

```

1 . set linesize 160

2 . set matsize 11000

3 .
4 . 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

5 . save chwide25june2012, replace
   file chwide25june2012.dta saved

6 . save chwide25june2012bkup, replace
   file chwide25june2012bkup.dta saved

7 .
8 .
9 . *****
   > ***
10 . *----- Hypothesis 1   part 1   male   WHPpain analysis
11 . *****
   > ***
12 .
13 .
14 .
15 .
16 . /*
   >               Target Variable WHPPAIN
   > N: 340          Minimum 2.192E+004      Maximum:  2.200E+004
   > Mean:  2.193E+004      Variance:  270.64647
   >
   >               Variables, Terms, and Parameters
   > Direct variables: 9      Total variables: 10
   > Terms in model: 16      Effective parameters: 42.47
   >
   >               R-Square Measures
   > Naive: 0.60443      Naive adjusted: 0.58612      GCV R-square: 0.4864
   > 8
   >
   >               Mean-Square Measures
   > Naive MSE: 112.01472      MARS GCV: 139.39244
   >
   >
   > Basis Functions
   >
   >               Basis Functions
   > bfmPain1 = max(0, BSISOMA - 21935)

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> bfmPain2 = max(0, 21935 - BSISOMA)
> bfmPain3 = max(0, ILLW3 - 21918)
> bfmPain4 = max(0, 21918 - ILLW3)
> bfmPain5 = max(0, HAVMIL - 21962.6)
> bfmPain6 = max(0, 21962.6 - HAVMIL)
> bfmPain7 = (TRREPW2 !=. ) * bfmPain5
> bfmPain9 = max(0, TRREPW2 - 21996) * bfmPain7
> bfmPain11 = max(0, BSIPSYC - 21920) * bfmPain6
> bfmPain12 = max(0, RADCHW3 - 21916) * bfmPain1
> bfmPain13 = max(0, PHYSDISAGW3 - 21916) * bfmPain6
> bfmPain14 = max(0, ILLW3 - 21918) * bfmPain2
> bfmPain15 = max(0, 21918 - ILLW3) * bfmPain2
> bfmPain16 = max(0, ACCDW2 - 21917) * bfmPain2
> bfmPain18 = max(0, SUCHRW2 - 21916) * bfmPain1
>
> Y = 21968 - 2.29387 * bfmPain1 - 3.94277 * bfmPain2 - 10.9782 * bfmPain3
>       - 16.2733 * bfmPain4 - 0.150944 * bfmPain5 + 1.09887 * bfmPain6
>       + 0.149892 * bfmPain7 + 0.00643871 * bfmPain9 - 0.312306 * bfmPai
> n11
>       + 0.054552 * bfmPain12 + 0.0598086 * bfmPain13 + 1.45831 * bfmPai
> n14
>       + 1.17008 * bfmPain15 - 1.87487 * bfmPain16 + 0.0213682 * bfmPain
> 18
>
> MODEL WHPPAIN = bfmPain1 bfmPain2 bfmPain3 bfmPain4 bfmPain5 bfmPain6 bfmPa
> in7 bfmPain9 bfmPain11 bfmPain12 bfmPain13
>       bfmPain14 bfmPain15 bfmPain16 bfmPain18
>
> */
17 .
18 .
19 . cap gen bfmPain1 = max(0, BSIsoma - 21935)

20 . cap gen bfmPain2 = max(0, 21935 - BSIsoma)

21 . cap gen bfmPain3 = max(0, illw3 - 21918)

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22 . cap gen bfmPain4 = max(0, 21918 - illw3)
23 . cap gen bfmPain5 = max(0, havmil - 21962.6)
24 . cap gen bfmPain6 = max(0, 21962.6 - havmil)
25 . cap gen bfmPain7 = (trrepw2 !=. ) * bfmPain5
26 . cap gen bfmPain9 = max(0, trrepw2 - 21996) * bfmPain7
27 . cap gen bfmPain11 = max(0, BS Ipsyc - 21920) * bfmPain6
28 . cap gen bfmPain12 = max(0, radchw3 - 21916) * bfmPain1
29 . cap gen bfmPain13 = max(0, physdisagw3 - 21916) * bfmPain6
30 . cap gen bfmPain14 = max(0, illw3 - 21918) * bfmPain2
31 . cap gen bfmPain15 = max(0, 21918 - illw3) * bfmPain2
32 . cap gen bfmPain16 = max(0, accdw2 - 21917) * bfmPain2
33 . cap gen bfmPain18 = max(0, suchrw2 - 21916) * bfmPain1
34 .
35 . label var bfmPain1 "max(0, BSIsoma - 21935) for males"
36 . label var bfmPain2 "max(0, 21935 - BSIsoma)"
37 . label var bfmPain3 "max(0, illw3 - 21918)"
38 . label var bfmPain4 "max(0, 21918 - illw3)"
39 . label var bfmPain5 "max(0, havmil - 21962.6)"
40 . label var bfmPain6 "max(0, 21962.6 - havmil)"

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41 . label var bfmPain7 "(trrepw2 != . ) * bfmPain5"
42 . label var bfmPain9 "max(0, trrepw2 - 21996) * bfmPain7"
43 . label var bfmPain11 "max(0, BSIPsyc - 21920) * bfmPain6"
44 . label var bfmPain12 "max(0, radchw3 - 21916) * bfmPain1"
45 . label var bfmPain13 "max(0, physdisagw3 - 21916) * bfmPain6"
46 . label var bfmPain14 "max(0, illw3 - 21918) * bfmPain2"
47 . label var bfmPain15 "max(0, 21918 - illw3) * bfmPain2"
48 . label var bfmPain16 "max(0, accdw2 - 21917) * bfmPain2"
49 . label var bfmPain18 "max(0, suchrw2 - 21916) * bfmPain1"
50 .
51 . // comparsion of
52 . // Basis functions
53 .
54 . regress WHPpain bfmPain2 bfmPain4 bfmPain6 bfmPain15 if gender==1

```

Source	SS	df	MS	Number of obs =	340
Model	28232.4737	4	7058.11842	F(4, 335) =	37.23
Residual	63516.5285	335	189.601578	Prob > F =	0.0000
Total	91749.0022	339	270.646024	R-squared =	0.3077
				Adj R-squared =	0.2994
				Root MSE =	13.77

WHPpain	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
bfmPain2	3583.872	1666.341	2.15	0.032	306.0604	6861.683
bfmPain4	3581.063	1666.75	2.15	0.032	302.4485	6859.677
bfmPain6	.0044063	.0072515	0.61	0.544	-.0098579	.0186705
bfmPain15	-.1635651	.0760251	-2.15	0.032	-.3131118	-.0140183
_cons	-7.85e+07	3.65e+07	-2.15	0.032	-1.50e+08	-6602957

```

55 .
56 . sw, pr(.1): regress WHPpain bfmPain2 bfmPain6 bfmPain15 if gender==1
      begin with full model
p = 0.6769 >= 0.1000 removing bfmPain6

```

Source	SS	df	MS	Number of obs =	340
Model	27323.9096	2	13661.9548	F(2, 337) =	71.46
Residual	64425.0926	337	191.172382	Prob > F =	0.0000
				R-squared =	0.2978
				Adj R-squared =	0.2936
Total	91749.0022	339	270.646024	Root MSE =	13.827

