

```

1 .
2 . pwd
   /Users/robertyaffee/Documents/data/research/chwk/phase3/Htests/H1tests/H1pt1/w
> ork

3 . cd /Users/robertyaffee/Documents/data/research/chwk/phase3/Htests/H1tests/H1
> pt1/work
   /Users/robertyaffee/Documents/data/research/chwk/phase3/Htests/H1tests/H1pt1/w
> ork

4 .
5 . use chwide27june2012, clear
   (Zero for missing on all icdx)

6 .
7 . // Hypothesis 1 part 1 female WHPsleep analysis
8 . // Analyzing the Dose sleep psychological response for women
9 .
10 . cap gen bffsl1 = max(0, BSiposymp - 50)

11 . label var bffsl1 "max(0, BSiposymp-15)"

12 .
13 .
14 . cap gen bffsl2 = max(0, emplw25 + 1.14467e-009)

15 . label var bffsl2 " max(0, emplw25 + 1.14467e-009)"

16 .
17 .
18 . cap gen bffsl3 = max(0, deaw1 - 1)* bffsl1

19 . label var bffsl3 "max(, deaw1 - 1)* bffsl1

20 .
21 . cap gen bffsl4 = max(0,1 - deaw1) * bffsl1

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22 . label var bffsl4 "max(0,1- deaw1) * bffsl1
23 .
24 . cap gen bffsl5 = (docvisitsw1 == . )* bffsl4
25 . label var bffsl5 "(docvisitsw1 = . )* bffsl4"
26 .
27 .
28 . cap gen bffsl6 = (docvisitsw1 != . )*bffsl4
29 . label var bffsl6 "(docvisitsw1 != . )*bffsl4"
30 .
31 .
32 . cap gen bffsl7 = max(0, airw2-10)*bffsl5
33 . label var bffsl7 "max(0, airw2-10)*bffsl5"
34 .
35 . cap gen bffsl8 = max(0, 10-airw2)*bffsl5
36 . label var bffsl8 "max(0, 10- airw2 )*bffsl5"
37 .
38 . cap gen bffsl9 = max(0, BSIhos - 9)*bffsl7
39 . label var bffsl9 "max(0, BSIhos - 9)*bffsl7"
40 .
41 . cap gen bffsl10 = max(0, 9 - BSIhos) * bffsl7
42 . label var bffsl10 "max(0, 9 - BSIhos) * bffsl7"
43 .
44 .
45 . cap gen bffsl11 = max(0, cloud - 10) * bffsl6

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46 . label var bffsl11 " max(0, cloud - 10) * bffsl6"

47 .
48 .
49 . cap gen bffsl12 = max(0, 10 - cloud) * bffsl6

50 . label var bffsl12 "max(0, 10-cloud)*bffsl6

51 .
52 . cap gen bffsl13 = max(0, airw3 - 20) * bffsl8

53 . label var bffsl13 "max(0, airw3 - 20) * bffsl8"

54 .
55 .
56 . cap gen bffsl15 = (suchrw1 != . ) * bffsl8

57 . label var bffsl15 "(suchrw1 != . ) * bffsl8"

58 .
59 . cap gen bffsl17 = max(0, suchrw1 + 1.85275e-007) * bffsl15

60 . label var bffsl17 "max(0, suchrw1 + 1.85275e-007) * bffsl15"

61 .
62 . cap gen bffsl18 = (trgovw2 != . ) * bffsl11

63 . label var bffsl18 "(trgovw2 != . ) * bffsl11"

64 .
65 . cap gen bffsl19 = (trgovw2 == . ) * bffsl11

66 . label var bffsl19 "max(0, trgovw2 - 10) * bffsl18"

67 .
68 . cap gen bffsl20 = max(0, trgovw2 - 10) * bffsl18

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69 . label var bffsl20 "max(0, trgovw2 - 10) * bffsl18"

70 .

71 . cap gen bffsl23 = max(0, 70 - carcin) * bffsl19

72 . label var bffsl23 "max(0, trgovw2 - 10) * bffsl18"

73 .

74 . cap gen bffsl24 = max(0, phlthw3 - 40) * bffsl18

75 . label var bffsl24 "max(0, phlthw3 - 40) * bffsl18"

76 .

77 . cap gen bffsl25 = max(0, 40 - phlthw3) * bffsl18

78 . label var bffsl25 " max(0, 40 - phlthw3) * bffsl18"

79 .

80 .

81 . // wave 1 possible socio-demog covariates full Female model
82 . regress WHPsleep age educ2-educ7 marrw11-marrw13 marrw15 childw1 ///
> emplw12-emplw16 occ1w1-occ8w1 inclw1-inc4w1 if gender==2

```

Source	SS	df	MS	Number of obs =	361
Model	84294.4815	29	2906.70626	F(29, 331) =	3.69
Residual	260532.467	331	787.107151	Prob > F =	0.0000
				R-squared =	0.2445
				Adj R-squared =	0.1783
Total	344826.948	360	957.852634	Root MSE =	28.055

WHPsleep	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	1.248678	.2311643	5.40	0.000	.7939412	1.703414
educ2	21.50202	29.52348	0.73	0.467	-36.57529	79.57934
educ3	22.85261	29.29409	0.78	0.436	-34.77345	80.47868
educ4	20.348	29.79995	0.68	0.495	-38.27318	78.96917
educ5	11.43302	29.53251	0.39	0.699	-46.66205	69.52809
educ6	10.09879	29.26331	0.35	0.730	-47.46674	67.66431
educ7	-6.701838	35.50365	-0.19	0.850	-76.54309	63.13942
marrw11	-10.39762	9.873073	-1.05	0.293	-29.81951	9.024261
marrw12	16.07669	16.91172	0.95	0.342	-17.19132	49.34471
marrw13	-11.39635	9.228235	-1.23	0.218	-29.54974	6.757033
marrw15	-7.329604	15.62591	-0.47	0.639	-38.06823	23.40902
childw1	-.0715685	2.572531	-0.03	0.978	-5.132141	4.989004
emplw12	-4.156287	11.34617	-0.37	0.714	-26.47599	18.16342
emplw13	8.939886	13.00345	0.69	0.492	-16.63993	34.51971
emplw14	16.63853	30.23958	0.55	0.583	-42.84746	76.12451
emplw15	-14.50791	18.7078	-0.78	0.439	-51.30909	22.29328

emplw16	9.030303	11.79844	0.77	0.445	-14.17908	32.23969
occ1w1	2.063761	12.04198	0.17	0.864	-21.62471	25.75223
occ2w1	-5.777501	12.7412	-0.45	0.651	-30.84145	19.28645
occ3w1	3.442475	12.64437	0.27	0.786	-21.43099	28.31594
occ4w1	-.4413774	13.62519	-0.03	0.974	-27.24427	26.36151
occ5w1	5.231769	14.52209	0.36	0.719	-23.33546	33.799
occ6w1	14.33591	15.13781	0.95	0.344	-15.44253	44.11436
occ7w1	-.802484	13.46626	-0.06	0.953	-27.29272	25.68776
occ8w1	5.230194	12.89959	0.41	0.685	-20.14533	30.60571
inc1w1	-6.777508	11.65228	-0.58	0.561	-29.69938	16.14436
inc2w1	-8.164289	11.14255	-0.73	0.464	-30.08344	13.75486
inc3w1	.5779226	11.4058	0.05	0.960	-21.85907	23.01492
inc4w1	-.9748117	13.05518	-0.07	0.941	-26.65639	24.70677
_cons	-39.76064	33.69164	-1.18	0.239	-106.0374	26.51611

```

83 .
84 .
85 . set more off

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```

86 . des WHPsleep age educ2-educ7 marrw11-marrw13 marrw15 childw1 ///
> emplw12-emplw16 occ1w1-occ8w1 inc1w1-inc4w1 radhlw1 radchwl ///
> radtlw1 havmil bffsl2-bffsl25

```

variable name	storage type	display format	value label	variable label
WHPsleep	double	%9.0g		Wtd Health Profile Sleep Pt 1 subscale
age	byte	%8.0g		* Respondent's age
educ2	byte	%8.0g		educ==2. graduated high school
educ3	byte	%8.0g		educ==3. technical degree
educ4	byte	%8.0g		educ==4. did not finish college/bachelor's
educ5	byte	%8.0g		educ==5. graduated college/bachelor's
educ6	byte	%8.0g		educ==6. finished specialist/master's degree
educ7	byte	%8.0g		educ==7. doctor of science/phd
marrw11	byte	%8.0g		marrw1==1. single
marrw12	byte	%8.0g		marrw1==2. cohabitating
marrw13	byte	%8.0g		marrw1==3. married
marrw15	byte	%8.0g		marrw1==5. divorced
childw1	byte	%8.0g		number of children in 1986
emplw12	byte	%8.0g		emplw1==1. full time
emplw13	byte	%8.0g		emplw1==2. part time
emplw14	byte	%8.0g		emplw1==3. voluntary
emplw15	byte	%8.0g		emplw1==4. retired
emplw16	byte	%8.0g		emplw1==5. unemployed

occ1w1	byte	%15.0g	LABJ	profess executive administration in 1986
occ2w1	byte	%15.0g	LABJ	technical sales admin support in 1986
occ3w1	byte	%15.0g	LABJ	service occup protective services in 1986
occ4w1	byte	%15.0g	LABJ	precision prod mechan craft construction in 1986
occ5w1	byte	%15.0g	LABJ	factory laborer machinist transp cleaner in 1986
occ6w1	byte	%15.0g	LABJ	farming agricul forestry fishing trapping logging in 1986
occ7w1	byte	%15.0g	LABJ	homemaking or caregiving in 1986
occ8w1	byte	%15.0g	LABJ	student in 1986
inclw1	byte	%15.0g	LABJ	Income is not sufficient for basic neccessities in 1986
inc2w1	byte	%15.0g	LABJ	Income is just sufficient for basic neccessities in 1986
inc3w1	byte	%15.0g	LABJ	Income is sufficient for basics plus extra purchases/savings in 1986
inc4w1	byte	%15.0g	LABJ	Income allows to comfortably afford luxury items in 1986
radhlw1	byte	%8.0g		Self-perceived Chornobyl health threat in wave 1
radchw1	byte	%8.0g		believed % of polution related to chornobyl in 1986
radtlw1	byte	%8.0g		believed % of cumulative radiation exposed to in a lifetime in 1986
havmil	double	%9.0g		Distance from Chornobyl in miles
bffsl2	float	%9.0g		max(0, emplw25 + 1.14467e-009)
bffsl3	float	%9.0g		max(, deaw1 - 1)* bffsl1
bffsl4	float	%9.0g		max(0,1- deaw1) * bffsl1
bffsl5	float	%9.0g		(docvisitsw1 = .) * bffsl4
bffsl6	float	%9.0g		(docvisitsw1 != .) * bffsl4
bffsl7	float	%9.0g		max(0, airw2-10)*bffsl5
bffsl8	float	%9.0g		max(0, 10- airw2) * bffsl5
bffsl9	float	%9.0g		max(0, BSIhos - 9) * bffsl7
bffsl10	float	%9.0g		max(0, 9 - BSIhos) * bffsl7
bffsl11	float	%9.0g		max(0, cloud - 10) * bffsl6
bffsl12	float	%9.0g		max(0, 10-cloud) * bffsl6
bffsl13	float	%9.0g		max(0, airw3 - 20) * bffsl8
bffsl15	float	%9.0g		(suchrw1 != .) * bffsl8
bffsl17	float	%9.0g		max(0, suchrw1 + 1.85275e-007) * bffsl15
bffsl18	float	%9.0g		(trgovw2 != .) * bffsl1
bffsl19	float	%9.0g		max(0, trgovw2 - 10) * bffsl18
bffsl20	float	%9.0g		max(0, trgovw2 - 10) * bffsl18

```

bffsl23          float   %9.0g          max(0, trgovw2 - 10) * bffsl18
bffsl24          float   %9.0g          max(0, phlthw3 - 40) * bffsl18
bffsl25          float   %9.0g          max(0, 40 - phlthw3) * bffsl18

87 .
88 .
89 . local bfw1 bffsl3 bffsl4 bffsl5 bffsl6 bffsl9 bffsl10 bffsl11 bffsl12 bffsl1
    > 5 ///
    >   bffsl17

90 .
91 . local myvarlist age educ2-educ7 marrw11-marrw13 marrw15 childw1 ///
    >   emplw12-emplw16 occ1w1-occ8w1 inclw1-inc4w1 radhlw1 radchw1 ///
    >   radtlw1 havmil

92 .
93 .
94 .
95 .
96 . set more off

97 . regress WHPsleep age avgcumdosew1 educ2-educ7 marrw11-marrw13 marrw15 childw
    > 1 ///
    >   emplw12-emplw16 occ1w1-occ8w1 inclw1-inc4w1 radhlw1 radchw1 ///
    >   radtlw1 havmil bffsl2 bffsl5 bffsl8 bffsl9 bffsl19 ///
    >   bffsl23 if gender==2, vce(cluster id)

```

Linear regression

```

Number of obs =      360
F( 38, 359) =      .
Prob > F       =      .
R-squared      =  0.4129
Root MSE      =  25.186

```

(Std. Err. adjusted for 360 clusters in id)

WHPsleep	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
age	.7122626	.2377661	3.00	0.003	.2446732	1.179852
avgcumdosew1	4.402951	3.213039	1.37	0.171	-1.915792	10.72169
educ2	23.96428	9.057635	2.65	0.009	6.151586	41.77696
educ3	25.04783	8.599944	2.91	0.004	8.135235	41.96043
educ4	27.49574	10.0494	2.74	0.007	7.732645	47.25884
educ5	15.24254	9.024191	1.69	0.092	-2.504382	32.98945
educ6	15.84262	8.629518	1.84	0.067	-1.128137	32.81338
educ7	-8.284899	16.47217	-0.50	0.615	-40.67897	24.10917
marrw11	-11.60127	10.42524	-1.11	0.267	-32.10349	8.900952
marrw12	11.09668	25.45493	0.44	0.663	-38.96282	61.15618
marrw13	-14.9945	11.00887	-1.36	0.174	-36.64448	6.655475

marrw15	-19.27155	15.01928	-1.28	0.200	-48.80839	10.26528
childw1	.9042602	2.574491	0.35	0.726	-4.158718	5.967238
emplw12	-2.664569	8.94748	-0.30	0.766	-20.26063	14.93149
emplw13	9.786761	9.975251	0.98	0.327	-9.830508	29.40403
emplw14	16.03531	9.310385	1.72	0.086	-2.27444	34.34505
emplw15	-15.79561	13.43756	-1.18	0.241	-42.22183	10.6306
emplw16	4.267288	9.208999	0.46	0.643	-13.84307	22.37765
occ1w1	9.696312	8.066789	1.20	0.230	-6.167785	25.56041
occ2w1	.6690337	9.174688	0.07	0.942	-17.37385	18.71192
occ3w1	8.561839	9.437804	0.91	0.365	-9.99849	27.12217
occ4w1	5.544649	9.598896	0.58	0.564	-13.33248	24.42178
occ5w1	7.115806	10.34157	0.69	0.492	-13.22186	27.45347
occ6w1	13.35849	13.23559	1.01	0.314	-12.67054	39.38752
occ7w1	5.014871	9.157328	0.55	0.584	-12.99387	23.02362
occ8w1	7.199668	8.551695	0.84	0.400	-9.618044	24.01738
inc1w1	-1.109941	7.938776	-0.14	0.889	-16.72229	14.50241
inc2w1	-3.480271	7.486286	-0.46	0.642	-18.20276	11.24221
inc3w1	4.481171	7.769263	0.58	0.564	-10.79781	19.76016
inc4w1	1.040991	8.996699	0.12	0.908	-16.65186	18.73384
radhlw1	.0663636	.041918	1.58	0.114	-.0160721	.1487993
radchwl	-.0568367	.0478033	-1.19	0.235	-.1508465	.037173
radtlw1	.0173754	.0500737	0.35	0.729	-.0810992	.1158501
havmil	.0072049	.0066053	1.09	0.276	-.005785	.0201948
bffsl2	16.55423	7.246191	2.28	0.023	2.303919	30.80455
bffsl5	.5010157	.1183031	4.24	0.000	.2683615	.7336699
bffsl8	-.0028871	.0123049	-0.23	0.815	-.0270859	.0213117
bffsl9	.0001223	.0017946	0.07	0.946	-.0034069	.0036515
bffsl19	.3275911	.1152007	2.84	0.005	.101038	.5541442
bffsl23	.0034286	.0022857	1.50	0.134	-.0010665	.0079236
_cons	-36.50518	16.49291	-2.21	0.027	-68.94004	-4.07032

```

98 .
99 .
100 . scalar fw1 = e(r2_a)

101 . scalar list fw1
      fw1 = .3392537

```

```

102 .
103 . des age educ2-educ6 bffsl1 bffsl4 bffsl5 inc3w1 radhlw1 ///
> radchw1 emplw14 bffsl5 bffsl19

```

variable name	storage type	display format	value label	variable label
age	byte	%8.0g		* Respondent's age
educ2	byte	%8.0g		educ==2. graduated high school
educ3	byte	%8.0g		educ==3. technical degree
educ4	byte	%8.0g		educ==4. did not finish college/bachelor's
educ5	byte	%8.0g		educ==5. graduated college/bachelor's
educ6	byte	%8.0g		educ==6. finished specialist/master's degree
bffsl1	float	%9.0g		max(0, BSIposymp-15)
bffsl4	float	%9.0g		max(0,1- deaw1) * bffsl1
bffsl5	float	%9.0g		(docvisitsw1 = .) * bffsl4
inc3w1	byte	%15.0g	LABJ	Income is sufficient for basics plus extra purchases/savings in 1986
radhlw1	byte	%8.0g		Self-perceived Chernobyl health threat in wave 1
radchw1	byte	%8.0g		believed % of polution related to chornobyl in 1986
emplw14	byte	%8.0g		emplw1==3. voluntary
bffsl5	float	%9.0g		(docvisitsw1 = .) * bffsl4
bffsl19	float	%9.0g		max(0, trgovw2 - 10) * bffsl18

```

104 . regress WHPsleep age educ2-educ7 marrw11-marrw13 marrw15 childw1 ///
> emplw12-emplw16 occ1w1-occ8w1 inclw1-inc4w1 radhlw1 radchw1 ///
> radtlw1 havmil bffsl1 bffsl4 bffsl5 bffsl8 bffsl9 ///
> bffsl23 if gender==2, vce(cluster id)

```

Linear regression

```

Number of obs =      360
F( 37, 359) =      .
Prob > F      =      .
R-squared     =    0.5109
Root MSE     =    22.951

```

(Std. Err. adjusted for 360 clusters in id)

WHPsleep	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
age	.7121932	.2002559	3.56	0.000	.3183711	1.106015
educ2	14.76953	8.105259	1.82	0.069	-1.17022	30.70929
educ3	15.20301	7.631227	1.99	0.047	.1954881	30.21054
educ4	15.11164	8.140879	1.86	0.064	-.8981598	31.12145
educ5	7.338391	7.848357	0.94	0.350	-8.096141	22.77292
educ6	8.917335	7.277276	1.23	0.221	-5.394112	23.22878
educ7	-4.640547	8.965795	-0.52	0.605	-22.27263	12.99153
marrw11	-2.811583	8.047936	-0.35	0.727	-18.63861	13.01544
marrw12	15.8409	19.65638	0.81	0.421	-22.81523	54.49702
marrw13	-7.675459	8.525026	-0.90	0.369	-24.44072	9.089806
marrw15	-13.11814	11.41054	-1.15	0.251	-35.55803	9.32175
childw1	.746567	2.497417	0.30	0.765	-4.164837	5.657971
emplw12	-5.260032	7.57252	-0.69	0.488	-20.1521	9.63204
emplw13	6.904821	8.648243	0.80	0.425	-10.10276	23.9124
emplw14	12.62199	7.936775	1.59	0.113	-2.98642	28.23041
emplw15	-5.092936	10.5647	-0.48	0.630	-25.86941	15.68353
emplw16	-.711606	7.775104	-0.09	0.927	-16.00208	14.57887
occ1w1	1.45034	8.433231	0.17	0.864	-15.1344	18.03508
occ2w1	-4.867646	8.651217	-0.56	0.574	-21.88108	12.14578
occ3w1	2.770103	9.033901	0.31	0.759	-14.99591	20.53612
occ4w1	-3.687963	9.865869	-0.37	0.709	-23.09012	15.7142
occ5w1	-4.673377	10.49458	-0.45	0.656	-25.31196	15.9652
occ6w1	13.92021	12.13427	1.15	0.252	-9.942976	37.7834
occ7w1	1.195388	8.492183	0.14	0.888	-15.50529	17.89606
occ8w1	4.575658	8.523953	0.54	0.592	-12.1875	21.33881
inc1w1	-5.743878	8.008077	-0.72	0.474	-21.49251	10.00476
inc2w1	-5.348253	7.389777	-0.72	0.470	-19.88094	9.184439
inc3w1	3.335976	7.79088	0.43	0.669	-11.98552	18.65747
inc4w1	-1.491376	8.272616	-0.18	0.857	-17.76025	14.7775
radhlw1	.0382992	.0385424	0.99	0.321	-.037498	.1140964
radchwl	-.0625732	.0430319	-1.45	0.147	-.1471995	.0220531
radtlw1	.0584122	.0468509	1.25	0.213	-.0337245	.150549
havmil	.0063842	.0060976	1.05	0.296	-.0056073	.0183757
bffsl1	.6467535	.0838632	7.71	0.000	.4818286	.8116783
bffsl4	-.2500661	.0872125	-2.87	0.004	-.4215777	-.0785546
bffsl5	.4669187	.1163002	4.01	0.000	.2382034	.6956339
bffsl8	-.0160707	.0120767	-1.33	0.184	-.0398206	.0076792
bffsl9	-.0010516	.0017337	-0.61	0.545	-.0044611	.002358
bffsl23	.0065939	.0021675	3.04	0.003	.0023314	.0108564
_cons	-36.61183	14.86716	-2.46	0.014	-65.84948	-7.374165

```

105 .
106 . // selected as significant for females wave one are posymp deaw1 docvisitsw1
    > ttgovw2
107 . des bffsl1 bffsl4 bffsl5 bffsl18 bffsl23 // there is a cross wave interact
    > ion from

