     0.7123    -4.11  0.0001   0.053
  > 0
  > childw1              -3.96407      1.790      1.673    -2.37  0.0184   0.018
  > 3
  > emplw34              -28.0151      9.020      4.785    -5.85  0.0000   0.101
  > 9
  > occ1w3               -10.5327      3.778      3.576    -2.95  0.0035   0.027
  > 9
  > occ2w3               -11.0726      3.706      3.795    -2.92  0.0038   0.027
  > 4
  > occ4w3               -8.95054      4.768      4.309    -2.08  0.0386   0.014
  > 1
```

```
> inc1w1                39.7223      17.28      7.205      5.51  0.0000   0.091
> 4
> inc2w1                47.2916      17.01      6.030      7.84  0.0000   0.169
> 2
> inc3w1                51.0236      17.25      7.606      6.71  0.0000   0.129
> 7
> inc4w1                55.6203      17.72      8.087      6.88  0.0000   0.135
> 4
> inc1w3               -38.6871      16.96      6.292     -6.15  0.0000   0.111
> 3
> inc2w3               -47.5441      17.04      6.740     -7.05  0.0000   0.141
> 5
> inc3w3               -44.9297      17.08      6.511     -6.90  0.0000   0.136
> 2
> inc4w3               -51.4831      18.14      7.795     -6.60  0.0000   0.126
> 2
> deaw3                 2.60848      1.609      1.683      1.55  0.1222   0.007
> 9
> dvcew1               -41.8370      18.69      8.564     -4.89  0.0000   0.073
> 2
> sepaw1                42.7638      18.44      7.997      5.35  0.0000   0.086
> 5
> movew2                9.97427      3.318      3.884      2.57  0.0107   0.021
> 4
> shfincw1            0.0446831    0.03778    0.03982      1.12  0.2627   0.004
> 2
> suprtw2             0.0726128    0.03375    0.03352      2.17  0.0311   0.015
> 3
> phlthw1             -0.231481    0.06142    0.06027     -3.84  0.0001   0.046
> 6
> radw1               0.0223231    0.03860    0.03746     0.596  0.5517   0.001
> 2
> radhw1       U     -0.149267    0.06998    0.08495     -1.76  0.0799   0.0101
> radhw2       U      0.365397     0.1488     0.1677      2.18  0.0301   0.0155
> radhw3       U     -0.153468     0.1263     0.1262     -1.22  0.2248   0.0049
>
> sigma                 23.1123  RSS                161321.656
> log-likelihood       -1489.94
> no. of observations       330  no. of parameters          28
> mean(WHPel)            22.897  se(WHPel)             29.7541
> When the log-likelihood constant is NOT included:
> AIC                   6.36176  SC                    6.68411
> HQ                    6.49034  FPE                   579.502
> When the log-likelihood constant is included:
> AIC                   9.19964  SC                    9.52198
> HQ                    9.32822  FPE                   9897.58
>
> Normality test:   Chi^2(2)  =   8.6958 [0.0129]*
> Hetero test:      F(42,287) =   1.6272 [0.0118]*
```

```
   > RESET23 test:     F(2,300)  =   1.2783 [0.2800]
   > */
11 .
12 .
13 .
14 . // Full Male Energy level Model
15 .
16 .
17 . des icdx1nr5 icdx2nr4 icdx3nr7 icdx4nr10 icdx4nr12 icdx4nr17 ///
   >   icdx5nr4 icdx5nr12 icdx5nr17  icdx5nr7 icdx7nr3

              storage  display     value
   variable name   type   format      label      variable label
   ------------------------------------------------------------------------------
   icdx1nr5        double %8.0g                  icdx1nr==401 hypertension
   icdx2nr4        double %8.0g                  icdx2nr==401 hypertension
   icdx3nr7        double %8.0g                  icdx3nr==434.91 crbrl art ocl
                                                   nos w infarc
   icdx4nr10       double %8.0g                  icdx4nr==varicose veins in legs
   icdx4nr12       double %8.0g                  icdx4nr==gastritis/duodenitis
   icdx4nr17       double %8.0g                  icdx4nr==renal/ureteral calculus
   icdx5nr4        double %8.0g                  icdx5nr==rheum fev w/o hrt
                                                   involv
   icdx5nr12       double %8.0g                  icdx5nr==575.1 cholecystitis
   icdx5nr17       double %8.0g                  icdx5nr==noninflam ids
                                                   over/adnex*
   icdx5nr7        double %8.0g                  icdx5nr==angina pectoris
   icdx7nr3        double %8.0g                  icdx7nr==diabetes militus

18 .
19 . des icdx1nr5  icdx4nr10 icdx7nr3

              storage  display     value
   variable name   type   format      label      variable label
   ------------------------------------------------------------------------------
   icdx1nr5        double %8.0g                  icdx1nr==401 hypertension
   icdx4nr10       double %8.0g                  icdx4nr==varicose veins in legs
   icdx7nr3        double %8.0g                  icdx7nr==diabetes militus
```

```
20 . regress WHPel age BSItotal BSIposymp BSIips BSIhos emplw34 ///
>    deaw3 dvcew1 sepaw1 movew2 shfincw1 fdferw1 radw2  ///
>    ecprw3 HP2pbfhm PTSDw2 radtlw1-radtlw2 crhtw1 crhtw2 crhtw3  WHPsleep  //
> /
>    WHPpa icdx1nr5  icdx4nr10 icdx7nr3 if gender==1, vce(cluster id)

Linear regression                               Number of obs =     330
                                                F( 25,   329) =       .
                                                Prob > F      =       .
                                                R-squared     =  0.5367
                                                Root MSE      =    21.2

                                   (Std. Err. adjusted for 330 clusters in id)
------------------------------------------------------------------------------
             |               Robust
      WHPel |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
------------+-----------------------------------------------------------------
         age |  -.0781547   .1042055    -0.75   0.454    -.2831479    .1268384
    BSItotal |  -2.707507   1.147409    -2.36   0.019     -4.96469   -.4503231
   BSIposymp |   3.550031   1.227375     2.89   0.004     1.135539    5.964523
     BSIips |  -1.778571   1.008292    -1.76   0.079    -3.762083    .2049409
     BSIhos |  -1.676007    .764575    -2.19   0.029     -3.18008   -.1719347
    emplw34 |   -12.0449   5.969653    -2.02   0.044    -23.7884   -.3013909
      deaw3 |   1.380249   1.738314     0.79   0.428    -2.039363    4.799862
     dvcew1 |  -51.85966   9.868365    -5.26   0.000    -71.27272   -32.44661
     sepaw1 |   49.03383   9.665983     5.07   0.000     30.0189    68.04876
     movew2 |    6.07847   3.672608     1.66   0.099    -1.146287    13.30323
   shfincw1 |   .0223847   .0373909     0.60   0.550    -.0511707    .0959401
    fdferw1 |   .0944129   .0438584     2.15   0.032     .0081347    .1806911
      radw2 |   .0827594   .0443197     1.87   0.063    -.0044264    .1699451
     ecprw3 |  -.1025451   .0446069    -2.30   0.022    -.1902958   -.0147944
   HP2pbfhm |   15.20853   5.547149     2.74   0.006     4.296177    26.12089
     PTSDw2 |  -.3666333   .1271032    -2.88   0.004    -.6166709   -.1165957
    radtlw1 |   .0486726   .0591353     0.82   0.411    -.0676583    .1650036
    radtlw2 |  -.0771335   .0613415    -1.26   0.209    -.1978046    .0435376
     crhtw1 |   -2.79737   3.399535    -0.82   0.411    -9.484939    3.890198
     crhtw2 |   12.01725   6.965108     1.73   0.085    -1.684514    25.71902
     crhtw3 |  -8.760432   5.816283    -1.51   0.133    -20.20223    2.681364
    WHPsleep |   .1230095   .0656598     1.87   0.062    -.0061565    .2521754
       WHPpa |   .6593744   .1030948     6.40   0.000     .4565663    .8621825
    icdx1nr5 |   13.08532   6.420985     2.04   0.042     .4539503    25.71668
   icdx4nr10 |   17.88941   7.687317     2.33   0.021     2.766916    33.01191
    icdx7nr3 |   23.47319   9.114798     2.58   0.010     5.542553    41.40383
       _cons |  -11.18532   8.197649    -1.36   0.173    -27.31174    4.941098
------------------------------------------------------------------------------
```

```
21 .
22 .
23 . // Trimmed Male Energy level Model
24 .
25 .
26 . des icdx1nr5 icdx2nr4 icdx3nr7 icdx4nr10 icdx4nr12 icdx4nr17 ///
   >   icdx5nr4 icdx5nr12 icdx5nr17  icdx5nr7 icdx7nr3

                storage  display     value
   variable name   type   format      label      variable label
   ------------------------------------------------------------------------------
   icdx1nr5        double %8.0g                   icdx1nr==401 hypertension
   icdx2nr4        double %8.0g                   icdx2nr==401 hypertension
   icdx3nr7        double %8.0g                   icdx3nr==434.91 crbrl art ocl
                                                    nos w infarc
   icdx4nr10       double %8.0g                   icdx4nr==varicose veins in legs
   icdx4nr12       double %8.0g                   icdx4nr==gastritis/duodenitis
   icdx4nr17       double %8.0g                   icdx4nr==renal/ureteral calculus
   icdx5nr4        double %8.0g                   icdx5nr==rheum fev w/o hrt
                                                    involv
   icdx5nr12       double %8.0g                   icdx5nr==575.1 cholecystitis
   icdx5nr17       double %8.0g                   icdx5nr==noninflam ids
                                                    over/adnex*
   icdx5nr7        double %8.0g                   icdx5nr==angina pectoris
   icdx7nr3        double %8.0g                   icdx7nr==diabetes militus

27 .
28 . * Graph preparation
29 .   cap drop h8MElsepred

30 . cap drop H8MaleELpred

31 . cap drop h8MELsepred

32 . cap drop MrELres

33 . cap drop upbELM
```

```
34 . cap drop lpbELM

35 .
36 .
37 .
38 .
39 .
40 . des icdx1nr5  icdx4nr10

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------
icdx1nr5        double %8.0g                  icdx1nr==401 hypertension
icdx4nr10       double %8.0g                  icdx4nr==varicose veins in legs

41 .
42 .
43 . cap drop MEL1

44 .
45 . regress WHPel age BSItotal BSIposymp BSIips BSIhos emplw34 ///
  >    dvcew1 sepaw1 HP2pbfhm movew2 fdferw1 radw2  ///
  >    ecprw3  PTSDw2  crhtw1 crhtw2 crhtw3  WHPsleep  ///
  >    WHPpa icdx1nr5  icdx4nr10  if gender==1, vce(cluster id)

Linear regression                               Number of obs =     332
                                                F( 21,   331) =   25.05
                                                Prob > F      =  0.0000
                                                R-squared     =  0.5324
                                                Root MSE      =  21.096

                                   (Std. Err. adjusted for 332 clusters in id)
------------------------------------------------------------------------------
             |               Robust
       WHPel |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         age |  -.0691375    .100906    -0.69   0.494    -.2676354    .1293604
    BSItotal |  -2.757287   1.138382    -2.42   0.016    -4.996662   -.5179109
   BSIposymp |   3.620638    1.21865     2.97   0.003     1.223362    6.017914
      BSIips |  -1.800336   .9958733    -1.81   0.072    -3.759375    .1587029
      BSIhos |  -1.672104   .7583673    -2.20   0.028    -3.163931   -.1802764
     emplw34 |  -10.61663   5.910845    -1.80   0.073    -22.24419    1.010927
      dvcew1 |  -51.69668   8.811191    -5.87   0.000    -69.02967   -34.36368
      sepaw1 |   47.86689   8.661722     5.53   0.000     30.82792    64.90586
    HP2pbfhm |   14.44848   5.558985     2.60   0.010     3.513089    25.38388
      movew2 |     6.4704   3.587455     1.80   0.072    -.5866869    13.52749
      fdferw1 |   .1003303    .042317     2.37   0.018     .0170861    .1835745
       radw2 |   .0793182   .0420614     1.89   0.060    -.0034231    .1620595
      ecprw3 |   -.096967   .0424824    -2.28   0.023    -.1805365   -.0133975
```

PTSDw2	-.3656043	.1269055	-2.88	0.004	-.6152474	-.1159612
crhtw1	-2.225473	2.663944	-0.84	0.404	-7.465868	3.014922
crhtw2	11.67578	6.81012	1.71	0.087	-1.720796	25.07235
crhtw3	-9.800454	6.062412	-1.62	0.107	-21.72617	2.125262
WHPsleep	.1208357	.0657579	1.84	0.067	-.0085204	.2501918
WHPpa	.6601579	.1012151	6.52	0.000	.4610519	.8592639
icdx1nr5	14.42615	6.154455	2.34	0.020	2.319376	26.53293
icdx4nr10	18.98845	8.420115	2.26	0.025	2.424759	35.55213
_cons	-13.33733	7.6749	-1.74	0.083	-28.43506	1.760403

```
46 . di e(r2_a)
.50070989

47 . rdiagrbst MEL1
(option xb assumed; fitted values)
(8 missing values generated)
yvar =  WHPel
age BSItotal BSIposymp BSIips BSIhos emplw34 dvcew1 sepaw1 HP2pbfhm movew2 fdf
> erw1 radw2 ecprw3 PTSDw2 crhtw1 crhtw2 crhtw3 WHPsleep WHPpa icdx1nr5 icdx4n
> r10 _cons
163
157
xvar = ,age BSItotal BSIposymp BSIips BSIhos emplw34 dvcew1 sepaw1 HP2pbfhm mo
> vew2 fdferw1 radw2 ecprw3 PTSDw2 crhtw1 crhtw2 crhtw3 WHPsleep WHPpa icdx1nr
> 5 icdx4nr10
```

	Problems
POuts	0
NOuts	0
Badouts	0
Collin	0
SW	0
KS	0
Spec	0
Strbrk	0
Coltot	0
Pcttot	0

Outlier dignostics

Fitted values

	Percentiles	Smallest		
1%	**-13.62149**	**-52.12167**		
5%	**-2.174866**	**-15.48507**		
10%	**2.168375**	**-15.19971**	Obs	**694**
25%	**8.232635**	**-15.01565**	Sum of Wgt.	**694**
50%	**22.31701**		Mean	**28.6518**
		Largest	Std. Dev.	**26.64698**
75%	**42.84578**	**112.0004**		
90%	**68.18063**	**117.1771**	Variance	**710.0615**
95%	**80.6496**	**118.4509**	Skewness	**.9767433**
99%	**108.842**	**124.8548**	Kurtosis	**3.739051**

(8 missing values generated)
(175 real changes made)
(175 real changes made)
(175 real changes made)
(175 real changes made)
(176 real changes made)
(176 real changes made)
(176 real changes made)
(176 real changes made)

Variable	Obs	Mean	Std. Dev.	Min	Max
__000001	**702**	**.2492877**	**.4329092**	**0**	**1**

Variable	Obs	Mean	Std. Dev.	Min	Max
__000003	**702**	**.2492877**	**.4329092**	**0**	**1**

Variable	Obs	Mean	Std. Dev.	Min	Max
__000005	**702**	**.2507123**	**.4337322**	**0**	**1**

Variable	Obs	Mean	Std. Dev.	Min	Max
__000007	**702**	**.2507123**	**.4337322**	**0**	**1**

.18741034
.1881236
Split sample analysis
There are 4 subsamples of equal sample size.

Variance 1 = .18741034
Variance 2 = .18741034
Variance 3 = .1881236
Variance 4 = .1881236

Minimum variance = .18741034

Maximum variance = .1881236

Computing Box's F test as indication of stuctural break:

for segment 1 Box's F = 1
for segment 2 Box's F = 1
for segment 3 Box's F = 1.0038059
for segment 4 Box's F = 1.0038059

There appears to be no structural break.

obs:	MEL1std
632.	-3.031243
195.	-1.656355
41.	-1.645646
203.	-1.638739
631.	-1.62885

363.	3.058261
357.	3.127883
7.	3.322151
312.	3.369956
6.	3.610279

There are 1 positive outliers

	id	MEL1std
6.	442	3.610279

There are 25 negative outliers:

	id	MEL1std
41.	574	-1.645646
125.	240	-1.355251
195.	496	-1.656355
198.	238	-1.345346
203.	552	-1.638739
235.	125	-1.309154
484.	544	-1.306762
486.	450	-1.247351
519.	540	-1.293661
539.	322	-1.230607
540.	740	-1.270912
541.	168	-1.403481
546.	592	-1.2272
563.	325	-1.329852
564.	746	-1.228079
590.	208	-1.58642
592.	437	-1.305188
611.	510	-1.214854
631.	547	-1.62885
632.	204	-3.031243
643.	74	-1.557815
653.	5	-1.222711
655.	444	-1.623661
668.	166	-1.26147
702.	445	-1.315417

(702 real changes made, 702 to missing)

1

25

(9 real changes made)

34

outlier

Percentiles		Smallest		
1%	**0**	**0**		
5%	**0**	**0**		
10%	**0**	**0**	Obs	**702**
25%	**0**	**0**	Sum of Wgt.	**702**

50%	**0**		Mean	**.0128205**
		Largest	Std. Dev.	**.1125798**
75%	**0**	**1**		
90%	**0**	**1**	Variance	**.0126742**
95%	**0**	**1**	Skewness	**8.661004**
99%	**1**	**1**	Kurtosis	**76.01299**

(351 real changes made)

__00000N	Freq.	Percent	Cum.
0	**351**	**50.00**	**50.00**
1	**351**	**50.00**	**100.00**
Total	**702**	**100.00**	

Stem-and-leaf plot for MEL1std

MEL1std rounded to nearest multiple of **.01**
plot in units of **.01**

```
 -30* | 3
 -29* |
 -28* |
 -27* |
 -26* |
 -25* |
 -24* |
 -23* |
 -22* |
 -21* |
 -20* |
 -19* |
 -18* |
 -17* |
 -16* | 65432
 -15* | 96
 -14* | 0
 -13* | 6532111
 -12* | 9765333210
 -11* | 998777776555443333211100
 -10* | 9998876665544332100
  -9* | 999999887777766666666666555544444333333333332222111000
  -8* | 888877777666554444333322222111000000000
  -7* | 999888888777766666665555443333322222211111000
  -6* | 99998877666655554433322222111000 0
  -5* | 9998888776666544333322222211110 0
  -4* | 988888866666555554444443222111 1000
  -3* | 98877777754443332222221111000
  -2* | 9988775555444444332222111000
```

```
  -1* | 99977775544444332111100
  -0* | 98874444444433332111
   0* | 00111233335555677889
   1* | 000122333445566666666677889999
   2* | 111222234445667788
   3* | 00112234455566777889
   4* | 011122344446888889
   5* | 0012333333345777
   6* | 00000011222556669
   7* | 0222333455566678
   8* | 001144455555589
   9* | 11233666789
  10* | 0455568
  11* | 034445677899
  12* | 111233467779
  13* | 3447899
  14* | 38
  15* | 3567788889
  16* | 0124566
  17* | 35667
  18* | 01123444689
  19* | 3579
  20* | 479
  21* | 58
  22* | 4
  23* | 2467
  24* | 13557
  25* | 37
  26* | 8
  27* | 137
  28* | 68
  29* | 7
  30* | 0146
  31* | 3
  32* |
  33* | 27
  34* |
  35* |
  36* | 1
```

Computing the leverage h

MEL1std

Percentiles		Smallest		
1%	-1.58642	-3.031243		
5%	-1.156854	-1.656355		
10%	-.993862	-1.645646	Obs	694
25%	-.7662843	-1.638739	Sum of Wgt.	694
50%	-.2377301		Mean	-8.93e-10
		Largest	Std. Dev.	1
75%	.5326675	3.127883		
90%	1.483427	3.322151	Variance	1
95%	1.951358	3.369956	Skewness	.9767433
99%	3.009356	3.610279	Kurtosis	3.739051

standard error of snewness= .09231881
(702 real changes made, 702 to missing)

t test for skewness = .
badout= 1
Positive outliers are :

	id
6.	442

1
Negative outliers are:

	id
41.	574
125.	240
195.	496
198.	238
203.	552
235.	125
484.	544
486.	450
519.	540
539.	322
540.	740
541.	168
546.	592
563.	325

564.	**746**
590.	**208**
592.	**437**
611.	**510**
631.	**547**
632.	**204**
643.	**74**
653.	**5**
655.	**444**
668.	**166**
702.	**445**

25

---

multicollinearity tests:

Variable	VIF	1/VIF
BSIposymp	**463.79**	**0.002156**
BSItotal	**442.86**	**0.002258**
crhtw2	**20.65**	**0.048435**
crhtw3	**14.91**	**0.067076**
BSIhos	**4.28**	**0.233687**
crhtw1	**3.95**	**0.253384**
BSIips	**3.07**	**0.325950**
dvcew1	**2.50**	**0.400164**
sepaw1	**2.47**	**0.404640**
WHPsleep	**1.70**	**0.589109**
ecprw3	**1.63**	**0.612932**
PTSDw2	**1.57**	**0.635880**
fdferw1	**1.57**	**0.637837**
WHPpa	**1.51**	**0.662964**
age	**1.42**	**0.703785**
radw2	**1.34**	**0.744578**
HP2pbfhm	**1.17**	**0.856143**
movew2	**1.17**	**0.857911**
icdx1nr5	**1.15**	**0.872182**
icdx4nr10	**1.09**	**0.913818**
emplw34	**1.08**	**0.928876**
Mean VIF	**46.42**	

Condition number using scaled variables = **310.53**

Condition Indexes and Variance-Decomposition Proportions

```
condition
    index      _cons       age  BSItotal BSIposymp    BSIips    BSIhos   emplw3
> 4    dvcew1    sepaw1  HP2pbfhm    movew2   fdferw1     radw2
1     1.00      0.00      0.00      0.00      0.00      0.00      0.00      0.0
> 0      0.00      0.00      0.00      0.00      0.00      0.00
2     1.74      0.00      0.00      0.00      0.00      0.00      0.00      0.0
> 0      0.00      0.00      0.00      0.00      0.00      0.00
3     2.28      0.00      0.00      0.00      0.00      0.00      0.00      0.0
> 4      0.10      0.10      0.00      0.00      0.00      0.00
4     2.98      0.00      0.00      0.00      0.00      0.00      0.00      0.0
> 0      0.00      0.00      0.13      0.15      0.00      0.00
5     3.03      0.00      0.00      0.00      0.00      0.00      0.00      0.0
> 5      0.00      0.00      0.05      0.13      0.00      0.00
6     3.16      0.00      0.00      0.00      0.00      0.00      0.00      0.6
> 9      0.01      0.02      0.00      0.08      0.00      0.00
7     3.25      0.00      0.00      0.00      0.00      0.00      0.00      0.0
> 4      0.00      0.01      0.51      0.07      0.00      0.01
8     3.47      0.00      0.00      0.00      0.00      0.00      0.00      0.1
> 4      0.00      0.00      0.03      0.11      0.02      0.01
9     3.70      0.00      0.00      0.00      0.00      0.00      0.00      0.0
> 0      0.00      0.00      0.03      0.29      0.02      0.00
10    4.15      0.00      0.00      0.00      0.00      0.00      0.00      0.0
> 1      0.01      0.01      0.15      0.03      0.03      0.01
11    4.56      0.00      0.00      0.00      0.00      0.00      0.00      0.0
> 0      0.00      0.00      0.01      0.00      0.07      0.00
12    5.23      0.00      0.00      0.00      0.00      0.00      0.00      0.0
> 1      0.01      0.00      0.00      0.02      0.68      0.00
13    5.50      0.00      0.00      0.00      0.00      0.00      0.00      0.0
> 1      0.01      0.03      0.02      0.01      0.03      0.26
14    5.99      0.00      0.00      0.00      0.00      0.00      0.00      0.0
> 0      0.19      0.19      0.01      0.03      0.01      0.35
15    6.37      0.00      0.00      0.00      0.00      0.00      0.00      0.0
> 0      0.51      0.48      0.04      0.01      0.07      0.19
16    7.47      0.00      0.00      0.00      0.00      0.03      0.01      0.0
> 0      0.12      0.12      0.01      0.02      0.05      0.13
17   10.28      0.02      0.13      0.00      0.00      0.23      0.02      0.0
> 0      0.00      0.00      0.00      0.02      0.01      0.00
18   11.69      0.01      0.13      0.00      0.00      0.07      0.33      0.0
> 1      0.00      0.01      0.00      0.01      0.01      0.02
19   18.14      0.00      0.01      0.00      0.00      0.00      0.00      0.0
> 0      0.01      0.00      0.00      0.00      0.00      0.01
20   22.89      0.93      0.68      0.00      0.00      0.01      0.03      0.0
> 0      0.00      0.00      0.00      0.00      0.00      0.00
21   26.82      0.02      0.04      0.00      0.00      0.65      0.54      0.0
> 0      0.01      0.01      0.00      0.01      0.00      0.01
22  310.53      0.00      0.00      1.00      1.00      0.00      0.06      0.0
> 2      0.02      0.01      0.00      0.02      0.00      0.00
```

```
condition
    index    ecprw3    PTSDw2    crhtw1    crhtw2    crhtw3  WHPsleep     WHPp
> a  icdx1nr5 icdx4nr10
1    1.00      0.00      0.00      0.00      0.00      0.00      0.00      0.0
> 0      0.00      0.00
2    1.74      0.00      0.01      0.02      0.00      0.01      0.00      0.0
> 0      0.00      0.00
3    2.28      0.00      0.00      0.00      0.00      0.00      0.00      0.0
> 0      0.00      0.00
4    2.98      0.00      0.01      0.00      0.00      0.00      0.00      0.0
> 1      0.20      0.26
5    3.03      0.00      0.00      0.00      0.00      0.00      0.01      0.0
> 1      0.05      0.52
6    3.16      0.00      0.01      0.00      0.00      0.00      0.00      0.0
> 2      0.02      0.05
7    3.25      0.00      0.03      0.00      0.00      0.00      0.01      0.0
> 5      0.08      0.00
8    3.47      0.00      0.10      0.00      0.00      0.00      0.00      0.0
> 2      0.49      0.00
9    3.70      0.01      0.32      0.01      0.00      0.00      0.00      0.0
> 3      0.07      0.04
10   4.15      0.01      0.13      0.01      0.00      0.00      0.10      0.3
> 5      0.01      0.04
11   4.56      0.02      0.12      0.00      0.00      0.00      0.54      0.1
> 1      0.00      0.00
12   5.23      0.00      0.03      0.01      0.00      0.01      0.08      0.1
> 8      0.02      0.01
13   5.50      0.04      0.03      0.29      0.00      0.02      0.01      0.0
> 0      0.01      0.01
14   5.99      0.24      0.04      0.02      0.00      0.00      0.01      0.0
> 7      0.00      0.00
15   6.37      0.03      0.01      0.14      0.00      0.01      0.00      0.0
> 0      0.00      0.00
16   7.47      0.40      0.03      0.13      0.01      0.03      0.13      0.0
> 0      0.00      0.00
17  10.28      0.10      0.01      0.09      0.00      0.02      0.02      0.0
> 1      0.02      0.01
18  11.69      0.08      0.06      0.00      0.00      0.01      0.01      0.0
> 5      0.00      0.00
19  18.14      0.01      0.00      0.22      0.95      0.89      0.00      0.0
> 0      0.01      0.00
20  22.89      0.03      0.05      0.00      0.03      0.00      0.03      0.0
> 1      0.01      0.01
21  26.82      0.00      0.01      0.00      0.00      0.00      0.03      0.0
> 6      0.00      0.02
22 310.53      0.03      0.00      0.05      0.00      0.00      0.02      0.0
> 2      0.00      0.02
```

Residual normality tests:

Shapiro-Wilk W test for normal data

Variable	Obs	W	V	z	Prob>z
MEL1std	**694**	**0.92789**	**32.628**	**8.500**	**0.00000**

Skewness/Kurtosis tests for Normality

Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	joint adj chi2(2)	joint Prob>chi2
MEL1std	**694**	**0.0000**	**0.0017**	**72.09**	**0.0000**

Jarque-Bera normality test: **126.1** Chi(**2**) **4.1e-28**
Jarque-Bera test for Ho: normality:
(file qnMEL1std.gph saved)
(file bxMEL1std.gph saved)
(bin=**26**, start=**-3.0312431**, width=**.25544316**)
(file histMEL1std.gph saved)
(file kdMEL1std.gph saved)
(file combi4.gph saved)

Specification error tests:

Ramsey RESET test using powers of the fitted values of WHPel
Ho: model has no omitted variables
F(3, 307) = **2.10**
Prob > F = **0.0997**

Assessment of fulfillment of cross-sectional statistical regression assumption > s:
Caveat: This score is a heuristicc only as these scores are not strictly addit > ive

Regression model assumption test result matrix

	Problems=1
Positive-outliers	**1**
Negative-outliers	**25**
Bad-outliers	**1**
collinearity	**1**
Shapiro-Wilk	**1**
Kolmogorov-Smirnov	**1**
Specification	**0**
StructuralBreak	**0**
TotalProbs	**3**
Percent-Invalid	**60**
Pct-Pseudo-Valid	**40**