WHPpain	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
bfmPain2	3.626289	.8671582	4.18	0.000	1.920564	5.332013
bfmPain15	-.0002203	.0000374	-5.89	0.000	-.0002938	-.0001467
_cons	26349.77	3094.05	8.52	0.000	20263.69	32435.86

```

57 .
58 . //      to
59 .
60 . // constituent variables
61 .
62 . regress WHPpain BSIIsoma illw3 havmil trrepw2 BSIPsyc radchw3 accdw2 suchrw2
> ///
>      if gender==1

```

Source	SS	df	MS	Number of obs =	306
Model	32853.406	8	4106.67575	F(8, 297) =	27.01
Residual	45158.6184	297	152.04922	Prob > F =	0.0000
				R-squared =	0.4211
				Adj R-squared =	0.4055
Total	78012.0245	305	255.777129	Root MSE =	12.331

WHPpain	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
BSIIsoma	1.486893	.1470665	10.11	0.000	1.197469	1.776318
illw3	3.080362	.870471	3.54	0.000	1.36729	4.793435
havmil	.004043	.0066393	0.61	0.543	-.0090231	.0171091
trrepw2	.0675948	.0239548	2.82	0.005	.0204523	.1147374
BSIPsyc	.519233	.3518444	1.48	0.141	-.173191	1.211657
radchw3	.1102079	.0229509	4.80	0.000	.0650408	.1553749
accdw2	.8834201	1.922424	0.46	0.646	-2.899879	4.666719
suchrw2	.0792652	.0187931	4.22	0.000	.0422807	.1162498
_cons	-26.03696	3.274708	-7.95	0.000	-32.48153	-19.59239

```

63 .
64 .
65 . sw, pr(.1): regress WHPpain BSIIsoma illw3 havmil trrepw2 BSIPsyc radchw3 acc
    > dw2 suchrw2 ///
    >     if gender==1
                                begin with full model
p = 0.6462 >= 0.1000 removing accdw2
p = 0.5034 >= 0.1000 removing havmil
p = 0.1377 >= 0.1000 removing BSIPsyc

```

Source	SS	df	MS	Number of obs =	306
Model	32417.8429	5	6483.56857	F(5, 300) =	42.66
Residual	45594.1816	300	151.980605	Prob > F =	0.0000
				R-squared =	0.4155
				Adj R-squared =	0.4058
Total	78012.0245	305	255.777129	Root MSE =	12.328

WHPpain	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
BSIIsoma	1.547326	.1385026	11.17	0.000	1.274767	1.819886
illw3	3.517895	.8146161	4.32	0.000	1.914809	5.12098
suchrw2	.0794573	.0187034	4.25	0.000	.0426508	.1162638
trrepw2	.0678365	.023815	2.85	0.005	.0209709	.1147022
radchw3	.1142823	.0225686	5.06	0.000	.0698695	.1586951
_cons	-23.36797	2.859906	-8.17	0.000	-28.99599	-17.73995

```

66 .
67 .
68 . // Combining the variables and the Basis functions
69 .
70 .
71 . regress WHPpain bfmPain2 bfmPain4 trrepw2 ///
    >     radchw3 suchrw2 if gender==1

```

Source	SS	df	MS	Number of obs =	306
Model	32417.8429	5	6483.56857	F(5, 300) =	42.66
Residual	45594.1816	300	151.980605	Prob > F =	0.0000
				R-squared =	0.4155
				Adj R-squared =	0.4058
Total	78012.0245	305	255.777129	Root MSE =	12.328

WHPpain	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
bfmPain2	-1.547326	.1385026	-11.17	0.000	-1.819886	-1.274767
bfmPain4	-3.517895	.8146161	-4.32	0.000	-5.12098	-1.914809
trrepw2	.0678365	.023815	2.85	0.005	.0209709	.1147022
radchw3	.1142823	.0225686	5.06	0.000	.0698695	.1586951
suchrw2	.0794573	.0187034	4.25	0.000	.0426508	.1162638
_cons	111022.5	17202.72	6.45	0.000	77169.16	144875.7

```

72 .
73 .
74 .
75 . // wave 1 possible socio-demog covariates full Male model
76 . regress WHPpain age educ2-educ7 marrw11-marrw13 marrw15 childw1 ///
> emplw12-emplw16 occ1w1-occ8w1 inclw1-inc4w1 radhlw1 radfmw1 radtlw1 ///
> radchw1 havmilsq avgcumdosew1 if gender==1, vce(cluster id)

```

Linear regression

Number of obs = 338
F(32, 337) = .
Prob > F = .
R-squared = 0.2535
Root MSE = 14.924

(Std. Err. adjusted for 338 clusters in id)

WHPpain	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
age	.5577522	.1680962	3.32	0.001	.2271022	.8884023
educ2	13.53754	7.301204	1.85	0.065	-.8241389	27.89921
educ3	20.90764	6.901825	3.03	0.003	7.33155	34.48372
educ4	22.91195	7.590479	3.02	0.003	7.981261	37.84264
educ5	16.23969	6.877652	2.36	0.019	2.711154	29.76822
educ6	15.65082	6.783673	2.31	0.022	2.307144	28.9945
educ7	8.234137	7.120114	1.16	0.248	-5.771328	22.2396
marrw11	3.511152	3.129937	1.12	0.263	-2.645522	9.667827
marrw12	-12.38032	6.088637	-2.03	0.043	-24.35685	-.4038031
marrw13	.7789118	5.749118	0.14	0.892	-10.52977	12.08759
marrw15	-10.12511	6.99535	-1.45	0.149	-23.88516	3.634942
childw1	-.3610577	1.720564	-0.21	0.834	-3.745456	3.02334
emplw12	-6.421212	6.406623	-1.00	0.317	-19.02322	6.180797
emplw13	-8.24488	6.376402	-1.29	0.197	-20.78744	4.297683
emplw14	58.37047	8.625897	6.77	0.000	41.40309	75.33785
emplw15	-2.284595	13.04489	-0.18	0.861	-27.94426	23.37507
emplw16	-4.878317	6.98336	-0.70	0.485	-18.61478	8.858149
occ1w1	1.608066	6.020961	0.27	0.790	-10.23533	13.45147
occ2w1	-5.317505	5.939357	-0.90	0.371	-17.00039	6.365379

occ3w1	-3.272479	7.109173	-0.46	0.646	-17.25642	10.71146
occ4w1	-.9181375	6.588523	-0.14	0.889	-13.87795	12.04167
occ5w1	-5.965126	5.756447	-1.04	0.301	-17.28822	5.357967
occ6w1	-9.101056	6.436824	-1.41	0.158	-21.76247	3.560359
occ7w1	-5.887813	10.76742	-0.55	0.585	-27.06762	15.292
occ8w1	1.940835	6.380393	0.30	0.761	-10.60958	14.49125
inc1w1	-2.367859	5.972564	-0.40	0.692	-14.11606	9.380345
inc2w1	.198827	5.457159	0.04	0.971	-10.53556	10.93321
inc3w1	-.1945757	5.431376	-0.04	0.971	-10.87825	10.48909
inc4w1	-4.526789	5.935531	-0.76	0.446	-16.20215	7.148569
radhlw1	.0840558	.0427415	1.97	0.050	-.000018	.1681296
radfmw1	-.037144	.0427703	-0.87	0.386	-.1212743	.0469863
radtlw1	.0328294	.0355879	0.92	0.357	-.037173	.1028318
radchwl	-.0065753	.0350019	-0.19	0.851	-.075425	.0622744
havmilsq	5.98e-06	4.33e-06	1.38	0.168	-2.53e-06	.0000145
avgcumdosew1	.8713809	.3358724	2.59	0.010	.2107104	1.532051
_cons	-32.94399	9.703011	-3.40	0.001	-52.03008	-13.85789

```

77 .
78 . scalar hyp = 1

79 . scalar pt = 1

80 . scalar wv = 1

81 .
82 . scalar hyp=1

83 . scalar pt=1

84 . scalar wv =1

85 . scalar dsigMw1 = 1

86 .
87 . // we do not count constant as a main effect