```

variable name	storage type	display format	value label	variable label
bffsl1	float	%9.0g		max(0, BSiposymp-15)
bffsl4	float	%9.0g		max(0,1- deaw1) * bffsl1
bffsl5	float	%9.0g		(docvisitsw1 = .) * bffsl4
bffsl18	float	%9.0g		(trgovw2 != .) * bffsl1
bffsl23	float	%9.0g		max(0, trgovw2 - 10) * bffsl18

```

108 . // wave 1 to wave 2 here on trust govert and BSiposymptoms
109 . // model
110 . regress WHPsleep age ///
    > radchwl radhlwl havmil avgcumdosew1 ///
    > bffsl1 bffsl4 bffsl5 bffsl8 bffsl9 illwl bffsl23 if gender==2, vce(cluste
    > r id)

```

```

Linear regression                                Number of obs =      362
                                                F( 12,   361) =    33.22
                                                Prob > F       =    0.0000
                                                R-squared      =    0.4549
                                                Root MSE      =    23.231

```

(Std. Err. adjusted for 362 clusters in id)

WHPsleep	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
age	.4915241	.1127291	4.36	0.000	.2698358	.7132123
radchwl	-.0388423	.0322386	-1.20	0.229	-.1022413	.0245567
radhlwl	.041149	.0341087	1.21	0.228	-.0259277	.1082256
havmil	.0050185	.0063396	0.79	0.429	-.0074487	.0174857
avgcumdosew1	-.5204685	2.075005	-0.25	0.802	-4.601083	3.560146
bffsl1	.68168	.08899	7.66	0.000	.5066762	.8566839
bffsl4	-.281887	.0883738	-3.19	0.002	-.4556791	-.1080949
bffsl5	.4842357	.110233	4.39	0.000	.2674562	.7010151
bffsl8	-.018989	.0119334	-1.59	0.112	-.0424566	.0044787
bffsl9	-.001293	.0015101	-0.86	0.392	-.0042626	.0016766
illwl	.3227618	2.9526	0.11	0.913	-5.483694	6.129218
bffsl23	.0075375	.0019824	3.80	0.000	.003639	.0114359
_cons	-20.97236	5.60273	-3.74	0.000	-31.99045	-9.954272

```

111 .
112 . // female dose=> sleep impact washes out
113 .
114 . // wave 1 trimmed model of possible socio-demog covariates Female model
115 . set more off

116 . sw, pr(.05): regress WHPsleep age educ2-educ7 marrw11-marrw13 marrw15 child
    > w1 ///
    > emplw12-emplw16 occ1w1-occ8w1 inclw1-inc4w1 if gender==2
                                begin with full model
p = 0.9778 >= 0.0500 removing childw1
p = 0.9745 >= 0.0500 removing occ4w1
p = 0.9674 >= 0.0500 removing inc3w1
p = 0.9688 >= 0.0500 removing occ7w1
p = 0.8502 >= 0.0500 removing educ7
p = 0.8336 >= 0.0500 removing inc4w1
p = 0.7032 >= 0.0500 removing emplw12
p = 0.6815 >= 0.0500 removing occ1w1
p = 0.6598 >= 0.0500 removing occ3w1
p = 0.6932 >= 0.0500 removing occ5w1
p = 0.6010 >= 0.0500 removing occ8w1
p = 0.5856 >= 0.0500 removing marrw15
p = 0.5158 >= 0.0500 removing emplw15
p = 0.4673 >= 0.0500 removing emplw14
p = 0.4385 >= 0.0500 removing marrw11
p = 0.3488 >= 0.0500 removing educ6
p = 0.7818 >= 0.0500 removing educ5
p = 0.3279 >= 0.0500 removing marrw13
p = 0.2663 >= 0.0500 removing inclw1
p = 0.2261 >= 0.0500 removing occ6w1
p = 0.1440 >= 0.0500 removing occ2w1
p = 0.1240 >= 0.0500 removing educ4
p = 0.0844 >= 0.0500 removing emplw13
p = 0.0545 >= 0.0500 removing inc2w1

```

Source	SS	df	MS
Model	70008.8769	5	14001.7754
Residual	274818.071	355	774.135412
Total	344826.948	360	957.852634

```

Number of obs =    361
F(   5,   355) =    18.09
Prob > F       =    0.0000
R-squared      =    0.2030
Adj R-squared  =    0.1918
Root MSE      =    27.823

```

WHPsleep	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	1.043262	.1444159	7.22	0.000	.7592432	1.32728
educ2	12.33292	6.185662	1.99	0.047	.1677718	24.49807
educ3	11.08882	3.145775	3.52	0.000	4.902127	17.27552
emplw16	10.50336	4.06107	2.59	0.010	2.516582	18.49014
marrw12	32.15646	14.04846	2.29	0.023	4.527801	59.78513
_cons	-33.40629	7.664965	-4.36	0.000	-48.48073	-18.33184

```

117 .
118 . // only by a stepwise removal is the dose-sleep impact retained as significa
    > nt
119 . set more off

120 . sw, pr(.05): regress WHPsleep age educ2-educ7 marrw11-marrw13 marrw15 childw
    > 1 ///
    >   emplw12-emplw16 occ1w1-occ8w1 inclw1-inc4w1 radhlw1 radchw1 ///
    >   radtlw1 illw1 havmil avgcumdosew1 if gender==2
                                begin with full model
p = 0.9937 >= 0.0500 removing inc4w1
p = 0.9766 >= 0.0500 removing childw1
p = 0.9655 >= 0.0500 removing inc3w1
p = 0.9760 >= 0.0500 removing occ4w1
p = 0.9353 >= 0.0500 removing emplw12
p = 0.9193 >= 0.0500 removing radtlw1
p = 0.9059 >= 0.0500 removing occ7w1
p = 0.7737 >= 0.0500 removing educ7
p = 0.7855 >= 0.0500 removing occ1w1
p = 0.7270 >= 0.0500 removing occ5w1
p = 0.6157 >= 0.0500 removing occ3w1
p = 0.5610 >= 0.0500 removing marrw15
p = 0.5191 >= 0.0500 removing occ8w1
p = 0.5229 >= 0.0500 removing emplw15
p = 0.4577 >= 0.0500 removing illw1
p = 0.4344 >= 0.0500 removing marrw11
p = 0.3248 >= 0.0500 removing emplw14
p = 0.2889 >= 0.0500 removing marrw13
p = 0.3256 >= 0.0500 removing educ5
p = 0.7616 >= 0.0500 removing educ6
p = 0.3003 >= 0.0500 removing hvmil
p = 0.2657 >= 0.0500 removing occ6w1
p = 0.2773 >= 0.0500 removing inclw1
p = 0.1466 >= 0.0500 removing radchw1
p = 0.1929 >= 0.0500 removing radhlw1
p = 0.1255 >= 0.0500 removing occ2w1
p = 0.1191 >= 0.0500 removing educ4
p = 0.1060 >= 0.0500 removing emplw13

```

p = **0.0686** >= 0.0500 removing **educ2**

Source	SS	df	MS	Number of obs =	360
Model	74510.5445	6	12418.4241	F(6, 353) =	16.23
Residual	270125.843	353	765.229018	Prob > F =	0.0000
				R-squared =	0.2162
				Adj R-squared =	0.2029
Total	344636.388	359	959.989938	Root MSE =	27.663

WHPsleep	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	1.072342	.1400676	7.66	0.000	.7968704	1.347814
avgcumdosew1	6.779359	2.699578	2.51	0.012	1.470079	12.08864
educ3	9.831739	3.058298	3.21	0.001	3.816964	15.84651
marrw12	30.58917	13.95631	2.19	0.029	3.141208	58.03714
emplw16	11.12886	4.056174	2.74	0.006	3.151559	19.10617
inc2w1	-6.038637	2.982243	-2.02	0.044	-11.90384	-.173439
_cons	-33.56019	7.664829	-4.38	0.000	-48.63466	-18.48572

121 .

122 . set more off // Full model has dose=>sleep female impact

123 . regress WHPsleep age educ2-educ7 marrw11-marrw13 marrw15 childw1 ///
> emplw12-emplw16 occ1w1-occ8w1 inclw1-inc4w1 radhlw1 radchw1 ///
> radtlw1 illw1 havmil avgcumdosew1 if gender==2

Source	SS	df	MS	Number of obs =	360
Model	92655.0478	35	2647.28708	F(35, 324) =	3.40
Residual	251981.34	324	777.720185	Prob > F =	0.0000
				R-squared =	0.2688
				Adj R-squared =	0.1899
Total	344636.388	359	959.989938	Root MSE =	27.888

WHPsleep	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	1.137842	.2331707	4.88	0.000	.6791225	1.596562
educ2	18.96378	29.47888	0.64	0.520	-39.0304	76.95797
educ3	22.36607	29.23033	0.77	0.445	-35.13913	79.87127
educ4	20.88552	29.68071	0.70	0.482	-37.50572	79.27676
educ5	10.01882	29.45126	0.34	0.734	-47.92102	67.95865
educ6	9.774852	29.18201	0.33	0.738	-47.63528	67.18499
educ7	-10.18774	35.46344	-0.29	0.774	-79.95543	59.57994
marrw11	-11.99451	10.10951	-1.19	0.236	-31.88309	7.894062
marrw12	14.06115	16.96986	0.83	0.408	-19.32387	47.44617
marrw13	-12.86976	9.396172	-1.37	0.172	-31.35497	5.61545
marrw15	-8.447576	15.63467	-0.54	0.589	-39.20586	22.3107

childw1	-.0753986	2.561098	-0.03	0.977	-5.113879	4.963082
emplw12	-.8787865	11.79831	-0.07	0.941	-24.08975	22.33218
emplw13	10.77238	13.37076	0.81	0.421	-15.53208	37.07685
emplw14	27.25469	30.61401	0.89	0.374	-32.97265	87.48203
emplw15	-11.73205	18.95279	-0.62	0.536	-49.01811	25.55401
emplw16	11.30623	12.13703	0.93	0.352	-12.5711	35.18356
occ1w1	1.021791	12.23756	0.08	0.934	-23.05332	25.0969
occ2w1	-6.48175	12.93888	-0.50	0.617	-31.93658	18.97308
occ3w1	3.366432	12.92252	0.26	0.795	-22.05621	28.78907
occ4w1	-.5743876	13.80492	-0.04	0.967	-27.73297	26.5842
occ5w1	3.330031	14.86892	0.22	0.823	-25.92179	32.58185
occ6w1	11.84712	15.35904	0.77	0.441	-18.3689	42.06315
occ7w1	-1.267355	13.55551	-0.09	0.926	-27.93529	25.40058
occ8w1	4.848552	13.16943	0.37	0.713	-21.05984	30.75694
inc1w1	-6.51091	11.78358	-0.55	0.581	-29.6929	16.67108
inc2w1	-7.410934	11.3958	-0.65	0.516	-29.83003	15.00816
inc3w1	.3518362	11.52588	0.03	0.976	-22.32317	23.02684
inc4w1	.1031837	13.11121	0.01	0.994	-25.69067	25.89703
radhlw1	.1013083	.0513299	1.97	0.049	.0003264	.2022903
radchwl	-.0717827	.0571007	-1.26	0.210	-.1841176	.0405522
radtlw1	-.0061093	.0593689	-0.10	0.918	-.1229065	.1106879
illw1	2.204037	3.183263	0.69	0.489	-4.058437	8.466511
havmil	.0063651	.0069043	0.92	0.357	-.0072177	.019948
avgcumdosew1	6.039491	2.830851	2.13	0.034	.470321	11.60866
_cons	-38.76462	34.43461	-1.13	0.261	-106.5083	28.97902

```

124 .
125 . // manual simultaneous trimming retains dose=> sleep impact but adding
126 . // bf reduces it
127 .
128 . nestreg : regress WHPsleep (age )(avgcumdosew1)(bffsl3) (bffsl4) (bffsl10) /
> //
> (bffsl11) (radchwl ) if gender==2

```

Block 1: age

Source	SS	df	MS
Model	50783.6176	1	50783.6176
Residual	294923.523	361	816.962668
Total	345707.141	362	954.992102

```

Number of obs =      363
F( 1, 361) =      62.16
Prob > F      =      0.0000
R-squared     =      0.1469
Adj R-squared =      0.1445
Root MSE     =      28.583

```

WHPsleep	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.9980208	.126584	7.88	0.000	.7490861	1.246955
_cons	-23.87083	6.531035	-3.65	0.000	-36.71449	-11.02718

Block 2: avgcumdosew1

Source	SS	df	MS	Number of obs = 363		
Model	54642.856	2	27321.428	F(2, 360) =	33.79	
Residual	291064.285	360	808.511902	Prob > F =	0.0000	
Total	345707.141	362	954.992102	R-squared =	0.1581	
				Adj R-squared =	0.1534	
				Root MSE =	28.434	

WHPsleep	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.9465368	.1281135	7.39	0.000	.6945919	1.198482
avgcumdosew1	6.047101	2.767831	2.18	0.030	.6039517	11.49025
_cons	-23.31448	6.502157	-3.59	0.000	-36.10146	-10.5275

Block 3: bffsl3

Source	SS	df	MS	Number of obs = 363		
Model	54965.108	3	18321.7027	F(3, 359) =	22.62	
Residual	290742.033	359	809.866387	Prob > F =	0.0000	
Total	345707.141	362	954.992102	R-squared =	0.1590	
				Adj R-squared =	0.1520	
				Root MSE =	28.458	

WHPsleep	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.9320784	.1302533	7.16	0.000	.675923	1.188234
avgcumdosew1	5.926304	2.77676	2.13	0.033	.4655452	11.38706
bffsl3	.0545461	.0864713	0.63	0.529	-.115508	.2246001
_cons	-22.76761	6.565094	-3.47	0.001	-35.67849	-9.856737

Block 4: bffsl4

Source	SS	df	MS	Number of obs =	363
Model	94902.9814	4	23725.7454	F(4, 358) =	33.87
Residual	250804.159	358	700.570278	Prob > F =	0.0000
				R-squared =	0.2745
				Adj R-squared =	0.2664
Total	345707.141	362	954.992102	Root MSE =	26.468

WHPsleep	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.779318	.1228235	6.35	0.000	.5377717	1.020864
avgcumdosew1	4.961193	2.585763	1.92	0.056	-.124001	10.04639
bffsl3	.2178584	.0832829	2.62	0.009	.0540733	.3816436
bffsl4	.3785167	.0501324	7.55	0.000	.2799257	.4771077
_cons	-26.2982	6.123926	-4.29	0.000	-38.34159	-14.25481

Block 5: bffsl10

Source	SS	df	MS	Number of obs =	363
Model	104306.42	5	20861.284	F(5, 357) =	30.85
Residual	241400.721	357	676.192495	Prob > F =	0.0000
				R-squared =	0.3017
				Adj R-squared =	0.2919
Total	345707.141	362	954.992102	Root MSE =	26.004

WHPsleep	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.7467712	.1209829	6.17	0.000	.5088425	.9846999
avgcumdosew1	5.228531	2.541388	2.06	0.040	.2305581	10.2265
bffsl3	.2409732	.0820555	2.94	0.004	.0796003	.4023461
bffsl4	.3830333	.0492673	7.77	0.000	.2861426	.4799239
bffsl10	.0042843	.0011489	3.73	0.000	.0020249	.0065437
_cons	-26.37526	6.01647	-4.38	0.000	-38.20744	-14.54308

Block 6: bffsl11

Source	SS	df	MS	Number of obs =	363
Model	107270.261	6	17878.3768	F(6, 356) =	26.69
Residual	238436.88	356	669.766516	Prob > F =	0.0000
				R-squared =	0.3103
				Adj R-squared =	0.2987
Total	345707.141	362	954.992102	Root MSE =	25.88

WHPsleep	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.7480538	.1204082	6.21	0.000	.511253	.9848546
avgcumdosew1	5.184635	2.529369	2.05	0.041	.2102504	10.15902
bffsl3	.2441872	.081679	2.99	0.003	.0835533	.4048211
bffsl4	.4322411	.0543267	7.96	0.000	.3253995	.5390827
bffsl10	.0040377	.0011494	3.51	0.001	.0017773	.0062982
bffsl11	-.0022644	.0010764	-2.10	0.036	-.0043814	-.0001474
_cons	-26.68815	5.989661	-4.46	0.000	-38.46771	-14.90858

Block 7: radchwl

Source	SS	df	MS	Number of obs = 363	
Model	108558.696	7	15508.3852	F(7, 355) =	23.22
Residual	237148.444	355	668.023787	Prob > F =	0.0000
Total	345707.141	362	954.992102	R-squared =	0.3140
				Adj R-squared =	0.3005
				Root MSE =	25.846

WHPsleep	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.7695076	.1212396	6.35	0.000	.5310694	1.007946
avgcumdosew1	5.300215	2.527447	2.10	0.037	.3295634	10.27087
bffsl3	.2508955	.0817155	3.07	0.002	.0901882	.4116029
bffsl4	.4247964	.0545202	7.79	0.000	.3175733	.5320195
bffsl10	.0041473	.0011506	3.60	0.000	.0018844	.0064101
bffsl11	-.0023974	.0010793	-2.22	0.027	-.00452	-.0002748
radchwl	-.0523155	.0376699	-1.39	0.166	-.1263998	.0217688
_cons	-24.37773	6.208891	-3.93	0.000	-36.58857	-12.1669

Block	Block F	Block df	Residual df	Pr > F	R2	Change in R2
1	62.16	1	361	0.0000	0.1469	
2	4.77	1	360	0.0295	0.1581	0.0112
3	0.40	1	359	0.5286	0.1590	0.0009
4	57.01	1	358	0.0000	0.2745	0.1155
5	13.91	1	357	0.0002	0.3017	0.0272
6	4.43	1	356	0.0361	0.3103	0.0086
7	1.93	1	355	0.1658	0.3140	0.0037

```

129 . regress WHPsleep age radhlw1 radchwl avgcumdosew1 bffsl3 bffsl4 ///
>      bffsl10 bffsl11 if gender==2

```

Source	SS	df	MS	Number of obs =	362
Model	109637.073	8	13704.6341	F(8, 353) =	20.51
Residual	235882.555	353	668.222537	Prob > F =	0.0000
				R-squared =	0.3173
				Adj R-squared =	0.3018
Total	345519.628	361	957.118083	Root MSE =	25.85

WHPsleep	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.7496996	.1238431	6.05	0.000	.5061365	.9932627
radhlw1	.0504505	.0425341	1.19	0.236	-.0332015	.1341025
radchwl	-.0743043	.0414448	-1.79	0.074	-.155814	.0072054
avgcumdosew1	5.327278	2.527946	2.11	0.036	.3555491	10.29901
bffsl3	.2442025	.0819543	2.98	0.003	.0830225	.4053825
bffsl4	.4214149	.0546883	7.71	0.000	.313859	.5289707
bffsl10	.0040643	.0011536	3.52	0.000	.0017955	.0063331
bffsl11	-.002211	.0010926	-2.02	0.044	-.0043598	-.0000622
_cons	-24.89223	6.231688	-3.99	0.000	-37.14813	-12.63632

```

130 .
131 .
132 .
133 . * some basis functions are removed owing to collinearity: bffsl6
134 . des bffsl3 bffsl4 bffsl10 bffsl11 bffsl12 bffsl15 ///
>      bffsl17

```

variable name	storage type	display format	value label	variable label
bffsl3	float	%9.0g		max(, deaw1 - 1)* bffsl1
bffsl4	float	%9.0g		max(0,1- deaw1) * bffsl1
bffsl10	float	%9.0g		max(0, 9 - BSIhos) * bffsl7
bffsl11	float	%9.0g		max(0, cloud - 10) * bffsl6
bffsl12	float	%9.0g		max(0, 10-cloud)*bffsl6
bffsl15	float	%9.0g		(suchrw1 != .) * bffsl8
bffsl17	float	%9.0g		max(0, suchrw1 + 1.85275e-007) * bffsl15

```

135 . * death BSIhos cloud suchrw1 are the base variables
136 . nestreg : regress WHPsleep (age )(avgcumdosew1) (bffsl4) (bffsl10) ///
> (bffsl11) (BSIhos) if gender==2

```

Block 1: age

Source	SS	df	MS	Number of obs = 363		
Model	50783.6176	1	50783.6176	F(1, 361) = 62.16		
Residual	294923.523	361	816.962668	Prob > F = 0.0000		
Total	345707.141	362	954.992102	R-squared = 0.1469		
				Adj R-squared = 0.1445		
				Root MSE = 28.583		

WHPsleep	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.9980208	.126584	7.88	0.000	.7490861	1.246955
_cons	-23.87083	6.531035	-3.65	0.000	-36.71449	-11.02718

Block 2: avgcumdosew1

Source	SS	df	MS	Number of obs = 363		
Model	54642.856	2	27321.428	F(2, 360) = 33.79		
Residual	291064.285	360	808.511902	Prob > F = 0.0000		
Total	345707.141	362	954.992102	R-squared = 0.1581		
				Adj R-squared = 0.1534		
				Root MSE = 28.434		

WHPsleep	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.9465368	.1281135	7.39	0.000	.6945919	1.198482
avgcumdosew1	6.047101	2.767831	2.18	0.030	.6039517	11.49025
_cons	-23.31448	6.502157	-3.59	0.000	-36.10146	-10.5275

Block 3: bffsl4

Source	SS	df	MS	Number of obs = 363		
Model	90109.0808	3	30036.3603	F(3, 359) = 42.19		
Residual	255598.06	359	711.972312	Prob > F = 0.0000		
Total	345707.141	362	954.992102	R-squared = 0.2607		
				Adj R-squared = 0.2545		
				Root MSE = 26.683		

WHPsleep	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.8469156	.1210475	7.00	0.000	.6088642	1.084967
avgcumdosew1	5.497956	2.5985	2.12	0.035	.3877616	10.60815
bffsl4	.3444575	.0488045	7.06	0.000	.2484789	.4404362
_cons	-28.0174	6.137904	-4.56	0.000	-40.08816	-15.94663