```
Problem type total score = Bad-Outliers+collinearity + (SW + KS)/2 + Spec + st
> rbrk
Percent_Valid = 100 - (percent of violated assumptions)
```

```
Legend:
PosOutliers = positive outlier issue
NegOutliers = negative outlier issue
Badoutliers = Number of outliers with bad leverage
collinearity =  Collinearity problem when condition number > 20
SW = Significant Shapiro-Wilk test
KS = Significant Kolmogorov-Smirnov test
Spec = Significant Ramset23 reset test
strbrk = Existence of structural break in residual variance between 4 sample s
> egments
Column total = the total number of counted problems in the column vector
Percent invalid: Percent of 6 regression assumptions violated
Percent Pseudo-Validity =  percent of regression model assumptions not violate
> d
```

```
48 .
49 . regress WHPel age BSItotal BSIposymp BSIips BSIhos emplw34 ///
   >    dvcew1 sepaw1 HP2pbfhm movew2 fdferw1 radw2  ///
   >    ecprw3  PTSDw2  crhtw1 crhtw2 crhtw3  WHPsleep  ///
   >    WHPpa icdx1nr5  icdx4nr10  if gender==1, vce(cluster id)

Linear regression                               Number of obs =     332
                                                F( 21,   331) =   25.05
                                                Prob > F      =  0.0000
                                                R-squared     =  0.5324
                                                Root MSE      =  21.096

                                   (Std. Err. adjusted for 332 clusters in id)
------------------------------------------------------------------------------
             |               Robust
      WHPel |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         age |  -.0691375    .100906    -0.69   0.494    -.2676354    .1293604
    BSItotal |  -2.757287   1.138382    -2.42   0.016    -4.996662   -.5179109
   BSIposymp |   3.620638    1.21865     2.97   0.003     1.223362    6.017914
      BSIips |  -1.800336   .9958733    -1.81   0.072    -3.759375    .1587029
      BSIhos |  -1.672104   .7583673    -2.20   0.028    -3.163931   -.1802764
     emplw34 |  -10.61663   5.910845    -1.80   0.073    -22.24419    1.010927
     dvcew1  |  -51.69668   8.811191    -5.87   0.000    -69.02967   -34.36368
     sepaw1  |   47.86689   8.661722     5.53   0.000     30.82792    64.90586
    HP2pbfhm |   14.44848   5.558985     2.60   0.010     3.513089    25.38388
     movew2  |    6.4704   3.587455     1.80   0.072    -.5866869    13.52749
     fdferw1 |   .1003303    .042317     2.37   0.018     .0170861    .1835745
      radw2  |   .0793182   .0420614     1.89   0.060    -.0034231    .1620595
     ecprw3  |   -.096967   .0424824    -2.28   0.023    -.1805365   -.0133975
     PTSDw2  |  -.3656043   .1269055    -2.88   0.004    -.6152474   -.1159612
     crhtw1  |  -2.225473   2.663944    -0.84   0.404    -7.465868    3.014922
     crhtw2  |   11.67578    6.81012     1.71   0.087    -1.720796    25.07235
     crhtw3  |  -9.800454   6.062412    -1.62   0.107    -21.72617    2.125262
    WHPsleep |   .1208357   .0657579     1.84   0.067    -.0085204    .2501918
       WHPpa |   .6601579   .1012151     6.52   0.000     .4610519    .8592639
    icdx1nr5 |   14.42615   6.154455     2.34   0.020     2.319376    26.53293
   icdx4nr10 |   18.98845   8.420115     2.26   0.025     2.424759    35.55213
       _cons |  -13.33733    7.6749    -1.74   0.083    -28.43506    1.760403
------------------------------------------------------------------------------
```

```
50 . di e(r2_a)
   .50070989

51 .
52 .      predict H8MaleELpred if gender==2, xb
   (340 missing values generated)

53 .      predict h8MELsepred if gender==2, stdp
   (340 missing values generated)

54 .      predict MrELres if gender==2, residual
   (340 missing values generated)

55 .      gen upbELM = H8MaleELpred + 1.96*h8MELsepred
   (340 missing values generated)

56 .      gen lpbELM = H8MaleELpred - 1.96*h8MELsepred
   (340 missing values generated)

57 .
58 . scatter H8MaleELpred MrELres || lowess H8MaleELpred  MrELres  ///
   >   || lowess upbm MrELres || lowess lpbm MrELres, ///
   >   title(Prediction interval of Male Energy Level model)   ///
   >   ytitle(Predicted Male Energy Level)

59 .
60 .
61 .
62 . gr save MELPredInt.gph, replace
   (file MELPredInt.gph saved)

63 . gr export MELPredInt.eps, replace
   (file MELPredInt.eps written in EPS format)

64 . gr use  MELPredInt.gph

65 .
```

```
66 . *-+-  no significant male energy level relationships apparent
67 . cap drop mfelres

68 . rdiagrbst mfelres
   (option xb assumed; fitted values)
   (8 missing values generated)
   yvar =  WHPel
   age BSItotal BSIposymp BSIips BSIhos emplw34 dvcew1 sepaw1 HP2pbfhm movew2 fdf
   > erw1 radw2 ecprw3 PTSDw2 crhtw1 crhtw2 crhtw3 WHPsleep WHPpa icdx1nr5 icdx4n
   > r10 _cons
   163
   157
   xvar = ,age BSItotal BSIposymp BSIips BSIhos emplw34 dvcew1 sepaw1 HP2pbfhm mo
   > vew2 fdferw1 radw2 ecprw3 PTSDw2 crhtw1 crhtw2 crhtw3 WHPsleep WHPpa icdx1nr
   > 5 icdx4nr10
```

	Problems
POuts	**0**
NOuts	**0**
Badouts	**0**
Collin	**0**
SW	**0**
KS	**0**
Spec	**0**
Strbrk	**0**
Coltot	**0**
Pcttot	**0**

Outlier dignostics

Fitted values

	Percentiles	Smallest		
1%	**-13.62149**	**-52.12167**		
5%	**-2.174866**	**-15.48507**		
10%	**2.168375**	**-15.19971**	Obs	**694**
25%	**8.232635**	**-15.01565**	Sum of Wgt.	**694**

```
50%      22.31701                      Mean           28.6518
                        Largest       Std. Dev.      26.64698
75%      42.84578       112.0004
90%      68.18063       117.1771       Variance       710.0615
95%       80.6496       118.4509       Skewness       .9767433
99%       108.842       124.8548       Kurtosis       3.739051
(175 real changes made)
(175 real changes made)
(175 real changes made)
(175 real changes made)
(176 real changes made)
(176 real changes made)
(176 real changes made)
(176 real changes made)
```

Variable	Obs	Mean	Std. Dev.	Min	Max
__000001	702	.2492877	.4329092	0	1

Variable	Obs	Mean	Std. Dev.	Min	Max
__000003	702	.2492877	.4329092	0	1

Variable	Obs	Mean	Std. Dev.	Min	Max
__000005	702	.2507123	.4337322	0	1

Variable	Obs	Mean	Std. Dev.	Min	Max
__000007	702	.2507123	.4337322	0	1

```
.18741034
.1881236
Split sample analysis
There are 4 subsamples of equal sample size.

Variance 1 =  .18741034
Variance 2 =  .18741034
Variance 3 =  .1881236
Variance 4 =  .1881236

Minimum variance =  .18741034

Maximum variance =  .1881236

Computing Box's F test as indication of stuctural break:

for segment 1  Box's F =  1
for segment 2  Box's F =  1
for segment 3  Box's F =  1.0038059
```

for segment 4 Box's F = 1.0038059

There appears to be no structural break.

obs:	mfelres~d
632.	-2.901686
41.	-1.617251
195.	-1.61562
203.	-1.602458
631.	-1.584322

363.	3.096782
357.	3.192965
7.	3.327403
312.	3.366506
6.	3.626858

There are 1 positive outliers

	id	mfelre~d
6.	442	3.626858

There are 25 negative outliers:

	id	mfelres~d
41.	574	-1.617251
125.	240	-1.168731
195.	496	-1.61562
198.	238	-1.314312
203.	552	-1.602458
235.	125	-1.295844
484.	544	-1.28838
486.	450	-1.262166
519.	540	-1.289497
539.	322	-1.259367
540.	740	-1.271721
541.	168	-1.355291
546.	592	-1.111634
563.	325	-1.256084

564.	**746**	**-1.226634**
590.	**208**	**-1.469984**
592.	**437**	**-1.281741**
611.	**510**	**-1.193721**
631.	**547**	**-1.584322**
632.	**204**	**-2.901686**
643.	**74**	**-1.551588**
653.	**5**	**-1.226107**
655.	**444**	**-1.580035**
668.	**166**	**-1.220241**
702.	**445**	**-1.324495**

(702 real changes made, 702 to missing)

1

25

(9 real changes made)

34

outlier

Percentiles		Smallest		
1%	**0**	**0**		
5%	**0**	**0**		
10%	**0**	**0**	Obs	**702**
25%	**0**	**0**	Sum of Wgt.	**702**
50%	**0**		Mean	**.0128205**
		Largest	Std. Dev.	**.1125798**
75%	**0**	**1**		
90%	**0**	**1**	Variance	**.0126742**
95%	**0**	**1**	Skewness	**8.661004**
99%	**1**	**1**	Kurtosis	**76.01299**

(351 real changes made)

__00000N	Freq.	Percent	Cum.
0	**351**	**50.00**	**50.00**
1	**351**	**50.00**	**100.00**
Total	**702**	**100.00**	

Stem-and-leaf plot for mfelresstd

mfelresstd rounded to nearest multiple of **.01**
plot in units of **.01**

```
-29* | 0
-28* |
-27* |
-26* |
-25* |
-24* |
-23* |
-22* |
-21* |
-20* |
-19* |
-18* |
-17* |
-16* | 220
-15* | 885
-14* | 7
-13* | 632100
-12* | 9987666332100
-11* | 998888777665554322100000
-10* | 99988877665555543321100000
 -9* | 9999988777776666665555555544433322211100
 -8* | 998888777666655555555544333332222221111111100000
 -7* | 99999888777766666544444433333222211111111100000
 -6* | 9998777766665555543332222110000000
 -5* | 999997776655444333333222110000
 -4* | 99887777665544433333322222110 0
 -3* | 9998888887776644443332222211100
 -2* | 98877665554333332221100
 -1* | 999988777776554444443322210
 -0* | 99998766666543332211
  0* | 000011222234666677888999
  1* | 00111233444555667778889
  2* | 00112224455556677778
  3* | 001233333444555555678899999
  4* | 001133334566777888
  5* | 00112333344557777
  6* | 1123335677789
  7* | 00134556889999
  8* | 113445567789
  9* | 011124566779
 10* | 1255578
 11* | 01224456668889
 12* | 011234445669
 13* | 1678
 14* | 001367
 15* | 347889
 16* | 0111245678
 17* | 4889
 18* | 0111134556789
```

```
  19* | 11
  20* | 058
  21* | 489
  22* |
  23* | 0018
  24* | 189
  25* | 023589
  26* | 4
  27* | 127
  28* | 29
  29* | 36
  30* | 2
  31* | 09
  32* |
  33* | 37
  34* |
  35* |
  36* | 3
```

Computing the leverage h

mfelresstd

Percentiles		Smallest		
1%	-1.551588	-2.901686		
5%	-1.172749	-1.617251		
10%	-1.018658	-1.61562	Obs	694
25%	-.7725602	-1.602458	Sum of Wgt.	694
50%	-.2283684		Mean	4.86e-11
		Largest	Std. Dev.	1
75%	.5292838	3.192965		
90%	1.459196	3.327403	Variance	1
95%	1.906616	3.366506	Skewness	.9823176
99%	2.960396	3.626858	Kurtosis	3.704572

```
standard error of snewness=  .09231881
(702 real changes made, 702 to missing)

t test for skewness =  .
badout=  1
Positive outliers are :
```

	id
6.	442

1

Negative outliers are:

	id
41.	574
125.	240
195.	496
198.	238
203.	552
235.	125
484.	544
486.	450
519.	540
539.	322
540.	740
541.	168
546.	592
563.	325
564.	746
590.	208
592.	437
611.	510
631.	547
632.	204
643.	74
653.	5
655.	444
668.	166
702.	445

25

---

multicollinearity tests:

Variable	VIF	1/VIF
BSIposymp	**463.79**	**0.002156**
BSItotal	**442.86**	**0.002258**
crhtw2	**20.65**	**0.048435**
crhtw3	**14.91**	**0.067076**
BSIhos	**4.28**	**0.233687**
crhtw1	**3.95**	**0.253384**
BSIips	**3.07**	**0.325950**
dvcew1	**2.50**	**0.400164**
sepaw1	**2.47**	**0.404640**
WHPsleep	**1.70**	**0.589109**
ecprw3	**1.63**	**0.612932**
PTSDw2	**1.57**	**0.635880**
fdferw1	**1.57**	**0.637837**
WHPpa	**1.51**	**0.662964**
age	**1.42**	**0.703785**
radw2	**1.34**	**0.744578**
HP2pbfhm	**1.17**	**0.856143**
movew2	**1.17**	**0.857911**
icdx1nr5	**1.15**	**0.872182**
icdx4nr10	**1.09**	**0.913818**
emplw34	**1.08**	**0.928876**
Mean VIF	**46.42**	

Condition number using scaled variables = **310.53**

Condition Indexes and Variance-Decomposition Proportions

condition index	_cons	age	BSItotal	BSIposymp	BSIips	BSIhos	emplw3
> 4	dvcew1	sepaw1	HP2pbfhm	movew2	fdferw1	radw2	
1	**1.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.0**
> 0	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		
2	**1.74**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.0**
> 0	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		
3	**2.28**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.0**
> 4	**0.10**	**0.10**	**0.00**	**0.00**	**0.00**	**0.00**		
4	**2.98**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.0**
> 0	**0.00**	**0.00**	**0.13**	**0.15**	**0.00**	**0.00**		
5	**3.03**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.0**
> 5	**0.00**	**0.00**	**0.05**	**0.13**	**0.00**	**0.00**		
6	**3.16**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.6**
> 9	**0.01**	**0.02**	**0.00**	**0.08**	**0.00**	**0.00**		
7	**3.25**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.0**
> 4	**0.00**	**0.01**	**0.51**	**0.07**	**0.00**	**0.01**		
8	**3.47**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.1**
> 4	**0.00**	**0.00**	**0.03**	**0.11**	**0.02**	**0.01**		

```
9    3.70      0.00      0.00      0.00      0.00      0.00      0.00      0.0
> 0      0.00      0.00      0.03      0.29      0.02      0.00
10   4.15      0.00      0.00      0.00      0.00      0.00      0.00      0.0
> 1      0.01      0.01      0.15      0.03      0.03      0.01
11   4.56      0.00      0.00      0.00      0.00      0.00      0.00      0.0
> 0      0.00      0.00      0.01      0.00      0.07      0.00
12   5.23      0.00      0.00      0.00      0.00      0.00      0.00      0.0
> 1      0.01      0.00      0.00      0.02      0.68      0.00
13   5.50      0.00      0.00      0.00      0.00      0.00      0.00      0.0
> 1      0.01      0.03      0.02      0.01      0.03      0.26
14   5.99      0.00      0.00      0.00      0.00      0.00      0.00      0.0
> 0      0.19      0.19      0.01      0.03      0.01      0.35
15   6.37      0.00      0.00      0.00      0.00      0.00      0.00      0.0
> 0      0.51      0.48      0.04      0.01      0.07      0.19
16   7.47      0.00      0.00      0.00      0.00      0.03      0.01      0.0
> 0      0.12      0.12      0.01      0.02      0.05      0.13
17  10.28      0.02      0.13      0.00      0.00      0.23      0.02      0.0
> 0      0.00      0.00      0.00      0.02      0.01      0.00
18  11.69      0.01      0.13      0.00      0.00      0.07      0.33      0.0
> 1      0.00      0.01      0.00      0.01      0.01      0.02
19  18.14      0.00      0.01      0.00      0.00      0.00      0.00      0.0
> 0      0.01      0.00      0.00      0.00      0.00      0.01
20  22.89      0.93      0.68      0.00      0.00      0.01      0.03      0.0
> 0      0.00      0.00      0.00      0.00      0.00      0.00
21  26.82      0.02      0.04      0.00      0.00      0.65      0.54      0.0
> 0      0.01      0.01      0.00      0.01      0.00      0.01
22 310.53      0.00      0.00      1.00      1.00      0.00      0.06      0.0
> 2      0.02      0.01      0.00      0.02      0.00      0.00

condition
    index    ecprw3    PTSDw2    crhtw1    crhtw2    crhtw3  WHPsleep     WHPp
> a  icdx1nr5 icdx4nr10
1    1.00      0.00      0.00      0.00      0.00      0.00      0.00      0.0
> 0      0.00      0.00
2    1.74      0.00      0.01      0.02      0.00      0.01      0.00      0.0
> 0      0.00      0.00
3    2.28      0.00      0.00      0.00      0.00      0.00      0.00      0.0
> 0      0.00      0.00
4    2.98      0.00      0.01      0.00      0.00      0.00      0.00      0.0
> 1      0.20      0.26
5    3.03      0.00      0.00      0.00      0.00      0.00      0.01      0.0
> 1      0.05      0.52
6    3.16      0.00      0.01      0.00      0.00      0.00      0.00      0.0
> 2      0.02      0.05
7    3.25      0.00      0.03      0.00      0.00      0.00      0.01      0.0
> 5      0.08      0.00
8    3.47      0.00      0.10      0.00      0.00      0.00      0.00      0.0
> 2      0.49      0.00
9    3.70      0.01      0.32      0.01      0.00      0.00      0.00      0.0
```

```
> 3      0.07      0.04
10   4.15      0.01      0.13      0.01      0.00      0.00      0.10      0.3
> 5      0.01      0.04
11   4.56      0.02      0.12      0.00      0.00      0.00      0.54      0.1
> 1      0.00      0.00
12   5.23      0.00      0.03      0.01      0.00      0.01      0.08      0.1
> 8      0.02      0.01
13   5.50      0.04      0.03      0.29      0.00      0.02      0.01      0.0
> 0      0.01      0.01
14   5.99      0.24      0.04      0.02      0.00      0.00      0.01      0.0
> 7      0.00      0.00
15   6.37      0.03      0.01      0.14      0.00      0.01      0.00      0.0
> 0      0.00      0.00
16   7.47      0.40      0.03      0.13      0.01      0.03      0.13      0.0
> 0      0.00      0.00
17  10.28      0.10      0.01      0.09      0.00      0.02      0.02      0.0
> 1      0.02      0.01
18  11.69      0.08      0.06      0.00      0.00      0.01      0.01      0.0
> 5      0.00      0.00
19  18.14      0.01      0.00      0.22      0.95      0.89      0.00      0.0
> 0      0.01      0.00
20  22.89      0.03      0.05      0.00      0.03      0.00      0.03      0.0
> 1      0.01      0.01
21  26.82      0.00      0.01      0.00      0.00      0.00      0.03      0.0
> 6      0.00      0.02
22 310.53      0.03      0.00      0.05      0.00      0.00      0.02      0.0
> 2      0.00      0.02
```

Residual normality tests:

Shapiro-Wilk W test for normal data

Variable	Obs	W	V	z	Prob>z
mfelresstd	694	0.92711	32.980	8.526	0.00000

Skewness/Kurtosis tests for Normality

				joint	
Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	adj chi2(2)	Prob>chi2
mfelresstd	694	0.0000	0.0024	72.09	0.0000

Jarque-Bera normality test: **126.1** Chi(**2**) **4.1e-28**
Jarque-Bera test for Ho: normality:
(file qnmfelresstd.gph saved)
(file bxmfelresstd.gph saved)
(bin=**26**, start=**-2.901686**, width=**.25109784**)
(file histmfelresstd.gph saved)
(file kdmfelresstd.gph saved)

(file combi4.gph saved)

Specification error tests:

Ramsey RESET test using powers of the fitted values of WHPel
Ho: model has no omitted variables
F(3, 307) = **2.10**
Prob > F = **0.0997**

Assessment of fulfillment of cross-sectional statistical regression assumption > s:
Caveat: This score is a heuristicc only as these scores are not strictly addit > ive

Regression model assumption test result matrix

	Problems=1
Positive-outliers	**1**
Negative-outliers	**25**
Bad-outliers	**1**
collinearity	**1**
Shapiro-Wilk	**1**
Kolmogorov-Smirnov	**1**
Specification	**0**
StructuralBreak	**0**
TotalProbs	**3**
Percent-Invalid	**60**
Pct-Pseudo-Valid	**40**

Problem type total score = Bad-Outliers+collinearity + (SW + KS)/2 + Spec + st > rbrk
Percent_Valid = 100 - (percent of violated assumptions)

Legend:

```
PosOutliers = positive outlier issue
NegOutliers = negative outlier issue
Badoutliers = Number of outliers with bad leverage
collinearity =  Collinearity problem when condition number > 20
SW = Significant Shapiro-Wilk test
KS = Significant Kolmogorov-Smirnov test
Spec = Significant Ramset23 reset test
strbrk = Existence of structural break in residual variance between 4 sample s
> egments
Column total = the total number of counted problems in the column vector
Percent invalid: Percent of 6 regression assumptions violated
Percent Pseudo-Validity =  percent of regression model assumptions not violate
> d
```

```
69 .
70 . title "Male Energy level indirect effects test"
```

```
*******************************************************************************
> *
*******************************************************************************
> *
*****                                                                      ****
> *
*****                                                                      ****
> *
*****              Male Energy level indirect effects test                 ****
> *
*****                                                                      ****
> *
*****                                                                      ****
> *
*****                                          13 Jul 2012    12:43:43  ****
> *
*******************************************************************************
> *
*******************************************************************************
> *
```

```
71 . set more off

72 .  foreach var in age BSItotal BSIposymp BSIips BSIhos emplw34 ///
   >    dvcew1 sepaw1 HP2pbfhm movew2 fdferw1 radw2  ///
   >    ecprw3  PTSDw2  WHPsleep  ///
   >    WHPpa icdx1nr5  icdx4nr10   {
     2. sem (crhtw1-> `var')(`var'-> whpel) if gender==1, nocapslatent iterate(50
   > )
     3. sem (crhtw2-> `var')(`var'-> whpel) if gender==1, nocapslatent iterate(50
   > )
     4. sem (crhtw3-> `var')(`var'-> whpel) if gender==1, nocapslatent iterate(50
   > )
     5. }

   Endogenous variables

   Observed:  age whpel

   Exogenous variables

   Observed:  crhtw1

   Fitting target model:

   Iteration 0:   log likelihood = -3388.1498
   Iteration 1:   log likelihood = -3388.1498

   Structural equation model                       Number of obs      =       339
   Estimation method  = ml
   Log likelihood     = -3388.1498
```

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
age <-						
crhtw1	**4.266795**	**.6763452**	**6.31**	**0.000**	**2.941183**	**5.592408**
_cons	**49.78043**	**.635245**	**78.36**	**0.000**	**48.53537**	**51.02549**
whpel <-						
age	**.6520821**	**.1284968**	**5.07**	**0.000**	**.4002329**	**.9039312**
_cons	**-8.87731**	**6.510931**	**-1.36**	**0.173**	**-21.6385**	**3.88388**
Variance						
e.age	**133.6667**	**10.26687**			**114.9854**	**155.383**
e.whpel	**836.0192**	**64.21425**			**719.1771**	**971.8442**

```
   LR test of model vs. saturated: chi2(1)   =      8.74, Prob > chi2 = 0.0031
```

Endogenous variables

Observed: **age whpel**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0: log likelihood = **-3378.6532**
Iteration 1: log likelihood = **-3378.6532**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-3378.6532**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
age <-						
crhtw2	**4.951499**	**.6691348**	**7.40**	**0.000**	**3.640019**	**6.262979**
_cons	**50.08515**	**.6280741**	**79.74**	**0.000**	**48.85415**	**51.31616**
whpel <-						
age	**.6520821**	**.1284968**	**5.07**	**0.000**	**.4002329**	**.9039312**
_cons	**-8.87731**	**6.510931**	**-1.36**	**0.173**	**-21.6385**	**3.88388**
Variance						
e.age	**128.5885**	**9.876824**			**110.617**	**149.4798**
e.whpel	**836.0192**	**64.21425**			**719.1771**	**971.8442**

LR test of model vs. saturated: chi2(**1**) = **19.29**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **age whpel**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

```
Iteration 0:   log likelihood = -3379.1466
Iteration 1:   log likelihood = -3379.1466

Structural equation model                       Number of obs      =       339
Estimation method  = ml
Log likelihood     = -3379.1466
```

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
age <-						
crhtw3	4.882082	.6713623	7.27	0.000	3.566236	6.197928
_cons	50.07363	.629633	79.53	0.000	48.83957	51.30769
whpel <-						
age	.6520821	.1284968	5.07	0.000	.4002329	.9039312
_cons	-8.87731	6.510931	-1.36	0.173	-21.6385	3.88388
Variance						
e.age	129.2045	9.924137			111.1469	150.1959
e.whpel	836.0192	64.21425			719.1771	971.8442

```
LR test of model vs. saturated: chi2(1)   =     15.89, Prob > chi2 = 0.0001

Endogenous variables

Observed:  BSItotal whpel

Exogenous variables

Observed:  crhtw1

Fitting target model:

Iteration 0:   log likelihood = -3585.1737
Iteration 1:   log likelihood = -3585.1737  (backed up)

Structural equation model                       Number of obs      =       339
Estimation method  = ml
Log likelihood     = -3585.1737
```

```
> ─
                │                 OIM
                │      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
────────────────┼──────────────────────────────────────────────────────────────
> ─
Structural      │
  BSItotal <-   │
       crhtw1   │   9.021393   1.334088     6.76   0.000     6.406629    11.6361
> 6
        _cons   │   80.52399   1.253018    64.26   0.000     78.06812    82.9798
> 6
   ─────────────┼──────────────────────────────────────────────────────────────
> ─
  whpel <-      │
     BSItotal   │   .5999744   .0585998    10.24   0.000     .4851208    .714827
> 9
        _cons   │   -24.3549   4.856893    -5.01   0.000    -33.87423   -14.8355
> 7
────────────────┼──────────────────────────────────────────────────────────────
> ─
Variance        │
   e.BSItotal   │   520.0619   39.94571                      447.378    604.554
> 5
      e.whpel   │   687.0699   52.77352                      591.045    798.695
> 6
────────────────┼──────────────────────────────────────────────────────────────
> ─
LR test of model vs. saturated: chi2(1)   =      2.07, Prob > chi2 = 0.1499