```

```

88 . matrix define H1p1MPnDosew1 = J(1,12,0)

89 . matrix colnames H1p1MPnDosew1 = hypnum ptnum wv dsigMw1 dsigtw1 numMainEffs
    > igMw1 numMainEffsigTw1 numModMw1 numModTw1 numbfsigMw1 numbfsigtw1 numMedw1

90 . matrix rownames H1p1MPnDosew1 = wave1

91 . matlist H1p1MPnDosew1

> 1 numMain~1 |      hypnum      ptnum      wv      dsigMw1      dsigtw1 numMain~
-----|-----
> |      numModMw1 numModTw1 numbfsi~1 numbfsi~1 numMedw1
> -----|-----
> wave1 |      0      0      0      0      0
> 0      0      0      0      0      0

92 .
93 .
94 . set more off

95 . des WHPpain age educ2-educ7 marrw11-marrw13 marrw15 childw1 ///
    > emplw12-emplw16 occ1w1-occ8w1 inclw1-inc4w1 radhlw1 radchw1 ///
    > radtlw1 radhlw1 radfmw1 radtlw1 ///
    > radchw1 havmilsq bfmPain2-bfmPain18 avgcumdosew1

```

variable name	storage type	display format	value label	variable label
WHPpain	double	%9.0g		Wtd Health Profile Pain 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
occlw1	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
radhlw1	byte	%8.0g		Self-perceived Chornobyl health threat in wave 1
radfmw1	byte	%8.0g		how much believed family health is affected by radiation in 1986
radtlw1	byte	%8.0g		believed % of cumulative radiation exposed to in a lifetime in 1986
radchw1	byte	%8.0g		believed % of polution related to chornobyl in 1986
havmilsq	float	%9.0g		
bfmPain2	float	%9.0g		max(0, 21935 - BSIsoMa)
bfmPain3	float	%9.0g		max(0, illw3 - 21918)
bfmPain4	float	%9.0g		max(0, 21918 - illw3)
bfmPain5	float	%9.0g		max(0, havmil - 21962.6)
bfmPain6	float	%9.0g		max(0, 21962.6 - havmil)
bfmPain7	float	%9.0g		(trrepw2 != .) * bfmPain5
bfmPain9	float	%9.0g		max(0, trrepw2 - 21996) *

```

bfmPain11      float   %9.0g      bfmPain7
max(0, BSIPsysc - 21920) *
bfmPain12      float   %9.0g      bfmPain6
max(0, radchw3 - 21916) *
bfmPain13      float   %9.0g      bfmPain1
max(0, physdisagw3 - 21916) *
bfmPain14      float   %9.0g      bfmPain6
max(0, illw3 - 21918) * bfmPain2
bfmPain15      float   %9.0g      max(0, 21918 - illw3) * bfmPain2
bfmPain16      float   %9.0g      max(0, accdw2 - 21917) *
bfmPain18      float   %9.0g      bfmPain2
max(0, suchrw2 - 21916) *
avgcumdosew1   double  %8.0g      bfmPain1
wave 1 avg mean CS137 dose in
mGy ending 12/31/1986

```

```

96 .
97 . set more off

98 . regress WHPpain age educ2-educ7 marrw11-marrw13 marrw15 childw1 ///
>   emplw12-emplw16 occ1w1-occ8w1 inclw1-inc4w1 radhlw1 radchw1 ///
>   radtlw1 havmil bfmPain2 ///
>   avgcumdosew1 if gender==1, vce(cluster id)

```

```

Linear regression                                Number of obs =      338
                                                F( 32, 337) =      .
                                                Prob > F      =      .
                                                R-squared     =    0.3745
                                                Root MSE     =   13.661

```

(Std. Err. adjusted for 338 clusters in id)

WHPpain	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
age	.295309	.1477169	2.00	0.046	.0047457	.5858723
educ2	9.837567	9.771433	1.01	0.315	-9.383118	29.05825
educ3	13.64135	9.19861	1.48	0.139	-4.452576	31.73528
educ4	18.65029	9.565424	1.95	0.052	-.165166	37.46575
educ5	11.27025	9.147045	1.23	0.219	-6.72225	29.26274
educ6	10.32485	9.057972	1.14	0.255	-7.492436	28.14214
educ7	9.945604	9.265232	1.07	0.284	-8.27937	28.17058
marrw11	6.343852	3.325228	1.91	0.057	-.1969666	12.88467
marrw12	-5.262689	6.040102	-0.87	0.384	-17.14374	6.618363
marrw13	1.734749	5.047565	0.34	0.731	-8.193955	11.66345
marrw15	-3.743091	5.787458	-0.65	0.518	-15.12718	7.641003
childw1	1.191676	1.661288	0.72	0.474	-2.076125	4.459477
emplw12	-3.444073	6.607328	-0.52	0.603	-16.44087	9.552727
emplw13	-5.20503	6.658582	-0.78	0.435	-18.30265	7.892589

emplw14	52.19996	8.416885	6.20	0.000	35.64371	68.75621
emplw15	2.173072	10.29927	0.21	0.833	-18.08589	22.43203
emplw16	-.9621721	7.166659	-0.13	0.893	-15.05919	13.13485
occ1w1	2.110072	6.044377	0.35	0.727	-9.779389	13.99953
occ2w1	-3.799666	5.985144	-0.63	0.526	-15.57261	7.973282
occ3w1	-3.953959	7.008374	-0.56	0.573	-17.73963	9.831711
occ4w1	-1.539101	6.493895	-0.24	0.813	-14.31278	11.23457
occ5w1	-4.566975	5.921276	-0.77	0.441	-16.21429	7.080343
occ6w1	-1.862545	6.660824	-0.28	0.780	-14.96457	11.23948
occ7w1	-5.073696	8.022879	-0.63	0.528	-20.85493	10.70753
occ8w1	1.374381	6.261957	0.22	0.826	-10.94307	13.69183
inc1w1	-4.683311	5.467218	-0.86	0.392	-15.43748	6.070861
inc2w1	-1.010506	5.153292	-0.20	0.845	-11.14718	9.126165
inc3w1	.049647	5.232467	0.01	0.992	-10.24276	10.34206
inc4w1	-6.707182	5.592817	-1.20	0.231	-17.70841	4.294048
radhlw1	-.0312923	.0315641	-0.99	0.322	-.0933798	.0307951
radchwl	.0350387	.0327678	1.07	0.286	-.0294164	.0994938
radtlw1	.0522912	.0332817	1.57	0.117	-.0131748	.1177572
havmil	.0075372	.0069901	1.08	0.282	-.0062125	.0212868
bfmPain2	-1.368869	.2342226	-5.84	0.000	-1.829591	-.9081465
avgcumdosew1	1.137044	.3257073	3.49	0.001	.4963687	1.77772
_cons	29989.79	5135.442	5.84	0.000	19888.23	40091.35

```

99 .
100 . scalar Mw1 = e(r2_a)

101 . scalar list Mw1
      Mw1 = .30204486

102 . scalar dsigMw1 = 1

103 . scalar numMainEffsigMw1=7

104 . scalar numbfsigMw1 = 1

105 .