Block 4: bffsl10

Source	SS	df	MS	Number of obs = 363		
Model	98474.7572	4	24618.6893	F(4, 358) =	35.65	
Residual	247232.384	358	690.59325	Prob > F =	0.0000	
Total	345707.141	362	954.992102	R-squared =	0.2849	
				Adj R-squared =	0.2769	
				Root MSE =	26.279	

WHPsleep	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.8230504	.1194133	6.89	0.000	.5882107	1.05789
avgcumdosew1	5.802952	2.560689	2.27	0.024	.7670701	10.83883
bffsl4	.3453067	.0480668	7.18	0.000	.250778	.4398354
bffsl10	.0040294	.0011577	3.48	0.001	.0017526	.0063062
_cons	-28.26143	6.045454	-4.67	0.000	-40.1505	-16.37237

Block 5: bffsl11

Source	SS	df	MS	Number of obs = 363		
Model	101284.094	5	20256.8188	F(5, 357) =	29.59	
Residual	244423.047	357	684.658395	Prob > F =	0.0000	
Total	345707.141	362	954.992102	R-squared =	0.2930	
				Adj R-squared =	0.2831	
				Root MSE =	26.166	

WHPsleep	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.8252892	.1189042	6.94	0.000	.5914484	1.05913
avgcumdosew1	5.767681	2.549721	2.26	0.024	.7533198	10.78204
bffsl4	.3927166	.0532761	7.37	0.000	.2879422	.497491
bffsl10	.0037861	.001159	3.27	0.001	.0015068	.0060654
bffsl11	-.0022042	.0010881	-2.03	0.044	-.0043442	-.0000642
_cons	-28.59049	6.021613	-4.75	0.000	-40.43278	-16.74819

Block 6: BSIhos

Source	SS	df	MS	Number of obs =	363
Model	107147.756	6	17857.9594	F(6, 356) =	26.65
Residual	238559.385	356	670.110631	Prob > F =	0.0000
				R-squared =	0.3099
				Adj R-squared =	0.2983
Total	345707.141	362	954.992102	Root MSE =	25.886

WHPsleep	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.8468331	.1178594	7.19	0.000	.6150448	1.078621
avgcumdosew1	5.704157	2.522579	2.26	0.024	.743127	10.66519
bffsl4	.2874095	.0636032	4.52	0.000	.1623242	.4124948
bffsl10	.0044169	.0011663	3.79	0.000	.0021233	.0067106
bffsl11	-.0021898	.0010765	-2.03	0.043	-.004307	-.0000727
BSIhos	1.800989	.6088354	2.96	0.003	.6036231	2.998355
_cons	-40.32052	7.156385	-5.63	0.000	-54.39463	-26.24642

Block	Block F	Block df	Residual df	Pr > F	R2	Change in R2
1	62.16	1	361	0.0000	0.1469	
2	4.77	1	360	0.0295	0.1581	0.0112
3	49.81	1	359	0.0000	0.2607	0.1026
4	12.11	1	358	0.0006	0.2849	0.0242
5	4.10	1	357	0.0435	0.2930	0.0081
6	8.75	1	356	0.0033	0.3099	0.0170

```

137 .
138 .
139 . local bfwla bffsl3 bffsl4 bffsl5 bffsl9 bffsl10 bffsl11 bffsl12 bffsl15 ///
>      bffsl17

```

```

140 .
141 .
142 . set more off

143 . sw, pr(.1): regress WHPsleep age educ2-educ7 marrw11-marrw13 marrw15 childw1
> ///
> emplw12-emplw16 occ1w1-occ8w1 inclw1-inc4w1 radhlw1 radchw1 ///
> radtlw1 havmil BSIhos bffsl3 bffsl4 bffsl5 bffsl9 bffsl10 bffsl11 bffsl12
> bffsl15 ///
> bffsl17 if gender==2, vce(cluster id)
begin with full model
p = 0.9918 >= 0.1000 removing bffsl9
p = 0.9572 >= 0.1000 removing bffsl15
p = 0.9281 >= 0.1000 removing occ7w1
p = 0.8908 >= 0.1000 removing inc3w1
p = 0.9232 >= 0.1000 removing occ8w1
p = 0.9381 >= 0.1000 removing occ3w1
p = 0.9068 >= 0.1000 removing occ1w1
p = 0.8324 >= 0.1000 removing childw1
p = 0.8470 >= 0.1000 removing educ7
p = 0.8293 >= 0.1000 removing emplw12
p = 0.6234 >= 0.1000 removing occ6w1
p = 0.6121 >= 0.1000 removing marrw12
p = 0.5350 >= 0.1000 removing bffsl17
p = 0.4335 >= 0.1000 removing radtlw1
p = 0.4647 >= 0.1000 removing radchw1
p = 0.4378 >= 0.1000 removing bffsl5
p = 0.3997 >= 0.1000 removing marrw11
p = 0.3127 >= 0.1000 removing emplw16
p = 0.2819 >= 0.1000 removing emplw15
p = 0.3074 >= 0.1000 removing marrw15
p = 0.2909 >= 0.1000 removing educ5
p = 0.3994 >= 0.1000 removing educ6
p = 0.2954 >= 0.1000 removing inc4w1
p = 0.2190 >= 0.1000 removing educ4
p = 0.1415 >= 0.1000 removing havmil
p = 0.1333 >= 0.1000 removing emplw13
p = 0.1124 >= 0.1000 removing occ4w1
p = 0.1353 >= 0.1000 removing occ5w1
p = 0.1179 >= 0.1000 removing occ2w1
p = 0.1215 >= 0.1000 removing radhlw1

```

Linear regression

```

Number of obs =      360
F( 12, 359) =      .
Prob > F      =      .
R-squared     =    0.3877
Root MSE     =    24.696

```

(Std. Err. adjusted for 360 clusters in id)

WHPsleep	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
age	.9645961	.1677099	5.75	0.000	.6347789	1.294413
educ2	12.16019	5.929755	2.05	0.041	.4987658	23.8216
educ3	6.502654	2.915673	2.23	0.026	.7687085	12.2366
inclw1	-6.853432	3.913822	-1.75	0.081	-14.55033	.8434666
emplw14	12.57209	2.618662	4.80	0.000	7.422241	17.72193
bffsl10	.0037706	.0016238	2.32	0.021	.0005773	.0069639
bffsl3	.2042475	.0987591	2.07	0.039	.0100284	.3984667
inc2w1	-9.795586	2.811102	-3.48	0.001	-15.32388	-4.26729
bffsl11	-.004553	.0010124	-4.50	0.000	-.006544	-.002562
marrw13	-8.961304	3.878728	-2.31	0.021	-16.58919	-1.333421
bffsl12	-.0365311	.008225	-4.44	0.000	-.0527063	-.0203558
bffsl4	.458643	.077333	5.93	0.000	.3065603	.6107256
BSIhos	1.384154	.6612619	2.09	0.037	.0837201	2.684587
_cons	-36.04149	7.706191	-4.68	0.000	-51.19644	-20.88654

144 .

145 . des inclw1-inc4w1 marrw11-marrw16 bffsl3-bffsl12

variable name	storage type	display format	value label	variable label
inclw1	byte	%15.0g	LABJ	Income is not sufficient for basic neccessities in 1986
inc2w1	byte	%15.0g	LABJ	Income is just sufficient for basic neccessities in 1986
inc3w1	byte	%15.0g	LABJ	Income is sufficient for basics plus extra purchases/savings in 1986
inc4w1	byte	%15.0g	LABJ	Income allows to comfortably afford luxury items in 1986
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
bffsl3	float	%9.0g		max(, deaw1 - 1)* bffsl1
bffsl4	float	%9.0g		max(0,1- deaw1) * bffsl1
bffsl5	float	%9.0g		(docvisitsw1 = .)* bffsl4
bffsl6	float	%9.0g		(docvisitsw1 != .)*bffsl4
bffsl7	float	%9.0g		max(0, airw2-10)*bffsl5
bffsl8	float	%9.0g		max(0, 10- airw2)*bffsl5
bffsl9	float	%9.0g		max(0, BSIhos - 9)*bffsl7

```

bffsl10      float   %9.0g      max(0, 9 - BSIhos) * bffsl7
bffsl11      float   %9.0g      max(0, cloud - 10) * bffsl6
bffsl12      float   %9.0g      max(0, 10-cloud)*bffsl6

```

```

146 . regress WHPsleep age avgcumdosew1 inclw1-inc4w1 ///
>      marrw11-marrw16 bffsl4 bffsl10 bffsl11 BSIhos ///
>      if gender==2, vce(cluster id)

```

```

Linear regression                                Number of obs =      363
                                                F( 16,   362) =    15.56
                                                Prob > F       =    0.0000
                                                R-squared      =    0.3662
                                                Root MSE      =    25.165

```

(Std. Err. adjusted for 363 clusters in id)

WHPsleep	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
age	.8578777	.166374	5.16	0.000	.5306968	1.185059
avgcumdosew1	6.398469	2.576871	2.48	0.013	1.330951	11.46599
inclw1	-4.983327	4.876462	-1.02	0.308	-14.57308	4.606425
inc2w1	-9.770151	3.958723	-2.47	0.014	-17.55513	-1.985168
inc3w1	-4.092424	4.778323	-0.86	0.392	-13.48918	5.304334
inc4w1	-9.313265	6.127037	-1.52	0.129	-21.36232	2.735791
marrw11	6.7235	6.517339	1.03	0.303	-6.093101	19.5401
marrw12	33.90256	21.39437	1.58	0.114	-8.170298	75.97541
marrw13	2.362157	7.541906	0.31	0.754	-12.46929	17.19361
marrw14	57.13913	13.75949	4.15	0.000	30.08057	84.1977
marrw15	2.248905	15.63139	0.14	0.886	-28.49083	32.98864
marrw16	13.8564	19.02823	0.73	0.467	-23.56335	51.27614
bffsl4	.3391336	.078603	4.31	0.000	.1845578	.4937094
bffsl10	.0038976	.00166	2.35	0.019	.0006331	.0071621
bffsl11	-.0026421	.0010676	-2.47	0.014	-.0047415	-.0005427
BSIhos	1.514132	.6783504	2.23	0.026	.1801291	2.848134
_cons	-38.92315	8.959197	-4.34	0.000	-56.54175	-21.30454

```
147 . scalar twlbf = e(r2_a)
```

```
148 . scalar list twlbf
      twlbf = .33687491
```

```
149 .
```

```
150 . scalar wlnumbf = 3
```

```
151 . set more off
```

```
152 . regress WHPsleep age avgcumdosew1 inclw1-inc4w1 marrw11-marrw16 ///
>      BSIhos if gender==2, vce(cluster id)
```

Linear regression

Number of obs = 363
F(13, 362) = 18.20
Prob > F = 0.0000
R-squared = 0.2842
Root MSE = 26.629

(Std. Err. adjusted for 363 clusters in id)

WHPsleep	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
age	.9125816	.1852578	4.93	0.000	.5482649	1.276898
avgcumdosew1	6.142491	2.246632	2.73	0.007	1.724401	10.56058
inclw1	1.105283	5.383593	0.21	0.837	-9.481761	11.69233
inc2w1	-6.49865	3.818681	-1.70	0.090	-14.00823	1.010934
inc3w1	-1.764873	4.782481	-0.37	0.712	-11.16981	7.640062
inc4w1	-8.302836	6.916288	-1.20	0.231	-21.90398	5.298313
marrw11	10.39463	7.49797	1.39	0.167	-4.350421	25.13967
marrw12	34.15338	18.83721	1.81	0.071	-2.890728	71.19748
marrw13	8.397056	8.456978	0.99	0.321	-8.233919	25.02803
marrw14	67.57899	12.29544	5.50	0.000	43.39952	91.75846
marrw15	17.4306	17.08699	1.02	0.308	-16.17163	51.03283
marrw16	11.31017	18.03912	0.63	0.531	-24.16445	46.78479
BSIhos	3.025676	.5130592	5.90	0.000	2.016725	4.034627
_cons	-50.88147	9.735873	-5.23	0.000	-70.02744	-31.7355

```

153 . scalar twlnobf = e(r2_a)

154 .
155 . scalar r2chabfw1 = twlbf - twlnobf

156 . scalar list r2chabfw1
      r2chabfw1 = .07938894

157 .
158 . sw, pr(.1):regress WHPsleep age inclw1-inc4w1 marrw11-marrw16 ///
>      bffsl3 bffsl4 bffsl10 bffsl11 bffsl12 radchw1 radhlw2 if gender==2, vce(
> cluster id)

begin with full model
p = 0.9375 >= 0.1000 removing marrw16
p = 0.8485 >= 0.1000 removing marrw13
p = 0.7295 >= 0.1000 removing marrw15
p = 0.5223 >= 0.1000 removing inc3w1
p = 0.2930 >= 0.1000 removing radchw1
p = 0.2461 >= 0.1000 removing inc4w1
p = 0.2321 >= 0.1000 removing inclw1
p = 0.1483 >= 0.1000 removing bffsl10
p = 0.1127 >= 0.1000 removing marrw12
p = 0.1245 >= 0.1000 removing marrw11

```

Linear regression

```

Number of obs =      363
F(   8,   362) =    51.18
Prob > F       =    0.0000
R-squared      =    0.3745
Root MSE      =    24.715

```

(Std. Err. adjusted for **363** clusters in id)

WHPsleep	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
age	.7501282	.1235755	6.07	0.000	.5071122	.9931443
bffsl3	.2209694	.0974793	2.27	0.024	.0292726	.4126661
inc2w1	-6.963654	2.571886	-2.71	0.007	-12.02137	-1.905941
bffsl11	-.0048057	.0010152	-4.73	0.000	-.0068022	-.0028093
bffsl4	.5646001	.0529057	10.67	0.000	.460559	.6686412
marrw14	58.98748	7.077483	8.33	0.000	45.06933	72.90562
bffsl12	-.0403642	.0081502	-4.95	0.000	-.0563919	-.0243365
radhlw2	.074428	.0409549	1.82	0.070	-.0061114	.1549674
_cons	-25.21833	5.45902	-4.62	0.000	-35.9537	-14.48295

```

159 .
160 .
161 . matrix define FemaleWHPsleepr2 = J(4,5,0)

162 . matrix colnames FemaleWHPsleepr2 = FullBFR2a TR2aBF TR2aNoBF NumBF BFR2ch
    > a

163 . matrix rownames FemaleWHPsleepr2 = wave1 wave2 wave3

164 . matlist FemaleWHPsleepr2

```

	FullBFR2a	TR2aBF	TR2aNoBF	NumBF	BFR2cha
wave1	0	0	0	0	0
wave2	0	0	0	0	0
wave3	0	0	0	0	0
wave3	0	0	0	0	0

```

165 .
166 .
167 . matrix define FemaleWHPsleepr2w1 = ( fw1 , tw1bf, tw1nofb, w1numbf, r2chabfw
    > 1)

168 . matrix colnames FemaleWHPsleepr2w1 = FullBFR2w1 TR2BFw1 TR2NoBFw1 w1NumBF
    > BFR2chaw1

169 . matrix rownames FemaleWHPsleepr2w1 = wave1

170 .
171 .
172 . matlist FemaleWHPsleepr2w1

```

	FullBFR~1	TR2BFw1	TR2NoBFw1	w1NumBF	BFR2chaw1
wave1	.3392537	.3368749	.257486	3	.0793889

```

173 .

```

```
*****  
> *  
*****  
> *  
*****  
*****  
> *  
*****  
Possible wave one female moderators of sleep  
> *  
*****  
> *  
*****  
> *  
*****  
29 Jun 2012      00:25:06  
> *  
*****  
> *
```

Linear regression	Number of obs =	363
	F(14, 362) =	19.47
	Prob > F =	0.0000
	R-squared =	0.3605
	Root MSE =	25.204

(Std. Err. adjusted for 363 clusters in id)

WHPsleep	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
age	.7322607	.1877279	3.90	0.000	.3630865	1.101435
avgcumdosew1	-10.76014	15.85411	-0.68	0.498	-41.93786	20.41758
marrw11	2.027149	5.734546	0.35	0.724	-9.250059	13.30436
marrw12	34.82898	22.95706	1.52	0.130	-10.31697	79.97493
marrw13	-.8725605	6.765701	-0.13	0.897	-14.17757	12.43245
marrw14	56.74991	13.31174	4.26	0.000	30.57185	82.92796
marrw15	-.5240387	16.00412	-0.03	0.974	-31.99676	30.94869
marrw16	13.42993	19.19402	0.70	0.485	-24.31586	51.17572
bffsl4	.40573	.0898826	4.51	0.000	.2289723	.5824876
bffsl10	.0037234	.0016804	2.22	0.027	.0004188	.0070281
bffsl11	-.0021772	.0010306	-2.11	0.035	-.004204	-.0001504
BSIhos	1.251892	.7094405	1.76	0.078	-.1432502	2.647034
ageXd1	.3968324	.2958938	1.34	0.181	-.1850542	.9787191
bffsl4Xd1	-.1602782	.0689758	-2.32	0.021	-.2959218	-.0246346
_cons	-34.86181	9.696088	-3.60	0.000	-53.92954	-15.79407

180 .

181 . des bffsl1 bffsl4

variable name	storage type	display format	value label	variable label
bffsl1	float	%9.0g		max(0, BSIposymp-15)
bffsl4	float	%9.0g		max(0,1- deaw1) * bffsl1

182 . summ bffsl4 if gender==2

Variable	Obs	Mean	Std. Dev.	Min	Max
bffsl4	363	28.71074	28.97201	0	141

```
183 . centile bffsl4 if gender==2, centile(33 67)
```

Variable	Obs	Percentile	Centile	— Binom. Interp. — [95% Conf. Interval]	
bffsl4	363	33	10	6.89607	14
		67	35	32	39.10393

```
184 . cap gen lobffsl4Xd1 = avgcumdosew1 if bffsl4 <= 10 & gender==2
```

```
185 . cap gen midbffsl4Xd1 = avgcumdosew1 if bffsl4 > 10 & bffsl4 < 35 & gender==2
```

```
186 . cap gen hibffsl4Xd1 = avgcumdosew1 if bffsl4 >= 35 & gender==2 & bffsl4 < .
```

```
187 . label var lobffsl4Xd1 "cumdosew3 for male lower third of bffsl4 "
```

```
188 . label var midbffsl4Xd1 "cumdosew3 for male mid-third of bffsl4"
```

```
189 . label var hibffsl4Xd1 "cumdosew3 for male upper third of bffsl4"
```

```
190 .
```

```
191 .
```

```
192 .
```

```
193 .
```

```
194 . twoway lfit WHPsleep lobffsl4Xd1 || lfit WHPsleep midbffsl4Xd1 || lfit WHPsl
> eep hibffsl4Xd1, ///
>     yti(WHPsleep) color(blue red green) ///
>     title(Effect of bffsl4 by Dose Interaction on Sleep) ///
>     subtitle(for females in wave one) ///
>     legend(label( 1 "for lower bffsl4 " ) caption(bffsl4=max(0,1-deaw1)*max(0
> ,BSIposymp-15)) ///
>     label( 2 "for mid-bffsl4") label(3 "for high bffsl4") rows(3)) ///
>     xti(avgcumdosew3 in milliGrays scale)
```

```
195 . graph save fbffsl4Xd1onSlp1.gph, replace
(file fbffsl4Xd1onSlp1.gph saved)
```

```
196 . graph export fbffsl4XdlonSlp1.eps, replace
    (file fbffsl4XdlonSlp1.eps written in EPS format)
```

```
197 .
```

```
198 .
```

```
199 . cap gen whpsleep = WHPsleep
```

```
200 .
```

```
201 . title "Possible mediators for Female sleep"
```

```
*****
> *
*****
> *
*****                                     ****
> *
*****                                     ****
> *
*****               Possible mediators for Female sleep               ****
> *
*****                                     ****
> *
*****                                     ****
> *
*****                                     ****
> *
*****               29 Jun 2012      00:25:08      ****
> *
*****
> *
*****
> *
```

```
202 . * age, BSIanxiety, fear of eating contaminated food, fear of going outdoors,
```

```
203 . * PTSD in wave 1, depression in wave one
```

```
204 . sem(avgcumdosew1->radhlw3)(radhlw3-> whpsleep) if gender==2, nocapslatent
```

Endogenous variables

Observed: **radhlw3 whpsleep**

Exogenous variables

Observed: **avgcumdosew1**

Fitting target model:

```
Iteration 0:    log likelihood = -3840.3075
Iteration 1:    log likelihood = -3840.3075
```

```
Structural equation model      Number of obs      =      363
Estimation method   = ml
Log likelihood       = -3840.3075
```

> _____						
	Coef.	OIM Std. Err.	z	P> z	[95% Conf. Inter	
> val]						
> _____						
Structural						
radhlw3 <-						
avgcumdosew1	10.14689	3.274489	3.10	0.002	3.729013	16.5
> 6477						
_cons	57.60931	2.105602	27.36	0.000	53.48241	61.7
> 3621						
> _____						
whpsleep <-						
radhlw3	.2449287	.0449114	5.45	0.000	.1569039	.332
> 9534						
_cons	11.30063	3.151775	3.59	0.000	5.123269	17
> .478						
> _____						
Variance						
e.radhlw3	1171.23	86.93681			1012.651	1354
> .641						
e.whpsleep	880.2405	65.33758			761.0606	1018
> .084						
> _____						
LR test of model vs. saturated: chi2(1) = 6.90 , Prob > chi2 = 0.0086						

```
205 . sem(avgcumdosew1->age)(age-> whpsleep) if gender==2, nocapslatent
```

Endogenous variables

Observed: **age whpsleep**

Exogenous variables

Observed: **avgcumdosew1**

Fitting target model:

Iteration 0: log likelihood = **-3434.5704**

Iteration 1: log likelihood = **-3434.5704**

```
Structural equation model                                Number of obs      =      363
Estimation method   = ml
Log likelihood      = -3434.5704
```

```
> -----
               OIM
               Coef.   Std. Err.      z    P>|z|     [95% Conf. Inter
> val]
-----+-----
> -----
Structural
  age <-
    avgcumdosew1   3.973879   1.114596    3.57   0.000    1.78931   6.15
> 8447
    _cons         48.88157   .7167212   68.20   0.000    47.47682   50.2
> 8632
-----+-----
> -----
  whpsleep <-
    age           .9980208   .1262348    7.91   0.000    .7506051   1.24
> 5436
    _cons         -23.87083   6.513018    -3.67   0.000    -36.63611  -11.1
> 0555
-----+-----
> -----
Variance
    e.age         135.7032   10.07284                117.3297   156.
> 9539
    e.whpsleep    812.4615   60.30655                702.4585   939.
> 6906
-----+-----
> -----
LR test of model vs. saturated: chi2(1)    =      4.78, Prob > chi2 = 0.0288
```

```

206 . sem(avgcumdosew1->radhlw1)(radhlw1-> whpsleep) if gender==2, nocapslatent
    (1 observations with missing values excluded;
    specify option 'method(mlmv)' to use all observations)

```

Endogenous variables

Observed: **radhlw1 whpsleep**

Exogenous variables

Observed: **avgcumdosew1**

Fitting target model:

Iteration 0: log likelihood = **-3871.0527**

Iteration 1: log likelihood = **-3871.0527**

```

Structural equation model                                Number of obs      =      362
Estimation method   = ml
Log likelihood       = -3871.0527

```

		Coef.	OIM Std. Err.	z	P> z	[95% Conf. Inter	
> _____							
> val]							
> _____							
Structural							
radhlw1 <-	avgcumdosew1	3.789972	3.5524	1.07	0.286	-3.172604	10.7
> 5255							
	_cons	55.44948	2.287412	24.24	0.000	50.96623	59.9
> 3272							
> _____							
> _____							
whpsleep <-	radhlw1	.1083192	.0433068	2.50	0.012	.0234394	.193
> 1991							
	_cons	20.13816	2.937073	6.86	0.000	14.3816	25.8
> 9471							
> _____							
Variance							
e.radhlw1		1377.647	102.3997			1190.882	1593
> .703							
e.whpsleep		938.2593	69.74026			811.0611	1085
> .406							

```
> _____
LR test of model vs. saturated: chi2(1)    =    10.40, Prob > chi2 = 0.0013
```

```
207 . sem(avgcumdosew1-> illw1)(illw1-> whpsleep) if gender==2, nocapslatent
```

```
Endogenous variables
```

```
Observed:  illw1 whpsleep
```

```
Exogenous variables
```

```
Observed:  avgcumdosew1
```

```
Fitting target model:
```

```
Iteration 0:  log likelihood = -2314.2199
```

```
Iteration 1:  log likelihood = -2314.2199
```

```
Structural equation model                                Number of obs    =    363
```

```
Estimation method  = ml
```

```
Log likelihood      = -2314.2199
```

```
> _____
```

	Coef.	OIM Std. Err.	z	P> z	[95% Conf. Inter	
> val]						
> _____						
Structural						
illw1 <-						
avgcumdosew1	.0655142	.0473479	1.38	0.166	-.0272859	.158
> 3144						
_cons	.1570822	.0304462	5.16	0.000	.0974087	.216
> 7556						
> _____						
whpsleep <-						
illw1	7.374115	3.241554	2.27	0.023	1.020785	13.7
> 2744						
_cons	24.92422	1.70986	14.58	0.000	21.57296	28.2
> 7549						
> _____						
Variance						
e.illw1	.2448817	.0181768			.211726	.283
> 2294						
e.whpsleep	938.975	69.69726			811.8427	1086

> .016

> _____

LR test of model vs. saturated: chi2(1) = 10.32, Prob > chi2 = 0.0013

208 . sem(avgcumdosew1->radchw1)(radchw1-> whpsleep) if gender==2, nocapslatent

Endogenous variables

Observed: radchw1 whpsleep

Exogenous variables

Observed: avgcumdosew1

Fitting target model:

Iteration 0: log likelihood = -3884.0569

Iteration 1: log likelihood = -3884.0569

Structural equation model

Number of obs = 363

Estimation method = ml

Log likelihood = -3884.0569

> _____

	Coef.	OIM Std. Err.	z	P> z	[95% Conf. Inter	
--	-------	------------------	---	------	------------------	--

> val]

> _____

Structural

radchw1 <- avgcumdosew1	3.622756	3.55317	1.02	0.308	-3.34133	10.5
----------------------------	----------	---------	------	-------	----------	------

> 8684

_cons	60.18119	2.284803	26.34	0.000	55.70306	64.6
-------	----------	----------	-------	-------	----------	------

> 5933

> _____

whpsleep <- radchw1	-.0270378	.0435314	-0.62	0.535	-.1123577	.058
------------------------	-----------	----------	-------	-------	-----------	------

> 2821

_cons	27.90469	3.124745	8.93	0.000	21.7803	34.0
-------	----------	----------	------	-------	---------	------

> 2908

> _____

Variance

e.radchw1	1379.072	102.3643			1192.353	1595
-----------	----------	----------	--	--	----------	------

> .031

e.whpsleep	951.3502	70.61584	822.5424	1100
------------	----------	----------	----------	------

> .329

> —
 LR test of model vs. saturated: chi2(1) = 11.48, Prob > chi2 = 0.0007

209 . sem(avgcumdosew1->phlthw1)(phlthw1-> whpsleep) if gender==2, nocapslatent

Endogenous variables

Observed: **phlthw1 whpsleep**

Exogenous variables

Observed: **avgcumdosew1**

Fitting target model:

Iteration 0: log likelihood = -3614.5213
 Iteration 1: log likelihood = -3614.5213

Structural equation model	Number of obs	=	363
Estimation method	=	ml	
Log likelihood	=	-3614.5213	

> —						
	Coef.	OIM Std. Err.	z	P> z	[95% Conf. Inter	
> val]						
> —						
Structural						
phlthw1 <-						
avgcumdosew1	1.262912	1.69126	0.75	0.455	-2.051897	4.57
> 7721						
_cons	88.49087	1.087535	81.37	0.000	86.35934	90.
> 6224						
> —						
whpsleep <-						
phlthw1	-.0646515	.0915014	-0.71	0.480	-.243991	.11
> 4688						
_cons	31.99312	8.295266	3.86	0.000	15.7347	48.2
> 5154						
> —						
Variance						
e.phlthw1	312.4466	23.19197			270.143	361.

```
> 3749
      e.whpsleep |      951.0533      70.5938                  822.2857      1099
> .985
```

```
> _____
LR test of model vs. saturated: chi2(1)    =      11.43, Prob > chi2 = 0.0007
```

```
210 . sem(avgcumdosew1->BSIanx)(BSIanx-> whpsleep) if gender==2, nocapslatent
```

Endogenous variables

Observed: **BSIanx whpsleep**

Exogenous variables

Observed: **avgcumdosew1**

Fitting target model:

Iteration 0: log likelihood = **-2984.6352**

Iteration 1: log likelihood = **-2984.6352**

```
Structural equation model                      Number of obs      =      363
Estimation method   = ml
Log likelihood      = -2984.6352
```

```
> _____
      Coef.      OIM      Std. Err.      z      P>|z|      [95% Conf. Inter
> val]
> _____
Structural
  BSIanx <-
    avgcumdosew1      1.528414      .3399598      4.50      0.000      .8621048      2.19
> 4723
    _cons      8.465151      .2186051      38.72      0.000      8.036693      8.89
> 3609
> _____
  whpsleep <-
    BSIanx      4.065276      .3890115      10.45      0.000      3.302827      4.82
> 7724
    _cons      -10.25323      3.770224      -2.72      0.007      -17.64274      -2.8
> 6373
> _____
Variance
```

e.BSIanx	12.62438	.9370693	10.9151	14.6
> 0132				
e.whpsleep	732.1075	54.34211	632.984	846.
> 7534				

> _____
LR test of model vs. saturated: chi2(1) = 2.04, Prob > chi2 = 0.1531

211 . sem(avgcumdosew1->injothr)(injothr-> whpsleep) if gender==2, nocapslatent

Endogenous variables

Observed: **injothr whpsleep**

Exogenous variables

Observed: **avgcumdosew1**

Fitting target model:

Iteration 0: log likelihood = -2202.3259

Iteration 1: log likelihood = -2202.3259

Structural equation model	Number of obs	=	363
Estimation method	=	ml	
Log likelihood	=	-2202.3259	

> _____						
		OIM				
	Coef.	Std. Err.	z	P> z	[95% Conf. Inter	
> val]						
> _____						
Structural						
injothr <-						
avgcumdosew1	.0392118	.0349969	1.12	0.263	-.0293809	.107
> 8046						
_cons	.8270641	.0225042	36.75	0.000	.7829568	.871
> 1715						
> _____						
whpsleep <-						
injothr	13.52601	4.363315	3.10	0.002	4.974069	22.0
> 7795						
_cons	14.87983	3.999569	3.72	0.000	7.040818	22.7
> 1884						
> _____						

```
> _____
LR test of model vs. saturated: chi2(1)    =      10.32, Prob > chi2 = 0.0013
```

```
Iteration 0: log likelihood = -2933.8323
Iteration 1: log likelihood = -2933.8323
```

```

> -----
Variance
      e.BSIhos |      7.960466      .5908812                6.882661      9.20
> 7052
      e.whpsleep |     877.5761     65.13981                758.757      1015
> .002
-----

```

```

> -----
LR test of model vs. saturated: chi2(1)   =      10.94, Prob > chi2 = 0.0009

```

```

213 . sem(avgcumdosew1->radchw1)(radchw1-> whpsleep) if gender==2, nocapslatent

```

Endogenous variables

Observed: **radchw1 whpsleep**

Exogenous variables

Observed: **avgcumdosew1**

Fitting target model:

Iteration 0: log likelihood = **-3884.0569**

Iteration 1: log likelihood = **-3884.0569**

```

Structural equation model                                Number of obs      =      363
Estimation method   = ml
Log likelihood       = -3884.0569

```

```

> -----
> val]
> -----
Structural
  radchw1 <-
    avgcumdosew1 |      3.622756      3.55317      1.02      0.308      -3.34133      10.5
> 8684
    _cons |      60.18119      2.284803      26.34      0.000      55.70306      64.6
> 5933
-----
> -----
  whpsleep <-
    radchw1 |     -.0270378      .0435314     -0.62      0.535     -.1123577      .058
> 2821
    _cons |      27.90469      3.124745      8.93      0.000      21.7803      34.0
> 2908

```



```

> 9698
-----
Variance
    e.fdfew1 |      1404.922    104.2831                1214.703    1624
> .928
    e.whpsleep |      928.2044    68.89779                802.5305    1073
> .559
-----
> -----
LR test of model vs. saturated: chi2(1)    =      9.01, Prob > chi2 = 0.0027

```

```
215 . sem(avgcumdosew1->sepaw1)(sepaw1-> whpsleep) if gender==2, nocapslatent
```

Endogenous variables

Observed: **sepaw1 whpsleep**

Exogenous variables

Observed: **avgcumdosew1**

Fitting target model:

```

Iteration 0:  log likelihood = -1824.0742
Iteration 1:  log likelihood = -1824.0742

```

```

Structural equation model                                Number of obs      =      363
Estimation method   = ml
Log likelihood       = -1824.0742

```

```

> -----
> -----
> val]
-----
> -----
Structural
  sepaw1 <-
    avgcumdosew1 |      -.000846    .012199    -0.07    0.945    -.0247555    .023
> 0636
    _cons |      .0168128    .0078443     2.14    0.032     .0014382    .032
> 1874
-----
> -----
  whpsleep <-
    sepaw1 |     -11.69971    12.68927    -0.92    0.357    -36.57021    13.
> 1708

```

```

      _cons |      26.43804      1.631394      16.21      0.000      23.24057      29.6
> 3551
-----
Variance
      e.sepaw1 |      .0162555      .0012066
> 8011
      e.whpsleep |      950.1361      70.52572
> .925
-----
LR test of model vs. saturated: chi2(1)      =      11.21, Prob > chi2 = 0.0008

```

```
216 . sem(avgcumdosew1->PTSDw1)(PTSDw1-> whpsleep) if gender==2, nocapslatent
```

Endogenous variables

Observed: **PTSDw1 whpsleep**

Exogenous variables

Observed: **avgcumdosew1**

Fitting target model:

Iteration 0: log likelihood = **-3828.7676**

Iteration 1: log likelihood = **-3828.7676**

```

Structural equation model                                Number of obs      =      363
Estimation method   = ml
Log likelihood       = -3828.7676

```

```

> -----
      Coef.      OIM      Std. Err.      z      P>|z|      [95% Conf. Inter
> val]
-----
Structural
      PTSDw1 <-
      avgcumdosew1 |      13.50282      3.095226      4.36      0.000      7.436293      19.5
> 6936
      _cons |      13.41722      1.99033      6.74      0.000      9.516244      17.3
> 1819
-----
      whpsleep <-
      PTSDw1 |      .1591462      .0480869      3.31      0.001      .0648977      .253

```

```

> 3947
      _cons |      23.38835      1.814274      12.89      0.000      19.83244      26.9
> 4427
-----|-----
> -----
Variance
      e.PTSDw1 |      1046.501      77.6786
> 0.38
      e.whpsleep |      924.4664      68.62033
> .235
-----|-----
> -----
LR test of model vs. saturated: chi2(1)      =      7.37, Prob > chi2 = 0.0066

```

```

217 . sem(avgcumdosew1->depagw1)(depagw1-> whpsleep) if gender==2, nocapslatent

```

Endogenous variables

Observed: **depagw1 whpsleep**

Exogenous variables

Observed: **avgcumdosew1**

Fitting target model:

Iteration 0: log likelihood = **-3760.6572**

Iteration 1: log likelihood = **-3760.6572**

```

Structural equation model                                Number of obs      =      363
Estimation method   = ml
Log likelihood       = -3760.6572

```

```

> -----|-----
> -----|-----
> val]   |      Coef.      OIM      z      P>|z|      [95% Conf. Inter
> -----|-----
Structural
  depagw1 <-
    avgcumdosew1 |      13.80922      2.592668      5.33      0.000      8.727682      18.8
> 9075
      _cons |      7.956292      1.667169      4.77      0.000      4.688701      11.2
> 2388
-----|-----
> -----|-----
whpsleep <-

```

```

      depagw1 |      .2437406      .0561288      4.34      0.000      .1337301      .353
> 7511      _cons |      23.17608      1.730132      13.40      0.000      19.78508      26.5
> 6707
-----
> -----
Variance
      e.depagw1 |      734.258      54.50174
> 2407
      e.whpsleep |      905.3303      67.19991
> .102
-----
> -----
LR test of model vs. saturated: chi2(1)      =      5.44, Prob > chi2 = 0.0197

```

```

218 . sem(avgcumdosew1->BSIddep)(BSIddep-> whpsleep) if gender==2, nocapslatent

```

Endogenous variables

Observed: **BSIddep whpsleep**

Exogenous variables

Observed: **avgcumdosew1**

Fitting target model:

Iteration 0: log likelihood = **-3010.1111**

Iteration 1: log likelihood = **-3010.1111**

```

Structural equation model                                Number of obs      =      363
Estimation method   = ml
Log likelihood      = -3010.1111

```

```

> -----
      Coef.      OIM      z      P>|z|      [95% Conf. Inter
      Std. Err.
> val]
-----
> -----
Structural
      BSIddep <-
      avgcumdosew1 |      1.380465      .3522431      3.92      0.000      .6900812      2.07
> 0849
      _cons |      9.192477      .2265037      40.58      0.000      8.748538      9.63
> 6416
-----
> -----

```

```

whpsleep <-
  BSIdep | 3.445067 .3911827 8.81 0.000 2.678363 4.21
> 1771
  _cons | -7.019698 4.053191 -1.73 0.083 -14.96381 .924
> 4117
-----
> -----
Variance
  e.BSIdep | 13.55315 1.006009 11.71812 15.6
> 7553
  e.whpsleep | 784.6999 58.24589 678.4557 907.
> 5816
-----
> -----
LR test of model vs. saturated: chi2(1) = 3.72, Prob > chi2 = 0.0537

```

```
219 . sem(avgcumdosew1->injselfr)(injselfr->whpsleep) if gender==2, nocapslatent
```

Endogenous variables

Observed: **injselfr whpsleep**

Exogenous variables

Observed: **avgcumdosew1**

Fitting target model:

Iteration 0: log likelihood = -2279.3942

Iteration 1: log likelihood = -2279.3942

```

Structural equation model                      Number of obs      =      363
Estimation method = ml
Log likelihood      = -2279.3942

```

```

> -----
              OIM
              Coef.   Std. Err.      z    P>|z|     [95% Conf. Inter
> val]
-----
Structural
  injselfr <-
    avgcumdosew1 | .0943398 .0441318  2.14  0.033  .0078431 .180
> 8365
    _cons | .6542977 .0283782 23.06  0.000  .5986776 .709
> 9179
-----

```

```

> -----
      whpsleep <-
      injselfr |      16.72313      3.377628      4.95      0.000      10.1031      23.3
> 4315
      _cons |      14.77342      2.797423      5.28      0.000      9.290573      20.2
> 5627
-----
> -----
Variance
      e.injselfr |      .2127443      .0157914
> 0594
      e.whpsleep |      892.1156      66.21903
> .818
-----
> -----
LR test of model vs. saturated: chi2(1)      =      8.50, Prob > chi2 = 0.0036

```

```

220 . ***** Wave 2 begins here
221 .
222 .
223 .
224 .
225 . // wave 2 possible socio-demog covariates full Female model
226 . regress WHPsleep age avgcumdosew2 educ2-educ7 marrw21-marrw23 marrw25 childw
> 2 ///
> emplw22-emplw26 occ1w2-occ8w2 inclw2-inc4w2 BSIhos if gender==2

```

Source	SS	df	MS	Number of obs =	363
Model	117162.221	31	3779.42648	F(31, 331) =	5.47
Residual	228544.92	331	690.468036	Prob > F =	0.0000
				R-squared =	0.3389
				Adj R-squared =	0.2770
Total	345707.141	362	954.992102	Root MSE =	26.277

WHPsleep	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.7286643	.1705384	4.27	0.000	.3931885	1.06414
avgcumdosew2	1.532528	1.081265	1.42	0.157	-.5944892	3.659545
educ2	21.71682	27.8679	0.78	0.436	-33.10371	76.53735
educ3	25.26321	27.75576	0.91	0.363	-29.33671	79.86314
educ4	23.59172	28.23839	0.84	0.404	-31.95762	79.14105
educ5	17.52864	27.95234	0.63	0.531	-37.45799	72.51527
educ6	17.13621	27.80216	0.62	0.538	-37.555	71.82741
educ7	-8.069995	33.62357	-0.24	0.810	-74.21283	58.07284
marrw21	-10.55008	8.86094	-1.19	0.235	-27.98093	6.880781
marrw22	8.181714	12.30111	0.67	0.506	-16.01649	32.37992
marrw23	-1.252346	7.35053	-0.17	0.865	-15.71199	13.2073
marrw25	-3.813645	10.61513	-0.36	0.720	-24.69526	17.06797

childw2	-1.057011	2.202239	-0.48	0.632	-5.389161	3.275138
emplw22	-1.353672	11.69387	-0.12	0.908	-24.35736	21.65001
emplw23	14.88901	12.45196	1.20	0.233	-9.605955	39.38397
emplw24	2.622077	29.01238	0.09	0.928	-54.44982	59.69397
emplw25	21.36149	13.74425	1.55	0.121	-5.675602	48.39858
emplw26	-6.128173	12.74521	-0.48	0.631	-31.2	18.94365
occ1w2	16.54683	13.84804	1.19	0.233	-10.69445	43.7881
occ2w2	8.643981	14.21165	0.61	0.543	-19.31256	36.60052
occ3w2	20.90548	14.23168	1.47	0.143	-7.090474	48.90142
occ4w2	18.0996	15.22076	1.19	0.235	-11.84202	48.04122
occ5w2	12.86955	16.5123	0.78	0.436	-19.61274	45.35184
occ6w2	22.30044	16.48663	1.35	0.177	-10.13134	54.73222
occ7w2	15.16114	15.26972	0.99	0.321	-14.87679	45.19908
occ8w2	29.1472	15.25401	1.91	0.057	-.8598319	59.15424
inc1w2	-19.49344	14.07882	-1.38	0.167	-47.18869	8.201811
inc2w2	-19.09826	13.83681	-1.38	0.168	-46.31744	8.120916
inc3w2	-21.45307	13.92428	-1.54	0.124	-48.84431	5.93817
inc4w2	-18.74804	16.58025	-1.13	0.259	-51.364	13.86792
BSIhos	2.749011	.5096237	5.39	0.000	1.746502	3.751521
_cons	-48.00085	32.53307	-1.48	0.141	-111.9985	15.99681

227 .
228 .
229 . des bffsl2- bffsl12 bffsl17-bffsl23

variable name	storage type	display format	value label	variable label
bffsl2	float	%9.0g		max(0, emplw25 + 1.14467e-009)
bffsl3	float	%9.0g		max(, deawl - 1)* bffsl1
bffsl4	float	%9.0g		max(0,1- deawl) * bffsl1
bffsl5	float	%9.0g		(docvisitsw1 = .)* bffsl4
bffsl6	float	%9.0g		(docvisitsw1 != .)*bffsl4
bffsl7	float	%9.0g		max(0, airw2-10)*bffsl5
bffsl8	float	%9.0g		max(0, 10- airw2)*bffsl5
bffsl9	float	%9.0g		max(0, BSIhos - 9)*bffsl7
bffsl10	float	%9.0g		max(0, 9 - BSIhos) * bffsl7
bffsl11	float	%9.0g		max(0, cloud - 10) * bffsl6
bffsl12	float	%9.0g		max(0, 10-cloud)*bffsl6
bffsl17	float	%9.0g		max(0, suchrw1 + 1.85275e-007) * bffsl15
bffsl18	float	%9.0g		(trgovw2 != .) * bffsl1
bffsl19	float	%9.0g		max(0, trgovw2 - 10) * bffsl18
bffsl20	float	%9.0g		max(0, trgovw2 - 10) * bffsl18
bffsl23	float	%9.0g		max(0, trgovw2 - 10) * bffsl18

```

230 .
231 . local `bfw2' bffsl2- bffsl12 bffsl17-bffsl23

232 .
233 . // trimmed female sleep for wave2 without basis functions
234 . regress WHPsleep age avgcumdosew2 educ2-educ7 ///
>     occ1w2-occ8w2 incl1w2-inc4w2 radhlw2 radchw2 ///
>     BSIhos if gender==2, vce(cluster id)