Endogenous variables

Observed:  BSItotal whpel

Exogenous variables

Observed:  crhtw2

Fitting target model:

Iteration 0:   log likelihood = -3557.0957
Iteration 1:   log likelihood = -3557.0957

Structural equation model                       Number of obs      =       339
Estimation method  = ml
Log likelihood     = -3557.0957
```

```
> ─
              │                 OIM
              │      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
──────────────┼──────────────────────────────────────────────────────────────
> ─
Structural    │
  BSItotal <- │
       crhtw2 │   12.94002   1.249467    10.36   0.000     10.49111    15.3889
> 3
        _cons │   81.62295   1.172795    69.60   0.000     79.32431    83.9215
> 8
   ───────────┼──────────────────────────────────────────────────────────────
> ─
  whpel <-    │
     BSItotal │   .5999744   .0585998    10.24   0.000     .4851208    .714827
> 9
        _cons │   -24.3549   4.856893    -5.01   0.000    -33.87423   -14.8355
> 7
──────────────┼──────────────────────────────────────────────────────────────
> ─
Variance      │
   e.BSItotal │   448.3577   34.43815                      385.6952    521.200
> 8
      e.whpel │   687.0699   52.77352                       591.045    798.695
> 6
──────────────┴──────────────────────────────────────────────────────────────
> ─
LR test of model vs. saturated: chi2(1)   =      2.97, Prob > chi2 = 0.0846

Endogenous variables

Observed:  BSItotal whpel

Exogenous variables

Observed:  crhtw3

Fitting target model:

Iteration 0:   log likelihood = -3554.7635
Iteration 1:   log likelihood = -3554.7635  (backed up)

Structural equation model                       Number of obs      =       339
Estimation method  = ml
Log likelihood     = -3554.7635
```

```
> ─
              │                 OIM
              │      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
──────────────┼──────────────────────────────────────────────────────────────
> ─
Structural    │
  BSItotal <- │
       crhtw3 │   13.19186   1.243221    10.61   0.000     10.75519    15.6285
> 3
        _cons │   81.67267   1.165947    70.05   0.000     79.38745    83.9578
> 8
   ───────────┼──────────────────────────────────────────────────────────────
> ─
  whpel <-    │
     BSItotal │   .5999744   .0585998    10.24   0.000     .4851208    .714827
> 9
        _cons │   -24.3549   4.856893    -5.01   0.000    -33.87423   -14.8355
> 7
──────────────┼──────────────────────────────────────────────────────────────
> ─
Variance      │
   e.BSItotal │   443.0575   34.03105                     381.1358    515.039
> 5
      e.whpel │   687.0699   52.77352                      591.045    798.695
> 6
──────────────┼──────────────────────────────────────────────────────────────
> ─
LR test of model vs. saturated: chi2(1)   =      1.30, Prob > chi2 = 0.2545

Endogenous variables

Observed:  BSIposymp whpel

Exogenous variables

Observed:  crhtw1

Fitting target model:

Iteration 0:   log likelihood = -3563.5688
Iteration 1:   log likelihood = -3563.5688

Structural equation model                       Number of obs      =       339
Estimation method  = ml
Log likelihood     = -3563.5688
```

```
------------------------------------------------------------------------------
> ──
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interva
> l]
-------------+----------------------------------------------------------------
> ──
Structural   |
  BSIposymp <-
       crhtw1 |   8.980154   1.259147     7.13   0.000     6.512271    11.448
> 04
        _cons |    76.1612   1.182631    64.40   0.000     73.84329    78.479
> 11
  -----------+----------------------------------------------------------------
> ──
  whpel <-   |
     BSIposymp |   .6433832   .0613132    10.49   0.000      .5232115    .76355
> 49
        _cons |  -24.99152   4.804602    -5.20   0.000    -34.40837   -15.574
> 67
-------------+----------------------------------------------------------------
> ──
Variance     |
   e.BSIposymp |   463.2751   35.58394                      398.5277    538.54
> 17
       e.whpel |   678.9858   52.15259                      584.0907    789.29
> 82
-------------+----------------------------------------------------------------
> ──
LR test of model vs. saturated: chi2(1)   =      1.44, Prob > chi2 = 0.2300

Endogenous variables

Observed:  BSIposymp whpel

Exogenous variables

Observed:  crhtw2

Fitting target model:

Iteration 0:   log likelihood = -3535.7959
Iteration 1:   log likelihood = -3535.7959

Structural equation model                       Number of obs      =       339
Estimation method  = ml
Log likelihood     = -3535.7959
```

```
> ——
                |                    OIM
                |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interva
> l]
----------------+------------------------------------------------------------------
> ——
Structural      |
  BSIposymp <-  |
        crhtw2  |   12.51389   1.180342    10.60   0.000     10.20046    14.827
> 32
         _cons  |    77.1876   1.107911    69.67   0.000     75.01614    79.359
> 07
   -------------+------------------------------------------------------------------
> ——
  whpel <-      |
     BSIposymp  |   .6433832   .0613132    10.49   0.000      .5232115    .76355
> 49
         _cons  |  -24.99152   4.804602    -5.20   0.000    -34.40837   -15.574
> 67
----------------+------------------------------------------------------------------
> ——
Variance        |
   e.BSIposymp  |   400.1201   30.73304                      344.1993    465.12
> 61
       e.whpel  |   678.9858   52.15259                      584.0907    789.29
> 82
----------------+------------------------------------------------------------------
> ——
LR test of model vs. saturated: chi2(1)   =      2.33, Prob > chi2 = 0.1266

Endogenous variables

Observed:  BSIposymp whpel

Exogenous variables

Observed:  crhtw3

Fitting target model:

Iteration 0:   log likelihood = -3533.9356
Iteration 1:   log likelihood = -3533.9356

Structural equation model                       Number of obs      =       339
Estimation method  = ml
Log likelihood     = -3533.9356
```

```
> ——
                    OIM
             Coef.   Std. Err.      z    P>|z|     [95% Conf. Interva
> l]
> ——
Structural
  BSIposymp <-
        crhtw3 |   12.69567   1.176077    10.79   0.000      10.3906    15.000
> 74
         _cons |    77.2243   1.102977    70.01   0.000     75.06251     79.38
> 61
> ——
  whpel <-
     BSIposymp |   .6433832   .0613132    10.49   0.000      .5232115    .76355
> 49
         _cons |  -24.99152   4.804602    -5.20   0.000    -34.40837   -15.574
> 67
> ——
Variance
   e.BSIposymp |   396.4926   30.45442                     341.0788    460.90
> 94
       e.whpel |   678.9858   52.15259                     584.0907    789.29
> 82
> ——
LR test of model vs. saturated: chi2(1)   =      0.92, Prob > chi2 = 0.3371

Endogenous variables

Observed:  BSIips whpel

Exogenous variables

Observed:  crhtw1

Fitting target model:

Iteration 0:   log likelihood =  -2845.823
Iteration 1:   log likelihood =  -2845.823

Structural equation model                       Number of obs      =       339
Estimation method  = ml
Log likelihood     =  -2845.823
```

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
BSIips <-						
crhtw1	**.2430919**	**.1379814**	**1.76**	**0.078**	**-.0273466**	**.5135304**
_cons	**5.892955**	**.1295965**	**45.47**	**0.000**	**5.63895**	**6.146959**
whpel <-						
BSIips	**3.784059**	**.6560487**	**5.77**	**0.000**	**2.498227**	**5.06989**
_cons	**1.019645**	**4.145849**	**0.25**	**0.806**	**-7.106069**	**9.14536**
Variance						
e.BSIips	**5.563233**	**.4273094**			**4.785716**	**6.467072**
e.whpel	**819.1385**	**62.91765**			**704.6557**	**952.221**

LR test of model vs. saturated: chi2(**1**) = **15.87**, Prob > chi2 = **0.0001**

Endogenous variables

Observed: **BSIips whpel**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0: log likelihood = **-2835.7362**
Iteration 1: log likelihood = **-2835.7362**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-2835.7362**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
BSIips <-						
crhtw2	**.5758156**	**.1362729**	**4.23**	**0.000**	**.3087256**	**.8429056**
_cons	**5.964361**	**.1279107**	**46.63**	**0.000**	**5.713661**	**6.215062**
whpel <-						
BSIips	**3.784059**	**.6560487**	**5.77**	**0.000**	**2.498227**	**5.06989**
_cons	**1.019645**	**4.145849**	**0.25**	**0.806**	**-7.106069**	**9.14536**

Variance						
e.BSIips	**5.333276**	**.4096465**			**4.587897**	**6.199754**
e.whpel	**819.1385**	**62.91765**			**704.6557**	**952.221**

LR test of model vs. saturated: chi2(**1**) = **23.88**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **BSIips whpel**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-2834.0135**
Iteration 1: log likelihood = **-2834.0135**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-2834.0135**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
BSIips <-						
crhtw3	**.6199075**	**.1358357**	**4.56**	**0.000**	**.3536744**	**.8861405**
_cons	**5.972633**	**.1273927**	**46.88**	**0.000**	**5.722948**	**6.222318**
whpel <-						
BSIips	**3.784059**	**.6560487**	**5.77**	**0.000**	**2.498227**	**5.06989**
_cons	**1.019645**	**4.145849**	**0.25**	**0.806**	**-7.106069**	**9.14536**
Variance						
e.BSIips	**5.289219**	**.4062625**			**4.549997**	**6.148539**
e.whpel	**819.1385**	**62.91765**			**704.6557**	**952.221**

LR test of model vs. saturated: chi2(**1**) = **19.24**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **BSIhos whpel**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-2942.8705**
Iteration 1: log likelihood = **-2942.8705**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-2942.8705**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
BSIhos <-						
crhtw1	**1.61792**	**.1847007**	**8.76**	**0.000**	**1.255913**	**1.979927**
_cons	**7.988048**	**.1734768**	**46.05**	**0.000**	**7.64804**	**8.328057**
whpel <-						
BSIhos	**2.699659**	**.4422217**	**6.10**	**0.000**	**1.83292**	**3.566397**
_cons	**2.243944**	**3.763121**	**0.60**	**0.551**	**-5.131638**	**9.619527**
Variance						
e.BSIhos	**9.968356**	**.7656648**			**8.575178**	**11.58788**
e.whpel	**810.433**	**62.24898**			**697.1668**	**942.1011**

LR test of model vs. saturated: chi2(**1**) = **4.32**, Prob > chi2 = **0.0378**

Endogenous variables

Observed: **BSIhos whpel**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0: log likelihood = **-2921.5266**
Iteration 1: log likelihood = **-2921.5266**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-2921.5266**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
BSIhos <-						
crhtw2	**1.968381**	**.1764559**	**11.16**	**0.000**	**1.622534**	**2.314228**
_cons	**8.120309**	**.1656279**	**49.03**	**0.000**	**7.795684**	**8.444933**
whpel <-						
BSIhos	**2.699659**	**.4422217**	**6.10**	**0.000**	**1.83292**	**3.566397**
_cons	**2.243944**	**3.763121**	**0.60**	**0.551**	**-5.131638**	**9.619527**
Variance						
e.BSIhos	**8.942261**	**.6868509**			**7.69249**	**10.39508**
e.whpel	**810.433**	**62.24898**			**697.1668**	**942.1011**

LR test of model vs. saturated: chi2(**1**) = **11.20**, Prob > chi2 = **0.0008**

Endogenous variables

Observed: **BSIhos whpel**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-2923.5203**
Iteration 1: log likelihood = **-2923.5203**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-2923.5203**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
BSIhos <-						
crhtw3	**1.933039**	**.1778286**	**10.87**	**0.000**	**1.584501**	**2.281577**
_cons	**8.114301**	**.1667755**	**48.65**	**0.000**	**7.787427**	**8.441174**
whpel <-						
BSIhos	**2.699659**	**.4422217**	**6.10**	**0.000**	**1.83292**	**3.566397**
_cons	**2.243944**	**3.763121**	**0.60**	**0.551**	**-5.131638**	**9.619527**

Variance						
e.BSIhos	**9.064981**	**.696277**			**7.798058**	**10.53774**
e.whpel	**810.433**	**62.24898**			**697.1668**	**942.1011**

LR test of model vs. saturated: chi2(**1**) = **8.62**, Prob > chi2 = **0.0033**

Endogenous variables

Observed: **emplw34 whpel**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-1931.2121**
Iteration 1: log likelihood = **-1931.2121**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-1931.2121**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
emplw34 <-						
crhtw1	**.000872**	**.0088799**	**0.10**	**0.922**	**-.0165323**	**.0182764**
_cons	**.0237228**	**.0083403**	**2.84**	**0.004**	**.007376**	**.0400695**
whpel <-						
emplw34	**-10.63927**	**10.71563**	**-0.99**	**0.321**	**-31.64153**	**10.36298**
_cons	**23.43928**	**1.646125**	**14.24**	**0.000**	**20.21293**	**26.66562**
Variance						
e.emplw34	**.0230413**	**.0017698**			**.019821**	**.0267847**
e.whpel	**896.9202**	**68.89202**			**771.5665**	**1042.64**

LR test of model vs. saturated: chi2(**1**) = **18.80**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **emplw34 whpel**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0: log likelihood = **-1928.143**
Iteration 1: log likelihood = **-1928.143**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-1928.143**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
emplw34 <-						
crhtw2	**.0047789**	**.0089534**	**0.53**	**0.594**	**-.0127695**	**.0223273**
_cons	**.0244782**	**.008404**	**2.91**	**0.004**	**.0080066**	**.0409497**
whpel <-						
emplw34	**-10.63927**	**10.71563**	**-0.99**	**0.321**	**-31.64153**	**10.36298**
_cons	**23.43928**	**1.646125**	**14.24**	**0.000**	**20.21293**	**26.66562**
Variance						
e.emplw34	**.0230226**	**.0017684**			**.0198049**	**.026763**
e.whpel	**896.9202**	**68.89202**			**771.5665**	**1042.64**

LR test of model vs. saturated: chi2(**1**) = **34.62**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **emplw34 whpel**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-1927.7467**
Iteration 1: log likelihood = **-1927.7467**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-1927.7467**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
emplw34 <-						
crhtw3	.0059716	.0089597	0.67	0.505	-.0115891	.0235323
_cons	.0246992	.0084028	2.94	0.003	.00823	.0411683
whpel <-						
emplw34	-10.63927	10.71563	-0.99	0.321	-31.64153	10.36298
_cons	23.43928	1.646125	14.24	0.000	20.21293	26.66562
Variance						
e.emplw34	.0230118	.0017675			.0197956	.0267504
e.whpel	896.9202	68.89202			771.5665	1042.64

LR test of model vs. saturated: chi2(**1**) = **30.22**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **dvcew1 whpel**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-1853.1263**
Iteration 1: log likelihood = **-1853.1263**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-1853.1263**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
dvcew1 <-						
crhtw1	.0036273	.0070493	0.51	0.607	-.010189	.0174437
_cons	.0152648	.0066209	2.31	0.021	.002288	.0282416
whpel <-						
dvcew1	-10.70611	13.5004	-0.79	0.428	-37.1664	15.75419
_cons	23.34611	1.639577	14.24	0.000	20.1326	26.55962

Variance						
e.dvcew1	**.0145204**	**.0011153**			**.012491**	**.0168795**
e.whpel	**897.8627**	**68.96442**			**772.3774**	**1043.735**

LR test of model vs. saturated: chi2(**1**) = **18.94**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **dvcew1 whpel**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0: log likelihood = **-1850.1333**
Iteration 1: log likelihood = **-1850.1333**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-1850.1333**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
dvcew1 <-						
crhtw2	**-.0044273**	**.0071092**	**-0.62**	**0.533**	**-.0183611**	**.0095065**
_cons	**.0139346**	**.006673**	**2.09**	**0.037**	**.0008558**	**.0270134**
whpel <-						
dvcew1	**-10.70611**	**13.5004**	**-0.79**	**0.428**	**-37.1664**	**15.75419**
_cons	**23.34611**	**1.639577**	**14.24**	**0.000**	**20.1326**	**26.55962**
Variance						
e.dvcew1	**.0145151**	**.0011149**			**.0124865**	**.0168733**
e.whpel	**897.8627**	**68.96442**			**772.3774**	**1043.735**

LR test of model vs. saturated: chi2(**1**) = **33.89**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **dvcew1 whpel**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-1849.8323**
Iteration 1: log likelihood = **-1849.8323**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-1849.8323**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
dvcew1 <-						
crhtw3	**-.0042485**	**.0071162**	**-0.60**	**0.550**	**-.018196**	**.009699**
_cons	**.0139664**	**.0066739**	**2.09**	**0.036**	**.0008858**	**.027047**
whpel <-						
dvcew1	**-10.70611**	**13.5004**	**-0.79**	**0.428**	**-37.1664**	**15.75419**
_cons	**23.34611**	**1.639577**	**14.24**	**0.000**	**20.1326**	**26.55962**
Variance						
e.dvcew1	**.0145165**	**.001115**			**.0124876**	**.0168749**
e.whpel	**897.8627**	**68.96442**			**772.3774**	**1043.735**

LR test of model vs. saturated: chi2(**1**) = **29.46**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **sepaw1 whpel**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-1816.1964**
Iteration 1: log likelihood = **-1816.1964**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-1816.1964**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
sepaw1 <-						
crhtw1	**-.0020554**	**.006316**	**-0.33**	**0.745**	**-.0144345**	**.0103237**
_cons	**.0115073**	**.0059322**	**1.94**	**0.052**	**-.0001196**	**.0231342**
whpel <-						
sepaw1	**1.833433**	**15.085**	**0.12**	**0.903**	**-27.73263**	**31.3995**
_cons	**23.16657**	**1.63861**	**14.14**	**0.000**	**19.95495**	**26.37818**
Variance						
e.sepaw1	**.0116565**	**.0008953**			**.0100274**	**.0135503**
e.whpel	**899.4892**	**69.08935**			**773.7765**	**1045.626**

LR test of model vs. saturated: chi2(**1**) = **18.72**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **sepaw1 whpel**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0: log likelihood = **-1812.8402**
Iteration 1: log likelihood = **-1812.8402**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-1812.8402**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
sepaw1 <-						
crhtw2	**-.006223**	**.0063629**	**-0.98**	**0.328**	**-.018694**	**.006248**
_cons	**.0106543**	**.0059724**	**1.78**	**0.074**	**-.0010514**	**.0223601**
whpel <-						
sepaw1	**1.833433**	**15.085**	**0.12**	**0.903**	**-27.73263**	**31.3995**
_cons	**23.16657**	**1.63861**	**14.14**	**0.000**	**19.95495**	**26.37818**

Variance						
e.sepaw1	.0116274	.0008931			.0100023	.0135164
e.whpel	899.4892	69.08935			773.7765	1045.626

LR test of model vs. saturated: chi2(1) = **34.31**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **sepaw1 whpel**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-1812.5197**
Iteration 1: log likelihood = **-1812.5197**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-1812.5197**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
sepaw1 <-						
crhtw3	-.0062536	.0063687	-0.98	0.326	-.0187361	.006229
_cons	.0106471	.0059729	1.78	0.075	-.0010595	.0223538
whpel <-						
sepaw1	1.833433	15.085	0.12	0.903	-27.73263	31.3995
_cons	23.16657	1.63861	14.14	0.000	19.95495	26.37818
Variance						
e.sepaw1	.0116271	.0008931			.0100021	.0135161
e.whpel	899.4892	69.08935			773.7765	1045.626

LR test of model vs. saturated: chi2(1) = **29.84**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **HP2pbfhm whpel**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-2072.1799**
Iteration 1: log likelihood = **-2072.1799**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-2072.1799**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
HP2pbfhm <-						
crhtw1	**.0469389**	**.0138696**	**3.38**	**0.001**	**.0197549**	**.074122**
_cons	**.0686178**	**.0130268**	**5.27**	**0.000**	**.0430857**	**.094149**
whpel <-						
HP2pbfhm	**30.75508**	**6.547763**	**4.70**	**0.000**	**17.9217**	**43.5884**
_cons	**21.28302**	**1.629682**	**13.06**	**0.000**	**18.0889**	**24.4771**
Variance						
e.HP2pbfhm	**.0562104**	**.0043175**			**.0483544**	**.065342**
e.whpel	**844.5641**	**64.87058**			**726.5278**	**981.777**

LR test of model vs. saturated: chi2(**1**) = **13.30**, Prob > chi2 = **0.0003**

Endogenous variables

Observed: **HP2pbfhm whpel**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0:   log likelihood = **-2069.0851**
Iteration 1:   log likelihood = **-2069.0851**

Structural equation model   Number of obs   =   **339**
Estimation method = **ml**
Log likelihood   = **-2069.0851**

	OIM				
	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]
Structural					
HP2pbfhm <-					
crhtw2	**.0480162**	**.0139834**	**3.43**	**0.001**	**.0206093** **.075423**
_cons	**.0707822**	**.0131253**	**5.39**	**0.000**	**.0450571** **.096507**
whpel <-					
HP2pbfhm	**30.75508**	**6.547763**	**4.70**	**0.000**	**17.9217** **43.5884**
_cons	**21.28302**	**1.629682**	**13.06**	**0.000**	**18.0889** **24.4771**
Variance					
e.HP2pbfhm	**.0561563**	**.0043133**			**.0483079** **.065279**
e.whpel	**844.5641**	**64.87058**			**726.5278** **981.777**

LR test of model vs. saturated: chi2(**1**)   =   **27.12**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **HP2pbfhm whpel**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0:   log likelihood = **-2069.1746**
Iteration 1:   log likelihood = **-2069.1746**

Structural equation model   Number of obs   =   **339**
Estimation method = **ml**
Log likelihood   = **-2069.1746**

	OIM				
	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]
Structural					
HP2pbfhm <-					
crhtw3	**.0463741**	**.0140132**	**3.31**	**0.001**	**.0189087**	**.073839**
_cons	**.070492**	**.0131422**	**5.36**	**0.000**	**.0447337**	**.096250**
whpel <-					
HP2pbfhm	**30.75508**	**6.547763**	**4.70**	**0.000**	**17.9217**	**43.5884**
_cons	**21.28302**	**1.629682**	**13.06**	**0.000**	**18.0889**	**24.4771**
Variance					
e.HP2pbfhm	**.056291**	**.0043237**			**.0484237**	**.065436**
e.whpel	**844.5641**	**64.87058**			**726.5278**	**981.777**

LR test of model vs. saturated: chi2(**1**)   =   **23.29**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **movew2 whpel**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-2275.0207**
Iteration 1: log likelihood = **-2275.0207**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-2275.0207**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
movew2 <-						
crhtw1	**-.0281516**	**.0247099**	**-1.14**	**0.255**	**-.0765821**	**.0202789**
_cons	**.1523413**	**.0232083**	**6.56**	**0.000**	**.1068538**	**.1978288**
whpel <-						
movew2	**10.3012**	**3.80826**	**2.70**	**0.007**	**2.837143**	**17.76525**
_cons	**21.57769**	**1.718111**	**12.56**	**0.000**	**18.21025**	**24.94513**
Variance						
e.movew2	**.1784138**	**.0137039**			**.1534787**	**.2074001**
e.whpel	**880.5236**	**67.63261**			**757.4615**	**1023.579**

LR test of model vs. saturated: chi2(**1**) = **20.75**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **movew2 whpel**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0: log likelihood = **-2272.51**
Iteration 1: log likelihood = **-2272.51**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-2272.51**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
movew2 <-						
crhtw2	**-.0168134**	**.0249555**	**-0.67**	**0.500**	**-.0657253**	**.0320984**
_cons	**.1532484**	**.0234241**	**6.54**	**0.000**	**.107338**	**.1991588**
whpel <-						
movew2	**10.3012**	**3.80826**	**2.70**	**0.007**	**2.837143**	**17.76525**
_cons	**21.57769**	**1.718111**	**12.56**	**0.000**	**18.21025**	**24.94513**
Variance						
e.movew2	**.1788575**	**.013738**			**.1538603**	**.2079158**
e.whpel	**880.5236**	**67.63261**			**757.4615**	**1023.579**

LR test of model vs. saturated: chi2(**1**) = **36.23**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **movew2 whpel**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-2272.42**
Iteration 1: log likelihood = **-2272.42**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-2272.42**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
movew2 <-						
crhtw3	**-.000499**	**.0249955**	**-0.02**	**0.984**	**-.0494893**	**.0484913**
_cons	**.1562502**	**.0234419**	**6.67**	**0.000**	**.110305**	**.2021955**
whpel <-						
movew2	**10.3012**	**3.80826**	**2.70**	**0.007**	**2.837143**	**17.76525**
_cons	**21.57769**	**1.718111**	**12.56**	**0.000**	**18.21025**	**24.94513**

Variance						
e.movew2	**.1790967**	**.0137563**			**.1540662**	**.2081939**
e.whpel	**880.5236**	**67.63261**			**757.4615**	**1023.579**

LR test of model vs. saturated: chi2(**1**) = **30.37**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **fdferw1 whpel**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-3765.2912**
Iteration 1: log likelihood = **-3765.2912**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-3765.2912**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
fdferw1 <-						
crhtw1	**17.30225**	**2.076568**	**8.33**	**0.000**	**13.23226**	**21.37225**
_cons	**34.65956**	**1.950379**	**17.77**	**0.000**	**30.83689**	**38.48223**
whpel <-						
fdferw1	**.2278975**	**.039934**	**5.71**	**0.000**	**.1496283**	**.3061667**
_cons	**15.84977**	**2.018522**	**7.85**	**0.000**	**11.89354**	**19.806**
Variance						
e.fdferw1	**1260.023**	**96.78179**			**1083.922**	**1464.734**
e.whpel	**820.6842**	**63.03637**			**705.9853**	**954.0177**

LR test of model vs. saturated: chi2(**1**) = **5.42**, Prob > chi2 = **0.0200**

Endogenous variables

Observed: **fdferw1 whpel**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0: log likelihood = **-3759.3175**
Iteration 1: log likelihood = **-3759.3175**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-3759.3175**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
fdferw1 <-						
crhtw2	**18.19466**	**2.075891**	**8.76**	**0.000**	**14.12599**	**22.26334**
_cons	**35.54854**	**1.948507**	**18.24**	**0.000**	**31.72954**	**39.36754**
whpel <-						
fdferw1	**.2278975**	**.039934**	**5.71**	**0.000**	**.1496283**	**.3061667**
_cons	**15.84977**	**2.018522**	**7.85**	**0.000**	**11.89354**	**19.806**
Variance						
e.fdferw1	**1237.611**	**95.06032**			**1064.642**	**1438.681**
e.whpel	**820.6842**	**63.03637**			**705.9853**	**954.0177**

LR test of model vs. saturated: chi2(**1**) = **15.48**, Prob > chi2 = **0.0001**

Endogenous variables

Observed: **fdferw1 whpel**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-3761.171**
Iteration 1: log likelihood = **-3761.171**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-3761.171**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
fdferw1 <-						
crhtw3	**17.68632**	**2.091175**	**8.46**	**0.000**	**13.58769**	**21.78495**
_cons	**35.45953**	**1.961196**	**18.08**	**0.000**	**31.61566**	**39.30341**
whpel <-						
fdferw1	**.2278975**	**.039934**	**5.71**	**0.000**	**.1496283**	**.3061667**
_cons	**15.84977**	**2.018522**	**7.85**	**0.000**	**11.89354**	**19.806**
Variance						
e.fdferw1	**1253.558**	**96.2852**			**1078.361**	**1457.219**
e.whpel	**820.6842**	**63.03637**			**705.9853**	**954.0177**

LR test of model vs. saturated: chi2(**1**) = **12.62**, Prob > chi2 = **0.0004**
(7 observations with missing values excluded;
specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed: **radw2 whpel**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-3657.072**
Iteration 1: log likelihood = **-3657.072**

Structural equation model Number of obs = **332**
Estimation method = **ml**
Log likelihood = **-3657.072**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
radw2 <-						
crhtw1	**4.611486**	**1.860266**	**2.48**	**0.013**	**.9654316**	**8.257541**
_cons	**41.76776**	**1.75893**	**23.75**	**0.000**	**38.32032**	**45.2152**
whpel <-						
radw2	**.2056051**	**.0498992**	**4.12**	**0.000**	**.1078046**	**.3034057**
_cons	**14.61413**	**2.599108**	**5.62**	**0.000**	**9.519968**	**19.70829**
Variance						
e.radw2	**1004.094**	**77.93284**			**862.3995**	**1169.07**
e.whpel	**845.4037**	**65.61605**			**726.1028**	**984.3062**

LR test of model vs. saturated: chi2(**1**) = **15.68**, Prob > chi2 = **0.0001**
(7 observations with missing values excluded;
specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed: **radw2 whpel**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0: log likelihood = **-3644.503**
Iteration 1: log likelihood = **-3644.503**

Structural equation model Number of obs = **332**
Estimation method = **ml**
Log likelihood = **-3644.503**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
radw2 <-						
crhtw2	**9.120107**	**1.830975**	**4.98**	**0.000**	**5.531463**	**12.70875**
_cons	**42.72483**	**1.72357**	**24.79**	**0.000**	**39.3467**	**46.10297**
whpel <-						
radw2	**.2056051**	**.0498992**	**4.12**	**0.000**	**.1078046**	**.3034057**
_cons	**14.61413**	**2.599108**	**5.62**	**0.000**	**9.519968**	**19.70829**
Variance						
e.radw2	**951.5686**	**73.85605**			**817.286**	**1107.914**
e.whpel	**845.4037**	**65.61605**			**726.1028**	**984.3062**

LR test of model vs. saturated: chi2(**1**) = **26.08**, Prob > chi2 = **0.0000**
(7 observations with missing values excluded;
specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed: **radw2 whpel**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-3644.8065**
Iteration 1: log likelihood = **-3644.8065**

Structural equation model Number of obs = **332**
Estimation method = **ml**
Log likelihood = **-3644.8065**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
radw2 <-						
crhtw3	**8.978785**	**1.833572**	**4.90**	**0.000**	**5.385049**	**12.57252**
_cons	**42.7519**	**1.727621**	**24.75**	**0.000**	**39.36582**	**46.13797**
whpel <-						
radw2	**.2056051**	**.0498992**	**4.12**	**0.000**	**.1078046**	**.3034057**
_cons	**14.61413**	**2.599108**	**5.62**	**0.000**	**9.519968**	**19.70829**
Variance						
e.radw2	**953.79**	**74.02846**			**819.1939**	**1110.501**
e.whpel	**845.4037**	**65.61605**			**726.1028**	**984.3062**

LR test of model vs. saturated: chi2(**1**) = **21.64**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **ecprw3 whpel**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-3766.4684**
Iteration 1: log likelihood = **-3766.4684**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-3766.4684**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
ecprw3 <-						
crhtw1	**13.94133**	**2.007126**	**6.95**	**0.000**	**10.00743**	**17.87523**
_cons	**53.50934**	**1.885157**	**28.38**	**0.000**	**49.8145**	**57.20418**
whpel <-						
ecprw3	**.1054497**	**.0440511**	**2.39**	**0.017**	**.0191112**	**.1917882**
_cons	**17.75458**	**2.785974**	**6.37**	**0.000**	**12.29418**	**23.21499**

Variance					
e.ecprw3	**1177.161**	**90.41717**		**1012.641**	**1368.41**
e.whpel	**884.5759**	**67.94386**		**760.9475**	**1028.29**

LR test of model vs. saturated: chi2(**1**) = **13.92**, Prob > chi2 = **0.0002**

Endogenous variables

Observed: **ecprw3 whpel**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0: log likelihood = **-3725.8653**
Iteration 1: log likelihood = **-3725.8653**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-3725.8653**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
ecprw3 <-						
crhtw2	**21.78669**	**1.811629**	**12.03**	**0.000**	**18.23596**	**25.33741**
_cons	**55.53693**	**1.700461**	**32.66**	**0.000**	**52.20409**	**58.86978**
whpel <-						
ecprw3	**.1054497**	**.0440511**	**2.39**	**0.017**	**.0191112**	**.1917882**
_cons	**17.75458**	**2.785974**	**6.37**	**0.000**	**12.29418**	**23.21499**
Variance						
e.ecprw3	**942.5699**	**72.39835**			**810.8362**	**1095.706**
e.whpel	**884.5759**	**67.94386**			**760.9475**	**1028.29**

LR test of model vs. saturated: chi2(**1**) = **29.31**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **ecprw3 whpel**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-3724.666**
Iteration 1: log likelihood = **-3724.666**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-3724.666**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
ecprw3 <-						
crhtw3	**21.9394**	**1.808607**	**12.13**	**0.000**	**18.39459**	**25.4842**
_cons	**55.57065**	**1.696191**	**32.76**	**0.000**	**52.24618**	**58.89513**
whpel <-						
ecprw3	**.1054497**	**.0440511**	**2.39**	**0.017**	**.0191112**	**.1917882**
_cons	**17.75458**	**2.785974**	**6.37**	**0.000**	**12.29418**	**23.21499**
Variance						
e.ecprw3	**937.674**	**72.0223**			**806.6246**	**1090.014**
e.whpel	**884.5759**	**67.94386**			**760.9475**	**1028.29**

LR test of model vs. saturated: chi2(**1**) = **24.48**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **PTSDw2 whpel**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-3410.3977**
Iteration 1: log likelihood = **-3410.3977**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-3410.3977**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
PTSDw2 <-						
crhtw1	**4.225546**	**.7028926**	**6.01**	**0.000**	**2.847902**	**5.60319**
_cons	**5.700233**	**.6601792**	**8.63**	**0.000**	**4.406306**	**6.99416**
whpel <-						
PTSDw2	**.325227**	**.1276617**	**2.55**	**0.011**	**.0750146**	**.5754394**
_cons	**21.52964**	**1.739965**	**12.37**	**0.000**	**18.11937**	**24.93991**
Variance						
e.PTSDw2	**144.3658**	**11.08867**			**124.1892**	**167.8203**
e.whpel	**882.6305**	**67.79444**			**759.274**	**1026.028**

LR test of model vs. saturated: chi2(**1**) = **13.95**, Prob > chi2 = **0.0002**

Endogenous variables

Observed: **PTSDw2 whpel**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0: log likelihood = **-3400.382**
Iteration 1: log likelihood = **-3400.382**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-3400.382**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
PTSDw2 <-						
crhtw2	**5.014186**	**.694335**	**7.22**	**0.000**	**3.653314**	**6.375057**
_cons	**6.022352**	**.651728**	**9.24**	**0.000**	**4.744989**	**7.299715**
whpel <-						
PTSDw2	**.325227**	**.1276617**	**2.55**	**0.011**	**.0750146**	**.5754394**
_cons	**21.52964**	**1.739965**	**12.37**	**0.000**	**18.11937**	**24.93991**

Variance					
e.PTSDw2	**138.4564**	**10.63477**		**119.1057**	**160.9509**
e.whpel	**882.6305**	**67.79444**		**759.274**	**1026.028**

LR test of model vs. saturated: chi2(**1**) = **27.94**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **PTSDw2 whpel**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-3399.8788**
Iteration 1: log likelihood = **-3399.8788**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-3399.8788**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
PTSDw2 <-						
crhtw3	**5.036777**	**.6946016**	**7.25**	**0.000**	**3.675382**	**6.398171**
_cons	**6.027799**	**.6514279**	**9.25**	**0.000**	**4.751024**	**7.304574**
whpel <-						
PTSDw2	**.325227**	**.1276617**	**2.55**	**0.011**	**.0750146**	**.5754394**
_cons	**21.52964**	**1.739965**	**12.37**	**0.000**	**18.11937**	**24.93991**
Variance						
e.PTSDw2	**138.3042**	**10.62308**			**118.9748**	**160.774**
e.whpel	**882.6305**	**67.79444**			**759.274**	**1026.028**

LR test of model vs. saturated: chi2(**1**) = **23.65**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **WHPsleep whpel**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0:   log likelihood = **-3602.7875**
Iteration 1:   log likelihood = **-3602.7875**

Structural equation model   Number of obs   =   **339**
Estimation method = **ml**
Log likelihood   = **-3602.7875**

	OIM				
	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]
Structural					
WHPsleep <-					
crhtw1	**8.230277**	**1.380734**	**5.96**	**0.000**	**5.524089** **10.9364**
_cons	**18.51758**	**1.296829**	**14.28**	**0.000**	**15.97584** **21.0593**
whpel <-					
WHPsleep	**.5524787**	**.0584041**	**9.46**	**0.000**	**.4380088** **.666948**
_cons	**13.60385**	**1.768015**	**7.69**	**0.000**	**10.13861** **17.069**
Variance					
e.WHPsleep	**557.0653**	**42.78793**			**479.2098** **647.569**
e.whpel	**711.6722**	**54.66322**			**612.2089** **827.29**

LR test of model vs. saturated: chi2(**1**)   =   **3.93**, Prob > chi2 = **0.0474**

Endogenous variables

Observed: **WHPsleep whpel**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0:   log likelihood = **-3588.5612**
Iteration 1:   log likelihood = **-3588.5612**

Structural equation model   Number of obs   =   **339**
Estimation method = **ml**
Log likelihood   = **-3588.5612**

	OIM				
	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval
Structural					
WHPsleep <-					
crhtw2	**10.55025**	**1.347088**	**7.83**	**0.000**	**7.910005** **13.1904**
_cons	**19.28923**	**1.264425**	**15.26**	**0.000**	**16.811** **21.7674**
whpel <-					
WHPsleep	**.5524787**	**.0584041**	**9.46**	**0.000**	**.4380088** **.666948**
_cons	**13.60385**	**1.768015**	**7.69**	**0.000**	**10.13861** **17.069**
Variance					
e.WHPsleep	**521.1546**	**40.02965**			**448.318** **605.824**
e.whpel	**711.6722**	**54.66322**			**612.2089** **827.29**

LR test of model vs. saturated: chi2(**1**)   =   **8.74**, Prob > chi2 = **0.0031**

Endogenous variables

Observed: **WHPsleep whpel**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0:   log likelihood = **-3588.4568**
Iteration 1:   log likelihood = **-3588.4568**

Structural equation model   Number of obs   =   **339**
Estimation method = **ml**
Log likelihood   = **-3588.4568**

	OIM				
	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval
Structural					
WHPsleep <-					
crhtw3	**10.52349**	**1.349191**	**7.80**	**0.000**	**7.879121** **13.1678**
_cons	**19.287**	**1.26533**	**15.24**	**0.000**	**16.807** **21.76**
whpel <-					
WHPsleep	**.5524787**	**.0584041**	**9.46**	**0.000**	**.4380088** **.666948**
_cons	**13.60385**	**1.768015**	**7.69**	**0.000**	**10.13861** **17.069**
Variance					
e.WHPsleep	**521.8075**	**40.07979**			**448.8797** **606.583**
e.whpel	**711.6722**	**54.66322**			**612.2089** **827.29**

LR test of model vs. saturated: chi2(**1**)   =   **6.31**, Prob > chi2 = **0.0120**

Endogenous variables

Observed: **WHPpa whpel**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-3417.2795**
Iteration 1: log likelihood = **-3417.2795**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-3417.2795**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
WHPpa <-						
crhtw1	**3.695303**	**.8266374**	**4.47**	**0.000**	**2.075123**	**5.315482**
_cons	**10.0378**	**.7764043**	**12.93**	**0.000**	**8.516071**	**11.55952**
whpel <-						
WHPpa	**1.05408**	**.0962907**	**10.95**	**0.000**	**.8653541**	**1.242807**
_cons	**13.16113**	**1.673165**	**7.87**	**0.000**	**9.881786**	**16.44047**
Variance						
e.WHPpa	**199.6717**	**15.33669**			**171.7655**	**232.1116**
e.whpel	**664.5983**	**51.04749**			**571.714**	**772.5732**

LR test of model vs. saturated: chi2(**1**) = **6.04**, Prob > chi2 = **0.0140**

Endogenous variables

Observed: **WHPpa whpel**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0: log likelihood = **-3404.0715**
Iteration 1: log likelihood = **-3404.0715**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-3404.0715**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
WHPpa <-						
crhtw2	**5.268614**	**.80892**	**6.51**	**0.000**	**3.68316**	**6.854069**
_cons	**10.48209**	**.7592816**	**13.81**	**0.000**	**8.993925**	**11.97025**
whpel <-						
WHPpa	**1.05408**	**.0962907**	**10.95**	**0.000**	**.8653541**	**1.242807**
_cons	**13.16113**	**1.673165**	**7.87**	**0.000**	**9.881786**	**16.44047**
Variance						
e.WHPpa	**187.9257**	**14.43449**			**161.6612**	**218.4573**
e.whpel	**664.5983**	**51.04749**			**571.714**	**772.5732**

LR test of model vs. saturated: chi2(**1**) = **10.13**, Prob > chi2 = **0.0015**

Endogenous variables

Observed: **WHPpa whpel**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-3401.5633**
Iteration 1: log likelihood = **-3401.5633**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-3401.5633**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
WHPpa <-						
crhtw3	**5.53761**	**.8044585**	**6.88**	**0.000**	**3.9609**	**7.11432**
_cons	**10.533**	**.7544565**	**13.96**	**0.000**	**9.054297**	**12.01171**
whpel <-						
WHPpa	**1.05408**	**.0962907**	**10.95**	**0.000**	**.8653541**	**1.242807**
_cons	**13.16113**	**1.673165**	**7.87**	**0.000**	**9.881786**	**16.44047**