```

```

106 .
107 . // wave 1 trimmed model of possible socio-demog covariates male model
108 . set more off

109 . sw, pr(.05): regress WHPpain age educ2-educ7 marrw11-marrw13 marrw15 childw
> 1 ///
> emplw12-emplw16 occ1w1-occ8w1 inclw1-inc4w1 if gender==1
begin with full model
p = 0.9952 >= 0.0500 removing marrw13
p = 0.9858 >= 0.0500 removing emplw16
p = 0.9759 >= 0.0500 removing inclw1
p = 0.9790 >= 0.0500 removing occ1w1
p = 0.9241 >= 0.0500 removing occ8w1
p = 0.8784 >= 0.0500 removing emplw15
p = 0.8714 >= 0.0500 removing childw1
p = 0.7688 >= 0.0500 removing inc3w1
p = 0.5948 >= 0.0500 removing occ4w1
p = 0.5416 >= 0.0500 removing occ7w1
p = 0.6020 >= 0.0500 removing emplw12
p = 0.5608 >= 0.0500 removing inc2w1
p = 0.5126 >= 0.0500 removing educ7
p = 0.4862 >= 0.0500 removing occ3w1
p = 0.3750 >= 0.0500 removing educ2
p = 0.3650 >= 0.0500 removing marrw15
p = 0.2677 >= 0.0500 removing emplw13
p = 0.1995 >= 0.0500 removing occ6w1
p = 0.2101 >= 0.0500 removing occ5w1
p = 0.1342 >= 0.0500 removing educ6
p = 0.3270 >= 0.0500 removing educ5
p = 0.1072 >= 0.0500 removing educ4
p = 0.1153 >= 0.0500 removing inc4w1

```

Source	SS	df	MS
Model	16510.1924	6	2751.69873
Residual	73696.8228	332	221.978382
Total	90207.0152	338	266.88466

```

Number of obs =      339
F(   6,   332) =    12.40
Prob > F       =    0.0000
R-squared      =    0.1830
Adj R-squared  =    0.1683
Root MSE      =    14.899

```

WHPpain	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.5737159	.100771	5.69	0.000	.3754858	.7719461
emplw14	64.21506	15.14027	4.24	0.000	34.4321	93.99801
educ3	3.756037	1.726081	2.18	0.030	.3606035	7.151471
marrw11	4.89355	2.418418	2.02	0.044	.1361955	9.650904
marrw12	-12.56598	6.224893	-2.02	0.044	-24.81119	-.3207763
occ2w1	-4.592491	2.27503	-2.02	0.044	-9.067783	-.1172001
_cons	-21.04869	5.923502	-3.55	0.000	-32.70102	-9.396363

```
110 . set more off
```

```
111 . sw, pr(.05): regress WHPpain age educ2-educ7 marrw11-marrw13 marrw15 childw1
> ///
> emplw12-emplw16 occ1w1-occ8w1 inc1w1-inc4w1 radhlw1 radchwl ///
> radtlw1 illw1 havmil avgcumdosew1 if gender==1
begin with full model
p = 0.9133 >= 0.0500 removing emplw15
p = 0.8966 >= 0.0500 removing occ4w1
p = 0.9069 >= 0.0500 removing marrw13
p = 0.8126 >= 0.0500 removing childw1
p = 0.7814 >= 0.0500 removing inc1w1
p = 0.7171 >= 0.0500 removing radchwl
p = 0.7095 >= 0.0500 removing emplw16
p = 0.6052 >= 0.0500 removing occ8w1
p = 0.6881 >= 0.0500 removing occ1w1
p = 0.5397 >= 0.0500 removing inc4w1
p = 0.5307 >= 0.0500 removing educ7
p = 0.4790 >= 0.0500 removing havmil
p = 0.4174 >= 0.0500 removing occ7w1
p = 0.4322 >= 0.0500 removing emplw12
p = 0.4081 >= 0.0500 removing radtlw1
p = 0.3947 >= 0.0500 removing emplw13
p = 0.3426 >= 0.0500 removing occ3w1
p = 0.3532 >= 0.0500 removing inc3w1
p = 0.3965 >= 0.0500 removing inc2w1
p = 0.3101 >= 0.0500 removing educ2
p = 0.2376 >= 0.0500 removing educ5
p = 0.7157 >= 0.0500 removing educ6
p = 0.2269 >= 0.0500 removing marrw15
p = 0.2344 >= 0.0500 removing occ6w1
p = 0.1756 >= 0.0500 removing occ5w1
p = 0.1388 >= 0.0500 removing educ4
p = 0.0992 >= 0.0500 removing illw1
p = 0.0850 >= 0.0500 removing marrw11
p = 0.0718 >= 0.0500 removing avgcumdosew1
p = 0.0654 >= 0.0500 removing occ2w1
```

Source	SS	df	MS	Number of obs =	338
Model	16883.371	5	3376.67421	F(5, 332) =	15.31
Residual	73222.0608	332	220.548376	Prob > F =	0.0000
				R-squared =	0.1874
				Adj R-squared =	0.1751
Total	90105.4318	337	267.375169	Root MSE =	14.851

WHPpain	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.3195215	.070848	4.51	0.000	.1801539	.4588891
radhlw1	.0723071	.0231383	3.12	0.002	.0267909	.1178233
educ3	4.143932	1.731931	2.39	0.017	.7369894	7.550874
marrw12	-14.0317	6.165643	-2.28	0.023	-26.16035	-1.903045
emplw14	66.97441	15.06431	4.45	0.000	37.34087	96.60795
_cons	-10.27371	3.391766	-3.03	0.003	-16.94577	-3.601645

```

112 .
113 . scalar twlnobf = e(r2_a)

114 .
115 .
116 . set more off

117 . sw, pr(.1): regress WHPpain age educ2-educ7 marrw11-marrw13 marrw15 childw1
> ///
> emplw12-emplw16 occ1w1-occ8w1 inc1w1-inc4w1 radhlw1 radchwl ///
> radtlw1 havmil bfmPain2 avgcumdosew1 if gender==1, vce(cluster id)
begin with full model
p = 0.9924 >= 0.1000 removing inc3w1
p = 0.8913 >= 0.1000 removing emplw16
p = 0.8004 >= 0.1000 removing marrw13
p = 0.7832 >= 0.1000 removing occ4w1
p = 0.8455 >= 0.1000 removing occ6w1
p = 0.5846 >= 0.1000 removing inc2w1
p = 0.6029 >= 0.1000 removing emplw15
p = 0.5314 >= 0.1000 removing occ8w1
p = 0.4662 >= 0.1000 removing childw1
p = 0.4190 >= 0.1000 removing occ1w1
p = 0.4152 >= 0.1000 removing emplw12
p = 0.3917 >= 0.1000 removing radhlw1
p = 0.3459 >= 0.1000 removing radtlw1
p = 0.3545 >= 0.1000 removing occ7w1
p = 0.3038 >= 0.1000 removing havmil
p = 0.2757 >= 0.1000 removing educ2
p = 0.7130 >= 0.1000 removing educ7
p = 0.5427 >= 0.1000 removing educ5