```

Linear regression

```

Number of obs =      363
F( 22, 362) =      .
Prob > F      =      .
R-squared     =    0.3113
Root MSE     =    26.501

```

(Std. Err. adjusted for 363 clusters in id)

WHPsleep	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
age	.9011044	.1392482	6.47	0.000	.6272675	1.174941
avgcumdosew2	1.844007	.8744053	2.11	0.036	.1244552	3.563559
educ2	13.97419	6.461045	2.16	0.031	1.268295	26.68009
educ3	16.81994	5.388722	3.12	0.002	6.222806	27.41707
educ4	16.914	8.61831	1.96	0.050	-.0342398	33.86224
educ5	7.53451	6.437048	1.17	0.243	-5.124195	20.19321
educ6	8.911264	5.29785	1.68	0.093	-1.507164	19.32969
educ7	-19.62281	14.72413	-1.33	0.183	-48.57839	9.332765
occ1w2	8.907211	7.172295	1.24	0.215	-5.197386	23.01181
occ2w2	1.529251	7.540624	0.20	0.839	-13.29968	16.35818
occ3w2	14.38519	7.593997	1.89	0.059	-.5487002	29.31908
occ4w2	7.112592	8.774468	0.81	0.418	-10.14274	24.36792
occ5w2	2.565107	11.43965	0.22	0.823	-19.93141	25.06162
occ6w2	18.6715	10.3563	1.80	0.072	-1.694575	39.03758
occ7w2	14.60983	7.647487	1.91	0.057	-.4292468	29.64891
occ8w2	19.1525	8.157753	2.35	0.019	3.109958	35.19503
incl1w2	-10.85566	7.2631	-1.49	0.136	-25.13883	3.427505
inc2w2	-10.68552	7.115921	-1.50	0.134	-24.67925	3.308219
inc3w2	-14.92295	7.394224	-2.02	0.044	-29.46398	-.3819185
inc4w2	-14.55959	11.81457	-1.23	0.219	-37.79339	8.674211
radhlw2	.1417907	.0482584	2.94	0.004	.0468887	.2366927
radchw2	-.1275432	.0438479	-2.91	0.004	-.2137718	-.0413145
BSIhos	2.576862	.5333983	4.83	0.000	1.527913	3.62581
_cons	-51.02203	10.45707	-4.88	0.000	-71.58627	-30.45779

```

235 .
236 . // Trimmed female sleep for wave2 without basis functions
237 . regress WHPsleep age educ2-educ7 radhlw2 radchw2 occ1w2-occ8w2 inclw2-inc4w2
> ///
> avgcumdosew2 BSIhos if gender==2, vce(cluster id)

```

Linear regression

Number of obs = **363**
F(22, 362) = .
Prob > F = .
R-squared = **0.3113**
Root MSE = **26.501**

(Std. Err. adjusted for **363** clusters in id)

WHPsleep	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
age	.9011044	.1392482	6.47	0.000	.6272675	1.174941
educ2	13.97419	6.461045	2.16	0.031	1.268295	26.68009
educ3	16.81994	5.388722	3.12	0.002	6.222806	27.41707
educ4	16.914	8.61831	1.96	0.050	-.0342398	33.86224
educ5	7.53451	6.437048	1.17	0.243	-5.124195	20.19321
educ6	8.911264	5.29785	1.68	0.093	-1.507164	19.32969
educ7	-19.62281	14.72413	-1.33	0.183	-48.57839	9.332765
radhlw2	.1417907	.0482584	2.94	0.004	.0468887	.2366927
radchw2	-.1275432	.0438479	-2.91	0.004	-.2137718	-.0413145
occ1w2	8.907211	7.172295	1.24	0.215	-5.197386	23.01181
occ2w2	1.529251	7.540624	0.20	0.839	-13.29968	16.35818
occ3w2	14.38519	7.593997	1.89	0.059	-.5487002	29.31908
occ4w2	7.112592	8.774468	0.81	0.418	-10.14274	24.36792
occ5w2	2.565107	11.43965	0.22	0.823	-19.93141	25.06162
occ6w2	18.6715	10.3563	1.80	0.072	-1.694575	39.03758
occ7w2	14.60983	7.647487	1.91	0.057	-.4292468	29.64891
occ8w2	19.1525	8.157753	2.35	0.019	3.109958	35.19503
inclw2	-10.85566	7.2631	-1.49	0.136	-25.13883	3.427505
inc2w2	-10.68552	7.115921	-1.50	0.134	-24.67925	3.308219
inc3w2	-14.92295	7.394224	-2.02	0.044	-29.46398	-.3819185
inc4w2	-14.55959	11.81457	-1.23	0.219	-37.79339	8.674211
avgcumdosew2	1.844007	.8744053	2.11	0.036	.1244552	3.563559
BSIhos	2.576862	.5333983	4.83	0.000	1.527913	3.62581
_cons	-51.02203	10.45707	-4.88	0.000	-71.58627	-30.45779

```

238 .
239 . scalar tw2nobf = e(r2_a)

240 . scalar list tw2nobf
      tw2nobf = .26459544

241 . // Trimmed female sleep mode for wave 2 with basis functions
242 .
243 . local `bfw2' bffsl2- bffsl12 bffsl17-bffsl23

244 .
245 .
246 . title "Wave 2 female sleep model with basis functions"

```

```

247 .
248 .
249 . des WHPsleep age radhlw2 radchw2 ///
>      bffsl2- bffsl3  bffsl10-bffsl12 bffsl18-bffsl19 bffsl123

```

variable name	storage type	display format	value label	variable label
WHPsleep	double	%9.0g		Wtd Health Profile Sleep Pt 1 subscale
age	byte	%8.0g		* Respondent's age
radhlw2	byte	%8.0g		how much believed personal health is affected by radiation in 1996
radchw2	byte	%8.0g		believed % of polution related to chornobyl in 1996
bffsl2	float	%9.0g		max(0, emplw25 + 1.14467e-009)
bffsl3	float	%9.0g		max(, deaw1 - 1)* bffsl1
bffsl10	float	%9.0g		max(0, 9 - BSIhos) * bffsl7
bffsl11	float	%9.0g		max(0, cloud - 10) * bffsl6
bffsl12	float	%9.0g		max(0, 10-cloud)*bffsl6
bffsl18	float	%9.0g		(trgovw2 != .) * bffsl1
bffsl19	float	%9.0g		max(0, trgovw2 - 10) * bffsl18
bffsl123	float	%9.0g		max(0, trgovw2 - 10) * bffsl18

```

250 . set more off

```

```

251 . regress WHPsleep age avgcumdosew2 ///
>      radhlw2 radchw2 educ2-educ7 occ1w2-occ8w2 inclw2-inc4w2 BSIhos ///
>      bffsl10 if gender==2, vce(cluster id)

```

Linear regression

```

Number of obs =      363
F( 23, 362) =      .
Prob > F      =      .
R-squared     =    0.3409
Root MSE     =    25.964

```

(Std. Err. adjusted for 363 clusters in id)

WHPsleep	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
age	.8914268	.1347691	6.61	0.000	.6263981	1.156456
avgcumdosew2	2.154052	.8922784	2.41	0.016	.3993514	3.908752
radhlw2	.1208159	.0476982	2.53	0.012	.0270155	.2146163
radchw2	-.1292914	.0426107	-3.03	0.003	-.213087	-.0454957
educ2	14.10377	6.455016	2.18	0.030	1.40973	26.79781
educ3	15.52526	5.360612	2.90	0.004	4.983411	26.06711
educ4	11.949	8.465017	1.41	0.159	-4.697786	28.59578

educ5	6.170848	6.371697	0.97	0.333	-6.359342	18.70104
educ6	8.879311	5.239619	1.69	0.091	-1.424604	19.18323
educ7	-17.6245	14.13895	-1.25	0.213	-45.4293	10.18031
occ1w2	9.025681	7.230648	1.25	0.213	-5.193669	23.24503
occ2w2	1.533179	7.756436	0.20	0.843	-13.72015	16.78651
occ3w2	14.65375	7.613966	1.92	0.055	-.3194108	29.62691
occ4w2	6.126081	9.117084	0.67	0.502	-11.80302	24.05518
occ5w2	3.567388	11.33283	0.31	0.753	-18.71906	25.85384
occ6w2	19.59527	10.31017	1.90	0.058	-.6800677	39.87062
occ7w2	11.74104	7.67155	1.53	0.127	-3.345358	26.82744
occ8w2	18.1066	8.189295	2.21	0.028	2.002032	34.21116
inc1w2	-11.36438	7.459033	-1.52	0.128	-26.03285	3.304102
inc2w2	-13.44399	7.17852	-1.87	0.062	-27.56083	.6728512
inc3w2	-15.91007	7.475102	-2.13	0.034	-30.61015	-1.209987
inc4w2	-20.64762	12.80378	-1.61	0.108	-45.82674	4.531506
BSIhos	2.888212	.5357928	5.39	0.000	1.834555	3.94187
bffsl10	.0048435	.0017371	2.79	0.006	.0014273	.0082596
_cons	-50.55326	10.28341	-4.92	0.000	-70.77598	-30.33054

252 . scalar tw2bf = e(r2_a)

253 . scalar list tw2bf
tw2bf = .29409811

254 .

255 .

256 .

257 . scalar w2numbf = 7

258 .

259 . scalar r2chabfw2 = tw2bf - tw2nobf

260 .

261 . matrix define FemaleWHPsleep2w2 = (fw2 , tw2bf, tw2nobf, w2numbf, r2chabfw
> 2)

```
264 . matlist FemaleWHPsleepr2w2
```

	FullBFR2a	TR2aBF	TR2aNoBF	NumBF	BFR2cha
wave2	.5774594	.2940981	.2645954	7	.0295027

```
267 . matlist FemaleWHPsleepr2
```

	FullBFR~1	TR2BFW1	TR2NoBFW1	w1NumBF	BFR2chaw1
wave1	.3392537	.3368749	.257486	3	.0793889
wave2	.5774594	.2940981	.2645954	7	.0295027

```
270 . title "Possible moderators for female sleep in wave two"
```

```
*****
> *
*****
> *
*****
> *
*****
> *
*****
Possible moderators for female sleep in wave two
> *
*****
> *
*****
> *
*****
29 Jun 2012    00:25:11
> *
*****
> *
```

```

271 .
272 .   foreach var in age radhlw2 radchw2 educ2-educ7 occ1w2-occ8w2 ///
>       inclw2-inc4w2 BSIhos bffsl10 {
2.     cap gen `var'Xd2 = `var'*avgcumdosew2
3.     }

273 .
274 . regress WHPsleep age   avgcumdosew2 ///
>       radhlw2 radchw2 educ2-educ7 occ1w2-occ8w2 inclw2-inc4w2 BSIhos ///
>       bffsl10 ageXd2-bffsl10Xd2 if gender==2, vce(cluster id)

```

```

Linear regression                               Number of obs =      363
                                                F( 28, 362) =      .
                                                Prob > F       =      .
                                                R-squared      =    0.3458
                                                Root MSE      =    26.06

```

(Std. Err. adjusted for 363 clusters in id)

WHPsleep	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
age	.9122214	.1524348	5.98	0.000	.6124524	1.21199
avgcumdosew2	-5.792874	8.5095	-0.68	0.496	-22.52714	10.94139
radhlw2	.1211012	.0527555	2.30	0.022	.0173554	.2248469
radchw2	-.1923496	.0562736	-3.42	0.001	-.3030137	-.0816854
educ2	13.42553	6.543081	2.05	0.041	.5583082	26.29275
educ3	16.32046	5.429445	3.01	0.003	5.643246	26.99767
educ4	13.02205	8.520468	1.53	0.127	-3.733781	29.77788
educ5	6.727503	6.354296	1.06	0.290	-5.768467	19.22347
educ6	9.831114	5.331736	1.84	0.066	-.6539513	20.31618
educ7	-23.15517	20.14444	-1.15	0.251	-62.76999	16.45965
occ1w2	8.762213	7.249121	1.21	0.228	-5.493465	23.01789
occ2w2	.8362779	7.758422	0.11	0.914	-14.42096	16.09352
occ3w2	14.47603	7.591366	1.91	0.057	-.4526834	29.40475
occ4w2	5.693903	9.086708	0.63	0.531	-12.17546	23.56327
occ5w2	3.840552	11.36545	0.34	0.736	-18.51005	26.19115
occ6w2	18.50852	10.38486	1.78	0.076	-1.913714	38.93076
occ7w2	10.72636	7.762381	1.38	0.168	-4.538659	25.99139
occ8w2	17.58783	8.22275	2.14	0.033	1.417474	33.75819
inclw2	-11.04044	7.457408	-1.48	0.140	-25.70572	3.624843
inc2w2	-13.24679	7.17003	-1.85	0.065	-27.34694	.8533474
inc3w2	-15.13455	7.507838	-2.02	0.045	-29.89901	-.3700959
inc4w2	-20.40045	12.82866	-1.59	0.113	-45.62851	4.827614
BSIhos	2.82735	.7002411	4.04	0.000	1.450299	4.204401
bffsl10	.0046404	.0053909	0.86	0.390	-.0059609	.0152418
ageXd2	.00884	.0860903	0.10	0.918	-.16046	.1781399
radhlw2Xd2	.0088639	.0160287	0.55	0.581	-.0226572	.040385

radchw2Xd2	.0732694	.0353776	2.07	0.039	.0036981	.1428407
BSIhosXd2	.0875982	.5890687	0.15	0.882	-1.070828	1.246025
bffsl10Xd2	.0003621	.0064965	0.06	0.956	-.0124136	.0131377
_cons	-46.83915	11.82517	-3.96	0.000	-70.0938	-23.5845

```

275 .
276 . **** Possible moderator is radchw2xd2
277 . summ radchw2 if gender==2

```

Variable	Obs	Mean	Std. Dev.	Min	Max
radchw2	363	62.52893	33.88298	0	100

```

278 . * cutpoints are 28.7 62.5 96
279 . cap drop lowradchw2Xd2

280 . cap gen loradchw2Xd2 = avgcumdosew2 if radchw2 < 28.7 & gender==2

281 . cap gen midradchw2Xd2 = avgcumdosew2 if radchw2 >= 28.7 & radchw2 < 62.5 & g
> ender==2

282 . cap gen hiradchw2Xd2 = avgcumdosew2 if radchw2 >= 62.5 & radchw2 < . & gend
> er==2

283 . label var loradchw2Xd2 "cumdosew3 for male lower sd of radchw2 "

284 . label var midradchw2Xd2 "cumdosew3 for male mean plusminus 1 sd of radchw2"
>

285 . label var hiradchw2Xd2 "cumdosew3 for male upper sd of radchw2"

286 .
287 .
288 .
289 .
290 . twoway lfit WHPsleep loradchw2Xd2 || lfit WHPsleep midradchw2Xd2 || lfit WHP
> sleep hiradchw2Xd2, ///
> yti(WHPsleep) color(blue red green) ///
> title("Effect of belief in proportion of pollution due " "to Chornobyl
> by Dose on Sleep") ///
> subtitle(for females in wave two) ///
> legend(label( 1 "for lower radchw2 ") label( 2 "for mid-radchw2") label(3
> "for high radchw2") rows(3)) ///
> xti(avgcumdosew3 in milliGrays scale)

```

```
*****  
> *  
*****  
> *  
*****  
*****  
> *  
*****  
Possible mediators for Female sleep in wave 2  
> *  
*****  
> *  
*****  
> *  
*****  
29 Jun 2012    00:25:13 *****  
> *  
*****  
> *
```

Fitting target model:

```
Iteration 0:    log likelihood = -4175.5824
Iteration 1:    log likelihood = -4175.5824
```

```
Structural equation model      Number of obs      =      363
Estimation method   = ml
Log likelihood       = -4175.5824
```

> _____						
		OIM				
	Coef.	Std. Err.	z	P> z	[95% Conf. Inter	
> val]						
> _____						
Structural						
radhlw3 <-						
avgcumdosew2	3.736223	1.305158	2.86	0.004	1.17816	6.29
> 4285						
_cons	57.66773	2.145924	26.87	0.000	53.4618	61.8
> 7367						
> _____						
whpsleep <-						
radhlw3	.2449287	.0449114	5.45	0.000	.1569039	.332
> 9534						
_cons	11.30063	3.151775	3.59	0.000	5.123269	17
> .478						
> _____						
Variance						
e.radhlw3	1175.671	87.26648			1016.491	1359
> .778						
e.whpsleep	880.2405	65.33758			761.0606	1018
> .084						
> _____						
LR test of model vs. saturated: chi2(1) = 4.38 , Prob > chi2 = 0.0363						

```
298 . sem(avgcumdosew2->age)(age-> whpsleep) if gender==2, nocapslatent
```

Endogenous variables

Observed: **age whpsleep**

Exogenous variables

Observed: **avgcumdosew2**

Fitting target model:

Iteration 0: log likelihood = **-3769.7737**

Iteration 1: log likelihood = **-3769.7737**

```
Structural equation model                                Number of obs      =      363
Estimation method   = ml
Log likelihood       = -3769.7737
```

```
> -----
               OIM
               Coef.   Std. Err.      z    P>|z|     [95% Conf. Inter
> val]
-----+-----
> -----
Structural
  age <-
    avgcumdosew2   1.502324   .4441722    3.38   0.001    .6317629    2.37
> 2886
    _cons          48.86944   .7303023   66.92   0.000    47.43808    50.3
> 0081
-----+-----
> -----
  whpsleep <-
    age            .9980208   .1262348    7.91   0.000    .7506051    1.24
> 5436
    _cons          -23.87083   6.513018   -3.67   0.000    -36.63611   -11.1
> 0555
-----+-----
> -----
Variance
    e.age          136.164   10.10704                   117.7281    157.
> 4869
    e.whpsleep     812.4615   60.30655                   702.4585    939.
> 6906
-----+-----
> -----
LR test of model vs. saturated: chi2(1)    =      2.68, Prob > chi2 = 0.1013
```

```
299 . sem(avgcumdosew2->radhlw2)(radhlw2-> whpsleep) if gender==2, nocapslatent
```

Endogenous variables

Observed: **radhlw2 whpsleep**

Exogenous variables

Observed: **avgcumdosew2**

Fitting target model:

Iteration 0: log likelihood = **-4173.3473**

Iteration 1: log likelihood = **-4173.3473**

```
Structural equation model                Number of obs      =      363
Estimation method   = ml
Log likelihood      = -4173.3473
```

> _____							
			OIM				
		Coef.	Std. Err.	z	P> z	[95% Conf. Inter	
> val]							
> _____							
Structural							
radhlw2 <-							
avgcumdosew2		3.302288	1.280292	2.58	0.010	.7929628	5.81
> 1614							
_cons		56.95167	2.105039	27.05	0.000	52.82587	61.0
> 7747							
> _____							
whpsleep <-							
radhlw2		.2057984	.0464831	4.43	0.000	.1146932	.296
> 9036							
_cons		13.91546	3.200634	4.35	0.000	7.642335	20.1
> 8859							
> _____							
Variance							
e.radhlw2		1131.299	83.97289			978.1272	1308
> .457							
e.whpsleep		903.5692	67.0692			781.2308	1045
> .066							
> _____							
> _____							

LR test of model vs. saturated: chi2(1) = 5.16, Prob > chi2 = 0.0231

300 . sem(avgcumdosew2-> illw2)(illw2-> whpsleep) if gender==2, nocapslatent

Endogenous variables

Observed: **illw2 whpsleep**

Exogenous variables

Observed: **avgcumdosew2**

Fitting target model:

Iteration 0: log likelihood = -2844.5594

Iteration 1: log likelihood = -2844.5594

Structural equation model Number of obs = 363

Estimation method = ml

Log likelihood = -2844.5594

> _____							
			OIM				
		Coef.	Std. Err.	z	P> z	[95% Conf. Inter	
> val]							
> _____							
Structural							
illw2 <-							
avgcumdosew2		.1249912	.0330244	3.78	0.000	.0602647	.189
> 7178							
_cons		.301285	.0542982	5.55	0.000	.1948624	.407
> 7076							
> _____							
> _____							
whpsleep <-							
illw2		8.319311	1.778349	4.68	0.000	4.83381	11.8
> 0481							
_cons		22.80692	1.736208	13.14	0.000	19.40402	26.2
> 0983							
> _____							
Variance							
e.illw2		.7527109	.0558714			.6507978	.870
> 5832							
e.whpsleep		898.2096	66.67137			776.5968	1038
> .867							

```
> _____
LR test of model vs. saturated: chi2(1)    =      3.91, Prob > chi2 = 0.0480
```

```
301 . sem(avgcumdosew2->radchw2)(radchw2-> whpsleep) if gender==2, nocapslatent
```

Endogenous variables

Observed: **radchw2 whpsleep**

Exogenous variables

Observed: **avgcumdosew2**

Fitting target model:

Iteration 0: log likelihood = **-4182.5154**

Iteration 1: log likelihood = **-4182.5154**

Structural equation model Number of obs = **363**

Estimation method = **ml**

Log likelihood = **-4182.5154**

> _____							
			OIM				
	Coef.	Std. Err.	z	P> z	[95% Conf. Inter		
> val]							
> _____							
Structural							
radchw2 <-							
avgcumdosew2	2.827903	1.27938	2.21	0.027	.3203636	5.33	
> 5442							
_cons	59.99635	2.103541	28.52	0.000	55.87348	64.1	
> 1921							
> _____							
whpsleep <-							
radchw2	-.0233248	.0478545	-0.49	0.626	-.1171179	.070	
> 4683							
_cons	27.70313	3.402304	8.14	0.000	21.03474	34.3	
> 7152							
> _____							
Variance							
e.radchw2	1129.689	83.85338			976.7351	1306	
> .595							
e.whpsleep	951.7384	70.64465			822.8781	1100	
> .778							

```
> _____
LR test of model vs. saturated: chi2(1)    =      8.16, Prob > chi2 = 0.0043
```

```
302 . sem(avgcumdosew2->phlthw2)(phlthw2-> whpsleep) if gender==2, nocapslatent
```

```
Endogenous variables
```

```
Observed:  phlthw2 whpsleep
```

```
Exogenous variables
```

```
Observed:  avgcumdosew2
```

```
Fitting target model:
```

```
Iteration 0:  log likelihood = -3947.6519
```

```
Iteration 1:  log likelihood = -3947.6519
```

```
Structural equation model                                Number of obs      =      363
```

```
Estimation method  = ml
```

```
Log likelihood      = -3947.6519
```

```
> _____
```

	Coef.	OIM Std. Err.	z	P> z	[95% Conf. Inter	
> val]						
> _____						
Structural						
phlthw2 <-						
avgcumdosew2	-1.107593	.6940629	-1.60	0.111	-2.467931	.252
> 7452						
_cons	80.1765	1.14117	70.26	0.000	77.93985	82.4
> 1315						
> _____						
whpsleep <-						
phlthw2	-.4431316	.0854118	-5.19	0.000	-.6105357	-.275
> 7275						
_cons	61.33384	6.941518	8.84	0.000	47.72871	74.9
> 3897						
> _____						
Variance						
e.phlthw2	332.4737	24.67851			287.4585	384.
> 5381						
e.whpsleep	886.6169	65.81088			766.5736	1025

> .459

> _____

LR test of model vs. saturated: chi2(1) = 6.00, Prob > chi2 = 0.0143

303 . sem(avgcumdosew2->BSIanx)(BSIanx-> whpsleep) if gender==2, nocapslatent

Endogenous variables

Observed: **BSIanx whpsleep**

Exogenous variables

Observed: **avgcumdosew2**

Fitting target model:

Iteration 0: log likelihood = -3321.4125

Iteration 1: log likelihood = -3321.4125

Structural equation model

Number of obs = 363

Estimation method = ml

Log likelihood = -3321.4125

> _____

	Coef.	OIM Std. Err.	z	P> z	[95% Conf. Inter	
--	-------	------------------	---	------	------------------	--

> val]

> _____

Structural

BSIanx <- avgcumdosew2	.5377254	.1360644	3.95	0.000	.2710441	.804
---------------------------	----------	----------	------	-------	----------	------

> 4067

_cons	8.496392	.2237153	37.98	0.000	8.057918	8.93
-------	----------	----------	-------	-------	----------	------

> 4866

> _____

whpsleep <- BSIanx	4.065276	.3890115	10.45	0.000	3.302827	4.82
-----------------------	----------	----------	-------	-------	----------	------

> 7724

_cons	-10.25323	3.770224	-2.72	0.007	-17.64274	-2.8
-------	-----------	----------	-------	-------	-----------	------

> 6373

> _____

Variance

e.BSIanx	12.77758	.9484407			11.04756	14.7
----------	----------	----------	--	--	----------	------

> 7851

e.whpsleep	732.1075	54.34211	632.984	846.
------------	----------	----------	---------	------

> 7534

> —
 LR test of model vs. saturated: chi2(1) = 1.11, Prob > chi2 = 0.2926

304 . sem(avgcumdosew2->injselfr)(injselfr->whpsleep) if gender==2, nocapslatent

Endogenous variables

Observed: **injselfr whpsleep**

Exogenous variables

Observed: **avgcumdosew2**

Fitting target model:

Iteration 0: log likelihood = -2614.6706
 Iteration 1: log likelihood = -2614.6706

Structural equation model	Number of obs	=	363
Estimation method	=	ml	
Log likelihood	=	-2614.6706	

> —						
	Coef.	OIM Std. Err.	z	P> z	[95% Conf. Inter	
> val]						
> —						
Structural						
injselfr <-						
avgcumdosew2	.0313591	.0175903	1.78	0.075	-.0031173	.065
> 8354						
_cons	.6578662	.0289217	22.75	0.000	.6011807	.714
> 5518						
> —						
whpsleep <-						
injselfr	16.72313	3.377628	4.95	0.000	10.1031	23.3
> 4315						
_cons	14.77342	2.797423	5.28	0.000	9.290573	20.2
> 5627						
> —						
Variance						
e.injselfr	.2135527	.0158514			.1846388	.246

```
> 9945
      e.whpsleep |      892.1156    66.21903                771.3279    1031
> .818
```

```
> _____
LR test of model vs. saturated: chi2(1)    =      5.83, Prob > chi2 = 0.0158
```

```
305 . sem(avgcumdosew2->injothr)(injothr-> whpsleep) if gender==2, nocapslatent
```

Endogenous variables

Observed: **injothr whpsleep**

Exogenous variables

Observed: **avgcumdosew2**

Fitting target model:

Iteration 0: log likelihood = **-2536.8389**

Iteration 1: log likelihood = **-2536.8389**

```
Structural equation model                Number of obs    =      363
Estimation method    = ml
Log likelihood       = -2536.8389
```

		Coef.	OIM Std. Err.	z	P> z	[95% Conf. Inter	
> val]							
> _____							
Structural							
injothr <-							
avgcumdosew2		.0165056	.01392	1.19	0.236	-.010777	.043
> 7882							
_cons		.8254385	.022887	36.07	0.000	.7805808	.870
> 2963							
> _____							
whpsleep <-							
injothr		13.52601	4.363315	3.10	0.002	4.974069	22.0
> 7795							
_cons		14.87983	3.999569	3.72	0.000	7.040818	22.7
> 1884							
> _____							
Variance							

e.injothr		.1337321	.0099265		.1156255	.154
> 6742						
e.whpsleep		927.7998	68.86776		802.1806	1073
> .091						

> _____
LR test of model vs. saturated: chi2(1) = 6.89, Prob > chi2 = 0.0087

306 . sem(avgcumdosew2->BSIhos)(BSIhos-> whpsleep) if gender==2, nocapslatent

Endogenous variables

Observed: **BSIhos whpsleep**

Exogenous variables

Observed: **avgcumdosew2**

Fitting target model:

Iteration 0: log likelihood = -3268.543

Iteration 1: log likelihood = -3268.543

Structural equation model	Number of obs	=	363
Estimation method	=	ml	
Log likelihood	=	-3268.543	

> _____						
		OIM				
	Coef.	Std. Err.	z	P> z	[95% Conf. Inter	
> val]						
> _____						
Structural						
BSIhos <-						
avgcumdosew2	.039264	.1074326	0.37	0.715	-.1713001	.24
> 9828						
_cons	7.449685	.1766394	42.17	0.000	7.103478	7.79
> 5892						
> _____						
whpsleep <-						
BSIhos	3.063457	.5507991	5.56	0.000	1.983911	4.14
> 3004						
_cons	3.315143	4.406108	0.75	0.452	-5.320671	11.9
> 5096						
> _____						

Variance					
e.BSIhos	7.965848	.5912807		6.887314	9.21
> 3276					
e.whpsleep	877.5761	65.13981		758.757	1015
> .002					

> —

LR test of model vs. saturated: chi2(1) = 7.77, Prob > chi2 = 0.0053

307 . sem(avgcumdosew2->radchw2)(radchw2-> whpsleep) if gender==2, nocapslatent

Endogenous variables

Observed: **radchw2 whpsleep**

Exogenous variables

Observed: **avgcumdosew2**

Fitting target model:

Iteration 0: log likelihood = -4182.5154

Iteration 1: log likelihood = -4182.5154

Structural equation model Number of obs = 363
 Estimation method = ml
 Log likelihood = -4182.5154

> —						
		OIM				
	Coef.	Std. Err.	z	P> z	[95% Conf. Inter	
> val]						
> —						
Structural						
radchw2 <-						
avgcumdosew2	2.827903	1.27938	2.21	0.027	.3203636	5.33
> 5442						
_cons	59.99635	2.103541	28.52	0.000	55.87348	64.1
> 1921						
> —						
whpsleep <-						
radchw2	-.0233248	.0478545	-0.49	0.626	-.1171179	.070
> 4683						
_cons	27.70313	3.402304	8.14	0.000	21.03474	34.3
> 7152						

```

> -----
Variance
    e.radchw2 |      1129.689      83.85338                976.7351      1306
> .595
    e.whpsleep |      951.7384      70.64465                822.8781      1100
> .778
-----

```

```

> -----
LR test of model vs. saturated: chi2(1)   =      8.16, Prob > chi2 = 0.0043

```

```

308 . sem(avgcumdosew2->fdferw2)(fdferw2-> whpsleep) if gender==2, nocapslatent

```

Endogenous variables

Observed: **fdferw2 whpsleep**

Exogenous variables

Observed: **avgcumdosew2**

Fitting target model:

Iteration 0: log likelihood = **-4080.302**

Iteration 1: log likelihood = **-4080.302**

```

Structural equation model                                Number of obs      =      363
Estimation method   = ml
Log likelihood       = -4080.302

```

```

> -----
> val]
> -----
Structural
  fdferw2 <-
    avgcumdosew2 |      1.684583      .9692513      1.74      0.082      -.2151144      3.58
> 4281
    _cons |      13.66489      1.593631      8.57      0.000      10.54144      16.7
> 8835
-----
> -----
  whpsleep <-
    fdferw2 |      .1116835      .063076      1.77      0.077      -.0119432      .235
> 3103
    _cons |      24.55002      1.875403      13.09      0.000      20.8743      28.2
> 2574

```



```

> 5515
-----
Variance
    e.sepaw2 |      .0215524   .0015998                .0186344   .024
> 9275
    e.whpsleep |      940.334   69.79814                813.0178   1087
> .588
-----
> -----
LR test of model vs. saturated: chi2(1)   =      7.77, Prob > chi2 = 0.0053

```

```

310 . sem(avgcumdosew2->PTSDw2)(PTSDw2-> whpsleep) if gender==2, nocapslatent

```

Endogenous variables

Observed: **PTSDw2 whpsleep**

Exogenous variables

Observed: **avgcumdosew2**

Fitting target model:

```

Iteration 0:  log likelihood = -3664.2971
Iteration 1:  log likelihood = -3664.2971

```

```

Structural equation model                                Number of obs      =      363
Estimation method   = ml
Log likelihood       = -3664.2971

```

```

> -----
              OIM
              Coef.   Std. Err.      z    P>|z|     [95% Conf. Inter
> val]
-----
> -----
Structural
    PTSDw2 <-
      avgcumdosew2 |      .538256   .3126879     1.72   0.085     -.0746011    1.15
> 1113
      _cons |      3.023189   .5141176     5.88   0.000     2.015537    4.03
> 0841
-----
> -----
    whpsleep <-
      PTSDw2 |      .7224852   .1926812     3.75   0.000     .3448369    1.10
> 0134

```

```

      _cons |    23.71218    1.726821    13.73    0.000    20.32767    27.0
> 9668
-----
Variance
      e.PTSDw2 |    67.48105    5.008914                    58.34448    78.0
> 4839
      e.whpsleep |   916.8496   68.05496                    792.7131   1060
> .426
-----
LR test of model vs. saturated: chi2(1)    =    6.25, Prob > chi2 = 0.0124

```

```
311 . sem(avgcumdosew2->depagw2)(depagw2-> whpsleep) if gender==2, nocapslatent
```

Endogenous variables

Observed: **depagw2 whpsleep**

Exogenous variables

Observed: **avgcumdosew2**

Fitting target model:

Iteration 0: log likelihood = **-3975.9284**

Iteration 1: log likelihood = **-3975.9284**

```

Structural equation model                                Number of obs    =    363
Estimation method   = ml
Log likelihood      = -3975.9284

```

```

> -----
              OIM
              Coef.   Std. Err.      z    P>|z|     [95% Conf. Inter
> val]
-----
Structural
  depagw2 <-
    avgcumdosew2 |    .9266396    .7350068     1.26    0.207    -.5139472    2.36
> 7226
      _cons |    8.991343    1.208489     7.44    0.000     6.622749    11.3
> 5994
-----
  whpsleep <-
    depagw2 |    .2758213    .082439     3.35    0.001     .1142439    .437

```

```

> 3987
      _cons |      23.53576      1.789031      13.16      0.000      20.02932      27.0
> 4219
-----|-----
> -----
Variance
      e.depawg2 |      372.857      27.67604
> 2453
      e.whpsleep |      923.8711      68.57614
> .547
-----|-----
> -----
LR test of model vs. saturated: chi2(1)      =      6.78, Prob > chi2 = 0.0092

```

```

312 . sem(avgcumdosew2->BSIddep)(BSIddep-> whpsleep) if gender==2, nocapslatent

```

Endogenous variables

Observed: **BSIddep whpsleep**

Exogenous variables

Observed: **avgcumdosew2**

Fitting target model:

Iteration 0: log likelihood = **-3345.6897**

Iteration 1: log likelihood = **-3345.6897**

```

Structural equation model                                Number of obs      =      363
Estimation method   = ml
Log likelihood       = -3345.6897

```

```

> -----|-----
> -----|-----
> val]   |      Coef.      OIM      z      P>|z|      [95% Conf. Inter
> -----|-----
Structural
      BSIddep <-
      avgcumdosew2 |      .5124468      .1405158      3.65      0.000      .2370408      .787
> 8528
      _cons |      9.196716      .2310344      39.81      0.000      8.743897      9.64
> 9535
-----|-----
> -----|-----
      whpsleep <-

```

```

      BSIdep |    3.445067    .3911827    8.81    0.000    2.678363    4.21
> 1771      _cons |   -7.019698    4.053191   -1.73    0.083   -14.96381    .924
> 4117
-----
> -----
Variance
      e.BSIdep |    13.62731    1.011514                11.78225    15.7
> 6131      e.whpsleep |    784.6999    58.24589                678.4557    907.
> 5816
-----
> -----
LR test of model vs. saturated: chi2(1)    =        2.01, Prob > chi2 = 0.1567

```

```

313 .
314 . // wave 3 possible socio-demog covariates full Female model
315 .
316 . des WHPsleep age educ2-educ7 marrw21-marrw23 marrw25 childw2 ///
> emplw22-emplw26 occ1w2-occ8w2 inclw2-inc4w2 radhlw3 radtlw3 radchw3

```

variable name	storage type	display format	value label	variable label
WHPsleep	double	%9.0g		Wtd Health Profile Sleep Pt 1 subscale
age	byte	%8.0g		* Respondent's age
educ2	byte	%8.0g		educ==2. graduated high school
educ3	byte	%8.0g		educ==3. technical degree
educ4	byte	%8.0g		educ==4. did not finish college/bachelor's
educ5	byte	%8.0g		educ==5. graduated college/bachelor's
educ6	byte	%8.0g		educ==6. finished specialist/master's degree
educ7	byte	%8.0g		educ==7. doctor of science/phd
marrw21	byte	%8.0g		marrw2==1. single
marrw22	byte	%8.0g		marrw2==2. cohabitating
marrw23	byte	%8.0g		marrw2==3. married
marrw25	byte	%8.0g		marrw2==5. divorced
childw2	byte	%8.0g		number of children in 1996
emplw22	byte	%8.0g		emplw2==1. full time
emplw23	byte	%8.0g		emplw2==2. part time
emplw24	byte	%8.0g		emplw2==3. voluntary
emplw25	byte	%8.0g		emplw2==4. retired
emplw26	byte	%8.0g		emplw2==5. unemployed
occ1w2	byte	%15.0g	LABJ	profess executive administration in 1996
occ2w2	byte	%15.0g	LABJ	technical sales admin support in


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

```
320 . regress WHPsleep age avgcumdosew2 educ2-educ7 ///
>     emplw22-emplw26 occ1w2-occ8w2 inclw2-inc4w2 ///
>     radhlw3 radchw3 if gender==2, vce(cluster id)
```

Linear regression

```
Number of obs =      363
F( 25, 362) =      .
Prob > F      =      .
R-squared     =    0.2983
Root MSE     =    26.909
```

(Std. Err. adjusted for 363 clusters in id)

WHPsleep	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
age	.7427166	.1649309	4.50	0.000	.4183736	1.06706
avgcumdosew2	1.687798	.8614091	1.96	0.051	-.0061968	3.381792
educ2	30.06657	8.215358	3.66	0.000	13.91075	46.22239
educ3	36.03663	8.803373	4.09	0.000	18.72445	53.3488
educ4	34.54477	10.51194	3.29	0.001	13.87264	55.21691
educ5	27.67033	9.226143	3.00	0.003	9.52676	45.8139
educ6	27.33203	8.792954	3.11	0.002	10.04034	44.62372
educ7	-7.379096	16.20249	-0.46	0.649	-39.24192	24.48373
emplw22	.5895921	6.339245	0.09	0.926	-11.87678	13.05596
emplw23	15.87806	8.013316	1.98	0.048	.1195625	31.63655
emplw24	18.49187	7.898133	2.34	0.020	2.959883	34.02385
emplw25	23.33398	10.69182	2.18	0.030	2.308111	44.35985
emplw26	3.654458	6.296151	0.58	0.562	-8.727168	16.03608
occ1w2	16.87438	6.937686	2.43	0.015	3.231149	30.51761
occ2w2	9.640776	7.474695	1.29	0.198	-5.058502	24.34005
occ3w2	23.72966	7.953086	2.98	0.003	8.089606	39.36971
occ4w2	18.15649	8.946031	2.03	0.043	.563773	35.74921
occ5w2	18.26299	13.21503	1.38	0.168	-7.724881	44.25087
occ6w2	25.66908	12.76855	2.01	0.045	.5592253	50.77893
occ7w2	12.27132	9.097276	1.35	0.178	-5.61883	30.16146
occ8w2	23.47595	9.558157	2.46	0.015	4.679466	42.27244
inclw2	-17.9678	7.418056	-2.42	0.016	-32.5557	-3.379905
inc2w2	-18.46107	7.016913	-2.63	0.009	-32.2601	-4.662038
inc3w2	-20.04603	7.438916	-2.69	0.007	-34.67494	-5.417109
inc4w2	-21.93059	11.62547	-1.89	0.060	-44.79253	.9313551
radhlw3	.1740996	.0510472	3.41	0.001	.0737133	.274486
radchw3	-.1118385	.0450148	-2.48	0.013	-.200362	-.0233151

```
321 .
322 .
323 .
324 . title "Full female wave three model with basis functions"
```

```

*****
> *
*****
> *
*****
> *
*****
Full female wave three model with basis functions
> *
*****
> *
*****
> *
*****
29 Jun 2012    00:25:16
> *
*****
> *
*****
> *
*****

```

325 . des bffs12-bffs125

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```

bffsl15      float  %9.0g      (suchrw1 != . ) * bffsl18
bffsl17      float  %9.0g      max(0, suchrw1 + 1.85275e-007) *
                                bffsl15
bffsl18      float  %9.0g      (trgovw2 != . ) * bffsl11
bffsl19      float  %9.0g      max(0, trgovw2 - 10) * bffsl18
bffsl20      float  %9.0g      max(0, trgovw2 - 10) * bffsl18
bffsl23      float  %9.0g      max(0, trgovw2 - 10) * bffsl18
bffsl24      float  %9.0g      max(0, phlthw3 - 40) * bffsl18
bffsl25      float  %9.0g      max(0, 40 - phlthw3) * bffsl18

```

326 .

327 . local bfw3 bffsl10

```

328 . regress WHPsleep age avgcumdosew2 educ2-educ5 marrw31-marrw33 marrw35 ///
> emplw32-emplw34 occ1w3-occ7w3 inclw3-inc4w3 radhlw3 radchw3 ///
> havmil bffsl10 BSIhos if gender==2, vce(cluster id)

```

Linear regression

```

Number of obs =      363
F( 28, 362) =      .
Prob > F      =      .
R-squared     =  0.3649
Root MSE     =  25.677

```

(Std. Err. adjusted for 363 clusters in id)

WHPsleep	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
age	.4882763	.1680419	2.91	0.004	.1578153	.8187372
avgcumdosew2	1.688826	.9729002	1.74	0.083	-.2244199	3.602072
educ2	7.675207	5.794773	1.32	0.186	-3.720438	19.07085
educ3	6.132777	3.30265	1.86	0.064	-.3620122	12.62757
educ4	1.787371	7.13958	0.25	0.802	-12.25289	15.82763
educ5	-4.862332	4.402797	-1.10	0.270	-13.5206	3.795939
marrw31	-15.17928	5.582338	-2.72	0.007	-26.15717	-4.2014
marrw32	6.111993	11.28906	0.54	0.589	-16.08838	28.31237
marrw33	-1.71739	4.594214	-0.37	0.709	-10.75209	7.317309
marrw35	3.621643	7.468505	0.48	0.628	-11.06546	18.30875
emplw32	-3.306185	5.050647	-0.65	0.513	-13.23848	6.626109
emplw33	-.2230059	5.517028	-0.04	0.968	-11.07246	10.62644
emplw34	12.77977	5.639444	2.27	0.024	1.689587	23.86996
occ1w3	11.43249	4.560934	2.51	0.013	2.463232	20.40174
occ2w3	2.060698	4.693638	0.44	0.661	-7.169522	11.29092
occ3w3	11.96934	5.303341	2.26	0.025	1.540113	22.39856
occ4w3	-.1502708	6.117542	-0.02	0.980	-12.18065	11.88011
occ5w3	19.85864	15.5609	1.28	0.203	-10.74248	50.45975
occ6w3	-.7354694	14.28713	-0.05	0.959	-28.83166	27.36072
occ7w3	.359425	4.320353	0.08	0.934	-8.136716	8.855566
inclw3	-1.070833	4.330438	-0.25	0.805	-9.586806	7.445141

inc2w3	-11.19944	4.909908	-2.28	0.023	-20.85496	-1.543913
inc3w3	-12.63728	4.810354	-2.63	0.009	-22.09702	-3.177529
inc4w3	-5.541647	12.52949	-0.44	0.659	-30.18137	19.09808
radhlw3	.1344038	.0471274	2.85	0.005	.0417259	.2270818
radchw3	-.0744139	.039826	-1.87	0.063	-.1527333	.0039054
havmil	.0055066	.0050917	1.08	0.280	-.0045064	.0155197
bffsl10	.0045609	.0018027	2.53	0.012	.0010158	.008106
BSIhos	2.746736	.5393766	5.09	0.000	1.686031	3.807441
_cons	-27.00168	10.50159	-2.57	0.011	-47.65346	-6.349906