```
Variance        |
     e.WHPpa    |   185.5116   14.24906                      159.5845    215.651
     e.whpel    |   664.5983   51.04749                       571.714    772.5732
----------------+-------------------------------------------------------------------

LR test of model vs. saturated: chi2(1)   =      6.45, Prob > chi2 = 0.0111

Endogenous variables

Observed:  icdx1nr5 whpel

Exogenous variables

Observed:  crhtw1

Fitting target model:

Iteration 0:   log likelihood = -2098.1829
Iteration 1:   log likelihood = -2098.1829

Structural equation model                       Number of obs      =       339
Estimation method  = ml
Log likelihood     = -2098.1829

----------------+-------------------------------------------------------------------
> ─
                |                OIM
                |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
----------------+-------------------------------------------------------------------
> ─
Structural      |
  icdx1nr5 <-   |
       crhtw1   |   .0333603   .0148946     2.24   0.025     .0041674    .062553
> 1
        _cons   |   .0755376   .0139895     5.40   0.000     .0481187    .102956
> 4
  --------------+-------------------------------------------------------------------
> ─
  whpel <-      |
     icdx1nr5   |   26.37937   6.187348     4.26   0.000     14.25239    38.5063
> 4
        _cons   |   21.32064   1.646305    12.95   0.000     18.09394    24.5473
> 3
----------------+-------------------------------------------------------------------
> ─
Variance        |
   e.icdx1nr5   |    .064825   .0049792                      .0557651    .075356
> 9
      e.whpel   |    853.751   65.57622                       734.4307    992.456
```

```
> 8
-------------+----------------------------------------------------------------
> -
LR test of model vs. saturated: chi2(1)   =     15.49, Prob > chi2 = 0.0001

Endogenous variables

Observed:  icdx1nr5 whpel

Exogenous variables

Observed:  crhtw2

Fitting target model:

Iteration 0:   log likelihood = -2089.0566
Iteration 1:   log likelihood = -2089.0566

Structural equation model                       Number of obs      =       339
Estimation method  = ml
Log likelihood     = -2089.0566

-------------+----------------------------------------------------------------
> -
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
-------------+----------------------------------------------------------------
> -
Structural   |
  icdx1nr5 <-|
       crhtw2|   .0622764   .0147519     4.22   0.000     .0333632    .091189
> 6
       _cons |   .0822558   .0138467     5.94   0.000     .0551168    .109394
> 7
  -----------+----------------------------------------------------------------
> -
  whpel <-   |
     icdx1nr5|   26.37937   6.187348     4.26   0.000     14.25239    38.5063
> 4
       _cons |   21.32064   1.646305    12.95   0.000     18.09394    24.5473
> 3
-------------+----------------------------------------------------------------
> -
Variance     |
   e.icdx1nr5|   .0624987   .0048005                      .0537639    .072652
> 6
     e.whpel |    853.751   65.57622                      734.4307    992.456
> 8
```

```
-------------+------------------------------------------------------------------
> ─
LR test of model vs. saturated: chi2(1)   =     26.21, Prob > chi2 = 0.0000

Endogenous variables

Observed:  icdx1nr5 whpel

Exogenous variables

Observed:  crhtw3

Fitting target model:

Iteration 0:   log likelihood = -2089.4783
Iteration 1:   log likelihood = -2089.4783

Structural equation model                       Number of obs      =       339
Estimation method  = ml
Log likelihood     = -2089.4783

-------------+------------------------------------------------------------------
> ─
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
-------------+------------------------------------------------------------------
> ─
Structural   |
  icdx1nr5 <-|
       crhtw3|   .0596904   .0147979     4.03   0.000     .0306871    .088693
> 7
       _cons |   .0817952   .0138781     5.89   0.000     .0545946    .108995
> 8
  -----------+------------------------------------------------------------------
> ─
  whpel <-   |
    icdx1nr5|   26.37937   6.187348     4.26   0.000     14.25239    38.5063
> 4
       _cons |   21.32064   1.646305    12.95   0.000     18.09394    24.5473
> 3
-------------+------------------------------------------------------------------
> ─
Variance     |
   e.icdx1nr5|   .0627715   .0048215                     .0539986    .072969
> 8
     e.whpel |    853.751   65.57622                     734.4307    992.456
> 8
-------------+------------------------------------------------------------------
```

```
> ─
LR test of model vs. saturated: chi2(1)   =     22.51, Prob > chi2 = 0.0000

Endogenous variables

Observed:  icdx4nr10 whpel

Exogenous variables

Observed:  crhtw1

Fitting target model:

Iteration 0:   log likelihood = -1697.3354
Iteration 1:   log likelihood = -1697.3354

Structural equation model                       Number of obs      =       339
Estimation method  = ml
Log likelihood     = -1697.3354

─────────────┬──────────────────────────────────────────────────────────────
> ──
             │                 OIM
             │      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interva
> l]
─────────────┼──────────────────────────────────────────────────────────────
> ──
Structural   │
  icdx4nr10 <-
       crhtw1 │  -.0007924   .0044799    -0.18   0.860    -.0095728     .0079
> 88
        _cons │   .0057871   .0042077     1.38   0.169    -.0024598     .01403
> 39
  ───────────┼──────────────────────────────────────────────────────────────
> ──
  whpel <-   │
    icdx4nr10 │   46.68724    21.1188     2.21   0.027     5.295158    88.079
> 32
        _cons │   22.91276   1.622125    14.13   0.000     19.73345    26.092
> 07
─────────────┼──────────────────────────────────────────────────────────────
> ──
Variance     │
   e.icdx4nr10 │   .0058644   .0004504                      .0050448    .00681
> 71
       e.whpel │   886.7447   68.11045                      762.8132    1030.8
> 11
─────────────┴──────────────────────────────────────────────────────────────
> ──
```

```
LR test of model vs. saturated: chi2(1)   =     19.16, Prob > chi2 = 0.0000

Endogenous variables

Observed:  icdx4nr10 whpel

Exogenous variables

Observed:  crhtw2

Fitting target model:

Iteration 0:   log likelihood = -1694.2406
Iteration 1:   log likelihood = -1694.2406

Structural equation model                       Number of obs      =       339
Estimation method  = ml
Log likelihood     = -1694.2406

------------------------------------------------------------------------------
> ----
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interva
> l]
-------------+----------------------------------------------------------------
> ----
Structural   |
  icdx4nr10 <-
       crhtw2 |   .0027026   .0045166     0.60   0.550    -.0061498     .0115
> 55
        _cons |    .006397   .0042395     1.51   0.131    -.0019122    .01470
> 62
-------------+----------------------------------------------------------------
> ----
  whpel <-   |
     icdx4nr10 |   46.68724    21.1188     2.21   0.027     5.295158    88.079
> 32
        _cons |   22.91276   1.622125    14.13   0.000     19.73345    26.092
> 07
-------------+----------------------------------------------------------------
> ----
Variance     |
   e.icdx4nr10 |   .0058587     .00045                      .0050399    .00681
> 06
       e.whpel |   886.7447   68.11045                      762.8132    1030.8
> 11
------------------------------------------------------------------------------
> ----
LR test of model vs. saturated: chi2(1)   =     33.77, Prob > chi2 = 0.0000
```

```
Endogenous variables

Observed:  icdx4nr10 whpel

Exogenous variables

Observed:  crhtw3

Fitting target model:

Iteration 0:   log likelihood = -1693.9017
Iteration 1:   log likelihood = -1693.9017

Structural equation model                       Number of obs      =       339
Estimation method  = ml
Log likelihood     = -1693.9017

------------------------------------------------------------------------------
> ──
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interva
> l]
-------------+----------------------------------------------------------------
> ──
Structural   |
  icdx4nr10 <-
       crhtw3 |   .0028678   .0045205     0.63   0.526    -.0059923    .01172
> 79
        _cons |   .0064281   .0042396     1.52   0.129    -.0018813    .01473
> 75
  -----------+----------------------------------------------------------------
> ──
  whpel <-   |
     icdx4nr10 |   46.68724    21.1188     2.21   0.027     5.295158    88.079
> 32
        _cons |   22.91276   1.622125    14.13   0.000     19.73345    26.092
> 07
-------------+----------------------------------------------------------------
> ──
Variance     |
   e.icdx4nr10 |   .0058579   .0004499                      .0050392    .00680
> 97
       e.whpel |   886.7447   68.11045                      762.8132    1030.8
> 11
-------------+----------------------------------------------------------------
> ──
LR test of model vs. saturated: chi2(1)   =     29.27, Prob > chi2 = 0.0000
```

```
73 .
74 . *-+-  Possible male energy level indirect effects:
75 . // wave 1  icdx1nr5 WHPpa WHPsleep PTSDw2 ecprw3 radw2 fdferw1 HP2pbfhm BSIh
   > os ///
76 . //   BSIips BSIposymp BSItotal age
77 . // wave 2  icdx1nr5 WHPpa WHPsleep PTSDw2 ecprw3 radw2  fdferw1 HP2pbfhm BSI
   > hos ///
78 . //   BSIips BSIposymp BSItotal age
79 . // wave 3  icdx1nr5 WHPpa WHPsleep PTSDw2 ecprw3 radw2 fdferw1 HP2pbfhm BSIh
   > os ///
80 . //   BSIips BSIposymp BSItotal age
81 .
82 . *--------Full  Female energy level crhtw model------------------------------
   > --
83 . des icdx3nr1 icdx4nr17  icdx5nr17

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------
icdx3nr1        double %8.0g                  icdx3nr==218.9 uterine leimyoma
icdx4nr17       double %8.0g                  icdx4nr==renal/ureteral calculus
icdx5nr17       double %8.0g                  icdx5nr==noninflam ids
                                                over/adnex*

84 . regress WHPel age marrw11-marrw16 marrw21 marrw23-marrw26 ///
   >    BSIposymp BSIanx  BSIips phlthw3 mhlthw1 ///
   >     PTSDw1 PTSDw2 HP2pbfhm WHPpain   WHPsleep whpsociso ///
   >      ecprw3 crhtw1 crhtw2 ///
   >     crhtw3 icdx3nr1 icdx4nr17  icdx5nr17   ///
   >      if gender==2, vce(cluster id)

Linear regression                               Number of obs =     362
                                                F( 28,   361) =       .
                                                Prob > F      =       .
                                                R-squared     =  0.6052
                                                Root MSE      =  22.605

                                   (Std. Err. adjusted for 362 clusters in id)
------------------------------------------------------------------------------
             |               Robust
       WHPel |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         age |  -.2148822   .1738148    -1.24   0.217    -.5566989    .1269345
     marrw11 |   17.40548   5.353797     3.25   0.001     6.876934    27.93403
     marrw12 |   28.11882   11.83915     2.38   0.018     4.836464    51.40118
     marrw13 |   15.16825   5.55842      2.73   0.007     4.237304     26.0992
     marrw14 |  -2.520636    13.3589    -0.19   0.850    -28.79167     23.7504
     marrw15 |   21.83596   10.49956     2.08   0.038     1.187974    42.48394
     marrw16 |   2.352378   13.22871     0.18   0.859    -23.66263    28.36739
```

marrw21	-1.559047	6.077451	-0.26	0.798	-13.5107	10.39261
marrw23	6.639661	5.974968	1.11	0.267	-5.110455	18.38978
marrw24	34.83679	14.59299	2.39	0.017	6.138844	63.53474
marrw25	6.183476	8.749918	0.71	0.480	-11.02374	23.39069
marrw26	14.30319	11.99957	1.19	0.234	-9.294659	37.90103
BSIposymp	.532809	.1353933	3.94	0.000	.2665503	.7990676
BSIanx	-1.738122	.681747	-2.55	0.011	-3.078816	-.3974273
BSIips	-2.01419	.7227165	-2.79	0.006	-3.435453	-.5929266
phlthw3	-.4074832	.0780976	-5.22	0.000	-.5610666	-.2538999
mhlthw1	.1525962	.0592099	2.58	0.010	.0361565	.2690359
PTSDw1	.1088724	.0432028	2.52	0.012	.0239116	.1938332
PTSDw2	-.3388124	.1242522	-2.73	0.007	-.5831615	-.0944633
HP2pbfhm	11.91385	4.731403	2.52	0.012	2.609276	21.21843
WHPpain	.3035065	.0837569	3.62	0.000	.1387939	.4682192
WHPsleep	.1336833	.063404	2.11	0.036	.0089956	.258371
whpsociso	.3282066	.084664	3.88	0.000	.16171	.4947032
ecprw3	-.119038	.0374974	-3.17	0.002	-.1927787	-.0452973
crhtw1	-1.945426	2.131067	-0.91	0.362	-6.136291	2.245439
crhtw2	-.9360901	6.44183	-0.15	0.885	-13.60432	11.73214
crhtw3	4.140817	5.730003	0.72	0.470	-7.127561	15.4092
icdx3nr1	14.67325	7.363389	1.99	0.047	.1927215	29.15377
icdx4nr17	21.61661	7.893558	2.74	0.006	6.093479	37.13975
icdx5nr17	91.59683	3.188637	28.73	0.000	85.32619	97.86746
_cons	9.478404	13.21447	0.72	0.474	-16.5086	35.46541

```
85 .
86 . * Variable labels
87 . des WHPel age marrw11-marrw16 marrw21 marrw23-marrw26 ///
   >    BSIposymp BSIanx  BSIips phlthw3 mhlthw1 ///
   >     PTSDw1 PTSDw2 WHPpain whpsociso  WHPsleep  ///
   >     HP2pbfhm ecprw3 crhtw1 crhtw2 goferw2  ///
   >     crhtw3 icdx3nr1 icdx4nr17  icdx5nr17