```

```

p = 0.8687 >= 0.1000 removing educ6
p = 0.2450 >= 0.1000 removing marrw15
p = 0.2087 >= 0.1000 removing occ3w1
p = 0.1542 >= 0.1000 removing emplw13
p = 0.1645 >= 0.1000 removing inclw1
p = 0.1229 >= 0.1000 removing marrw11
p = 0.1034 >= 0.1000 removing educ3

```

Linear regression

```

Number of obs = 338
F( 10, 337) = 1781.31
Prob > F = 0.0000
R-squared = 0.3352
Root MSE = 13.535

```

(Std. Err. adjusted for 338 clusters in id)

WHPpain	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
age	.2137241	.0759121	2.82	0.005	.0644028	.3630454
emplw14	57.36412	3.004314	19.09	0.000	51.45455	63.27369
inc4w1	-5.916867	1.990944	-2.97	0.003	-9.83311	-2.000623
educ4	6.624702	3.224342	2.05	0.041	.2823305	12.96707
avgcumdosew1	1.02339	.2937807	3.48	0.001	.4455153	1.601265
bfmPain2	-1.292209	.1909542	-6.77	0.000	-1.667821	-.9165968
occ2w1	-3.96586	2.392116	-1.66	0.098	-8.67122	.7394994
occ5w1	-5.379656	2.751939	-1.95	0.051	-10.7928	.0334864
marrw12	-9.335227	2.562817	-3.64	0.000	-14.37636	-4.294094
radchw1	.0623796	.0209609	2.98	0.003	.0211489	.1036102
_cons	28326.42	4187.98	6.76	0.000	20088.54	36564.29

```

118 .
119 . scalar tw1bf = e(r2_a)

120 . scalar list tw1bf
      tw1bf = .31482609

```

```

121 . scalar NumMainEffsigTw1= 8

122 . scalar numbfsigtw1 = 1

123 . scalar dsigtw1 = 1

124 .
125 . scalar wlnumbf = 1

126 .
127 .
128 .
129 . set more off

130 . sw, pr(.05): regress WHPpain age educ2-educ7 marrw11-marrw13 marrw15 childw1
    > ///
    > emplw12-emplw16 occ1w1-occ8w1 inclw1-inc4w1 radhlw1 radchwl avgcumdosew1 /
    > //
    > radtlw1 havmil if gender==1, vce(cluster id)
                                begin with full model
p = 0.9980 >= 0.0500 removing inc3w1
p = 0.9184 >= 0.0500 removing inc2w1
p = 0.8818 >= 0.0500 removing childw1
p = 0.8608 >= 0.0500 removing occ4w1
p = 0.8097 >= 0.0500 removing emplw15
p = 0.7915 >= 0.0500 removing marrw13
p = 0.7400 >= 0.0500 removing radchwl
p = 0.5904 >= 0.0500 removing occ3w1
p = 0.5216 >= 0.0500 removing occ7w1
p = 0.5474 >= 0.0500 removing emplw16
p = 0.6914 >= 0.0500 removing emplw12
p = 0.4713 >= 0.0500 removing inclw1
p = 0.3982 >= 0.0500 removing marrw11
p = 0.3889 >= 0.0500 removing havmil
p = 0.3342 >= 0.0500 removing occ1w1
p = 0.2937 >= 0.0500 removing radtlw1
p = 0.2856 >= 0.0500 removing emplw13
p = 0.3279 >= 0.0500 removing occ8w1
p = 0.2577 >= 0.0500 removing educ7
p = 0.1189 >= 0.0500 removing educ2
p = 0.1065 >= 0.0500 removing educ5
p = 0.6243 >= 0.0500 removing educ6
p = 0.0772 >= 0.0500 removing inc4w1
p = 0.0534 >= 0.0500 removing educ4

```

Linear regression

Number of obs = 338
 F(9, 337) = .
 Prob > F = .
 R-squared = 0.2161
 Root MSE = 14.697

(Std. Err. adjusted for 338 clusters in id)

WHPpain	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
age	.370447	.0859366	4.31	0.000	.2014073	.5394867
emplw14	69.49695	2.94801	23.57	0.000	63.69813	75.29576
educ3	4.423629	1.893021	2.34	0.020	.700004	8.147254
marrw15	-10.40288	4.451695	-2.34	0.020	-19.15949	-1.646272
occ2w1	-5.126968	2.457363	-2.09	0.038	-9.96067	-.2932657
occ6w1	-9.106343	2.909328	-3.13	0.002	-14.82907	-3.383612
radhlw1	.0681153	.0246996	2.76	0.006	.0195304	.1167002
occ5w1	-6.458561	2.513224	-2.57	0.011	-11.40215	-1.514978
marrw12	-13.94486	2.600736	-5.36	0.000	-19.06059	-8.829144
avgcumdosew1	.8657503	.3141738	2.76	0.006	.2477616	1.483739
_cons	-11.75638	3.363204	-3.50	0.001	-18.3719	-5.140866

131 .

132 . xi:regress WHPpain age i.educ radhlw1
 i.educ _Ieducs1-8 (naturally coded; _Ieducs1 omitted)

Source	SS	df	MS	Number of obs =	702
Model	50684.8549	9	5631.65055	F(9, 692) =	16.79
Residual	232077.201	692	335.371678	Prob > F =	0.0000
				R-squared =	0.1792
				Adj R-squared =	0.1686
Total	282762.056	701	403.369553	Root MSE =	18.313

WHPpain	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.4955047	.0622239	7.96	0.000	.3733344	.617675
_Ieducs2	18.35054	18.58397	0.99	0.324	-18.1372	54.83827
_Ieducs3	13.69782	18.4053	0.74	0.457	-22.43911	49.83475
_Ieducs4	14.16395	18.59427	0.76	0.446	-22.344	50.67191
_Ieducs5	7.10189	18.45724	0.38	0.701	-29.13701	43.34079
_Ieducs6	5.322403	18.41037	0.29	0.773	-30.82448	41.46929
_Ieducs7	-4.840321	19.79789	-0.24	0.807	-43.71146	34.03082
_Ieducs8	-9.883076	22.44857	-0.44	0.660	-53.95855	34.19239
radhlw1	.035088	.0194962	1.80	0.072	-.0031908	.0733668
_cons	-21.65963	18.8139	-1.15	0.250	-58.59881	15.27954

```

133 . matrix define x1= e(b)

134 . local cn1 :colnames(x1)

135 . di "`cn1'"
      age _Ieducs2 _Ieducs3 _Ieducs4 _Ieducs5 _Ieducs6 _Ieducs7 _Ieducs8 radhlw1 _co
      > ns

136 . local lcn1=length("`cn1'")

137 . di `lcn1'
      80

138 . local lcn2 = `lcn1'-6

139 . di `lcn2'
      74

140 . local nuvlist = substr("`cn1'",1,74)

141 . di "`nuvlist'"
      age _Ieducs2 _Ieducs3 _Ieducs4 _Ieducs5 _Ieducs6 _Ieducs7 _Ieducs8 radhlw1

142 .
143 . foreach x in `nuvlist' {
      2. foreach y in `nuvlist' {
      3. cap gen `x'X`y' = `x'*`y'
      4. }
      5. }

144 .
145 . forvalues i=1/8 {
      2. cap gen ageXeduc`i' = age*educ`i'
      3. cap gen radhlw1Xeduc`i' = radhlw1*educ`i'
      4. }