```

329 .
330 . scalar fw3wbf = e(r2_a)

331 . scalar list fw3
      fw3 = .63678289

332 .
333 .
334 .
335 .
336 . // wave 3 trimmed model of possible socio-demog covariates Female model
337 .
338 . sw, pr(.05): regress WHPsleep age educ2-educ6 marrw31-marrw33   ///
>   emplw31-emplw33 occ2w3-occ7w3 inclw3-inc4w3 if gender==2
      begin with full model
p = 0.8978 >= 0.0500 removing inc3w3
p = 0.8734 >= 0.0500 removing inc2w3
p = 0.8331 >= 0.0500 removing marrw32
p = 0.7755 >= 0.0500 removing emplw33
p = 0.7085 >= 0.0500 removing occ3w3
p = 0.6424 >= 0.0500 removing educ6
p = 0.8462 >= 0.0500 removing educ5
p = 0.5565 >= 0.0500 removing inc4w3
p = 0.4618 >= 0.0500 removing occ5w3
p = 0.3247 >= 0.0500 removing occ6w3
p = 0.3185 >= 0.0500 removing occ4w3
p = 0.2429 >= 0.0500 removing marrw33
p = 0.1992 >= 0.0500 removing educ4
p = 0.1428 >= 0.0500 removing educ2
p = 0.0768 >= 0.0500 removing emplw32
p = 0.1257 >= 0.0500 removing occ7w3
p = 0.0662 >= 0.0500 removing emplw31

```

Source	SS	df	MS	Number of obs =	363
Model	75437.4701	5	15087.494	F(5, 357) =	19.93
Residual	270269.671	357	757.057901	Prob > F =	0.0000
				R-squared =	0.2182
				Adj R-squared =	0.2073
Total	345707.141	362	954.992102	Root MSE =	27.515

WHPsleep	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.8189911	.1267422	6.46	0.000	.569736	1.068246
inclw3	11.66423	4.116894	2.83	0.005	3.567816	19.76064
educ3	8.23918	3.072232	2.68	0.008	2.197233	14.28113
occ2w3	-14.30809	4.857046	-2.95	0.003	-23.86011	-4.756069
marrw31	-11.67479	5.484449	-2.13	0.034	-22.46068	-.8889018
_cons	-17.25879	6.67096	-2.59	0.010	-30.37811	-4.139475

```

339 .
340 . regress WHPsleep age avgcumdosew3 marrw31-marrw33 emplw31-emplw33 ///
>      BSIhos if gender==2

```

Source	SS	df	MS	Number of obs =	363
Model	89747.8284	9	9971.98093	F(9, 353) =	13.75
Residual	255959.312	353	725.097202	Prob > F =	0.0000
				R-squared =	0.2596
				Adj R-squared =	0.2407
Total	345707.141	362	954.992102	Root MSE =	26.928

WHPsleep	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.6759349	.1468074	4.60	0.000	.3872078	.964662
avgcumdosew3	1.414307	.8214894	1.72	0.086	-.2013218	3.029936
marrw31	-16.3239	6.186269	-2.64	0.009	-28.49048	-4.157319
marrw32	1.190303	10.26874	0.12	0.908	-19.0053	21.38591
marrw33	-6.121742	3.611338	-1.70	0.091	-13.22419	.9807022
emplw31	-9.117175	3.495174	-2.61	0.009	-15.99116	-2.243191
emplw32	-8.694552	6.244721	-1.39	0.165	-20.97609	3.586985
emplw33	-21.92251	27.09071	-0.81	0.419	-75.202	31.35698
BSIhos	2.861133	.503412	5.68	0.000	1.871069	3.851197
_cons	-19.56301	10.5665	-1.85	0.065	-40.34423	1.21821

```

341 .
342 . local bfw3 bffsl19 bffsl110 bffsl112 bffsl113 bffsl124 bffsl125

343 .
344 . regress WHPsleep age avgcumdosew3 marrw31-marrw33 marrw35 ///
>   radhlw3 radchw3 ///
>   bffsl110 BSIhos if gender==2

```

Source	SS	df	MS	Number of obs =	363
Model	105687.391	10	10568.7391	F(10, 352) =	15.50
Residual	240019.749	352	681.874288	Prob > F =	0.0000
				R-squared =	0.3057
				Adj R-squared =	0.2860
Total	345707.141	362	954.992102	Root MSE =	26.113

WHPsleep	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.7619818	.1324233	5.75	0.000	.5015415	1.022422
avgcumdosew3	1.514995	.7990515	1.90	0.059	-.0565207	3.08651
marrw31	-14.10159	6.453492	-2.19	0.030	-26.79385	-1.409342
marrw32	5.353814	10.2582	0.52	0.602	-14.82125	25.52888
marrw33	-3.796629	4.139713	-0.92	0.360	-11.93831	4.345053
marrw35	3.629092	6.306794	0.58	0.565	-8.774645	16.03283
radhlw3	.1557481	.0460893	3.38	0.001	.0651031	.246393
radchw3	-.0993872	.0437691	-2.27	0.024	-.1854691	-.0133053
bffsl110	.0047105	.0011763	4.00	0.000	.002397	.0070241
BSIhos	2.980555	.499805	5.96	0.000	1.997575	3.963534
_cons	-37.80625	9.195954	-4.11	0.000	-55.89217	-19.72033

```

345 .
346 . scalar tw3bf = e(r2_a)

347 . scalar list tw3bf
      tw3bf = .2859896

```

```

348 .
349 . regress WHPsleep age avgcumdosew3 marrw31-marrw33 marrw35 childw3 ///
> emplw32-emplw34 inclw3-inc4w3 radhlw3 radchw3 ///
> BSIhos if gender==2

```

Source	SS	df	MS	Number of obs =	363
Model	104587.982	17	6152.23426	F(17, 345) =	8.80
Residual	241119.158	345	698.896111	Prob > F =	0.0000
				R-squared =	0.3025
				Adj R-squared =	0.2682
Total	345707.141	362	954.992102	Root MSE =	26.437

WHPsleep	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.4832453	.1670392	2.89	0.004	.154702	.8117887
avgcumdosew3	1.316681	.8131783	1.62	0.106	-.2827302	2.916092
marrw31	-16.80699	7.030174	-2.39	0.017	-30.63438	-2.979592
marrw32	4.236803	10.39682	0.41	0.684	-16.21232	24.68593
marrw33	-3.712888	4.226796	-0.88	0.380	-12.02642	4.600644
marrw35	3.369539	6.423136	0.52	0.600	-9.263896	16.00297
childw3	-.2526361	1.913173	-0.13	0.895	-4.015587	3.510315
emplw32	.8995578	5.807647	0.15	0.877	-10.52329	12.32241
emplw33	-10.78011	26.61301	-0.41	0.686	-63.12428	41.56406
emplw34	9.353136	4.321233	2.16	0.031	.853859	17.85241
inclw3	6.235478	5.140047	1.21	0.226	-3.874295	16.34525
inc2w3	-2.810748	4.30041	-0.65	0.514	-11.26907	5.647572
inc3w3	-5.099266	4.630256	-1.10	0.272	-14.20635	4.007817
inc4w3	1.830134	10.62954	0.17	0.863	-19.07673	22.73699
radhlw3	.1529282	.0479937	3.19	0.002	.0585311	.2473253
radchw3	-.0955692	.0451323	-2.12	0.035	-.1843383	-.0068001
BSIhos	2.467077	.5053882	4.88	0.000	1.473048	3.461107
_cons	-18.88468	11.31944	-1.67	0.096	-41.14848	3.379117

```

350 .
351 . scalar tw3nobf = e(r2_a)

```

```

352 . scalar list tw3nobf
      tw3nobf = .26816556

353 .
354 . scalar r2chabfw3 = tw3bf - tw3nobf

355 . scalar list r2chabfw3
      r2chabfw3 = .01782405

356 .
357 . scalar w3numbf = 1

358 .
359 .
360 . matrix define FemaleWHPsleepr2w3 = ( fw3 , tw3bf, tw3nobf, w3numbf, r2chabfw
      > 3)

361 . matrix colnames FemaleWHPsleepr2w3 = FullBFR2a TR2aBF TR2aNoBF NumBF BFR2
      > cha

362 . matrix rownames FemaleWHPsleepr2w3 = wave3

363 . matlist FemaleWHPsleepr2w3

```

	FullBFR2a	TR2aBF	TR2aNoBF	NumBF	BFR2cha
wave3	.6367829	.2859896	.2681656	1	.017824

```

364 .
365 . matrix define FemaleWHPsleepr2 = (FemaleWHPsleepr2w1 \ FemaleWHPsleepr2w2 \
      > FemaleWHPsleepr2w3 )

366 . matlist FemaleWHPsleepr2

```

	FullBFR~1	TR2BFw1	TR2NoBFw1	w1NumBF	BFR2chaw1
wave1	.3392537	.3368749	.257486	3	.0793889
wave2	.5774594	.2940981	.2645954	7	.0295027
wave3	.6367829	.2859896	.2681656	1	.017824

```

367 .
368 . matrix define H1p1FemDoseSleep= FemaleWHPsleepr2

369 . title "Possible moderators for female sleep in wave three: bffsl10Xd3"

*****
> *
*****
> *
*****
> *
*****
> *
***** Possible moderators for female sleep in wave three: bffsl10Xd3 *****
> *
*****
> *
*****
> *
*****
> *
***** 29 Jun 2012 00:25:16 *****
> *
*****
> *
*****
> *

370 .
371 .
372 . foreach var in age marrw31-marrw33 marrw35 ///
>   radhlw3 radchw3 bffsl10 BSIhos {
2.   cap gen `var'Xd3 = `var'*avgcumdosew3
3.   }

373 .

```

```

374 . regress WHPsleep age avgcumdosew3 marrw31-marrw33 marrw35 childw3 ///
>     emplw32-emplw34 inclw3-inc4w3 radhlw3 radchw3 ///
>     BSIhos ageXd3 radchw3Xd3-BSIhosXd3 if gender==2

```

Source	SS	df	MS	Number of obs =	363
Model	114652.42	21	5459.63905	F(21, 341) =	8.06
Residual	231054.721	341	677.579826	Prob > F =	0.0000
				R-squared =	0.3316
				Adj R-squared =	0.2905
Total	345707.141	362	954.992102	Root MSE =	26.03

WHPsleep	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.5587434	.1836397	3.04	0.003	.1975342	.9199526
avgcumdosew3	1.43102	7.515935	0.19	0.849	-13.35241	16.21445
marrw31	-15.86278	6.984458	-2.27	0.024	-29.60083	-2.124738
marrw32	5.876703	10.26938	0.57	0.568	-14.3226	26.07601
marrw33	-3.082632	4.187486	-0.74	0.462	-11.31919	5.153922
marrw35	2.467704	6.344745	0.39	0.698	-10.01206	14.94747
childw3	-.2138891	1.888029	-0.11	0.910	-3.927538	3.49976
emplw32	-2.961668	5.816309	-0.51	0.611	-14.40203	8.478692
emplw33	-10.82915	26.20437	-0.41	0.680	-62.37172	40.71341
emplw34	7.821716	4.317577	1.81	0.071	-.6707209	16.31415
inclw3	4.084687	5.118908	0.80	0.425	-5.983925	14.1533
inc2w3	-4.312996	4.253494	-1.01	0.311	-12.67939	4.053393
inc3w3	-7.069872	4.590758	-1.54	0.124	-16.09964	1.959897
inc4w3	-.0881462	10.48177	-0.01	0.993	-20.70521	20.52892
radhlw3	.1392344	.0476703	2.92	0.004	.0454696	.2329992
radchw3	-.1082018	.0609507	-1.78	0.077	-.2280885	.0116848
BSIhos	2.553895	.7168089	3.56	0.000	1.143971	3.963819
ageXd3	-.0470208	.1005569	-0.47	0.640	-.2448107	.1507692
radchw3Xd3	.0123911	.0375527	0.33	0.742	-.0614729	.0862552
bffsl10Xd3	.0041303	.0011078	3.73	0.000	.0019514	.0063093
BSIhosXd3	.2219479	.5486449	0.40	0.686	-.8572065	1.301102
_cons	-21.54971	12.86766	-1.67	0.095	-46.85969	3.76028

```

375 .
376 .
377 . des bffsl10 bffsl17 bffsl15 bffsl14 bffsl11

```

variable name	storage type	display format	value label	variable label
bffsl10	float	%9.0g		max(0, 9 - BSIhos) * bffsl17
bffsl17	float	%9.0g		max(0, airw2-10)*bffsl15
bffsl15	float	%9.0g		(docvisitsw1 = .) * bffsl14
bffsl14	float	%9.0g		max(0,1- deaw1) * bffsl11
bffsl11	float	%9.0g		max(0, BSIposymp-15)

```

378 .
379 . summ bffsl10 if gender==2

```

Variable	Obs	Mean	Std. Dev.	Min	Max
bffsl10	363	326.5234	1195.353	0	8400

```

380 . * cutpoints are 0 and 0
381 . tab bffsl10 oblnow

```

max(0, 9 - BSIhos) * bffsl17	current oblast		Total
	10. kyiv	23. zhyto	
0	514	96	610
120	1	0	1
160	3	0	3
320	2	0	2
340	2	0	2
360	1	0	1
399	1	0	1
440	1	0	1
464	1	0	1
480	5	0	5
520	1	0	1
560	0	1	1
580	1	0	1
600	4	0	4
660	1	0	1
720	2	0	2
750	1	0	1
800	2	0	2
880	1	0	1
900	1	0	1
920	2	0	2
945	1	0	1

960	2	0	2
990	2	0	2
1080	1	1	2
1120	3	0	3
1200	1	0	1
1320	1	0	1
1350	1	0	1
1440	2	0	2
1456	1	0	1
1480	1	0	1
1500	1	0	1
1520	2	0	2
1560	2	0	2
1650	1	0	1
1680	1	0	1
1800	3	0	3
1920	2	0	2
2100	2	0	2
2340	1	0	1
2520	1	0	1
2760	1	0	1
3300	0	1	1
3840	2	0	2
3960	1	0	1
4080	1	0	1
4230	1	0	1
4320	2	0	2
5100	1	0	1
5400	4	0	4
5760	1	0	1
5904	1	0	1
6020	1	0	1
6400	1	0	1
6440	1	0	1
6840	1	0	1
7020	1	0	1
7080	1	0	1
7200	1	0	1
7360	1	0	1
8400	1	0	1
21600	1	0	1
Total	604	99	703

```
*****  
> *  
*****  
> *  
*****  
*****  
> *  
*****  
*****  
Possible mediators for Female sleep in wave 3  
> *  
*****  
*****  
> *  
*****  
*****  
29 Jun 2012    00:25:16    *****  
> *  
*****  
> *  
*****  
> *
```

```

Structural equation model      Number of obs      =      363
Estimation method   = ml
Log likelihood       = -3858.2134

```

```
Estimation method = ml
```

> -----							
			OIM				
		Coef.	Std. Err.	z	P> z	[95% Conf. Inter	
> val]							
> -----							
Structural							
age <-							
avgcumdosew3		1.058366	.3502924	3.02	0.003	.3718061	1.74
> 4927							
_cons		48.94293	.7447571	65.72	0.000	47.48323	50.4
> 0263							
> -----							
whpsleep <-							
age		.9980208	.1262348	7.91	0.000	.7506051	1.24
> 5436							
_cons		-23.87083	6.513018	-3.67	0.000	-36.63611	-11.1
> 0555							
> -----							
Variance							
e.age		137.0097	10.16981			118.4593	158
> .465							
e.whpsleep		812.4615	60.30655			702.4585	939.
> 6906							
> -----							
LR test of model vs. saturated: chi2(1) =				2.92	Prob > chi2 =	0.0876	

Structural						
age <-						
avgcumdosew3	1.058366	.3502924	3.02	0.003	.3718061	1.74
> 4927						
_cons	48.94293	.7447571	65.72	0.000	47.48323	50.4
> 0263						

```
> _____
whpsleep <- |
            age | .9980208 .1262348 7.91 0.000 .7506051 1.24
> 5436      |
            _cons | -23.87083 6.513018 -3.67 0.000 -36.63611 -11.1
> 0555
```

Variance				
e.age	137.0097	10.16981	118.4593	158
e.whpsleep	812.4615	60.30655	702.4585	939.

```
> _____
LR test of model vs. saturated: chi2(1)    =    2.92, Prob > chi2 = 0.0876
```

```
390 . sem(avgcumdosew3->radhlw3)(radhlw3-> whpsleep) if gender==2, nocapslatent
```

Endogenous variables

Observed: **radhlw3 whpsleep**

Exogenous variables

Observed: **avgcumdosew3**

Fitting target model:

```
Iteration 0:    log likelihood = -4263.3998
Iteration 1:    log likelihood = -4263.3998
```

```
Structural equation model      Number of obs      =      363
Estimation method   = ml
Log likelihood      = -4263.3998
```

> _____						
		OIM				
	Coef.	Std. Err.	z	P> z	[95% Conf. Inter	
> val]						
> _____						
Structural						
radhlw3 <-						
avgcumdosew3	2.751602	1.027538	2.68	0.007	.7376654	4.76
> 5539						
_cons	57.70689	2.184649	26.41	0.000	53.42506	61.9
> 8873						
> _____						
whpsleep <-						
radhlw3	.2449287	.0449114	5.45	0.000	.1569039	.332
> 9534						
_cons	11.30063	3.151775	3.59	0.000	5.123269	17
> .478						
> _____						
Variance						
e.radhlw3	1178.923	87.50785			1019.303	1363
> .539						
e.whpsleep	880.2405	65.33758			761.0606	1018
> .084						
> _____						
LR test of model vs. saturated: chi2(1) = 4.30 , Prob > chi2 = 0.0381						

```
391 . sem(avgcumdosew3-> radfmw3)(radfmw3->whpsleep) if gender==2, nocapslatent
```

Endogenous variables

Observed: **radfmw3 whpsleep**

Exogenous variables

Observed: **avgcumdosew3**

Fitting target model:

Iteration 0: log likelihood = **-4255.987**

Iteration 1: log likelihood = **-4255.987**

```
Structural equation model                                Number of obs      =       363
Estimation method   = ml
Log likelihood      = -4255.987
```

```
> -----
               OIM
               Coef.   Std. Err.      z    P>|z|     [95% Conf. Inter
> val]
-----+-----
> -----
Structural
  radfmw3 <-
    avgcumdosew3    2.423642   .9998022    2.42   0.015    .4640659   4.38
> 3218
    _cons           65.65475   2.125681   30.89   0.000    61.4885   69.8
> 2101
-----+-----
> -----
  whpsleep <-
    radfmw3         .2296432   .0465604    4.93   0.000    .1383866   .320
> 8998
    _cons           10.4986    3.55683    2.95   0.003    3.527338   17.4
> 6985
-----+-----
> -----
Variance
    e.radfmw3       1116.138   82.84757                   965.0192   1290
> .923
    e.whpsleep      892.5477   66.25111                   771.7015   1032
> .318
-----+-----
> -----
LR test of model vs. saturated: chi2(1)    =       4.80, Prob > chi2 = 0.0285
```

```
392 . sem(avgcumdosew3-> illw3)(illw3-> whpsleep) if gender==2, nocapslatent
```

Endogenous variables

Observed: **illw3 whpsleep**

Exogenous variables

Observed: **avgcumdosew3**

Fitting target model:

Iteration 0: log likelihood = **-3030.1232**

Iteration 1: log likelihood = **-3030.1232**

```
Structural equation model                Number of obs      =      363
Estimation method   = ml
Log likelihood      = -3030.1232
```

> _____							
			OIM				
		Coef.	Std. Err.	z	P> z	[95% Conf. Inter	
> val]							
> _____							
Structural							
illw3 <-							
avgcumdosew3		.1284565	.0341324	3.76	0.000	.0615584	.195
> 3547							
_cons		.5563644	.0725688	7.67	0.000	.4141321	.698
> 5968							
> _____							
whpsleep <-							
illw3		6.624894	1.349148	4.91	0.000	3.980613	9.26
> 9174							
_cons		21.53605	1.838383	11.71	0.000	17.93289	25.1
> 3922							
> _____							
Variance							
e.illw3		1.300836	.0965571			1.124709	1.50
> 4543							
e.whpsleep		893.0409	66.28772			772.1279	1032
> .889							
> _____							

```
393 . sem(avqcumdosew3->radchw3)(radchw3-> whpsleep) if gender==2, nocapslatent
```

Observed: **radchw3 whpsleep**

Observed: **avgcumdosew3**

```
Iteration 1:  log likelihood = -4279.7422
```

```
Structural equation model      Number of obs      =      363
Estimation method   = ml
Log likelihood       = -4279.7422
```

> _____							
			OIM				
	Coef.	Std. Err.	z	P> z	[95% Conf. Inter		
> val]							
> _____							
Structural							
radchw3 <-							
avgcumdosew3	1.497864	1.033363	1.45	0.147	-.5274916	3.52	
> 3219							
_cons	59.6792	2.197035	27.16	0.000	55.37309	63.9	
> 8531							
> _____							
whpsleep <-							
radchw3	.0035358	.0467727	0.08	0.940	-.0881371	.095	
> 2087							
_cons	26.02728	3.30036	7.89	0.000	19.55869	32.4	
> 9586							
> _____							
Variance							
e.radchw3	1192.329	88.50296			1030.894	1379	
> .044							
e.whpsleep	952.3463	70.68977			823.4036	1101	
> .481							

```
> _____
LR test of model vs. saturated: chi2(1)    =      7.37, Prob > chi2 = 0.0066
```