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------
WHPel           double %9.0g                  Wtd Health Profile Pt 1 Energy
                                                Level Subscale
age             double %8.0g                * Respondent's age
marrw11         byte   %8.0g                  marrw1==1. single
marrw12         byte   %8.0g                  marrw1==2. cohabitating
marrw13         byte   %8.0g                  marrw1==3. married
marrw14         byte   %8.0g                  marrw1==4. separated
marrw15         byte   %8.0g                  marrw1==5. divorced
marrw16         byte   %8.0g                  marrw1==6. widowed
marrw21         byte   %8.0g                  marrw2==1. single
marrw23         byte   %8.0g                  marrw2==3. married
marrw24         byte   %8.0g                  marrw2==4. separated
```

marrw25	byte	%8.0g		**marrw2==5. divorced**
marrw26	byte	%8.0g		**marrw2==6. widowed**
BSIposymp	double	%9.0g		**Brief Symptom inventory positive symptom total subscale**
BSIanx	double	%9.0g		**Basic symptom inventory Anxiety subscale**
BSIips	double	%9.0g		**Basic symptom invenstory interpersonal sensitivity subscale**
phlthw3	double	%8.0g		**level of general physical health now**
mhlthw1	double	%8.0g		**level of general psychological/mental health in 1986**
PTSDw1	double	%9.0g		**Average PTSD level in percent in wave 1**
PTSDw2	double	%9.0g		**Average PTSD level in percent in wave 2**
WHPpain	double	%9.0g		**Wtd Health Profile Pain Pt 1 subscale**
whpsociso	float	%9.0g		
WHPsleep	double	%9.0g		**Wtd Health Profile Sleep Pt 1 subscale**
HP2pbfhm	double	%9.0g	hp2fmt	**Hlth profile Pt2: Hlth causing probs with family members at home**
ecprw3	double	%8.0g		**consider hazardous (in percent) - economic problems, NOW**
crhtw1	float	%9.0g		**Chornobyl related health threat: wave 1 alpha = .7962935573200089**
crhtw2	float	%9.0g		**Chornobyl related health threat: wave 2 alpha = .8219889682935094**
goferw2	double	%8.0g		**level of fear in percent from going outdoors in 1987-1996**
crhtw3	float	%9.0g		**Chornobyl related health threat: wave 3 alpha = .8347477221944793**
icdx3nr1	double	%8.0g		**icdx3nr==218.9 uterine leimyoma**
icdx4nr17	double	%8.0g		**icdx4nr==renal/ureteral calculus**
icdx5nr17	double	%8.0g		**icdx5nr==noninflam ids over/adnex***

```
 88 .  *--------Trimmed  Female energy level crhtw model-------------------------
   > ------
 89 .  * Graph preparation
 90 .
 91 . cap drop H8FemELpred

 92 . cap drop h8FELsepred

 93 . cap drop FrELres

 94 . cap drop upbELF

 95 . cap drop lpbELF

 96 .
 97 .
 98 .
 99 .
100 . regress WHPel age marrw11-marrw16 marrw21 marrw23-marrw26 ///
   >    BSIposymp BSIanx  BSIips phlthw3 mhlthw1 ///
   >     PTSDw1 PTSDw2 WHPpain whpsociso  WHPsleep  ///
   >     HP2pbfhm ecprw3 crhtw1 crhtw2 goferw2  ///
   >     crhtw3 icdx3nr1 icdx4nr17  icdx5nr17   ///
   >      if gender==2, vce(cluster id)

Linear regression                               Number of obs =     361
                                                F( 29,   360) =       .
                                                Prob > F      =       .
                                                R-squared     =  0.6085
                                                Root MSE      =  22.553

                                   (Std. Err. adjusted for 361 clusters in id)
------------------------------------------------------------------------------
             |               Robust
      WHPel |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
------------+-----------------------------------------------------------------
        age |   -.212877   .1726229    -1.23   0.218    -.5523529    .1265989
    marrw11 |   17.88026   5.258447     3.40   0.001     7.539127    28.22139
    marrw12 |   31.46741   10.71814     2.94   0.004     10.38938    52.54544
    marrw13 |   16.03725   5.467654     2.93   0.004     5.284694     26.7898
    marrw14 |  -3.317784   13.24666    -0.25   0.802    -29.36833    22.73277
    marrw15 |   25.88531   11.23619     2.30   0.022     3.788503    47.98211
    marrw16 |   5.456849   12.88541     0.42   0.672    -19.88328    30.79698
    marrw21 |  -2.075267    5.80236    -0.36   0.721    -13.48605    9.335512
    marrw23 |   5.465469   5.693588     0.96   0.338    -5.731402    16.66234
    marrw24 |   33.05545   14.51577     2.28   0.023     4.509091     61.6018
    marrw25 |   3.908074   8.637572     0.45   0.651    -13.07836    20.89451
    marrw26 |   12.17646   11.93763     1.02   0.308     -11.2998    35.65271
  BSIposymp |   .5597333   .1363131     4.11   0.000     .2916633    .8278033
------------------------------------------------------------------------------
```

BSIanx	-1.776903	.6804479	-2.61	0.009	-3.115056	-.4387513
BSIips	-2.134538	.7148057	-2.99	0.003	-3.540257	-.7288186
phlthw3	-.4035284	.0782493	-5.16	0.000	-.5574117	-.2496452
mhlthw1	.1484583	.0600982	2.47	0.014	.0302708	.2666459
PTSDw1	.113965	.0430557	2.65	0.008	.0292929	.1986372
PTSDw2	-.3418776	.1264007	-2.70	0.007	-.590454	-.0933012
WHPpain	.2895208	.0847594	3.42	0.001	.1228351	.4562065
whpsociso	.3251524	.0840791	3.87	0.000	.1598044	.4905004
WHPsleep	.1371931	.0631875	2.17	0.031	.0129301	.2614562
HP2pbfhm	12.76826	4.768822	2.68	0.008	3.390011	22.14651
ecprw3	-.1131189	.0374951	-3.02	0.003	-.1868558	-.039382
crhtw1	-2.40462	2.099111	-1.15	0.253	-6.53268	1.723441
crhtw2	-.7576826	6.316829	-0.12	0.905	-13.1802	11.66484
goferw2	-.1392557	.0706704	-1.97	0.050	-.2782344	-.0002771
crhtw3	4.709302	5.624592	0.84	0.403	-6.351883	15.77049
icdx3nr1	14.07788	7.524196	1.87	0.062	-.719014	28.87478
icdx4nr17	20.77076	7.559287	2.75	0.006	5.904855	35.63667
icdx5nr17	90.87823	3.219395	28.23	0.000	84.54705	97.20941
_cons	9.454195	13.12864	0.72	0.472	-16.36427	35.27266

```
101 .  di e(r2_a)
    .5715698

102 .    predict H8FemELpred if gender==2, xb
    (341 missing values generated)

103 .      predict h8FELsepred if gender==2, stdp
    (343 missing values generated)

104 .      predict FrELres if gender==2, residual
    (341 missing values generated)

105 .      gen upbELF = H8FemELpred + 1.96*h8FELsepred
    (343 missing values generated)

106 .      gen lpbELF = H8FemELpred - 1.96*h8FELsepred
    (343 missing values generated)
```

```
107 .
108 . scatter H8FemELpred FrELres || lowess H8FemELpred  FrELres  ///
    >   || lowess upbELF FrELres || lowess lpbELF FrELres, ///
    >   title(Prediction interval of Female Energy Level model)   ///
    >   ytitle(Predicted Female Energy Level)

109 .
110 .
111 .
112 .
113 .
114 .
115 . gr save FELPredInt.gph, replace
    (file FELPredInt.gph saved)

116 . gr export FELPredInt.eps, replace
    (file FELPredInt.eps written in EPS format)

117 . gr use  FELPredInt.gph

118 .
119 .
120 .
121 .
122 .
123 .  regress WHPel age marrw11-marrw16 marrw21 marrw23-marrw26 ///
    >    BSIposymp BSIanx  BSIips phlthw3 mhlthw1 ///
    >     PTSDw1 PTSDw2 WHPpain whpsociso  WHPsleep  ///
    >     HP2pbfhm ecprw3 crhtw1 crhtw2 goferw2  ///
    >     crhtw3 icdx3nr1 icdx4nr17  icdx5nr17   ///
    >      if gender==2, vce(cluster id)

    Linear regression                               Number of obs =     361
                                                    F( 29,   360) =       .
                                                    Prob > F      =       .
                                                    R-squared     =  0.6085
                                                    Root MSE      =  22.553
```

(Std. Err. adjusted for **361** clusters in id)

WHPel	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
age	-.212877	.1726229	-1.23	0.218	-.5523529	.1265989
marrw11	17.88026	5.258447	3.40	0.001	7.539127	28.22139
marrw12	31.46741	10.71814	2.94	0.004	10.38938	52.54544
marrw13	16.03725	5.467654	2.93	0.004	5.284694	26.7898
marrw14	-3.317784	13.24666	-0.25	0.802	-29.36833	22.73277
marrw15	25.88531	11.23619	2.30	0.022	3.788503	47.98211
marrw16	5.456849	12.88541	0.42	0.672	-19.88328	30.79698
marrw21	-2.075267	5.80236	-0.36	0.721	-13.48605	9.335512
marrw23	5.465469	5.693588	0.96	0.338	-5.731402	16.66234
marrw24	33.05545	14.51577	2.28	0.023	4.509091	61.6018
marrw25	3.908074	8.637572	0.45	0.651	-13.07836	20.89451
marrw26	12.17646	11.93763	1.02	0.308	-11.2998	35.65271
BSIposymp	.5597333	.1363131	4.11	0.000	.2916633	.8278033
BSIanx	-1.776903	.6804479	-2.61	0.009	-3.115056	-.4387513
BSIips	-2.134538	.7148057	-2.99	0.003	-3.540257	-.7288186
phlthw3	-.4035284	.0782493	-5.16	0.000	-.5574117	-.2496452
mhlthw1	.1484583	.0600982	2.47	0.014	.0302708	.2666459
PTSDw1	.113965	.0430557	2.65	0.008	.0292929	.1986372
PTSDw2	-.3418776	.1264007	-2.70	0.007	-.590454	-.0933012
WHPpain	.2895208	.0847594	3.42	0.001	.1228351	.4562065
whpsociso	.3251524	.0840791	3.87	0.000	.1598044	.4905004
WHPsleep	.1371931	.0631875	2.17	0.031	.0129301	.2614562
HP2pbfhm	12.76826	4.768822	2.68	0.008	3.390011	22.14651
ecprw3	-.1131189	.0374951	-3.02	0.003	-.1868558	-.039382
crhtw1	-2.40462	2.099111	-1.15	0.253	-6.53268	1.723441
crhtw2	-.7576826	6.316829	-0.12	0.905	-13.1802	11.66484
goferw2	-.1392557	.0706704	-1.97	0.050	-.2782344	-.0002771
crhtw3	4.709302	5.624592	0.84	0.403	-6.351883	15.77049
icdx3nr1	14.07788	7.524196	1.87	0.062	-.719014	28.87478
icdx4nr17	20.77076	7.559287	2.75	0.006	5.904855	35.63667
icdx5nr17	90.87823	3.219395	28.23	0.000	84.54705	97.20941
_cons	9.454195	13.12864	0.72	0.472	-16.36427	35.27266

```
124 .  di e(r2_a)
    .5715698

125 .
126 .  cap drop tfrelres

127 .  rdiagrbst tfrelres
    (option xb assumed; fitted values)
    (2 missing values generated)
    yvar =  WHPel
    age marrw11 marrw12 marrw13 marrw14 marrw15 marrw16 marrw21 marrw23 marrw24 ma
    > rrw25 marrw26 BSIposymp BSIanx BSIips phlthw3 mhlthw1 PTSDw1 PTSDw2 WHPpain
    > whpsociso WHPsleep HP2pbfhm ecprw3 crhtw1 crhtw2 goferw2 crhtw3 icdx3nr1 icd
    > x4nr17 icdx5nr17 _cons
    245
    239
    xvar = ,age marrw11 marrw12 marrw13 marrw14 marrw15 marrw16 marrw21 marrw23 ma
    > rrw24 marrw25 marrw26 BSIposymp BSIanx BSIips phlthw3 mhlthw1 PTSDw1 PTSDw2
    > WHPpain whpsociso WHPsleep HP2pbfhm ecprw3 crhtw1 crhtw2 goferw2 crhtw3 icdx
    > 3nr1 icdx4nr17 ic
```

	Problems
POuts	**0**
NOuts	**0**
Badouts	**0**
Collin	**0**
SW	**0**
KS	**0**
Spec	**0**
Strbrk	**0**
Coltot	**0**
Pcttot	**0**

Outlier dignostics

Fitted values

Percentiles		Smallest		
1%	**-7.377561**	**-21.2304**		
5%	**-3.453589**	**-15.93767**		
10%	**-.2048513**	**-15.85308**	Obs	**700**
25%	**8.5894**	**-14.11985**	Sum of Wgt.	**700**

50%	**21.69815**		Mean	**27.43268**
		Largest	Std. Dev.	**24.71714**
75%	**41.58249**	**100.226**		
90%	**64.023**	**103.9949**	Variance	**610.9372**
95%	**77.54239**	**106.3622**	Skewness	**.8565848**
99%	**97.86816**	**107.7452**	Kurtosis	**3.260528**

(2 missing values generated)
(175 real changes made)
(175 real changes made)
(175 real changes made)
(175 real changes made)
(176 real changes made)
(176 real changes made)
(176 real changes made)
(176 real changes made)

Variable	Obs	Mean	Std. Dev.	Min	Max
__000001	**702**	**.2492877**	**.4329092**	**0**	**1**

Variable	Obs	Mean	Std. Dev.	Min	Max
__000003	**702**	**.2492877**	**.4329092**	**0**	**1**

Variable	Obs	Mean	Std. Dev.	Min	Max
__000005	**702**	**.2507123**	**.4337322**	**0**	**1**

Variable	Obs	Mean	Std. Dev.	Min	Max
__000007	**702**	**.2507123**	**.4337322**	**0**	**1**

.18741034
.1881236
Split sample analysis
There are 4 subsamples of equal sample size.

Variance 1 = .18741034
Variance 2 = .18741034
Variance 3 = .1881236
Variance 4 = .1881236

Minimum variance = .18741034

Maximum variance = .1881236

Computing Box's F test as indication of stuctural break:

for segment 1 Box's F = 1
for segment 2 Box's F = 1

for segment 3 Box's F = 1.0038059
for segment 4 Box's F = 1.0038059

There appears to be no structural break.

obs:	tfrelre~d
490.	-1.968799
500.	-1.754667
645.	-1.751244
290.	-1.681122
649.	-1.590359

308.	2.93591
363.	2.945053
6.	3.097534
146.	3.193312
21.	3.249262

note: **2** values of **2.93591**
There are 0 positive outliers
There are 33 negative outliers:

	id	tfrelre~d
59.	516	-1.300106
123.	565	-1.268833
124.	232	-1.327896
158.	650	-1.378309
197.	554	-1.302287
290.	169	-1.681122
460.	598	-1.260846
478.	724	-1.315777
484.	544	-1.363878
485.	581	-1.303098
486.	450	-1.580783
490.	670	-1.968799
500.	120	-1.754667
504.	428	-1.336152
519.	540	-1.353508
526.	485	-1.358854

534.	**741**	**-1.322268**
541.	**168**	**-1.391097**
547.	**731**	**-1.301681**
560.	**432**	**-1.284306**
605.	**662**	**-1.277819**
634.	**732**	**-1.393212**
645.	**117**	**-1.751244**
649.	**237**	**-1.590359**
652.	**194**	**-1.321592**
664.	**214**	**-1.413028**
666.	**556**	**-1.40366**
668.	**166**	**-1.287158**
672.	**270**	**-1.26096**
680.	**719**	**-1.264942**
682.	**508**	**-1.311153**
688.	**200**	**-1.27386**
702.	**445**	**-1.284725**

(702 real changes made, 702 to missing)

0

33

(2 real changes made)

35

outlier

Percentiles		Smallest		
1%	**0**	**0**		
5%	**0**	**0**		
10%	**0**	**0**	Obs	**702**
25%	**0**	**0**	Sum of Wgt.	**702**
50%	**0**		Mean	**.002849**
		Largest	Std. Dev.	**.053338**
75%	**0**	**0**		
90%	**0**	**0**	Variance	**.0028449**
95%	**0**	**1**	Skewness	**18.65483**
99%	**0**	**1**	Kurtosis	**349.0029**

(351 real changes made)

__00000N	Freq.	Percent	Cum.
0	351	50.00	50.00
1	351	50.00	100.00
Total	702	100.00	

Stem-and-leaf plot for tfrelresstd

tfrelresstd rounded to nearest multiple of .01
plot in units of .01

```
 -19* | 7
 -18* |
 -17* | 55
 -16* | 8
 -15* | 98
 -14* | 10
 -13* | 9986654322210000
 -12* | 98887766655554333221110000
 -11* | 99998875444444433322221l100
 -10* | 9998888777777666543333322221111100
  -9* | 987776655433220000
  -8* | 99988887766665554444433333322221100000
  -7* | 9998877766655555554443321110000
  -6* | 999887766666654443332211111l0000
  -5* | 9988888888776555554443333222222211l0000
  -4* | 98776555554433322211111111000000
  -3* | 99998888777776666655543322111100
  -2* | 9888877777665554433321O
  -1* | 99987776655333333222000
  -0* | 999888888877754433322111
   0* | 00233333444556666778889
   1* | 1111234444455666666889
   2* | 00011133344444556789
   3* | 02345666666667889
   4* | 00111122222344445566777789
   5* | 3344455566668889
   6* | 0112345567778999
   7* | 001245557788889
   8* | 00022233445667789
   9* | 2344455588
  10* | 000013448
  11* | 00111889
  12* | 000112256778
  13* | 3445689
  14* | 00334488
  15* | 013556888
  16* | 001157
```

```
  17* | 0123379
  18* | 2344566
  19* | 114
  20* | 024789
  21* | 1257
  22* | 178
  23* | 11233468
  24* | 24
  25* | 02
  26* | 9
  27* | 479
  28* | 37
  29* | 445
  30* |
  31* | 09
  32* | 5
```

Computing the leverage h

tfrelresstd

Percentiles		Smallest		
1%	-1.408344	-1.968799		
5%	-1.249589	-1.754667		
10%	-1.118152	-1.751244	Obs	700
25%	-.7623567	-1.681122	Sum of Wgt.	700
50%	-.2320062		Mean	4.79e-11
		Largest	Std. Dev.	1
75%	.5724695	2.945053		
90%	1.480362	3.097534	Variance	1
95%	2.027326	3.193312	Skewness	.8565848
99%	2.849661	3.249262	Kurtosis	3.260528

```
standard error of snewness=  .09231881
(702 real changes made, 702 to missing)

t test for skewness =  .
badout=  1
Positive outliers are :
    0
Negative outliers are:
```

	id
59.	516
123.	565
124.	232
158.	650
197.	554
290.	169
460.	598
478.	724
484.	544
485.	581
486.	450
490.	670
500.	120
504.	428
519.	540
526.	485
534.	741
541.	168
547.	731
560.	432
605.	662
634.	732
645.	117
649.	237
652.	194
664.	214
666.	556
668.	166
672.	270
680.	719
682.	508
688.	200
702.	445

33

---

multicollinearity tests:

Variable	VIF	1/VIF
marrw13	**20.80**	**0.048083**
marrw11	**18.61**	**0.053748**
marrw23	**13.74**	**0.072806**
crhtw2	**13.06**	**0.076589**
crhtw3	**10.54**	**0.094838**
marrw21	**10.16**	**0.098422**
BSIposymp	**8.22**	**0.121623**
marrw26	**4.64**	**0.215496**
BSIanx	**4.10**	**0.244091**
marrw25	**3.90**	**0.256175**
marrw15	**3.16**	**0.316921**
BSIips	**3.02**	**0.331209**
age	**2.80**	**0.356656**
marrw16	**2.77**	**0.360852**
crhtw1	**2.71**	**0.368638**
marrw12	**2.45**	**0.407857**
marrw14	**2.38**	**0.420029**
WHPpain	**2.19**	**0.456198**
WHPsleep	**1.99**	**0.501959**
marrw24	**1.81**	**0.551887**
phlthw3	**1.75**	**0.571649**
whpsociso	**1.59**	**0.629227**
HP2pbfhm	**1.47**	**0.678551**
ecprw3	**1.29**	**0.777340**
PTSDw1	**1.27**	**0.787787**
goferw2	**1.22**	**0.817388**
icdx4nr17	**1.22**	**0.822270**
PTSDw2	**1.22**	**0.822666**
mhlthw1	**1.19**	**0.839684**
icdx3nr1	**1.12**	**0.895759**
icdx5nr17	**1.02**	**0.976892**
Mean VIF	**4.76**	

Condition number using scaled variables = **58.94**

Condition Indexes and Variance-Decomposition Proportions

```
condition
   index      _cons         age    marrw11    marrw12    marrw13    marrw14    marrw15
>    marrw16    marrw21    marrw23    marrw24    marrw25    marrw26
1    1.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00
>       0.00       0.00       0.00       0.00       0.00       0.00
2    2.02       0.00       0.00       0.00       0.00       0.00       0.00       0.00
>       0.00       0.00       0.00       0.00       0.00       0.00
3    2.63       0.00       0.00       0.00       0.00       0.00       0.02       0.06
>       0.00       0.00       0.00       0.03       0.05       0.00
4    2.71       0.00       0.00       0.00       0.00       0.00       0.07       0.02
>       0.00       0.00       0.00       0.08       0.01       0.00
5    2.78       0.00       0.00       0.00       0.00       0.00       0.02       0.00
>       0.08       0.00       0.00       0.04       0.00       0.04
6    2.86       0.00       0.00       0.00       0.02       0.00       0.00       0.00
>       0.00       0.01       0.00       0.00       0.00       0.00
7    2.94       0.00       0.00       0.00       0.09       0.00       0.00       0.00
>       0.00       0.00       0.00       0.00       0.00       0.00
8    3.26       0.00       0.00       0.00       0.01       0.00       0.00       0.00
>       0.01       0.00       0.00       0.01       0.01       0.01
9    3.42       0.00       0.00       0.00       0.04       0.00       0.00       0.00
>       0.00       0.00       0.00       0.00       0.00       0.00
10   3.63       0.00       0.00       0.00       0.00       0.00       0.00       0.00
>       0.01       0.00       0.00       0.01       0.00       0.00
11   3.67       0.00       0.00       0.00       0.05       0.00       0.00       0.00
>       0.00       0.00       0.00       0.01       0.00       0.00
12   3.85       0.00       0.00       0.00       0.00       0.00       0.00       0.00
>       0.03       0.00       0.00       0.01       0.00       0.01
13   4.18       0.00       0.00       0.00       0.16       0.00       0.00       0.00
>       0.02       0.00       0.00       0.00       0.00       0.00
14   4.44       0.00       0.00       0.00       0.02       0.00       0.00       0.00
>       0.00       0.00       0.00       0.00       0.00       0.00
15   4.67       0.00       0.00       0.00       0.00       0.00       0.03       0.00
>       0.00       0.01       0.00       0.00       0.00       0.00
16   4.76       0.00       0.00       0.01       0.03       0.00       0.05       0.00
>       0.10       0.02       0.00       0.06       0.00       0.06
17   5.05       0.00       0.00       0.01       0.00       0.00       0.10       0.00
>       0.02       0.02       0.00       0.18       0.00       0.01
18   5.22       0.00       0.00       0.00       0.01       0.00       0.06       0.02
>       0.03       0.00       0.00       0.15       0.03       0.01
19   5.72       0.00       0.00       0.00       0.02       0.00       0.02       0.06
>       0.05       0.00       0.00       0.03       0.04       0.03
20   5.90       0.00       0.00       0.00       0.00       0.00       0.25       0.05
>       0.15       0.01       0.00       0.21       0.05       0.11
21   6.24       0.00       0.00       0.00       0.01       0.00       0.00       0.27
>       0.02       0.01       0.00       0.00       0.19       0.00
22   6.87       0.00       0.00       0.00       0.00       0.00       0.00       0.08
>       0.00       0.00       0.00       0.00       0.06       0.00
23   7.96       0.00       0.00       0.00       0.00       0.00       0.03       0.00
>       0.00       0.00       0.00       0.00       0.00       0.00
```

```
24 10.21       0.00       0.00       0.00       0.00       0.00       0.01       0.00
>       0.00       0.00       0.00       0.02       0.00       0.00
25 14.37       0.00       0.00       0.00       0.00       0.00       0.00       0.00
>       0.00       0.00       0.00       0.00       0.00       0.00
26 16.30       0.00       0.02       0.02       0.00       0.00       0.01       0.00
>       0.00       0.00       0.01       0.01       0.01       0.00
27 17.10       0.00       0.03       0.02       0.00       0.01       0.02       0.00
>       0.00       0.02       0.01       0.02       0.02       0.01
28 20.64       0.00       0.07       0.07       0.02       0.04       0.01       0.01
>       0.00       0.01       0.01       0.00       0.01       0.01
29 25.82       0.00       0.35       0.02       0.05       0.00       0.00       0.00
>       0.00       0.43       0.51       0.07       0.29       0.42
30 31.38       0.00       0.43       0.50       0.15       0.71       0.21       0.32
>       0.36       0.10       0.09       0.00       0.07       0.05
31 36.53       0.00       0.00       0.00       0.01       0.00       0.00       0.00
>       0.00       0.06       0.06       0.01       0.03       0.04
32 58.94       0.99       0.10       0.34       0.31       0.22       0.06       0.09
>       0.11       0.27       0.30       0.04       0.13       0.17

condition
   index BSIposymp    BSIanx    BSIips   phlthw3   mhlthw1    PTSDw1    PTSDw2
>    WHPpain whpsociso  WHPsleep  HP2pbfhm    ecprw3    crhtw1
1   1.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00
>       0.00       0.00       0.00       0.00       0.00       0.00
2   2.02       0.00       0.00       0.00       0.00       0.00       0.00       0.00
>       0.00       0.00       0.00       0.00       0.00       0.02
3   2.63       0.00       0.00       0.00       0.00       0.00       0.00       0.00
>       0.00       0.00       0.00       0.00       0.00       0.00
4   2.71       0.00       0.00       0.00       0.00       0.00       0.00       0.00
>       0.00       0.01       0.00       0.00       0.00       0.00
5   2.78       0.00       0.00       0.00       0.00       0.00       0.00       0.01
>       0.00       0.00       0.00       0.01       0.00       0.00
6   2.86       0.00       0.00       0.00       0.00       0.00       0.01       0.01
>       0.01       0.00       0.01       0.00       0.00       0.03
7   2.94       0.00       0.00       0.00       0.00       0.00       0.02       0.00
>       0.00       0.00       0.00       0.02       0.00       0.00
8   3.26       0.00       0.00       0.00       0.00       0.00       0.00       0.02
>       0.00       0.01       0.00       0.09       0.00       0.00
9   3.42       0.00       0.00       0.00       0.00       0.00       0.00       0.00
>       0.00       0.00       0.00       0.00       0.00       0.00
10  3.63       0.00       0.00       0.00       0.00       0.00       0.01       0.02
>       0.01       0.06       0.01       0.11       0.00       0.00
11  3.67       0.00       0.00       0.00       0.00       0.00       0.14       0.40
>       0.00       0.00       0.00       0.00       0.00       0.00
12  3.85       0.00       0.00       0.00       0.00       0.00       0.01       0.04
>       0.00       0.00       0.00       0.01       0.00       0.03
13  4.18       0.00       0.00       0.00       0.00       0.00       0.02       0.01
>       0.00       0.00       0.00       0.00       0.00       0.07
14  4.44       0.00       0.00       0.00       0.00       0.00       0.22       0.12
```