```

```

146 .
147 . forvalues i=1/8 {
      2. cap gen ageXd1 = age*avgcumdosew1
      3. cap gen educ`i'Xd1 = educ`i'*avgcumdosew1
      4. }

148 .
149 .
150 . regress WHPpain age educ1-educ7 radhlw1 ageXd1 educ1Xd1-educ8Xd1 ///
> if gender==1
note: educ1 omitted because of collinearity
note: educ1Xd1 omitted because of collinearity

```

Source	SS	df	MS	Number of obs =	340
Model	15327.7254	16	957.982835	F(16, 323) =	4.05
Residual	76421.2769	323	236.59838	Prob > F =	0.0000
				R-squared =	0.1671
				Adj R-squared =	0.1258
Total	91749.0022	339	270.646024	Root MSE =	15.382

WHPpain	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.2507746	.0989184	2.54	0.012	.0561689	.4453803
educ1	0	(omitted)				
educ2	39.18812	42.88403	0.91	0.361	-45.17916	123.5554
educ3	35.72758	34.95347	1.02	0.307	-33.03762	104.4928
educ4	39.3771	36.22642	1.09	0.278	-31.89242	110.6466
educ5	31.83792	34.94226	0.91	0.363	-36.90523	100.5811
educ6	33.01849	34.93462	0.95	0.345	-35.70963	101.7466
educ7	-11.56468	51.74847	-0.22	0.823	-113.3713	90.24194
radhlw1	.057103	.0245716	2.32	0.021	.0087624	.1054436
ageXd1	.4923552	.2754055	1.79	0.075	-.0494598	1.03417
educ1Xd1	0	(omitted)				
educ2Xd1	-63.94118	85.60658	-0.75	0.456	-232.358	104.4757
educ3Xd1	-27.18719	17.10738	-1.59	0.113	-60.84314	6.468764
educ4Xd1	-34.7	43.20174	-0.80	0.422	-119.6923	50.29232
educ5Xd1	-26.25769	15.173	-1.73	0.084	-56.10807	3.592683
educ6Xd1	-31.53157	16.65799	-1.89	0.059	-64.30343	1.240283
educ7Xd1	76.90242	116.3409	0.66	0.509	-151.9792	305.7841
educ8Xd1	34.27628	105.7142	0.32	0.746	-173.6991	242.2516
_cons	-37.51661	35.42864	-1.06	0.290	-107.2166	32.18341

```

151 .
152 .
153 .
154 . scalar numModsigMw1 = 0

155 . // there are no moderators in wave 1 for males for pain in full model
156 . // occupation is main effect
157 .
158 .
159 . scalar twlnobf = e(r2_a)

160 .
161 . scalar r2chabf = twlbf - twlnobf

162 .
163 . sw, pr(.1):regress WHPpain age marrw11-marrw13 marrw15 childw1 ///
> emplw12-emplw16 occ1w1-occ8w1 inclw1-inc4w1 radhlw1 radchw1 ///
> radtlw1 havmil educ2-educ7 ///
> ageXd1 educ2Xd1-educ8Xd1 if gender==1
begin with full model
p = 0.9900 >= 0.1000 removing inc3w1
p = 0.9838 >= 0.1000 removing emplw15
p = 0.8778 >= 0.1000 removing inc2w1
p = 0.8293 >= 0.1000 removing childw1
p = 0.8375 >= 0.1000 removing marrw13
p = 0.8939 >= 0.1000 removing emplw16
p = 0.8362 >= 0.1000 removing educ2Xd1
p = 0.8231 >= 0.1000 removing educ4Xd1
p = 0.8005 >= 0.1000 removing educ7
p = 0.7442 >= 0.1000 removing occ4w1
p = 0.6394 >= 0.1000 removing radchw1
p = 0.6219 >= 0.1000 removing occ7w1
p = 0.7054 >= 0.1000 removing emplw12
p = 0.5985 >= 0.1000 removing occ3w1
p = 0.5894 >= 0.1000 removing educ8Xd1
p = 0.5502 >= 0.1000 removing havmil
p = 0.4837 >= 0.1000 removing inclw1
p = 0.4546 >= 0.1000 removing educ7Xd1
p = 0.4121 >= 0.1000 removing occ5w1
p = 0.3755 >= 0.1000 removing educ2
p = 0.3741 >= 0.1000 removing marrw11
p = 0.3522 >= 0.1000 removing emplw13
p = 0.2897 >= 0.1000 removing occ6w1
p = 0.3503 >= 0.1000 removing occ2w1
p = 0.1919 >= 0.1000 removing marrw15
p = 0.1797 >= 0.1000 removing radtlw1
p = 0.2092 >= 0.1000 removing educ3Xd1
p = 0.1616 >= 0.1000 removing educ5Xd1
p = 0.1693 >= 0.1000 removing educ5

```

p = **0.4813** >= 0.1000 removing **educ6**
p = **0.1170** >= 0.1000 removing **inc4w1**

Source	SS	df	MS	Number of obs =	338
Model	20302.4678	10	2030.24678	F(10, 327) =	9.51
Residual	69802.964	327	213.464722	Prob > F =	0.0000
				R-squared =	0.2253
				Adj R-squared =	0.2016
Total	90105.4318	337	267.375169	Root MSE =	14.61

WHPpain	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.4539952	.1066114	4.26	0.000	.2442645	.6637259
educ6Xd1	-3.031664	1.516475	-2.00	0.046	-6.014943	-.048386
marrw12	-14.34308	6.092695	-2.35	0.019	-26.3289	-2.357253
ageXd1	.0214993	.0090368	2.38	0.018	.0037217	.0392768
occ8w1	6.334108	2.683955	2.36	0.019	1.054111	11.6141
occ1w1	4.379166	2.287349	1.91	0.056	-.1206106	8.878943
educ3	5.182076	1.820846	2.85	0.005	1.600025	8.764126
educ4	6.775754	4.070995	1.66	0.097	-1.232891	14.7844
emplw14	67.3727	14.90799	4.52	0.000	38.04504	96.70037
radhlw1	.0648561	.022986	2.82	0.005	.019637	.1100752
_cons	-20.48055	6.022343	-3.40	0.001	-32.32798	-8.633129

164 . scalar numMainEffsigTw1 = 5

165 . scalar numModsigTw1 = 1

166 .