```
394 . sem(avgcumdosew3->phlthw3)(phlthw3-> whpsleep) if gender==2, nocapslatent
```

Endogenous variables

Observed: **phlthw3 whpsleep**

Exogenous variables

Observed: **avgcumdosew3**

Fitting target model:

Iteration 0: log likelihood = **-4056.3777**

Iteration 1: log likelihood = **-4056.3777**

Structural equation model Number of obs = **363**

Estimation method = **ml**

Log likelihood = **-4056.3777**

> _____							
			OIM				
		Coef.	Std. Err.	z	P> z	[95% Conf. Inter	
> val]							
> _____							
Structural							
phlthw3 <-							
avgcumdosew3		-1.596683	.5946571	-2.69	0.007	-2.76219	-.431
> 1767							
_cons		67.2054	1.264301	53.16	0.000	64.72741	69.6
> 8338							
> _____							
whpsleep <-							
phlthw3		-.5281408	.0758079	-6.97	0.000	-.6767215	-.3
> 7956							
_cons		60.72512	5.177747	11.73	0.000	50.57692	70.8
> 7332							
> _____							
Variance							
e.phlthw3		394.8419	29.30791			341.3824	456
> .673							
e.whpsleep		840.0396	62.35359			726.3027	971.
> 5874							

```
> _____
LR test of model vs. saturated: chi2(1)    =      3.71, Prob > chi2 = 0.0542
```

```
395 . sem(avgcumdosew3->BSIanx)(BSIanx-> whpsleep) if gender==2, nocapslatent
```

```
Endogenous variables
```

```
Observed:  BSIanx whpsleep
```

```
Exogenous variables
```

```
Observed:  avgcumdosew3
```

```
Fitting target model:
```

```
Iteration 0:  log likelihood = -3409.2829
```

```
Iteration 1:  log likelihood = -3409.2829
```

```
Structural equation model                                Number of obs      =      363
```

```
Estimation method  = ml
```

```
Log likelihood      = -3409.2829
```

```
> _____
```

	Coef.	OIM Std. Err.	z	P> z	[95% Conf. Inter	
> val]						
> _____						
Structural						
BSIanx <-						
avgcumdosew3	.4074564	.1071377	3.80	0.000	.1974703	.617
> 4425						
_cons	8.488279	.2277857	37.26	0.000	8.041828	8.93
> 4731						
> _____						
whpsleep <-						
BSIanx	4.065276	.3890115	10.45	0.000	3.302827	4.82
> 7724						
_cons	-10.25323	3.770224	-2.72	0.007	-17.64274	-2.8
> 6373						
> _____						
Variance						
e.BSIanx	12.81666	.9513419			11.08135	14.8
> 2371						
e.whpsleep	732.1075	54.34211			632.984	846.

> 7534

> _____

LR test of model vs. saturated: chi2(1) = 1.11, Prob > chi2 = 0.2921

396 . sem(avgcumdosew3->injselfr)(injselfr->whpsleep) if gender==2, nocapslatent

Endogenous variables

Observed: **injselfr whpsleep**

Exogenous variables

Observed: **avgcumdosew3**

Fitting target model:

Iteration 0: log likelihood = -2702.32

Iteration 1: log likelihood = -2702.32

Structural equation model

Number of obs = 363

Estimation method = ml

Log likelihood = -2702.32

> _____

	Coef.	OIM Std. Err.	z	P> z	[95% Conf. Inter	
--	-------	------------------	---	------	------------------	--

> val]

> _____

Structural

injselfr <-

avgcumdosew3	.0219131	.0138422	1.58	0.113	-.0052172	.049
--------------	----------	----------	------	-------	-----------	------

> 0434

_cons	.6596152	.02943	22.41	0.000	.6019334	.71
-------	----------	--------	-------	-------	----------	-----

> 7297

> _____

whpsleep <-

injselfr	16.72313	3.377628	4.95	0.000	10.1031	23.3
----------	----------	----------	------	-------	---------	------

> 4315

_cons	14.77342	2.797423	5.28	0.000	9.290573	20.2
-------	----------	----------	------	-------	----------	------

> 5627

> _____

Variance

e.injselfr	.2139454	.0158805			.1849783	.247
------------	----------	----------	--	--	----------	------

> 4486

e.whpsleep	892.1156	66.21903	771.3279	1031
------------	----------	----------	----------	------

> .818

> —
 LR test of model vs. saturated: chi2(1) = 5.74, Prob > chi2 = 0.0166

397 . sem(avgcumdosew3->injothr)(injothr-> whpsleep) if gender==2, nocapslatent

Endogenous variables

Observed: **injothr whpsleep**

Exogenous variables

Observed: **avgcumdosew3**

Fitting target model:

Iteration 0: log likelihood = -2624.2226
 Iteration 1: log likelihood = -2624.2226

Structural equation model	Number of obs	=	363
Estimation method	=	ml	
Log likelihood	=	-2624.2226	

> —							
	Coef.	OIM Std. Err.	z	P> z	[95% Conf. Inter		
> val]							
> —							
Structural							
injothr <-							
avgcumdosew3	.0123358	.010946	1.13	0.260	-.0091179	.033	
> 7895							
_cons	.8253952	.0232722	35.47	0.000	.7797825	.871	
> 0079							
> —							
whpsleep <-							
injothr	13.52601	4.363315	3.10	0.002	4.974069	22.0	
> 7795							
_cons	14.87983	3.999569	3.72	0.000	7.040818	22.7	
> 1884							
> —							
Variance							
e.injothr	.133782	.0099302			.1156686	.154	

```

> 7319
      e.whpsleep |      927.7998      68.86776                      802.1806      1073
> .091

```

```

> _____
LR test of model vs. saturated: chi2(1)      =      6.59, Prob > chi2 = 0.0103

```

```

398 . sem(avgcumdosew3->BSIhos)(BSIhos-> whpsleep) if gender==2, nocapslatent

```

Endogenous variables

Observed: **BSIhos whpsleep**

Exogenous variables

Observed: **avgcumdosew3**

Fitting target model:

```

Iteration 0:  log likelihood = -3355.883
Iteration 1:  log likelihood = -3355.883

```

```

Structural equation model                      Number of obs      =      363
Estimation method   = ml
Log likelihood      = -3355.883

```

		Coef.	OIM Std. Err.	z	P> z	[95% Conf. Inter	
> val]							
> _____							
Structural							
BSIhos <-							
avgcumdosew3		.0247118	.0844695	0.29	0.770	-.1408453	.190
> 2689							
_cons		7.45515	.1795906	41.51	0.000	7.103159	7.80
> 7141							
> _____							
whpsleep <-							
BSIhos		3.063457	.5507991	5.56	0.000	1.983911	4.14
> 3004							
_cons		3.315143	4.406108	0.75	0.452	-5.320671	11.9
> 5096							
> _____							
Variance							

Variance					
e.radchw3	1192.329	88.50296		1030.894	1379
> .044					
e.whpsleep	952.3463	70.68977		823.4036	1101
> .481					

> _____
 LR test of model vs. saturated: chi2(1) = 7.37, Prob > chi2 = 0.0066

400 . sem(avgcumdosew3->fdferw3)(fdferw3-> whpsleep) if gender==2, nocapslatent

Endogenous variables

Observed: **fdferw3 whpsleep**

Exogenous variables

Observed: **avgcumdosew3**

Fitting target model:

Iteration 0: log likelihood = -4123.7411
 Iteration 1: log likelihood = -4123.7411

Structural equation model Number of obs = 363
 Estimation method = ml
 Log likelihood = -4123.7411

> _____						
	Coef.	OIM Std. Err.	z	P> z	[95% Conf. Inter	
> val]						
> _____						
Structural						
fdferw3 <-						
avgcumdosew3	1.370612	.6738871	2.03	0.042	.0498176	2.69
> 1406						
_cons	9.418911	1.432752	6.57	0.000	6.610768	12.2
> 2705						
> _____						
whpsleep <-						
fdferw3	.0913384	.0713637	1.28	0.201	-.0485319	.231
> 2086						
_cons	25.2339	1.798737	14.03	0.000	21.70844	28.7
> 5935						

```

> -----
Variance
      e.fdfewr3 |      507.0657      37.63794                438.4117      586.
> 4707
      e.whpsleep |      948.0828      70.3733                819.7174      109
> 6.55
-----

```

```

> -----
LR test of model vs. saturated: chi2(1)   =      6.74, Prob > chi2 = 0.0094

```

```

401 . sem(avgcumdosew3->sepaw3)(sepaw3-> whpsleep) if gender==2, nocapslatent

```

Endogenous variables

Observed: **sepaw3 whpsleep**

Exogenous variables

Observed: **avgcumdosew3**

Fitting target model:

Iteration 0: log likelihood = **-2447.7215**

Iteration 1: log likelihood = **-2447.7215**

```

Structural equation model                                Number of obs      =      363
Estimation method   = ml
Log likelihood       = -2447.7215

```

```

> -----
> val]
> -----
Structural
  sepaw3 <-
    avgcumdosew3 |      .0051544      .0066596      0.77      0.439      -.0078982      .018
> 2069
    _cons |      .0461471      .0141589      3.26      0.001      .0183961      .073
> 8981
> -----
  whpsleep <-
    sepaw3 |      9.544387      7.255468      1.32      0.188      -4.676069      23.7
> 6484
    _cons |      25.74509      1.659927      15.51      0.000      22.49169      28.9
> 9848

```


> 1666					
> _____					
Variance					
e.PTSDw3	72.02699	5.346345		62.27492	83.3
> 0621					
e.whpsleep	897.4642	66.61604		775.9523	1038
> .005					
> _____					

LR test of model vs. saturated: chi2(1) = 6.81, Prob > chi2 = 0.0090

403 . sem(avgcumdosew3->depagw3)(depagw3-> whpsleep) if gender==2, nocapslatent

Endogenous variables

Observed: **depagw3 whpsleep**

Exogenous variables

Observed: **avgcumdosew3**

Fitting target model:

Iteration 0: log likelihood = -4092.8599

Iteration 1: log likelihood = -4092.8599

Structural equation model	Number of obs	=	363
Estimation method	=	ml	
Log likelihood	=	-4092.8599	

> _____						
		OIM				
	Coef.	Std. Err.	z	P> z	[95% Conf. Inter	
> val]						
> _____						
Structural						
depagw3 <-						
avgcumdosew3	.1789491	.6298562	0.28	0.776	-1.055546	1.41
> 3445						
_cons	13.09433	1.339138	9.78	0.000	10.46966	15.7
> 1899						
> _____						
whpsleep <-						
depagw3	.2885463	.0754457	3.82	0.000	.1406754	.436
> 4172						

```

      _cons |      22.40428      1.878896      11.92      0.000      18.72171      26.0
> 8685
-----
Variance
      e.depawg3 |      442.9684      32.8802
> .336
      e.whpsleep |      915.472      67.9527
> .832
-----
LR test of model vs. saturated: chi2(1)      =      7.34, Prob > chi2 = 0.0067

```

```
404 . sem(avgcumdosew3->BSIdep)(BSIdep-> whpsleep) if gender==2, nocapslatent
```

Endogenous variables

Observed: **BSIdep whpsleep**

Exogenous variables

Observed: **avgcumdosew3**

Fitting target model:

Iteration 0: log likelihood = **-3433.7019**

Iteration 1: log likelihood = **-3433.7019**

```

Structural equation model                                Number of obs      =      363
Estimation method  = ml
Log likelihood      = -3433.7019

```

```

> -----
      Coef.      OIM      Std. Err.      z      P>|z|      [95% Conf. Inter
> val]
-----
Structural
      BSIdep <-
      avgcumdosew3 |      .3811686      .1106861      3.44      0.001      .1642277      .598
> 1094
      _cons |      9.197558      .2353299      39.08      0.000      8.73632      9.65
> 8796
-----
      whpsleep <-
      BSIdep |      3.445067      .3911827      8.81      0.000      2.678363      4.21

```

```

> 1771      _cons |   -7.019698   4.053191   -1.73   0.083   -14.96381   .924
> 4117
+-----+
> -----
Variance
      e.BSIdep |   13.67969   1.015402                11.82754   15.8
> 2189
      e.whpsleep |   784.6999   58.24589                678.4557   907.
> 5816
+-----+

LR test of model vs. saturated: chi2(1)   =       2.05, Prob > chi2 = 0.1523

```

```

405 .
406 .
407 .
408 . *** Female sleep regression summary begins here
409 . * this section requires estout.add by Ben Jann at ETH
410 . est clear

```

```

411 . regress WHPsleep age avgcumdosew1 inclw1-inc4w1 ///
>      marrw11-marrw16 bffsl4 bffsl10 bffsl11 BSIhos ///
>      if gender==2, vce(cluster id)

```

```

Linear regression                                Number of obs =      363
                                                F( 16,   362) =    15.56
                                                Prob > F       =    0.0000
                                                R-squared      =    0.3662
                                                Root MSE      =    25.165

```

(Std. Err. adjusted for 363 clusters in id)

WHPsleep	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
age	.8578777	.166374	5.16	0.000	.5306968	1.185059
avgcumdosew1	6.398469	2.576871	2.48	0.013	1.330951	11.46599
inclw1	-4.983327	4.876462	-1.02	0.308	-14.57308	4.606425
inc2w1	-9.770151	3.958723	-2.47	0.014	-17.55513	-1.985168
inc3w1	-4.092424	4.778323	-0.86	0.392	-13.48918	5.304334
inc4w1	-9.313265	6.127037	-1.52	0.129	-21.36232	2.735791
marrw11	6.7235	6.517339	1.03	0.303	-6.093101	19.5401
marrw12	33.90256	21.39437	1.58	0.114	-8.170298	75.97541
marrw13	2.362157	7.541906	0.31	0.754	-12.46929	17.19361
marrw14	57.13913	13.75949	4.15	0.000	30.08057	84.1977
marrw15	2.248905	15.63139	0.14	0.886	-28.49083	32.98864
marrw16	13.8564	19.02823	0.73	0.467	-23.56335	51.27614
bffsl4	.3391336	.078603	4.31	0.000	.1845578	.4937094

bffsl10	.0038976	.00166	2.35	0.019	.0006331	.0071621
bffsl11	-.0026421	.0010676	-2.47	0.014	-.0047415	-.0005427
BSIhos	1.514132	.6783504	2.23	0.026	.1801291	2.848134
_cons	-38.92315	8.959197	-4.34	0.000	-56.54175	-21.30454

412 . eststo wave1

413 .

414 . regress WHPsleep age avgcumdosew2 ///

> radhlw2 radchw2 educ2-educ7 occ1w2-occ8w2 inclw2-inc4w2 BSIhos ///

> bffsl10 if gender==2, vce(cluster id)

Linear regression

Number of obs = 363

F(23, 362) = .

Prob > F = .

R-squared = 0.3409

Root MSE = 25.964

(Std. Err. adjusted for 363 clusters in id)

WHPsleep	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
age	.8914268	.1347691	6.61	0.000	.6263981	1.156456
avgcumdosew2	2.154052	.8922784	2.41	0.016	.3993514	3.908752
radhlw2	.1208159	.0476982	2.53	0.012	.0270155	.2146163
radchw2	-.1292914	.0426107	-3.03	0.003	-.213087	-.0454957
educ2	14.10377	6.455016	2.18	0.030	1.40973	26.79781
educ3	15.52526	5.360612	2.90	0.004	4.983411	26.06711
educ4	11.949	8.465017	1.41	0.159	-4.697786	28.59578
educ5	6.170848	6.371697	0.97	0.333	-6.359342	18.70104
educ6	8.879311	5.239619	1.69	0.091	-1.424604	19.18323
educ7	-17.6245	14.13895	-1.25	0.213	-45.4293	10.18031
occ1w2	9.025681	7.230648	1.25	0.213	-5.193669	23.24503
occ2w2	1.533179	7.756436	0.20	0.843	-13.72015	16.78651
occ3w2	14.65375	7.613966	1.92	0.055	-.3194108	29.62691
occ4w2	6.126081	9.117084	0.67	0.502	-11.80302	24.05518
occ5w2	3.567388	11.33283	0.31	0.753	-18.71906	25.85384
occ6w2	19.59527	10.31017	1.90	0.058	-.6800677	39.87062
occ7w2	11.74104	7.67155	1.53	0.127	-3.345358	26.82744
occ8w2	18.1066	8.189295	2.21	0.028	2.002032	34.21116
inclw2	-11.36438	7.459033	-1.52	0.128	-26.03285	3.304102
inc2w2	-13.44399	7.17852	-1.87	0.062	-27.56083	.6728512
inc3w2	-15.91007	7.475102	-2.13	0.034	-30.61015	-1.209987
inc4w2	-20.64762	12.80378	-1.61	0.108	-45.82674	4.531506
BSIhos	2.888212	.5357928	5.39	0.000	1.834555	3.94187
bffsl10	.0048435	.0017371	2.79	0.006	.0014273	.0082596
_cons	-50.55326	10.28341	-4.92	0.000	-70.77598	-30.33054

```
415 . eststo wave2
```

```
416 .
```

```
417 .
```

```
418 . regress WHPsleep age avgcumdosew3 marrw31-marrw33 marrw35 ///
> radhlw3 radchw3 ///
> bffsl10 BSIhos if gender==2
```

Source	SS	df	MS	Number of obs =	363
Model	105687.391	10	10568.7391	F(10, 352) =	15.50
Residual	240019.749	352	681.874288	Prob > F =	0.0000
				R-squared =	0.3057
				Adj R-squared =	0.2860
Total	345707.141	362	954.992102	Root MSE =	26.113

WHPsleep	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.7619818	.1324233	5.75	0.000	.5015415	1.022422
avgcumdosew3	1.514995	.7990515	1.90	0.059	-.0565207	3.08651
marrw31	-14.10159	6.453492	-2.19	0.030	-26.79385	-1.409342
marrw32	5.353814	10.2582	0.52	0.602	-14.82125	25.52888
marrw33	-3.796629	4.139713	-0.92	0.360	-11.93831	4.345053
marrw35	3.629092	6.306794	0.58	0.565	-8.774645	16.03283
radhlw3	.1557481	.0460893	3.38	0.001	.0651031	.246393
radchw3	-.0993872	.0437691	-2.27	0.024	-.1854691	-.0133053
bffsl10	.0047105	.0011763	4.00	0.000	.002397	.0070241
BSIhos	2.980555	.499805	5.96	0.000	1.997575	3.963534
_cons	-37.80625	9.195954	-4.11	0.000	-55.89217	-19.72033

```
419 . eststo wave3
```

```
420 . estout *, cells(b(star fmt(%9.3f)) se(par) p) ///
> stats(r2_a bic N, fmt(%9.3f %9.0g) labels(adjR^2 BIC)) ///
> legend collabels(none) varlabels(_cons Constant) ///
> title("Trimmed Regression Models" ///
> "of reconstructed dose on female sleep")
```

Trimmed Regression Models of reconstructed dose on female sleep

	wave1	wave2	wave3
age	0.858*** (0.166) 0.000	0.891*** (0.135) 0.000	0.762*** (0.132) 0.000
avgcumdosew1	6.398* (2.577) 0.013		
inc1w1	-4.983 (4.876) 0.308		
inc2w1	-9.770* (3.959) 0.014		
inc3w1	-4.092 (4.778) 0.392		
inc4w1	-9.313 (6.127) 0.129		
marrw11	6.723 (6.517) 0.303		
marrw12	33.903 (21.394) 0.114		
marrw13	2.362 (7.542) 0.754		
marrw14	57.139*** (13.759) 0.000		
marrw15	2.249 (15.631) 0.886		
marrw16	13.856 (19.028) 0.467		
bffsl4	0.339*** (0.079) 0.000		
bffsl10	0.004* (0.002) 0.019	0.005** (0.002) 0.006	0.005*** (0.001) 0.000
bffsl11	-0.003* (0.001) 0.014		

BSIhos	1.514*	2.888***	2.981***
	(0.678)	(0.536)	(0.500)
	0.026	0.000	0.000
avgcumdosew2		2.154*	
		(0.892)	
		0.016	
radhlw2		0.121*	
		(0.048)	
		0.012	
radchw2		-0.129**	
		(0.043)	
		0.003	
educ2		14.104*	
		(6.455)	
		0.030	
educ3		15.525**	
		(5.361)	
		0.004	
educ4		11.949	
		(8.465)	
		0.159	
educ5		6.171	
		(6.372)	
		0.333	
educ6		8.879	
		(5.240)	
		0.091	
educ7		-17.624	
		(14.139)	
		0.213	
occ1w2		9.026	
		(7.231)	
		0.213	
occ2w2		1.533	
		(7.756)	
		0.843	
occ3w2		14.654	
		(7.614)	
		0.055	
occ4w2		6.126	
		(9.117)	
		0.502	
occ5w2		3.567	
		(11.333)	
		0.753	
occ6w2		19.595	
		(10.310)	
		0.058	
occ7w2		11.741	

		(7.672)	
		0.127	
occ8w2		18.107*	
		(8.189)	
		0.028	
inc1w2		-11.364	
		(7.459)	
		0.128	
inc2w2		-13.444	
		(7.179)	
		0.062	
inc3w2		-15.910*	
		(7.475)	
		0.034	
inc4w2		-20.648	
		(12.804)	
		0.108	
avgcumdosew3			1.515
			(0.799)
			0.059
marrw31			-14.102*
			(6.453)
			0.030
marrw32			5.354
			(10.258)
			0.602
marrw33			-3.797
			(4.140)
			0.360
marrw35			3.629
			(6.307)
			0.565
radhlw3			0.156***
			(0.046)
			0.001
radchw3			-0.099*
			(0.044)
			0.024
Constant	-38.923***	-50.553***	-37.806***
	(8.959)	(10.283)	(9.196)
	0.000	0.000	0.000
adjR^2	0.337	0.294	0.286
BIC	3454.624	3510.085	3452.337
N	363	363	363

* p<0.05, ** p<0.01, *** p<0.001

```
421 .  
422 . *-----  
    > ---  
423 .  
424 .  
425 . save chwide27june2012, replace  
    file chwide27june2012.dta saved
```