```
>       0.01       0.07       0.01       0.20       0.00       0.07
15   4.67       0.00       0.00       0.00       0.00       0.00       0.30       0.21
>       0.03       0.02       0.00       0.08       0.00       0.01
16   4.76       0.00       0.00       0.00       0.00       0.00       0.02       0.02
>       0.00       0.04       0.01       0.01       0.00       0.00
17   5.05       0.00       0.00       0.00       0.00       0.00       0.05       0.08
>       0.01       0.10       0.01       0.00       0.02       0.03
18   5.22       0.00       0.00       0.00       0.00       0.00       0.05       0.00
>       0.06       0.40       0.00       0.12       0.00       0.03
19   5.72       0.00       0.00       0.00       0.00       0.00       0.01       0.00
>       0.02       0.13       0.26       0.11       0.05       0.08
20   5.90       0.00       0.00       0.00       0.00       0.00       0.00       0.00
>       0.00       0.00       0.04       0.01       0.01       0.01
21   6.24       0.00       0.00       0.00       0.00       0.00       0.01       0.01
>       0.05       0.00       0.01       0.11       0.01       0.16
22   6.87       0.00       0.00       0.00       0.00       0.00       0.02       0.00
>       0.46       0.00       0.18       0.06       0.11       0.08
23   7.96       0.00       0.00       0.00       0.00       0.00       0.00       0.00
>       0.10       0.01       0.33       0.00       0.66       0.01
24  10.21       0.01       0.05       0.12       0.04       0.02       0.05       0.01
>       0.08       0.01       0.08       0.00       0.05       0.11
25  14.37       0.00       0.27       0.38       0.01       0.01       0.03       0.01
>       0.05       0.05       0.01       0.00       0.00       0.00
26  16.30       0.00       0.03       0.00       0.36       0.03       0.00       0.00
>       0.02       0.00       0.00       0.01       0.01       0.07
27  17.10       0.00       0.00       0.01       0.41       0.00       0.00       0.01
>       0.06       0.00       0.00       0.01       0.00       0.08
28  20.64       0.00       0.03       0.01       0.03       0.83       0.00       0.00
>       0.00       0.00       0.00       0.01       0.04       0.08
29  25.82       0.01       0.02       0.01       0.01       0.02       0.00       0.00
>       0.00       0.00       0.01       0.00       0.00       0.00
30  31.38       0.00       0.00       0.00       0.02       0.01       0.00       0.00
>       0.00       0.00       0.00       0.01       0.01       0.00
31  36.53       0.95       0.58       0.46       0.01       0.00       0.00       0.03
>       0.02       0.04       0.00       0.00       0.00       0.04
32  58.94       0.03       0.00       0.00       0.10       0.07       0.00       0.00
>       0.00       0.01       0.02       0.00       0.02       0.01
```

condition

	index	crhtw2	goferw2	crhtw3	icdx3nr1	icdx4nr17	icdx5nr17
>							
1	**1.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
2	**2.02**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**
3	**2.63**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
4	**2.71**	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**	**0.01**
5	**2.78**	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**
6	**2.86**	**0.00**	**0.00**	**0.00**	**0.01**	**0.04**	**0.01**
7	**2.94**	**0.00**	**0.02**	**0.00**	**0.01**	**0.18**	**0.00**
8	**3.26**	**0.00**	**0.05**	**0.00**	**0.20**	**0.04**	**0.07**
9	**3.42**	**0.00**	**0.01**	**0.00**	**0.20**	**0.00**	**0.57**
10	**3.63**	**0.00**	**0.04**	**0.00**	**0.12**	**0.02**	**0.19**
11	**3.67**	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**	**0.10**
12	**3.85**	**0.00**	**0.33**	**0.00**	**0.18**	**0.15**	**0.03**
13	**4.18**	**0.00**	**0.16**	**0.00**	**0.06**	**0.26**	**0.00**
14	**4.44**	**0.00**	**0.03**	**0.01**	**0.02**	**0.03**	**0.00**
15	**4.67**	**0.00**	**0.13**	**0.00**	**0.05**	**0.03**	**0.00**
16	**4.76**	**0.00**	**0.01**	**0.00**	**0.07**	**0.13**	**0.00**
17	**5.05**	**0.00**	**0.00**	**0.01**	**0.01**	**0.02**	**0.00**
18	**5.22**	**0.00**	**0.04**	**0.00**	**0.00**	**0.01**	**0.00**
19	**5.72**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
20	**5.90**	**0.00**	**0.00**	**0.00**	**0.01**	**0.04**	**0.00**
21	**6.24**	**0.00**	**0.14**	**0.01**	**0.01**	**0.00**	**0.00**
22	**6.87**	**0.00**	**0.01**	**0.01**	**0.01**	**0.01**	**0.00**
23	**7.96**	**0.00**	**0.01**	**0.01**	**0.01**	**0.00**	**0.00**
24	**10.21**	**0.00**	**0.00**	**0.02**	**0.00**	**0.01**	**0.00**
25	**14.37**	**0.02**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**
26	**16.30**	**0.44**	**0.00**	**0.41**	**0.00**	**0.00**	**0.00**
27	**17.10**	**0.48**	**0.00**	**0.49**	**0.00**	**0.00**	**0.00**
28	**20.64**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
29	**25.82**	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**
30	**31.38**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
31	**36.53**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.01**
32	**58.94**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Residual normality tests:

Shapiro-Wilk W test for normal data

Variable	Obs	W	V	z	Prob>z
tfrelresstd	**700**	**0.94137**	**26.737**	**8.017**	**0.00000**

Skewness/Kurtosis tests for Normality

Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	joint adj chi2(2)	joint Prob>chi2
tfrelresstd	**700**	**0.0000**	**0.1598**	**55.03**	**0.0000**

Jarque-Bera normality test: **87.58** Chi(**2**) **9.6e-20**
Jarque-Bera test for Ho: normality:
(file qntfrelresstd.gph saved)
(file bxtfrelresstd.gph saved)
(bin=**26**, start=**-1.9687988**, width=**.20069465**)
(file histtfrelresstd.gph saved)
(file kdtfrelresstd.gph saved)
(file combi4.gph saved)

Specification error tests:

Ramsey RESET test using powers of the fitted values of WHPel
Ho: model has no omitted variables
F(3, 326) = **1.12**
Prob > F = **0.3402**

Assessment of fulfillment of cross-sectional statistical regression assumption > s:
Caveat: This score is a heuristicc only as these scores are not strictly addit > ive

Regression model assumption test result matrix

	Problems=1
Positive-outliers	**0**
Negative-outliers	**33**
Bad-outliers	**1**
collinearity	**1**
Shapiro-Wilk	**1**
Kolmogorov-Smirnov	**1**
Specification	**0**
StructuralBreak	**0**
TotalProbs	**3**

Percent-Invalid	**60**
Pct-Pseudo-Valid	**40**

```
Problem type total score = Bad-Outliers+collinearity + (SW + KS)/2 + Spec + st
> rbrk
Percent_Valid = 100 - (percent of violated assumptions)
```

```
Legend:
PosOutliers = positive outlier issue
NegOutliers = negative outlier issue
Badoutliers = Number of outliers with bad leverage
collinearity =  Collinearity problem when condition number > 20
SW = Significant Shapiro-Wilk test
KS = Significant Kolmogorov-Smirnov test
Spec = Significant Ramset23 reset test
strbrk = Existence of structural break in residual variance between 4 sample s
> egments
Column total = the total number of counted problems in the column vector
Percent invalid: Percent of 6 regression assumptions violated
Percent Pseudo-Validity =  percent of regression model assumptions not violate
> d
```

```
128 .
129 .  title "Female Energy level indirect effects test"
```

```
*******************************************************************************
> *
*******************************************************************************
> *
*****                                                                      ****
> *
*****                                                                      ****
> *
*****             Female Energy level indirect effects test                ****
> *
*****                                                                      ****
> *
*****                                                                      ****
> *
*****                                          13 Jul 2012    12:44:07  ****
> *
*******************************************************************************
> *
```

```
    ******************************************************************************
    > *



130 . set more off

131 .  foreach var in  age marrw11-marrw16 marrw21 marrw23-marrw26 ///
    >    BSIposymp BSIanx  BSIips phlthw3 mhlthw1 ///
    >     PTSDw1 PTSDw2 WHPpain whpsociso  WHPsleep  ///
    >     HP2pbfhm ecprw3  goferw2  ///
    >    icdx3nr1 icdx4nr17  icdx5nr17  {
      2. sem (crhtw1-> `var')(`var'-> whpel) if gender==2, nocapslatent iterate(50
    > )
      3. sem (crhtw2-> `var')(`var'-> whpel) if gender==2, nocapslatent iterate(50
    > )
      4. sem (crhtw3-> `var')(`var'-> whpel) if gender==2, nocapslatent iterate(50
    > )
      5. }
    (1 observations with missing values excluded;
     specify option 'method(mlmv)' to use all observations)

    Endogenous variables

    Observed:  age whpel

    Exogenous variables

    Observed:  crhtw1

    Fitting target model:

    Iteration 0:   log likelihood = -3660.9619
    Iteration 1:   log likelihood = -3660.9619

    Structural equation model                       Number of obs      =       362
    Estimation method  = ml
    Log likelihood     = -3660.9619
```

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
age <-						
crhtw1	**3.218873**	**.6364183**	**5.06**	**0.000**	**1.971516**	**4.46623**
_cons	**49.84232**	**.6063362**	**82.20**	**0.000**	**48.65393**	**51.03072**
whpel <-						
age	**.9722374**	**.1441868**	**6.74**	**0.000**	**.6896365**	**1.254838**
_cons	**-16.95021**	**7.446039**	**-2.28**	**0.023**	**-31.54418**	**-2.356242**
Variance						
e.age	**130.49**	**9.699243**			**112.7997**	**150.9546**
e.whpel	**1051.456**	**78.15408**			**908.9115**	**1216.355**

LR test of model vs. saturated: chi2(**1**) = **0.07**, Prob > chi2 = **0.7920**

Endogenous variables

Observed: **age whpel**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0: log likelihood = **-3639.0598**
Iteration 1: log likelihood = **-3639.0598**

Structural equation model Number of obs = **363**
Estimation method = **ml**
Log likelihood = **-3639.0598**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
age <-						
crhtw2	**3.897443**	**.6851925**	**5.69**	**0.000**	**2.554491**	**5.240396**
_cons	**49.54513**	**.6075589**	**81.55**	**0.000**	**48.35434**	**50.73593**
whpel <-						
age	**.9770812**	**.1434361**	**6.81**	**0.000**	**.6959517**	**1.258211**
_cons	**-17.2271**	**7.400508**	**-2.33**	**0.020**	**-31.73183**	**-2.722368**

Variance					
e.age	**128.9608**	**9.57237**		**111.5002**	**149.1557**
e.whpel	**1048.966**	**77.86154**		**906.9413**	**1213.231**

LR test of model vs. saturated: chi2(**1**) = **7.01**, Prob > chi2 = **0.0081**

Endogenous variables

Observed: **age whpel**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-3648.637**
Iteration 1: log likelihood = **-3648.637**

Structural equation model Number of obs = **363**
Estimation method = **ml**
Log likelihood = **-3648.637**

	OIM				
	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]
Structural					
age <-					
crhtw3	**3.646918**	**.6723377**	**5.42**	**0.000**	**2.32916**	**4.964675**
_cons	**49.58731**	**.6093473**	**81.38**	**0.000**	**48.39301**	**50.78161**
whpel <-					
age	**.9770812**	**.1434361**	**6.81**	**0.000**	**.6959517**	**1.258211**
_cons	**-17.2271**	**7.400508**	**-2.33**	**0.020**	**-31.73183**	**-2.722368**
Variance					
e.age	**129.9244**	**9.643895**			**112.3333**	**150.2702**
e.whpel	**1048.966**	**77.86154**			**906.9413**	**1213.231**

LR test of model vs. saturated: chi2(**1**) = **11.23**, Prob > chi2 = **0.0008**
(1 observations with missing values excluded;
specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed: **marrw11 marrw12 marrw13 marrw14 marrw15 marrw16 whpel**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-1571.6203**
Iteration 1: log likelihood = **-1571.6203**

Structural equation model Number of obs = **362**
Estimation method = **ml**
Log likelihood = **-1571.6203**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
marrw11 <-						
crhtw1	-.1187747	.0260794	-4.55	0.000	-.1698894	-.06766
_cons	.3804485	.0248467	15.31	0.000	.3317499	.4291471
marrw12 <-						
crhtw1	.004374	.0058194	0.75	0.452	-.0070318	.0157799
_cons	.0104676	.0055443	1.89	0.059	-.0003991	.0213343
marrw13 <-						
crhtw1	.0728941	.0272769	2.67	0.008	.0194324	.1263559
_cons	.5648842	.0259876	21.74	0.000	.5139495	.615819
marrw14 <-						
crhtw1	.0103777	.0050212	2.07	0.039	.0005363	.020219
_cons	.0069061	.0047838	1.44	0.149	-.00247	.0162823
marrw15 <-						
crhtw1	.0090248	.0064849	1.39	0.164	-.0036854	.0217351
_cons	.0126111	.0061784	2.04	0.041	.0005016	.0247205
marrw16 <-						
crhtw1	.0131315	.0064655	2.03	0.042	.0004593	.0258037
_cons	.0120645	.0061599	1.96	0.050	-8.73e-06	.0241377
whpel <-						
marrw11	21.28485	14.95969	1.42	0.155	-8.035596	50.60529
marrw12	65.8	22.02624	2.99	0.003	22.62936	108.9706
marrw13	37.30769	14.85961	2.51	0.012	8.183401	66.43198
marrw14	61.6	23.97913	2.57	0.010	14.60176	108.5982
marrw15	52.64	20.76654	2.53	0.011	11.93833	93.34167
marrw16	55.2	20.76654	2.66	0.008	14.49833	95.90167

_cons	-8.23e-12	14.68416	-0.00	1.000	-28.78043	28.78043
Variance						
e.marrw11	.2191225	.0162872			.1894164	.2534873
e.marrw12	.0109106	.000811			.0094315	.0126217
e.marrw13	.239708	.0178174			.2072112	.2773012
e.marrw14	.0081228	.0006038			.0070216	.0093967
e.marrw15	.0135489	.0010071			.0117121	.0156738
e.marrw16	.0134679	.0010011			.0116421	.0155801
e.whpel	1078.123	80.13625			931.9637	1247.204

LR test of model vs. saturated: chi2(**16**) = **1051.03**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **marrw11 marrw12 marrw13 marrw14 marrw15 marrw16 whpel**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0: log likelihood = **-1529.2263**
Iteration 1: log likelihood = **-1529.2263**

Structural equation model Number of obs = **363**
Estimation method = **ml**
Log likelihood = **-1529.2263**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
marrw11 <-						
crhtw2	-.1780895	.0274785	-6.48	0.000	-.2319465	-.1242325
_cons	.3942395	.0243652	16.18	0.000	.3464847	.4419944
marrw12 <-						
crhtw2	.0032838	.0062964	0.52	0.602	-.0090569	.0156245
_cons	.010455	.005583	1.87	0.061	-.0004875	.0213975
marrw13 <-						
crhtw2	.1269521	.0290919	4.36	0.000	.069933	.1839711
_cons	.5511871	.0257957	21.37	0.000	.5006284	.6017458
marrw14 <-						
crhtw2	.0111773	.0054309	2.06	0.040	.000533	.0218217

_cons	.0063437	.0048155	1.32	0.188	-.0030946	.015782
marrw15 <-						
crhtw2	.0084462	.0070184	1.20	0.229	-.0053096	.0222021
_cons	.0123227	.0062232	1.98	0.048	.0001254	.02452
marrw16 <-						
crhtw2	.0131163	.0069986	1.87	0.061	-.0006008	.0268333
_cons	.0115202	.0062057	1.86	0.063	-.0006427	.0236831
whpel <-						
marrw11	21.28485	13.68712	1.56	0.120	-5.541413	48.11111
marrw12	65.8	21.16555	3.11	0.002	24.31629	107.2837
marrw13	37.30769	13.57797	2.75	0.006	10.69537	63.92002
marrw14	61.6	23.1857	2.66	0.008	16.15687	107.0431
marrw15	52.64	19.85504	2.65	0.008	13.72483	91.55517
marrw16	55.2	19.85504	2.78	0.005	16.28483	94.11517
_cons	2.54e-12	13.38627	0.00	1.000	-26.2366	26.2366
Variance						
e.marrw11	.2074054	.0153951			.1793238	.2398845
e.marrw12	.0108897	.0008083			.0094153	.012595
e.marrw13	.2324749	.0172559			.2009991	.2688798
e.marrw14	.0081016	.0006014			.0070047	.0093703
e.marrw15	.0135304	.0010043			.0116985	.0156492
e.marrw16	.0134542	.0009987			.0116326	.0155611
e.whpel	1075.153	79.80534			929.5829	1243.519

LR test of model vs. saturated: chi2(**16**) = **988.89**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **marrw11 marrw12 marrw13 marrw14 marrw15 marrw16 whpel**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-1540.049**
Iteration 1: log likelihood = **-1540.049**

Structural equation model Number of obs = **363**
Estimation method = **ml**
Log likelihood = **-1540.049**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
marrw11 <-						
crhtw3	**-.1667185**	**.0269915**	**-6.18**	**0.000**	**-.219621**	**-.1138161**
_cons	**.3923254**	**.0244627**	**16.04**	**0.000**	**.3443793**	**.4402715**
marrw12 <-						
crhtw3	**.0028914**	**.0061557**	**0.47**	**0.639**	**-.0091736**	**.0149564**
_cons	**.0105217**	**.005579**	**1.89**	**0.059**	**-.000413**	**.0214564**
marrw13 <-						
crhtw3	**.1182275**	**.028509**	**4.15**	**0.000**	**.062351**	**.1741041**
_cons	**.5526581**	**.025838**	**21.39**	**0.000**	**.5020165**	**.6032996**
marrw14 <-						
crhtw3	**.0103122**	**.0053126**	**1.94**	**0.052**	**-.0001003**	**.0207247**
_cons	**.0064899**	**.0048148**	**1.35**	**0.178**	**-.002947**	**.0159269**
marrw15 <-						
crhtw3	**.007645**	**.0068631**	**1.11**	**0.265**	**-.0058064**	**.0210965**
_cons	**.0124585**	**.0062201**	**2.00**	**0.045**	**.0002673**	**.0246497**
marrw16 <-						
crhtw3	**.014131**	**.0068347**	**2.07**	**0.039**	**.0007353**	**.0275268**
_cons	**.0113424**	**.0061944**	**1.83**	**0.067**	**-.0007983**	**.0234832**
whpel <-						
marrw11	**21.28485**	**13.68712**	**1.56**	**0.120**	**-5.541413**	**48.11111**
marrw12	**65.8**	**21.16555**	**3.11**	**0.002**	**24.31629**	**107.2837**
marrw13	**37.30769**	**13.57797**	**2.75**	**0.006**	**10.69537**	**63.92002**
marrw14	**61.6**	**23.1857**	**2.66**	**0.008**	**16.15687**	**107.0431**
marrw15	**52.64**	**19.85504**	**2.65**	**0.008**	**13.72483**	**91.55517**
marrw16	**55.2**	**19.85504**	**2.78**	**0.005**	**16.28483**	**94.11517**
_cons	**2.78e-12**	**13.38627**	**0.00**	**1.000**	**-26.2366**	**26.2366**
Variance						
e.marrw11	**.2093971**	**.0155429**			**.1810459**	**.2421881**
e.marrw12	**.0108912**	**.0008084**			**.0094166**	**.0125968**
e.marrw13	**.2336032**	**.0173397**			**.2019745**	**.2701848**
e.marrw14	**.008112**	**.0006021**			**.0070136**	**.0093823**
e.marrw15	**.0135381**	**.0010049**			**.0117051**	**.0156581**
e.marrw16	**.0134263**	**.0009966**			**.0116084**	**.0155288**
e.whpel	**1075.153**	**79.80534**			**929.5829**	**1243.519**

LR test of model vs. saturated: chi2(**16**) = **994.91**, Prob > chi2 = **0.0000**
(1 observations with missing values excluded;

```
 specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed:  marrw21 whpel

Exogenous variables

Observed:  crhtw1

Fitting target model:

Iteration 0:   log likelihood = -2436.3707
Iteration 1:   log likelihood = -2436.3707

Structural equation model                       Number of obs      =       362
Estimation method  = ml
Log likelihood     = -2436.3707
```

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
marrw21 <-						
crhtw1	-.0451039	.0209893	-2.15	0.032	-.0862423	-.0039656
_cons	.180036	.0199972	9.00	0.000	.1408421	.2192298
whpel <-						
marrw21	-21.95534	4.627379	-4.74	0.000	-31.02484	-12.88585
_cons	35.74582	1.930417	18.52	0.000	31.96227	39.52937
Variance						
e.marrw21	.1419351	.0105499			.1226932	.1641946
e.whpel	1114.226	82.81979			963.1725	1288.97

```
LR test of model vs. saturated: chi2(1)   =      1.98, Prob > chi2 = 0.1589

Endogenous variables

Observed:  marrw21 whpel

Exogenous variables

Observed:  crhtw2

Fitting target model:
```

```
Iteration 0:   log likelihood = -2414.0259
Iteration 1:   log likelihood = -2414.0259

Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     = -2414.0259
```

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
marrw21 <-						
crhtw2	-.0594243	.0227809	-2.61	0.009	-.104074	-.0147747
_cons	.1865201	.0201997	9.23	0.000	.1469294	.2261109
whpel <-						
marrw21	-22.17082	4.592151	-4.83	0.000	-31.17127	-13.17037
_cons	35.74582	1.928203	18.54	0.000	31.96661	39.52503
Variance						
e.marrw21	.1425517	.0105812			.123251	.1648749
e.whpel	1111.673	82.51607			961.158	1285.757

```
LR test of model vs. saturated: chi2(1)   =     14.15, Prob > chi2 = 0.0002

Endogenous variables

Observed:  marrw21 whpel

Exogenous variables

Observed:  crhtw3

Fitting target model:

Iteration 0:   log likelihood = -2420.6473
Iteration 1:   log likelihood = -2420.6473

Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     = -2420.6473
```

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
marrw21 <-						
crhtw3	**-.0704234**	**.0221722**	**-3.18**	**0.001**	**-.11388**	**-.0269667**
_cons	**.188427**	**.0200949**	**9.38**	**0.000**	**.1490417**	**.2278123**
whpel <-						
marrw21	**-22.17082**	**4.592151**	**-4.83**	**0.000**	**-31.17127**	**-13.17037**
_cons	**35.74582**	**1.928203**	**18.54**	**0.000**	**31.96661**	**39.52503**
Variance						
e.marrw21	**.141297**	**.010488**			**.1221661**	**.1634237**
e.whpel	**1111.673**	**82.51607**			**961.158**	**1285.757**

LR test of model vs. saturated: chi2(**1**) = **17.92**, Prob > chi2 = **0.0000**
(1 observations with missing values excluded;
specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed: **marrw23 marrw24 marrw25 marrw26 whpel**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-1765.7052**
Iteration 1: log likelihood = **-1765.7052**

Structural equation model Number of obs = **362**
Estimation method = **ml**
Log likelihood = **-1765.7052**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
marrw23 <-						
crhtw1	**-.0026194**	**.0249109**	**-0.11**	**0.916**	**-.0514439**	**.046205**
_cons	**.7241055**	**.0237334**	**30.51**	**0.000**	**.6775889**	**.7706222**
marrw24 <-						
crhtw1	**.0034592**	**.0029185**	**1.19**	**0.236**	**-.0022609**	**.0091794**
_cons	**.002302**	**.0027805**	**0.83**	**0.408**	**-.0031477**	**.0077518**
marrw25 <-						
crhtw1	**.0146708**	**.0095319**	**1.54**	**0.124**	**-.0040113**	**.033353**
_cons	**.0284342**	**.0090813**	**3.13**	**0.002**	**.0106351**	**.0462333**
marrw26 <-						
crhtw1	**.0231671**	**.0117233**	**1.98**	**0.048**	**.0001899**	**.0461443**
_cons	**.043878**	**.0111692**	**3.93**	**0.000**	**.0219869**	**.0657692**
whpel <-						
marrw23	**17.82802**	**4.433018**	**4.02**	**0.000**	**9.139463**	**26.51657**
marrw24	**83.68451**	**33.36524**	**2.51**	**0.012**	**18.28984**	**149.0792**
marrw25	**27.97542**	**10.7359**	**2.61**	**0.009**	**6.933432**	**49.0174**
marrw26	**34.60215**	**8.946329**	**3.87**	**0.000**	**17.06767**	**52.13664**
_cons	**16.31549**	**3.932131**	**4.15**	**0.000**	**8.608657**	**24.02233**
Variance						
e.marrw23	**.1999267**	**.0148604**			**.172823**	**.2312811**
e.marrw24	**.0027442**	**.000204**			**.0023721**	**.0031745**
e.marrw25	**.0292718**	**.0021758**			**.0253035**	**.0338625**
e.marrw26	**.0442783**	**.0032912**			**.0382756**	**.0512224**
e.whpel	**1097.778**	**81.59717**			**948.9538**	**1269.941**

LR test of model vs. saturated: chi2(**7**) = **98.07**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **marrw23 marrw24 marrw25 marrw26 whpel**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

```
Iteration 0:   log likelihood = -1739.2373
Iteration 1:   log likelihood = -1739.2373  (backed up)

Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     = -1739.2373
```

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
marrw23 <-						
crhtw2	.0061114	.027037	0.23	0.821	-.0468801	.0591029
_cons	.7207129	.0239736	30.06	0.000	.6737255	.7677003
marrw24 <-						
crhtw2	.0037258	.0031565	1.18	0.238	-.0024608	.0099123
_cons	.0021146	.0027988	0.76	0.450	-.003371	.0076002
marrw25 <-						
crhtw2	.0205314	.0102867	2.00	0.046	.0003699	.0406929
_cons	.0267749	.0091212	2.94	0.003	.0088977	.044652
marrw26 <-						
crhtw2	.0254357	.0126778	2.01	0.045	.0005876	.0502838
_cons	.042461	.0112414	3.78	0.000	.0204283	.0644938
whpel <-						
marrw23	18.05462	4.404107	4.10	0.000	9.422731	26.68651
marrw24	83.91111	33.32704	2.52	0.012	18.59132	149.2309
marrw25	28.20202	10.71465	2.63	0.008	7.201692	49.20235
marrw26	34.82876	8.924951	3.90	0.000	17.33618	52.32134
_cons	16.08889	3.900635	4.12	0.000	8.443785	23.73399
Variance						
e.marrw23	.2007929	.0149042			.1736066	.2322365
e.marrw24	.0027367	.0002031			.0023662	.0031653
e.marrw25	.0290658	.0021575			.0251304	.0336174
e.marrw26	.0441492	.0032771			.0381716	.0510628
e.whpel	1095.477	81.3139			947.1548	1267.025