167 . // in trimmed model for wave 1 age is a moderator in wave 1 for males

168 . // a technical degree is also a moderator for males

169 . matrix define maleWHPpainr2 = J(12,5,0)

170 . matrix colnames maleWHPpainr2 = FullBFR2a TR2aBF TR2aNoBF NumBF BFR2cha

```
171 . matrix rownames maleWHPpainr2 = wave1 wave2 wave3 avg
```

```
172 . matlist maleWHPpainr2
```

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

```
173 .
```

```
174 .
```

```
175 . matrix define maleWHPpainr2w1 = ( Mw1 , tw1bf, tw1nobf, w1numbf, r2chabf)
```

```
176 . matrix colnames maleWHPpainr2w1 = FullBFR2a TR2aBF TR2aNoBF NumBF BFR2cha
```

```
177 . matrix rownames maleWHPpainr2w1 = wave1
```

```
178 .
```

```
179 .
```

```
180 . matlist maleWHPpainr2w1
```

	FullBFR2a	TR2aBF	TR2aNoBF	NumBF	BFR2cha
wave1	.3020449	.3148261	.1258014	1	.1890247

```
181 . cap gen whppain=WHPpain
```

```

182 .
183 . *-----Mediators for wave 1 male Pain-----
    > -
184 . // age is possible mediator at wave1 for male Pain
185 . // technical degree is another possible mediator
186 . // self-perceived health threat is another mediator for male pain in wave 1
187 . // threat to family is not
188 . sem (avgcumdosew1->age)(age->whppain) if gender==1, nocapslatent

```

Endogenous variables

Observed: **age whppain**

Exogenous variables

Observed: **avgcumdosew1**

Fitting target model:

Iteration 0: log likelihood = **-3404.7244**

Iteration 1: log likelihood = **-3404.7244**

```

Structural equation model                Number of obs      =      340
Estimation method   = ml
Log likelihood      = -3404.7244

```

> _____						
			OIM			
		Coef.	Std. Err.	z	P> z	[95% Conf. Inter
> val]						
> _____						
Structural						
age <-						
avgcumdosew1		.6719789	.3955154	1.70	0.089	-.1032171 1.44
> 7175						
_cons		48.89394	.6805861	71.84	0.000	47.56001 50.2
> 2786						
> _____						
> _____						
whppain <-						
age		.4154505	.069434	5.98	0.000	.2793624 .551
> 5386						
_cons		-10.25319	3.518491	-2.91	0.004	-17.1493 -3.3
> 5707						
> _____						
Variance						

e.age	147.6893	11.32726	127.0764	171.
e.whppain	244.1425	18.72488	210.0677	283.

LR test of model vs. saturated: chi2(1) = 2.72, Prob > chi2 = 0.0993

```
189 . sem (avgcumdosew1-> radtlw1)(radtlw1->whppain) if gender==1, nocapslatent
(1 observations with missing values excluded;
specify option 'method(mlmv)' to use all observations)
```

Endogenous variables

Observed: **radtlw1 whppain**

Exogenous variables

Observed: **avgcumdosew1**

Fitting target model:

Iteration 0: log likelihood = -3781.5071
Iteration 1: log likelihood = -3781.5071

Structural equation model	Number of obs	=	339
Estimation method	=	ml	
Log likelihood	=	-3781.5071	

	Coef.	OIM Std. Err.	z	P> z	[95% Conf. Inter
Structural					
radtlw1 <-					
avgcumdosew1	-.0299655	1.183144	-0.03	0.980	-2.348885 2.28
_cons	53.53795	2.038815	26.26	0.000	49.54194 57.5
whppain <-					
radtlw1	.053951	.0243892	2.21	0.027	.0061491 .10
_cons	7.321943	1.57806	4.64	0.000	4.229003 10.4

```

> -----
Variance
      e.radtlw1 |      1321.568    101.5091                1136.866    1536
> .279
      e.whppain |      266.4927    20.46918                229.2477    309.
> 7888
> -----
LR test of model vs. saturated: chi2(1)    =      4.41, Prob > chi2 = 0.0357

```

```
190 . sem (avgcumdosew1-> educ6)(educ6-> whppain) if gender==1, nocapslatent
```

Endogenous variables

Observed: **educ6 whppain**

Exogenous variables

Observed: **avgcumdosew1**

Fitting target model:

Iteration 0: log likelihood = **-2330.2857**

Iteration 1: log likelihood = **-2330.2857**

```

Structural equation model                                Number of obs      =      340
Estimation method   = ml
Log likelihood      = -2330.2857

```

```

> -----
              OIM
              Coef.   Std. Err.      z    P>|z|     [95% Conf. Inter
> val]
> -----
Structural
educ6 <-
  avgcumdosew1 |    -.0149846    .0160892    -0.93    0.352    -.0465188    .016
> 5496
      _cons |    .4358432    .0276856    15.74    0.000    .3815804    .490
> 1059
> -----
whppain <-
educ6 |    -4.21421    1.785226    -2.36    0.018    -7.713189    -.715
> 2303
      _cons |    11.98928    1.16985    10.25    0.000    9.696414    14.2

```

> 8214					
> _____					
Variance					
e.educ6	.2443938	.0187441		.2102839	.284
> 0366					
e.whppain	265.4986	20.36281		228.4431	308.
> 5648					
> _____					

LR test of model vs. saturated: chi2(1) = 3.95, Prob > chi2 = 0.0470

191 . sem (avgcumdosew1->radhlw1)(radhlw1-> whppain) if gender==1, nocapslatent

Endogenous variables

Observed: **radhlw1 whppain**

Exogenous variables

Observed: **avgcumdosew1**

Fitting target model:

Iteration 0: log likelihood = -3793.2206

Iteration 1: log likelihood = -3793.2206

Structural equation model	Number of obs	=	340
Estimation method	=	ml	
Log likelihood	=	-3793.2206	

> _____						
		OIM				
	Coef.	Std. Err.	z	P> z	[95% Conf. Inter	
> val]						
> _____						
Structural						
radhlw1 <-						
avgcumdosew1	2.398285	1.204853	1.99	0.047	.0368169	4.75
> 9752						
_cons	44.66477	2.073259	21.54	0.000	40.60126	48.7
> 2828						
> _____						
whppain <-						
radhlw1	.0901847	.0234202	3.85	0.000	.0442819	.136
> 0875						

```

      _cons |    6.058736    1.380495    4.39    0.000    3.353015    8.76
> 4457
-----
Variance
      e.radhlw1 |    1370.535    105.1152                1179.25    1592
> .848
      e.whppain |    258.5732    19.83166                222.4842    300
> .516
-----
LR test of model vs. saturated: chi2(1)    =    2.98, Prob > chi2 = 0.0844

```

```
192 . sem (avgcumdosew1-> radfmw1)(radfmw1-> whppain) if gender==1, nocapslatent
```

Endogenous variables

Observed: **radfmw1 whppain**

Exogenous variables

Observed: **avgcumdosew1**

Fitting target model:

Iteration 0: log likelihood = **-3778.8323**

Iteration 1: log likelihood = **-3778.8323**

```

Structural equation model                                Number of obs    =    340
Estimation method   = ml
Log likelihood      = -3778.8323

```

```

> -----
              OIM
              Coef.   Std. Err.      z    P>|z|     [95% Conf. Inter
> val]
-----
Structural
      radfmw1 <-
      avgcumdosew1 |    1.273087    1.149507    1.11    0.268    -.9799062    3.5
> 2608
      _cons |    50.33594    1.978023    25.45    0.000    46.45909    54.
> 2128
-----
      whppain <-
      radfmw1 |    .0839905    .0247623    3.39    0.001    .0354573    .132

```

```

> 5237
      _cons |    5.906014    1.534668    3.85    0.000    2.89812    8.91
> 3909
-----|-----
Variance |
      e.radfmw1 |    1247.515    95.68004                1073.4    1449
> .873
      e.whppain |    261.0178    20.01915                224.5877    303.
> 3572
-----|-----
LR test of model vs. saturated: chi2(1)    =    3.69, Prob > chi2 = 0.0548