```
LR test of model vs. saturated: chi2(7)   =    109.89, Prob > chi2 = 0.0000

Endogenous variables

Observed:  marrw23 marrw24 marrw25 marrw26 whpel
```

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-1747.5171**
Iteration 1: log likelihood = **-1747.5171**

Structural equation model Number of obs = **363**
Estimation method = **ml**
Log likelihood = **-1747.5171**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
marrw23 <-						
crhtw3	.0198638	.0264125	0.75	0.452	-.0319037	.0716312
_cons	.7183449	.0239379	30.01	0.000	.6714275	.7652623
marrw24 <-						
crhtw3	.0034374	.0030864	1.11	0.265	-.0026118	.0094866
_cons	.0021633	.0027972	0.77	0.439	-.0033191	.0076458
marrw25 <-						
crhtw3	.0191461	.0100611	1.90	0.057	-.0005733	.0388656
_cons	.0270083	.0091185	2.96	0.003	.0091363	.0448803
marrw26 <-						
crhtw3	.0245218	.0123957	1.98	0.048	.0002267	.0488168
_cons	.0426122	.0112343	3.79	0.000	.0205934	.0646311
whpel <-						
marrw23	18.05462	4.404107	4.10	0.000	9.422731	26.68651
marrw24	83.91111	33.32704	2.52	0.012	18.59132	149.2309
marrw25	28.20202	10.71465	2.63	0.008	7.201692	49.20235
marrw26	34.82876	8.924951	3.90	0.000	17.33618	52.32134
_cons	16.08889	3.900635	4.12	0.000	8.443785	23.73399
Variance						
e.marrw23	.2005087	.0148832			.1733609	.2319078
e.marrw24	.0027379	.0002032			.0023672	.0031666
e.marrw25	.0290945	.0021596			.0251553	.0336506
e.marrw26	.0441626	.0032781			.0381832	.0510783
e.whpel	1095.477	81.3139			947.1548	1267.025

LR test of model vs. saturated: chi2(**7**) = **115.66**, Prob > chi2 = **0.0000**

```
(1 observations with missing values excluded;
 specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed:  BSIposymp whpel

Exogenous variables

Observed:  crhtw1

Fitting target model:

Iteration 0:   log likelihood = -3937.6796
Iteration 1:   log likelihood = -3937.6796

Structural equation model                       Number of obs      =       362
Estimation method  = ml
Log likelihood     = -3937.6796

------------------------------------------------------------------------------
> ──
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interva
> l]
-------------+----------------------------------------------------------------
> ──
Structural   |
  BSIposymp <-
       crhtw1 |   1.618649   1.561776     1.04   0.300    -1.442375    4.6796
> 73
        _cons |   86.38402   1.487954    58.06   0.000     83.46769    89.300
> 36
-------------+----------------------------------------------------------------
> ──
  whpel <-   |
   BSIposymp |   .6926561   .0531297    13.04   0.000     .5885237    .79678
> 84
        _cons |  -28.05877   4.836741    -5.80   0.000    -37.53861   -18.578
> 93
-------------+----------------------------------------------------------------
> ──
Variance     |
   e.BSIposymp |    785.831   58.41036                      679.2972    909.07
> 24
      e.whpel |   805.3783    59.8633                      696.1945    931.68
> 53
------------------------------------------------------------------------------

> ──
```

```
LR test of model vs. saturated: chi2(1)   =      2.45, Prob > chi2 = 0.1173

Endogenous variables

Observed:  BSIposymp whpel

Exogenous variables

Observed:  crhtw2

Fitting target model:

Iteration 0:   log likelihood = -3901.8578
Iteration 1:   log likelihood = -3901.8578

Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     = -3901.8578

------------------------------------------------------------------------------
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interva
> l]
-------------+----------------------------------------------------------------
> --
Structural   |
  BSIposymp <-
       crhtw2 |   9.803972   1.614914     6.07   0.000     6.638798    12.969
> 15
        _cons |   84.82216   1.431941    59.24   0.000      82.0156    87.628
> 71
-------------+----------------------------------------------------------------
> --
  whpel <-   |
    BSIposymp |   .6936681   .0529589    13.10   0.000     .5898706     .79746
> 57
        _cons |  -28.17016   4.816795    -5.85   0.000     -37.6109   -18.729
> 41
-------------+----------------------------------------------------------------
> --
Variance     |
   e.BSIposymp |   716.3602   53.17324                      619.3688    828.54
> 01
      e.whpel |   803.3644    59.6313                      694.5932     929.1
> 69
------------------------------------------------------------------------------
> --
LR test of model vs. saturated: chi2(1)   =      1.42, Prob > chi2 = 0.2327
```

```
Endogenous variables

Observed:  BSIposymp whpel

Exogenous variables

Observed:  crhtw3

Fitting target model:

Iteration 0:   log likelihood =  -3904.237
Iteration 1:   log likelihood =  -3904.237

Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     =  -3904.237

------------------------------------------------------------------------------
> ──
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interva
> l]
-------------+----------------------------------------------------------------
> ──
Structural   |
  BSIposymp <-
       crhtw3 |   10.97906   1.553505     7.07   0.000     7.934242    14.023
> 87
        _cons |    84.6176   1.407959    60.10   0.000     81.85805    87.377
> 15
  ───────────┼────────────────────────────────────────────────────────────────
> ──
  whpel <-   |
     BSIposymp |   .6936681   .0529589    13.10   0.000     .5898706    .79746
> 57
        _cons |  -28.17016   4.816795    -5.85   0.000     -37.6109   -18.729
> 41
-------------+----------------------------------------------------------------
> ──
Variance     |
   e.BSIposymp |    693.651   51.48761                      599.7344    802.27
> 48
       e.whpel |   803.3644    59.6313                      694.5932     929.1
> 69
------------------------------------------------------------------------------
> ──
LR test of model vs. saturated: chi2(1)   =      1.73, Prob > chi2 = 0.1888
(1 observations with missing values excluded;
```

specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed: **BSIanx whpel**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-3236.202**
Iteration 1: log likelihood = **-3236.202**

Structural equation model Number of obs = **362**
Estimation method = **ml**
Log likelihood = **-3236.202**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
BSIanx <-						
crhtw1	**-.4122699**	**.2021768**	**-2.04**	**0.041**	**-.8085292**	**-.0160107**
_cons	**9.043819**	**.1926204**	**46.95**	**0.000**	**8.66629**	**9.421348**
whpel <-						
BSIanx	**3.743315**	**.4546813**	**8.23**	**0.000**	**2.852156**	**4.634474**
_cons	**-1.72361**	**4.411148**	**-0.39**	**0.696**	**-10.3693**	**6.92208**
Variance						
e.BSIanx	**13.16905**	**.9788479**			**11.38375**	**15.23435**
e.whpel	**996.8673**	**74.09656**			**861.7237**	**1153.205**

LR test of model vs. saturated: chi2(**1**) = **8.72**, Prob > chi2 = **0.0032**

Endogenous variables

Observed: **BSIanx whpel**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

```
Iteration 0:   log likelihood = -3210.4548
Iteration 1:   log likelihood = -3210.4548

Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     = -3210.4548
```

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
BSIanx <-						
crhtw2	.8193537	.2160312	3.79	0.000	.3959404	1.242767
_cons	8.837162	.1915544	46.13	0.000	8.461723	9.212602
whpel <-						
BSIanx	3.757288	.4534895	8.29	0.000	2.868465	4.646111
_cons	-1.895869	4.395133	-0.43	0.666	-10.51017	6.718433
Variance						
e.BSIanx	12.81933	.9515401			11.08366	14.8268
e.whpel	994.9118	73.84928			860.206	1150.712

```
LR test of model vs. saturated: chi2(1)   =      9.33, Prob > chi2 = 0.0023

Endogenous variables

Observed:  BSIanx whpel

Exogenous variables

Observed:  crhtw3

Fitting target model:

Iteration 0:   log likelihood = -3214.6505
Iteration 1:   log likelihood = -3214.6505

Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     = -3214.6505
```

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
BSIanx <-						
crhtw3	**.9985733**	**.2088589**	**4.78**	**0.000**	**.5892175**	**1.407929**
_cons	**8.806126**	**.1892912**	**46.52**	**0.000**	**8.435122**	**9.17713**
whpel <-						
BSIanx	**3.757288**	**.4534895**	**8.29**	**0.000**	**2.868465**	**4.646111**
_cons	**-1.895869**	**4.395133**	**-0.43**	**0.666**	**-10.51017**	**6.718433**
Variance						
e.BSIanx	**12.53781**	**.9306433**			**10.84025**	**14.50119**
e.whpel	**994.9118**	**73.84928**			**860.206**	**1150.712**

LR test of model vs. saturated: chi2(**1**) = **10.93**, Prob > chi2 = **0.0009**
(1 observations with missing values excluded;
specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed: **BSIips whpel**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-3163.4298**
Iteration 1: log likelihood = **-3163.4298**

Structural equation model Number of obs = **362**
Estimation method = **ml**
Log likelihood = **-3163.4298**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
BSIips <-						
crhtw1	.0596333	.1640527	0.36	0.716	-.261904	.3811706
_cons	7.221345	.1562983	46.20	0.000	6.915006	7.527684
whpel <-						
BSIips	4.436424	.567935	7.81	0.000	3.323292	5.549556
_cons	-.1472969	4.433403	-0.03	0.973	-8.836607	8.542014
Variance						
e.BSIips	8.670784	.6444943			7.495301	10.03062
e.whpel	1012.798	75.28065			875.4943	1171.634

LR test of model vs. saturated: chi2(**1**) = **3.54**, Prob > chi2 = **0.0601**

Endogenous variables

Observed: **BSIips whpel**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0: log likelihood = **-3129.2301**
Iteration 1: log likelihood = **-3129.2301**

Structural equation model Number of obs = **363**
Estimation method = **ml**
Log likelihood = **-3129.2301**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
BSIips <-						
crhtw2	.900549	.171351	5.26	0.000	.5647073	1.236391
_cons	7.065634	.1519366	46.50	0.000	6.767844	7.363424
whpel <-						
BSIips	4.454413	.5664529	7.86	0.000	3.344186	5.564641
_cons	-.3256686	4.41734	-0.07	0.941	-8.983497	8.332159

Variance					
e.BSIips	**8.065025**	**.5986423**		**6.973063**	**9.327984**
e.whpel	**1010.856**	**75.03273**		**873.991**	**1169.153**

LR test of model vs. saturated: chi2(**1**) = **6.61**, Prob > chi2 = **0.0102**

Endogenous variables

Observed: **BSIips whpel**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-3131.7851**
Iteration 1: log likelihood = **-3131.7851**

Structural equation model Number of obs = **363**
Estimation method = **ml**
Log likelihood = **-3131.7851**

	OIM				
	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]
Structural					
BSIips <-					
crhtw3	**1.043259**	**.164915**	**6.33**	**0.000**	**.720032** **1.366487**
_cons	**7.040861**	**.1494643**	**47.11**	**0.000**	**6.747916** **7.333806**
whpel <-					
BSIips	**4.454413**	**.5664529**	**7.86**	**0.000**	**3.344186** **5.564641**
_cons	**-.3256686**	**4.41734**	**-0.07**	**0.941**	**-8.983497** **8.332159**
Variance					
e.BSIips	**7.816928**	**.5802268**			**6.758557** **9.041036**
e.whpel	**1010.856**	**75.03273**			**873.991** **1169.153**

LR test of model vs. saturated: chi2(**1**) = **8.06**, Prob > chi2 = **0.0045**
(1 observations with missing values excluded;
specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed: **phlthw3 whpel**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-3827.6913**
Iteration 1: log likelihood = **-3827.6913**

Structural equation model Number of obs = **362**
Estimation method = **ml**
Log likelihood = **-3827.6913**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
phlthw3 <-						
crhtw1	**-.6606878**	**1.114351**	**-0.59**	**0.553**	**-2.844775**	**1.523399**
_cons	**65.27854**	**1.061678**	**61.49**	**0.000**	**63.19769**	**67.35939**
whpel <-						
phlthw3	**-.8966444**	**.0770921**	**-11.63**	**0.000**	**-1.047742**	**-.7455466**
_cons	**90.37766**	**5.257136**	**17.19**	**0.000**	**80.07386**	**100.6815**
Variance						
e.phlthw3	**400.0697**	**29.73694**			**345.8329**	**462.8123**
e.whpel	**861.5602**	**64.03927**			**744.76**	**996.6782**

LR test of model vs. saturated: chi2(**1**) = **3.38**, Prob > chi2 = **0.0660**

Endogenous variables

Observed: **phlthw3 whpel**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0: log likelihood = **-3803.468**
Iteration 1: log likelihood = **-3803.468**

Structural equation model Number of obs = **363**
Estimation method = **ml**
Log likelihood = **-3803.468**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
phlthw3 <-						
crhtw2	**-4.171143**	**1.190824**	**-3.50**	**0.000**	**-6.505116**	**-1.837171**
_cons	**66.00328**	**1.055901**	**62.51**	**0.000**	**63.93375**	**68.07281**
whpel <-						
phlthw3	**-.8968138**	**.0766671**	**-11.70**	**0.000**	**-1.047078**	**-.7465491**
_cons	**90.38675**	**5.236428**	**17.26**	**0.000**	**80.12354**	**100.65**
Variance						
e.phlthw3	**389.5183**	**28.91276**			**336.7796**	**450.5157**
e.whpel	**859.1881**	**63.77493**			**742.8586**	**993.7345**

LR test of model vs. saturated: chi2(**1**) = **8.37**, Prob > chi2 = **0.0038**

Endogenous variables

Observed: **phlthw3 whpel**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-3810.4845**
Iteration 1: log likelihood = **-3810.4845**

Structural equation model Number of obs = **363**
Estimation method = **ml**
Log likelihood = **-3810.4845**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
phlthw3 <-						
crhtw3	**-4.460373**	**1.16027**	**-3.84**	**0.000**	**-6.73446**	**-2.186286**
_cons	**66.05405**	**1.051566**	**62.81**	**0.000**	**63.99301**	**68.11508**
whpel <-						
phlthw3	**-.8968138**	**.0766671**	**-11.70**	**0.000**	**-1.047078**	**-.7465491**
_cons	**90.38675**	**5.236428**	**17.26**	**0.000**	**80.12354**	**100.65**

Variance					
e.phlthw3	**386.9312**	**28.72073**		**334.5428**	**447.5235**
e.whpel	**859.1881**	**63.77493**		**742.8586**	**993.7345**

LR test of model vs. saturated: chi2(**1**) = **11.38**, Prob > chi2 = **0.0007**
(1 observations with missing values excluded;
specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed: **mhlthw1 whpel**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-3848.9829**
Iteration 1: log likelihood = **-3848.9829**

Structural equation model Number of obs = **362**
Estimation method = **ml**
Log likelihood = **-3848.9829**

	OIM				
	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]
Structural					
mhlthw1 <-					
crhtw1	**-2.428527**	**1.009204**	**-2.41**	**0.016**	**-4.40653** **-.4505239**
_cons	**90.79282**	**.961501**	**94.43**	**0.000**	**88.90832** **92.67733**
whpel <-					
mhlthw1	**-.0764311**	**.0989474**	**-0.77**	**0.440**	**-.2703645** **.1175023**
_cons	**38.83956**	**9.132227**	**4.25**	**0.000**	**20.94072** **56.73839**
Variance					
e.mhlthw1	**328.1328**	**24.38992**			**283.6484** **379.5936**
e.whpel	**1181.569**	**87.82537**			**1021.386** **1366.874**

LR test of model vs. saturated: chi2(**1**) = **3.22**, Prob > chi2 = **0.0725**

Endogenous variables

Observed: **mhlthw1 whpel**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0: log likelihood = **-3832.4931**
Iteration 1: log likelihood = **-3832.4931**

Structural equation model Number of obs = **363**
Estimation method = **ml**
Log likelihood = **-3832.4931**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
mhlthw1 <-						
crhtw2	**-.499656**	**1.10026**	**-0.45**	**0.650**	**-2.656125**	**1.656813**
_cons	**90.58173**	**.9755979**	**92.85**	**0.000**	**88.66959**	**92.49387**
whpel <-						
mhlthw1	**-.0788861**	**.0988859**	**-0.80**	**0.425**	**-.2726989**	**.1149267**
_cons	**38.97578**	**9.128735**	**4.27**	**0.000**	**21.08379**	**56.86777**
Variance						
e.mhlthw1	**332.5239**	**24.68224**			**287.5019**	**384.5962**
e.whpel	**1180.986**	**87.66101**			**1021.087**	**1365.925**

LR test of model vs. saturated: chi2(**1**) = **18.07**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **mhlthw1 whpel**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-3840.8133**
Iteration 1: log likelihood = **-3840.8133**

Structural equation model Number of obs = **363**
Estimation method = **ml**
Log likelihood = **-3840.8133**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
mhlthw1 <-						
crhtw3	**-.1438694**	**1.075886**	**-0.13**	**0.894**	**-2.252567**	**1.964828**
_cons	**90.52062**	**.9750875**	**92.83**	**0.000**	**88.60949**	**92.43176**
whpel <-						
mhlthw1	**-.0788861**	**.0988859**	**-0.80**	**0.425**	**-.2726989**	**.1149267**
_cons	**38.97578**	**9.128735**	**4.27**	**0.000**	**21.08379**	**56.86777**
Variance						
e.mhlthw1	**332.6964**	**24.69504**			**287.6511**	**384.7957**
e.whpel	**1180.986**	**87.66101**			**1021.087**	**1365.925**

LR test of model vs. saturated: chi2(**1**) = **23.46**, Prob > chi2 = **0.0000**
(1 observations with missing values excluded;
specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed: **PTSDw1 whpel**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-4058.1648**
Iteration 1: log likelihood = **-4058.1648**

Structural equation model Number of obs = **362**
Estimation method = **ml**
Log likelihood = **-4058.1648**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
PTSDw1 <-						
crhtw1	**1.423881**	**1.849218**	**0.77**	**0.441**	**-2.20052**	**5.048282**
_cons	**17.80774**	**1.76181**	**10.11**	**0.000**	**14.35465**	**21.26082**
whpel <-						
PTSDw1	**.2440754**	**.0528974**	**4.61**	**0.000**	**.1403985**	**.3477523**
_cons	**27.53218**	**1.998524**	**13.78**	**0.000**	**23.61514**	**31.44921**
Variance						
e.PTSDw1	**1101.712**	**81.88962**			**952.3549**	**1274.493**
e.whpel	**1117.777**	**83.08374**			**966.2423**	**1293.078**

LR test of model vs. saturated: chi2(**1**) = **3.05**, Prob > chi2 = **0.0808**

Endogenous variables

Observed: **PTSDw1 whpel**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0: log likelihood = **-4039.1513**
Iteration 1: log likelihood = **-4039.1513**

Structural equation model Number of obs = **363**
Estimation method = **ml**
Log likelihood = **-4039.1513**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
PTSDw1 <-						
crhtw2	**2.116138**	**1.999312**	**1.06**	**0.290**	**-1.802441**	**6.034717**
_cons	**17.58402**	**1.772786**	**9.92**	**0.000**	**14.10942**	**21.05861**
whpel <-						
PTSDw1	**.2453114**	**.0528524**	**4.64**	**0.000**	**.1417226**	**.3489001**
_cons	**27.43415**	**1.994072**	**13.76**	**0.000**	**23.52584**	**31.34246**

Variance					
e.PTSDw1	**1097.978**	**81.49956**		**949.3175**	**1269.918**
e.whpel	**1116.779**	**82.89511**		**965.573**	**1291.663**

LR test of model vs. saturated: chi2(**1**) = **17.08**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **PTSDw1 whpel**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-4047.644**
Iteration 1: log likelihood = **-4047.644**

Structural equation model Number of obs = **363**
Estimation method = **ml**
Log likelihood = **-4047.644**

	OIM				
	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]
Structural					
PTSDw1 <-					
crhtw3	**1.496945**	**1.955951**	**0.77**	**0.444**	**-2.336648**	**5.330538**
_cons	**17.69006**	**1.7727**	**9.98**	**0.000**	**14.21563**	**21.16449**
whpel <-					
PTSDw1	**.2453114**	**.0528524**	**4.64**	**0.000**	**.1417226**	**.3489001**
_cons	**27.43415**	**1.994072**	**13.76**	**0.000**	**23.52584**	**31.34246**
Variance					
e.PTSDw1	**1099.592**	**81.61938**		**950.7132**	**1271.785**
e.whpel	**1116.779**	**82.89511**		**965.573**	**1291.663**

LR test of model vs. saturated: chi2(**1**) = **23.04**, Prob > chi2 = **0.0000**
(1 observations with missing values excluded;
specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed: **PTSDw2 whpel**

```
Exogenous variables

Observed:  crhtw1

Fitting target model:

Iteration 0:   log likelihood = -3560.3964
Iteration 1:   log likelihood = -3560.3964  (backed up)

Structural equation model                       Number of obs      =       362
Estimation method  = ml
Log likelihood     = -3560.3964
```

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
PTSDw2 <-						
crhtw1	.7910495	.4581632	1.73	0.084	-.1069338	1.689033
_cons	3.409637	.4365069	7.81	0.000	2.5541	4.265175
whpel <-						
PTSDw2	.5355891	.2171537	2.47	0.014	.1099756	.9612027
_cons	30.04231	1.948832	15.42	0.000	26.22267	33.86195
Variance						
e.PTSDw2	67.62888	5.026815			58.46055	78.23508
e.whpel	1163.958	86.51628			1006.162	1346.5

```
LR test of model vs. saturated: chi2(1)   =      2.81, Prob > chi2 = 0.0938

Endogenous variables

Observed:  PTSDw2 whpel

Exogenous variables

Observed:  crhtw2

Fitting target model:

Iteration 0:   log likelihood = -3538.9042
Iteration 1:   log likelihood = -3538.9042

Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     = -3538.9042
```

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
PTSDw2 <-						
crhtw2	**1.182857**	**.4937807**	**2.40**	**0.017**	**.2150646**	**2.150649**
_cons	**3.30197**	**.4378344**	**7.54**	**0.000**	**2.443831**	**4.16011**
whpel <-						
PTSDw2	**.5398533**	**.2170316**	**2.49**	**0.013**	**.1144791**	**.9652275**
_cons	**29.9446**	**1.945051**	**15.40**	**0.000**	**26.13237**	**33.75683**
Variance						
e.PTSDw2	**66.97316**	**4.971214**			**57.90535**	**77.46096**
e.whpel	**1163.229**	**86.34298**			**1005.734**	**1345.388**

LR test of model vs. saturated: chi2(**1**) = **16.11**, Prob > chi2 = **0.0001**

Endogenous variables

Observed: **PTSDw2 whpel**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-3546.3125**
Iteration 1: log likelihood = **-3546.3125**

Structural equation model Number of obs = **363**
Estimation method = **ml**
Log likelihood = **-3546.3125**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
PTSDw2 <-						
crhtw3	**1.310496**	**.4816307**	**2.72**	**0.007**	**.3665176**	**2.254475**
_cons	**3.279723**	**.4365073**	**7.51**	**0.000**	**2.424184**	**4.135262**
whpel <-						
PTSDw2	**.5398533**	**.2170316**	**2.49**	**0.013**	**.1144791**	**.9652275**
_cons	**29.9446**	**1.945051**	**15.40**	**0.000**	**26.13237**	**33.75683**

Variance					
e.PTSDw2	**66.67208**	**4.948866**		**57.64504**	**77.11274**
e.whpel	**1163.229**	**86.34298**		**1005.734**	**1345.388**

LR test of model vs. saturated: chi2(**1**) = **20.86**, Prob > chi2 = **0.0000**
(1 observations with missing values excluded;
specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed: **WHPpain whpel**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-3844.1582**
Iteration 1: log likelihood = **-3844.1582**

Structural equation model Number of obs = **362**
Estimation method = **ml**
Log likelihood = **-3844.1582**

	OIM				
	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]
Structural					
WHPpain <-					
crhtw1	**1.729479**	**1.239418**	**1.40**	**0.163**	**-.6997351**	**4.158694**
_cons	**17.83115**	**1.180833**	**15.10**	**0.000**	**15.51676**	**20.14554**
whpel <-					
WHPpain	**.9195424**	**.0650758**	**14.13**	**0.000**	**.7919961**	**1.047089**
_cons	**15.31671**	**1.867783**	**8.20**	**0.000**	**11.65592**	**18.9775**
Variance					
e.WHPpain	**494.9113**	**36.78647**			**427.817**	**572.5279**
e.whpel	**762.7898**	**56.69772**			**659.3797**	**882.4177**

LR test of model vs. saturated: chi2(**1**) = **1.70**, Prob > chi2 = **0.1921**

Endogenous variables

Observed: **WHPpain whpel**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0: log likelihood = **-3816.5068**
Iteration 1: log likelihood = **-3816.5068**

Structural equation model Number of obs = **363**
Estimation method = **ml**
Log likelihood = **-3816.5068**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
WHPpain <-						
crhtw2	**5.721746**	**1.311307**	**4.36**	**0.000**	**3.151631**	**8.291861**
_cons	**17.02834**	**1.162733**	**14.65**	**0.000**	**14.74942**	**19.30725**
whpel <-						
WHPpain	**.9210712**	**.064955**	**14.18**	**0.000**	**.7937618**	**1.048381**
_cons	**15.24698**	**1.861745**	**8.19**	**0.000**	**11.59802**	**18.89593**
Variance						
e.WHPpain	**472.3255**	**35.05929**			**408.3752**	**546.2904**
e.whpel	**761.3318**	**56.51135**			**658.2515**	**880.5542**

LR test of model vs. saturated: chi2(**1**) = **4.61**, Prob > chi2 = **0.0318**

Endogenous variables

Observed: **WHPpain whpel**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-3821.598**
Iteration 1: log likelihood = **-3821.598**

Structural equation model Number of obs = **363**
Estimation method = **ml**
Log likelihood = **-3821.598**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
WHPpain <-						
crhtw3	**6.442221**	**1.270903**	**5.07**	**0.000**	**3.951297**	**8.933145**
_cons	**16.90299**	**1.151834**	**14.67**	**0.000**	**14.64544**	**19.16054**
whpel <-						
WHPpain	**.9210712**	**.064955**	**14.18**	**0.000**	**.7937618**	**1.048381**
_cons	**15.24698**	**1.861745**	**8.19**	**0.000**	**11.59802**	**18.89593**
Variance						
e.WHPpain	**464.2378**	**34.45896**			**401.3825**	**536.9361**
e.whpel	**761.3318**	**56.51135**			**658.2515**	**880.5542**

LR test of model vs. saturated: chi2(**1**) = **5.70**, Prob > chi2 = **0.0170**
(1 observations with missing values excluded;
specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed: **whpsociso whpel**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-3807.5618**
Iteration 1: log likelihood = **-3807.5618**

Structural equation model Number of obs = **362**
Estimation method = **ml**
Log likelihood = **-3807.5618**

```
> ——
                │                 OIM
                │      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interva
> l]
────────────────┼──────────────────────────────────────────────────────────────
> ——
Structural      │
  whpsociso <-  │
        crhtw1  │   3.356728   1.029778     3.26   0.001     1.338401    5.3750
> 55
         _cons  │   9.862511   .9811023    10.05   0.000     7.939586    11.785
> 44
    ────────────┼──────────────────────────────────────────────────────────────
> ——
  whpel <-      │
     whpsociso  │   .8935936   .0842066    10.61   0.000     .7285516    1.0586
> 36
         _cons  │   22.71258   1.802015    12.60   0.000     19.18069    26.244
> 46
────────────────┼──────────────────────────────────────────────────────────────
> ——
Variance        │
   e.whpsociso  │   341.6478   25.39448                      295.3312    395.22
> 82
       e.whpel  │   902.7005    67.0972                      780.3229     1044.
> 27
────────────────┼──────────────────────────────────────────────────────────────
> ——
LR test of model vs. saturated: chi2(1)   =      0.13, Prob > chi2 = 0.7205

Endogenous variables

Observed:  whpsociso whpel

Exogenous variables

Observed:  crhtw2

Fitting target model:

Iteration 0:   log likelihood = -3782.8489
Iteration 1:   log likelihood = -3782.8489

Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     = -3782.8489
```

```
> ——
                    |                 OIM
                    |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interva
> l]
--------------------+------------------------------------------------------------
> ——
Structural          |
  whpsociso <-      |
        crhtw2      |   5.099362   1.098269     4.64   0.000     2.946793     7.251
> 93
         _cons      |   9.404572   .9738334     9.66   0.000     7.495893    11.313
> 25
--------------------+------------------------------------------------------------
> ——
  whpel <-          |
     whpsociso      |   .8954262   .0841217    10.64   0.000     .7305508    1.0603
> 02
         _cons      |   22.63117   1.797716    12.59   0.000     19.10771    26.154
> 63
--------------------+------------------------------------------------------------
> ——
Variance            |
   e.whpsociso      |   331.3221   24.59303                      286.4628    383.20
> 62
       e.whpel      |   901.6297   66.92524                      779.5539    1042.8
> 22
--------------------+------------------------------------------------------------
> ——
LR test of model vs. saturated: chi2(1)   =      5.68, Prob > chi2 = 0.0172

Endogenous variables

Observed:  whpsociso whpel

Exogenous variables

Observed:  crhtw3

Fitting target model:

Iteration 0:   log likelihood = -3789.8068
Iteration 1:   log likelihood = -3789.8068

Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     = -3789.8068
```

```
------------------------------------------------------------------------------
> ──
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interva
> l]
-------------+----------------------------------------------------------------
> ──
Structural   |
  whpsociso <-
       crhtw3 |   5.269214   1.069917     4.92   0.000     3.172215    7.3662
> 14
        _cons |   9.374124   .9696781     9.67   0.000      7.47359    11.274
> 66
-------------+----------------------------------------------------------------
> ──
  whpel <-   |
     whpsociso |   .8954262   .0841217    10.64   0.000     .7305508    1.0603
> 02
        _cons |   22.63117   1.797716    12.59   0.000     19.10771    26.154
> 63
-------------+----------------------------------------------------------------
> ──
Variance     |
   e.whpsociso |   329.0153   24.42181                      284.4684    380.53
> 82
       e.whpel |   901.6297   66.92524                      779.5539    1042.8
> 22
------------------------------------------------------------------------------
> ──
LR test of model vs. saturated: chi2(1)   =      8.45, Prob > chi2 = 0.0037
(1 observations with missing values excluded;
 specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed:  WHPsleep whpel

Exogenous variables

Observed:  crhtw1

Fitting target model:

Iteration 0:   log likelihood = -3981.7706
Iteration 1:   log likelihood = -3981.7706
```

```
Structural equation model                       Number of obs      =       362
Estimation method  = ml
Log likelihood     = -3981.7706

------------------------------------------------------------------------------
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
Structural   |
  WHPsleep <-|
       crhtw1|   4.702623    1.70338     2.76   0.006     1.364058    8.04118
       _cons |   25.65657   1.622866    15.81   0.000     22.47581    28.8373
-------------+----------------------------------------------------------------
  whpel <-   |
    WHPsleep |   .5787747   .0499997    11.58   0.000     .4807772    .676772
       _cons |   16.71326   2.028064     8.24   0.000     12.73832    20.6881
-------------+----------------------------------------------------------------
Variance     |
   e.WHPsleep|   934.7924   69.48257                      808.0642    1081.39
      e.whpel|   863.7871   64.20479                       746.685    999.254
------------------------------------------------------------------------------
LR test of model vs. saturated: chi2(1)   =      0.29, Prob > chi2 = 0.5921

Endogenous variables

Observed:  WHPsleep whpel

Exogenous variables

Observed:  crhtw2

Fitting target model:

Iteration 0:   log likelihood = -3954.6713
Iteration 1:   log likelihood = -3954.6713
```

```
Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     = -3954.6713

------------------------------------------------------------------------------
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
Structural   |
  WHPsleep <-|
       crhtw2|   8.924184   1.802145     4.95   0.000     5.392045    12.4563
       _cons |   24.71111   1.597958    15.46   0.000     21.57917    27.8430
-------------+----------------------------------------------------------------
  whpel <-   |
    WHPsleep |   .5797236    .049963    11.60   0.000      .481798    .677649
       _cons |   16.62227    2.02405     8.21   0.000      12.6552    20.5893
-------------+----------------------------------------------------------------
Variance     |
   e.WHPsleep|   892.0966   66.21762                      771.3114    1031.79
      e.whpel|   862.9876   64.05694                      746.1436    998.128
------------------------------------------------------------------------------
LR test of model vs. saturated: chi2(1)   =      4.36, Prob > chi2 = 0.0369

Endogenous variables

Observed:  WHPsleep whpel

Exogenous variables

Observed:  crhtw3

Fitting target model:

Iteration 0:   log likelihood = -3960.4803
Iteration 1:   log likelihood = -3960.4803
```

```
Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     = -3960.4803

------------------------------------------------------------------------------
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
Structural   |
  WHPsleep <-|
       crhtw3|   9.540244   1.750074     5.45   0.000     6.110162    12.9703
       _cons |   24.60296   1.586112    15.51   0.000     21.49424    27.7116
-------------+----------------------------------------------------------------
  whpel <-   |
    WHPsleep |   .5797236    .049963    11.60   0.000      .481798    .677649
       _cons |   16.62227    2.02405     8.21   0.000      12.6552    20.5893
-------------+----------------------------------------------------------------
Variance     |
   e.WHPsleep|   880.2956   65.34167                      761.1083    1018.14
      e.whpel|   862.9876   64.05694                      746.1436    998.128
------------------------------------------------------------------------------
LR test of model vs. saturated: chi2(1)   =      6.24, Prob > chi2 = 0.0125
(1 observations with missing values excluded;
 specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed:  HP2pbfhm whpel

Exogenous variables

Observed:  crhtw1

Fitting target model:
```

```
Iteration 0:   log likelihood = -2364.7925
Iteration 1:   log likelihood = -2364.7925

Structural equation model                       Number of obs      =       362
Estimation method  = ml
Log likelihood     = -2364.7925

------------------------------------------------------------------------------
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
-------------+----------------------------------------------------------------
> —
Structural   |
  HP2pbfhm <-|
       crhtw1|   .0874445   .0181534     4.82   0.000     .0518644    .123024
> 6
       _cons |   .1181964   .0172954     6.83   0.000     .0842981    .152094
> 7
-------------+----------------------------------------------------------------
> —
  whpel <-   |
     HP2pbfhm|   39.97114   4.952262     8.07   0.000     30.26489     49.677
> 4
       _cons |   26.73524   1.784425    14.98   0.000     23.23783    30.2326
> 5
-------------+----------------------------------------------------------------
> —
Variance     |
   e.HP2pbfhm|    .106172   .0078917                      .0917785    .122822
> 9
      e.whpel|   1003.014   74.55344                      867.0371    1160.31
> 6
------------------------------------------------------------------------------
> —
LR test of model vs. saturated: chi2(1)   =      0.00, Prob > chi2 = 0.9559

Endogenous variables

Observed:  HP2pbfhm whpel

Exogenous variables

Observed:  crhtw2

Fitting target model:
```

```
Iteration 0:   log likelihood = -2346.5917
Iteration 1:   log likelihood = -2346.5917

Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     = -2346.5917

------------------------------------------------------------------------------
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
Structural   |
  HP2pbfhm <-|
       crhtw2|   .0695546   .0199251     3.49   0.000     .0305022     .10860
       _cons |   .1175242   .0176675     6.65   0.000     .0828965    .152151
-------------+----------------------------------------------------------------
  whpel <-   |
     HP2pbfhm|   40.05575   4.949268     8.09   0.000     30.35536    49.7561
       _cons |   26.65063   1.780888    14.96   0.000     23.16016    30.1411
-------------+----------------------------------------------------------------
Variance     |
    e.HP2pbfhm|   .1090516   .0080946                      .0942866    .126128
      e.whpel |   1002.214   74.39128                      866.5193    1159.15
------------------------------------------------------------------------------
LR test of model vs. saturated: chi2(1)   =     10.20, Prob > chi2 = 0.0014

Endogenous variables

Observed:  HP2pbfhm whpel

Exogenous variables

Observed:  crhtw3

Fitting target model:
```

```
Iteration 0:   log likelihood = -2355.4191
Iteration 1:   log likelihood = -2355.4191

Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     = -2355.4191

------------------------------------------------------------------------------
> —
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
-------------+----------------------------------------------------------------
> —
Structural   |
  HP2pbfhm <-|
       crhtw3|   .0645477   .0195109     3.31   0.001      .026307    .102788
> 3
       _cons |   .1183692    .017683     6.69   0.000     .0837112    .153027
> 1
-------------+----------------------------------------------------------------
> —
  whpel <-   |
     HP2pbfhm|   40.05575   4.949268     8.09   0.000     30.35536    49.7561
> 4
       _cons |   26.65063   1.780888    14.96   0.000     23.16016    30.1411
> 1
-------------+----------------------------------------------------------------
> —
Variance     |
   e.HP2pbfhm|   .1094135   .0081214                      .0945995    .126547
> 3
      e.whpel|   1002.214   74.39128                      866.5193    1159.15
> 7
------------------------------------------------------------------------------
> —
LR test of model vs. saturated: chi2(1)   =     15.15, Prob > chi2 = 0.0001
(1 observations with missing values excluded;
 specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed:  ecprw3 whpel

Exogenous variables

Observed:  crhtw1
```

```
Fitting target model:

Iteration 0:   log likelihood = -4104.4771
Iteration 1:   log likelihood = -4104.4771

Structural equation model                       Number of obs      =       362
Estimation method  = ml
Log likelihood     = -4104.4771
```

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
ecprw3 <-						
crhtw1	**3.024763**	**2.042408**	**1.48**	**0.139**	**-.9782819**	**7.027809**
_cons	**59.02009**	**1.945868**	**30.33**	**0.000**	**55.20626**	**62.83392**
whpel <-						
ecprw3	**.0032679**	**.0491734**	**0.07**	**0.947**	**-.0931102**	**.099646**
_cons	**31.73067**	**3.436206**	**9.23**	**0.000**	**24.99583**	**38.46551**
Variance						
e.ecprw3	**1343.93**	**99.89354**			**1161.736**	**1554.698**
e.whpel	**1183.503**	**87.96905**			**1023.057**	**1369.111**

```
LR test of model vs. saturated: chi2(1)   =      3.53, Prob > chi2 = 0.0604

Endogenous variables

Observed:  ecprw3 whpel

Exogenous variables

Observed:  crhtw2

Fitting target model:

Iteration 0:   log likelihood = -4069.6581
Iteration 1:   log likelihood = -4069.6581

Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     = -4069.6581
```

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
ecprw3 <-						
crhtw2	**13.1978**	**2.112867**	**6.25**	**0.000**	**9.056658**	**17.33895**
_cons	**56.99102**	**1.873475**	**30.42**	**0.000**	**53.31908**	**60.66297**
whpel <-						
ecprw3	**.0070822**	**.0489868**	**0.14**	**0.885**	**-.0889302**	**.1030946**
_cons	**31.41723**	**3.418449**	**9.19**	**0.000**	**24.71719**	**38.11727**
Variance						
e.ecprw3	**1226.244**	**91.0204**			**1060.217**	**1418.271**
e.whpel	**1182.988**	**87.80964**			**1022.818**	**1368.241**

LR test of model vs. saturated: chi2(**1**) = **19.77**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **ecprw3 whpel**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-4075.3143**
Iteration 1: log likelihood = **-4075.3143**

Structural equation model Number of obs = **363**
Estimation method = **ml**
Log likelihood = **-4075.3143**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
ecprw3 <-						
crhtw3	**13.71993**	**2.050955**	**6.69**	**0.000**	**9.700132**	**17.73973**
_cons	**56.89802**	**1.858804**	**30.61**	**0.000**	**53.25483**	**60.54121**
whpel <-						
ecprw3	**.0070822**	**.0489868**	**0.14**	**0.885**	**-.0889302**	**.1030946**
_cons	**31.41723**	**3.418449**	**9.19**	**0.000**	**24.71719**	**38.11727**

Variance				
e.ecprw3	**1209.005**	**89.74078**	**1045.312**	**1398.332**
e.whpel	**1182.988**	**87.80964**	**1022.818**	**1368.241**

LR test of model vs. saturated: chi2(**1**) = **25.93**, Prob > chi2 = **0.0000**
(2 observations with missing values excluded;
specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed: **goferw2 whpel**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-3823.6842**
Iteration 1: log likelihood = **-3823.6842**

Structural equation model Number of obs = **361**
Estimation method = **ml**
Log likelihood = **-3823.6842**

	OIM				
	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]
Structural					
goferw2 <-					
crhtw1	**.8893884**	**.9698185**	**0.92**	**0.359**	**-1.011421** **2.790198**
_cons	**7.990379**	**.9250045**	**8.64**	**0.000**	**6.177404** **9.803355**
whpel <-					
goferw2	**.1515195**	**.1036212**	**1.46**	**0.144**	**-.0515742** **.3546132**
_cons	**30.78477**	**1.991543**	**15.46**	**0.000**	**26.88142** **34.68812**
Variance					
e.goferw2	**302.9419**	**22.54866**			**261.8197** **350.5227**
e.whpel	**1176.993**	**87.6063**			**1017.225** **1361.855**

LR test of model vs. saturated: chi2(**1**) = **3.35**, Prob > chi2 = **0.0673**
(1 observations with missing values excluded;
specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed: **goferw2 whpel**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0: log likelihood = **-3796.8454**
Iteration 1: log likelihood = **-3796.8454**

Structural equation model Number of obs = **362**
Estimation method = **ml**
Log likelihood = **-3796.8454**

	OIM				
	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]
Structural					
goferw2 <-					
crhtw2	**4.163511**	**1.02724**	**4.05**	**0.000**	**2.150158** **6.176864**
_cons	**7.371538**	**.9119737**	**8.08**	**0.000**	**5.584102** **9.158973**
whpel <-					
goferw2	**.1537889**	**.1035619**	**1.48**	**0.138**	**-.0491887** **.3567666**
_cons	**30.68138**	**1.987654**	**15.44**	**0.000**	**26.78565** **34.57711**
Variance					
e.goferw2	**289.837**	**21.54342**			**250.5443** **335.292**
e.whpel	**1176.351**	**87.43748**			**1016.875** **1360.837**

LR test of model vs. saturated: chi2(**1**) = **16.45**, Prob > chi2 = **0.0000**
(1 observations with missing values excluded;
 specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed: **goferw2 whpel**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-3803.154**
Iteration 1: log likelihood = **-3803.154**

Structural equation model Number of obs = **362**
Estimation method = **ml**
Log likelihood = **-3803.154**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
goferw2 <-						
crhtw3	**4.51366**	**.9989665**	**4.52**	**0.000**	**2.555721**	**6.471598**
_cons	**7.31021**	**.906509**	**8.06**	**0.000**	**5.533485**	**9.086935**
whpel <-						
goferw2	**.1537889**	**.1035619**	**1.48**	**0.138**	**-.0491887**	**.3567666**
_cons	**30.68138**	**1.987654**	**15.44**	**0.000**	**26.78565**	**34.57711**
Variance						
e.goferw2	**286.8147**	**21.31877**			**247.9318**	**331.7957**
e.whpel	**1176.351**	**87.43748**			**1016.875**	**1360.837**

LR test of model vs. saturated: chi2(**1**) = **21.49**, Prob > chi2 = **0.0000**
(1 observations with missing values excluded;
specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed: **icdx3nr1 whpel**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-2189.7377**
Iteration 1: log likelihood = **-2189.7377**

Structural equation model Number of obs = **362**
Estimation method = **ml**
Log likelihood = **-2189.7377**

```
> ─
              │                 OIM
              │      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
──────────────┼──────────────────────────────────────────────────────────────
> ─
Structural    │
  icdx3nr1 <- │
       crhtw1 │   .0016769   .0103661     0.16   0.871    -.0186402    .021994
> 1
        _cons │   .0356884   .0098761     3.61   0.000     .0163316    .055045
> 2
  ────────────┼──────────────────────────────────────────────────────────────
> ─
  whpel <-    │
     icdx3nr1 │   20.18462   9.659476     2.09   0.037     1.252391    39.1168
> 4
        _cons │       31.2   1.830505    17.04   0.000     27.61228    34.7877
> 2
──────────────┼──────────────────────────────────────────────────────────────
> ─
Variance      │
   e.icdx3nr1 │   .0346195   .0025732                     .0299262    .040048
> 8
      e.whpel │   1169.411   86.92166                     1010.876    1352.80
> 9
──────────────┼──────────────────────────────────────────────────────────────
> ─
LR test of model vs. saturated: chi2(1)   =      3.50, Prob > chi2 = 0.0613

Endogenous variables

Observed:  icdx3nr1 whpel

Exogenous variables

Observed:  crhtw2

Fitting target model:

Iteration 0:   log likelihood = -2164.2298
Iteration 1:   log likelihood = -2164.2298

Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     = -2164.2298
```

```
──────────────┬──────────────────────────────────────────────────────────────
> ─
              │                 OIM
              │      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
──────────────┼──────────────────────────────────────────────────────────────
> ─
Structural    │
  icdx3nr1 <- │
       crhtw2 │   .0197457    .011164     1.77   0.077    -.0021353    .041626
> 7
        _cons │   .0324195   .0098991     3.28   0.001     .0130177    .051821
> 4
  ────────────┼──────────────────────────────────────────────────────────────
> ─
  whpel <-    │
     icdx3nr1 │   20.27376   9.656719     2.10   0.036     1.346938    39.2005
> 8
        _cons │   31.11086    1.82746    17.02   0.000      27.5291    34.6926
> 1
──────────────┼──────────────────────────────────────────────────────────────
> ─
Variance      │
   e.icdx3nr1 │   .0342351   .0025412                      .0295998    .039596
> 2
      e.whpel │   1168.864   86.76121                      1010.606    1351.90
> 5
──────────────┴──────────────────────────────────────────────────────────────
> ─
LR test of model vs. saturated: chi2(1)   =     16.89, Prob > chi2 = 0.0000

Endogenous variables

Observed:  icdx3nr1 whpel

Exogenous variables

Observed:  crhtw3

Fitting target model:

Iteration 0:   log likelihood = -2172.6235
Iteration 1:   log likelihood = -2172.6235

Structural equation model                         Number of obs      =       363
Estimation method  = ml
Log likelihood     = -2172.6235
```

```
> ─
              │                 OIM
              │      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
──────────────┼──────────────────────────────────────────────────────────────
> ─
Structural    │
  icdx3nr1 <- │
       crhtw3 │   .0182388   .0109189     1.67   0.095    -.0031618    .039639
> 5
        _cons │   .0326741   .0098959     3.30   0.001     .0132785    .052069
> 8
   ───────────┼──────────────────────────────────────────────────────────────
> ─
  whpel <-    │
     icdx3nr1 │   20.27376   9.656719     2.10   0.036     1.346938    39.2005
> 8
        _cons │   31.11086    1.82746    17.02   0.000      27.5291    34.6926
> 1
──────────────┼──────────────────────────────────────────────────────────────
> ─
Variance      │
   e.icdx3nr1 │   .0342667   .0025435                     .0296272    .039632
> 8
      e.whpel │   1168.864   86.76121                     1010.606    1351.90
> 5
──────────────┼──────────────────────────────────────────────────────────────
> ─
LR test of model vs. saturated: chi2(1)   =     22.11, Prob > chi2 = 0.0000
(1 observations with missing values excluded;
 specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed:  icdx4nr17 whpel

Exogenous variables

Observed:  crhtw1

Fitting target model:

Iteration 0:   log likelihood = -1927.3578
Iteration 1:   log likelihood = -1927.3578
```

```
Structural equation model                       Number of obs      =       362
Estimation method  = ml
Log likelihood     = -1927.3578

------------------------------------------------------------------------------
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
Structural   |
  icdx4nr17 <-
       crhtw1 |   .0035315   .0050473     0.70   0.484    -.0063611     .0134
> 24
        _cons |   .0078173   .0048087     1.63   0.104    -.0016077     .01724
> 22
-------------+----------------------------------------------------------------
  whpel <-   |
    icdx4nr17 |   56.27484   19.72446     2.85   0.004     17.61561     94.934
> 06
        _cons |    31.4585   1.795607    17.52   0.000     27.93917     34.977
> 82
-------------+----------------------------------------------------------------
Variance     |
   e.icdx4nr17 |   .0082075   .0006101                      .0070948     .00949
> 47
       e.whpel |    1157.49   86.03554                      1000.571     1339.0
> 18
------------------------------------------------------------------------------

LR test of model vs. saturated: chi2(1)   =      3.22, Prob > chi2 = 0.0728

Endogenous variables

Observed:  icdx4nr17 whpel

Exogenous variables

Observed:  crhtw2

Fitting target model:

Iteration 0:   log likelihood = -1901.7973
Iteration 1:   log likelihood = -1901.7973
```

```
Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     = -1901.7973

------------------------------------------------------------------------------
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
Structural   |
  icdx4nr17 <-
       crhtw2 |   .0081423   .0054457     1.50   0.135    -.0025312    .01881
> 57
        _cons |   .0068653   .0048287     1.42   0.155    -.0025988    .01632
> 94
-------------+----------------------------------------------------------------
  whpel <-   |
    icdx4nr17 |   56.36222   19.72022     2.86   0.004     17.71129    95.013
> 15
        _cons |   31.37111   1.792748    17.50   0.000     27.85739    34.884
> 83
-------------+----------------------------------------------------------------
Variance     |
   e.icdx4nr17 |    .008146   .0006047                      .0070431    .00942
> 16
      e.whpel |    1157.02   85.88207                      1000.366    1338.2
> 06
------------------------------------------------------------------------------

LR test of model vs. saturated: chi2(1)   =     16.78, Prob > chi2 = 0.0000

Endogenous variables

Observed:  icdx4nr17 whpel

Exogenous variables

Observed:  crhtw3

Fitting target model:

Iteration 0:   log likelihood = -1909.6589
Iteration 1:   log likelihood = -1909.6589
```

```
Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     = -1909.6589

------------------------------------------------------------------------------
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interva
> l]
-------------+----------------------------------------------------------------
> --
Structural   |
  icdx4nr17 <-
       crhtw3 |   .0091646   .0053184     1.72   0.085    -.0012592    .01958
> 84
        _cons |   .0066874   .0048201     1.39   0.165    -.0027598    .01613
> 46
-------------+----------------------------------------------------------------
> --
  whpel <-   |
    icdx4nr17 |   56.36222   19.72022     2.86   0.004     17.71129    95.013
> 15
        _cons |   31.37111   1.792748    17.50   0.000     27.85739    34.884
> 83
-------------+----------------------------------------------------------------
> --
Variance     |
   e.icdx4nr17 |   .0081297   .0006034                      .0070289    .00940
> 27
       e.whpel |    1157.02   85.88207                      1000.366    1338.2
> 06
------------------------------------------------------------------------------
> --
LR test of model vs. saturated: chi2(1)   =     21.63, Prob > chi2 = 0.0000
(1 observations with missing values excluded;
 specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed:  icdx5nr17 whpel

Exogenous variables

Observed:  crhtw1

Fitting target model:
```

```
Iteration 0:   log likelihood =  -1731.109
Iteration 1:   log likelihood =  -1731.109

Structural equation model                       Number of obs      =       362
Estimation method  = ml
Log likelihood     =  -1731.109

------------------------------------------------------------------------------
> ──
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interva
> l]
-------------+----------------------------------------------------------------
> ──
Structural   |
  icdx5nr17 <-
       crhtw1 |   .0034592   .0029185     1.19   0.236    -.0022609    .00917
> 94
        _cons |    .002302   .0027805     0.83   0.408    -.0031477    .00775
> 18
-------------+----------------------------------------------------------------
> ──
  whpel <-   |
     icdx5nr17 |   68.26371   34.26256     1.99   0.046     1.110337    135.41
> 71
        _cons |   31.73629     1.8008    17.62   0.000     28.20679    35.265
> 79
-------------+----------------------------------------------------------------
> ──
Variance     |
   e.icdx5nr17 |   .0027442    .000204                      .0023721    .00317
> 45
       e.whpel |    1170.68   87.01595                      1011.973    1354.2
> 77
------------------------------------------------------------------------------
> ──
LR test of model vs. saturated: chi2(1)   =      3.12, Prob > chi2 = 0.0773

Endogenous variables

Observed:  icdx5nr17 whpel

Exogenous variables

Observed:  crhtw2

Fitting target model:
```

```
Iteration 0:   log likelihood = -1705.8829
Iteration 1:   log likelihood = -1705.8829

Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     = -1705.8829

------------------------------------------------------------------------------
> ──
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interva
> l]
-------------+----------------------------------------------------------------
> ──
Structural   |
  icdx5nr17 <-
       crhtw2 |   .0037258   .0031565     1.18   0.238    -.0024608    .00991
> 23
        _cons |   .0021146   .0027988     0.76   0.450     -.003371    .00760
> 02
-------------+----------------------------------------------------------------
> ──
  whpel <-   |
     icdx5nr17 |   68.35138   34.25572     2.00   0.046     1.211401    135.49
> 14
        _cons |   31.64862   1.797959    17.60   0.000     28.12468    35.172
> 55
-------------+----------------------------------------------------------------
> ──
Variance     |
   e.icdx5nr17 |   .0027367   .0002031                      .0023662    .00316
> 53
       e.whpel |   1170.222   86.86201                       1011.78    1353.4
> 75
------------------------------------------------------------------------------
> ──
LR test of model vs. saturated: chi2(1)   =     17.39, Prob > chi2 = 0.0000

Endogenous variables

Observed:  icdx5nr17 whpel

Exogenous variables

Observed:  crhtw3

Fitting target model:
```

```
Iteration 0:   log likelihood = -1714.1851
Iteration 1:   log likelihood = -1714.1851

Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     = -1714.1851

------------------------------------------------------------------------------
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interva
> l]
-------------+----------------------------------------------------------------
> ——
Structural   |
  icdx5nr17 <-
       crhtw3 |   .0034374   .0030864     1.11   0.265    -.0026118    .00948
> 66
        _cons |   .0021633   .0027972     0.77   0.439    -.0033191    .00764
> 58
-------------+----------------------------------------------------------------
> ——
  whpel <-   |
     icdx5nr17 |   68.35138   34.25572     2.00   0.046     1.211401    135.49
> 14
        _cons |   31.64862   1.797959    17.60   0.000     28.12468    35.172
> 55
-------------+----------------------------------------------------------------
> ——
Variance     |
   e.icdx5nr17 |   .0027379   .0002032                      .0023672    .00316
> 66
      e.whpel |   1170.222   86.86201                       1011.78    1353.4
> 75
------------------------------------------------------------------------------

> ——
LR test of model vs. saturated: chi2(1)   =     22.65, Prob > chi2 = 0.0000
```

```
132 .
133 .
134 . // No significant main effects for perceive risk to energy level
135 . *-+-  Possible male energy level indirect effects:
136 . // wave 1   HP2pbfhm whpsleep whpsociso  mhlthw1 BSIanx ///
137 . //   BSIips BSIposymp BSItotal age marrw13 marrw16
138 . // wave 2   HP2pbfhm whpsleep whpsociso whppain BSIips  PTSDw2  BSIanx ///
139 . //   BSIips BSIposymp BSItotal age marrw21 marrw25 marrw26
140 . // wave 3   HP2pbfhm whpsleep whosociso whppain PTSDw2 phlthw3 BSIips BSIanx
    >  ///
141 . //   BSIips BSIposymp marrw23 marrw26 BSItotal age
142 .
143 .
144 .
145 .   sjlog close, replace
```