```

```

193 .
194 . // we do not count constant as a main effect
195 . matrix define H1plMPnDosew1 = J(1,12,0)

196 . matrix define H1plMPnDosew1 = (hyp, pt, wv, dsigMw1, dsigtw1, numMainEffsigM
> w1, numMainEffsigTw1, numModsigMw1, numModsigTw1, numbfsigMw1, numbfsigtw1, 2)

197 . matrix colnames H1plMPnDosew1 = hypnum ptnum wv dsigMw1 dsigtw1 numMainEffs
> igMw1 numMainEffsigTw1 numModMw1 numModTw1 numbfsigMw1 numbfsigtw1 numMedw1

198 . matrix rownames H1plMPnDosew1 = wave1

199 . matlist H1plMPnDosew1

> 1  numMain~1 |    hypnum    ptnum    wv    dsigMw1    dsigtw1    numMain~
> |    numModMw1    numModTw1    numbfsi~1    numbfsi~1    numMedw1
> -----|-----
> wave1 |    1    1    1    1    1
> 7      5    0    1    1    1    2

200 .
201 .

```

```

202 . scalar FemPainW1Meds = "self-perceived Chornobyl helath threat is a mediato
    > r as is technical education and age for male pain"

203 . * Wave 2 begins here-----
    > -----
204 . scalar wv = 2

205 .
206 . matrix define H1p1MPnDosew2 = J(1,12,0)

207 . matrix colnames H1p1MPnDosew2 = hypnum ptnum wv dsigFw2 dsigtw2 numMainEffs
    > igFw2 numMainEffsigTw2 numModmw2 numModTw2 numbfsigmw2 numbfsigtw2 numMedw2

208 . matrix rownames H1p1MPnDosew2 = wave2

209 . matlist H1p1MPnDosew2

> 2 numMain~2 | hypnum ptnum wv dsigFw2 dsigtw2 numMain~
| numModmw2 numModTw2 numbfsi~2 numbfsi~2 numMedw2
-----
>
> wave2 | 0 0 0 0 0
> 0 0 0 0 0 0

210 .
211 .
212 . regress WHPpain age educ2-educ7 marrw21-marrw23 marrw25 childw2 ///
    > emplw22-emplw26 occ1w2-occ8w2 inclw2-inc4w2 radhlw2 radchw2 ///
    > radtlw2 havmil avgcumdosew2 if gender==1

```

Source	SS	df	MS	Number of obs =	340
Model	26266.6774	34	772.549336	F(34, 305) =	3.60
Residual	65482.3248	305	214.696147	Prob > F =	0.0000
Total	91749.0022	339	270.646024	R-squared =	0.2863
				Adj R-squared =	0.2067
				Root MSE =	14.653

WHPpain	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.3771163	.1064814	3.54	0.000	.1675851	.5866475
educ2	10.04388	11.69507	0.86	0.391	-12.96935	33.05712
educ3	17.91679	10.78304	1.66	0.098	-3.301771	39.13535
educ4	19.33381	11.43144	1.69	0.092	-3.160664	41.82828
educ5	13.62762	10.82004	1.26	0.209	-7.663762	34.919
educ6	12.19203	10.70843	1.14	0.256	-8.879734	33.26379
educ7	6.055893	13.04075	0.46	0.643	-19.60533	31.71711
marrw21	5.000512	5.914029	0.85	0.398	-6.636951	16.63798
marrw22	-2.611637	7.152872	-0.37	0.715	-16.68686	11.46359

marrw23	3.275159	5.555036	0.59	0.556	-7.655888	14.20621
marrw25	-.40721	8.217966	-0.05	0.961	-16.5783	15.76388
childw2	-2.36555	1.424667	-1.66	0.098	-5.168971	.437871
emplw22	3.843285	17.31772	0.22	0.825	-30.23404	37.92061
emplw23	4.346027	17.48811	0.25	0.804	-30.06659	38.75864
emplw24	69.33913	22.99171	3.02	0.003	24.09667	114.5816
emplw25	6.723168	18.83398	0.36	0.721	-30.33782	43.78416
emplw26	.4839549	17.81872	0.03	0.978	-34.57923	35.54714
occ1w2	2.140601	8.570228	0.25	0.803	-14.72366	19.00486
occ2w2	-1.493166	8.638606	-0.17	0.863	-18.49198	15.50564
occ3w2	-3.702321	9.108779	-0.41	0.685	-21.62632	14.22168
occ4w2	-1.881184	8.87254	-0.21	0.832	-19.34032	15.57796
occ5w2	-.6396879	8.990837	-0.07	0.943	-18.33161	17.05223
occ6w2	-8.008082	10.87049	-0.74	0.462	-29.39873	13.38257
occ7w2	-4.014788	11.50224	-0.35	0.727	-26.64857	18.61899
occ8w2	-1.53193	9.198587	-0.17	0.868	-19.63266	16.5688
inclw2	-.9896945	8.336751	-0.12	0.906	-17.39452	15.41513
inc2w2	-3.167721	7.791184	-0.41	0.685	-18.499	12.16356
inc3w2	-3.17055	7.766234	-0.41	0.683	-18.45273	12.11163
inc4w2	-10.75461	8.724107	-1.23	0.219	-27.92167	6.412447
radhlw2	.1085807	.0278448	3.90	0.000	.0537885	.163373
radchw2	.0464252	.0303581	1.53	0.127	-.0133127	.1061631
radtlw2	.0188118	.0315	0.60	0.551	-.0431729	.0807966
havmil	.0084896	.008032	1.06	0.291	-.0073155	.0242947
avgcumdosew2	.4806659	.333829	1.44	0.151	-.1762336	1.137565
_cons	-33.33846	21.39799	-1.56	0.120	-75.44483	8.767918

```

213 .
214 . local bfw2 bfmPain2 bfmPain6 bfmPain15

215 .
216 .
217 . foreach var in bfmPain2 bfmPain6 bfmPain15 {
      2. cap gen `var'Xd2 = `var'*avgcumdosew2
      3. }

```

```

218 .
219 .
220 . set more off

221 . regress WHPpain age educ2-educ7 marrw21-marrw23 marrw25 childw2 ///
>   emplw22-emplw26 occ1w2-occ8w2 inclw2-inc4w2 radhlw2 radchw2 ///
>   radtlw2 havmil `bfw2' avgcumdosew2 if gender==1
note: havmil omitted because of collinearity

```

Source	SS	df	MS	Number of obs =	340
Model	38916.2286	36	1081.00635	F(36, 303) =	6.20
Residual	52832.7736	303	174.36559	Prob > F =	0.0000
				R-squared =	0.4242
				Adj R-squared =	0.3557
Total	91749.0022	339	270.646024	Root MSE =	13.205

WHPpain	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.1372624	.1003269	1.37	0.172	-.0601633	.3346881
educ2	4.503516	10.55988	0.43	0.670	-16.27647	25.2835
educ3	6.851979	9.804803	0.70	0.485	-12.44215	26.14611
educ4	12.43381	10.33422	1.20	0.230	-7.902123	32.76973
educ5	6.376196	9.788326	0.65	0.515	-12.88551	25.6379
educ6	4.683824	9.691295	0.48	0.629	-14.38694	23.75459
educ7	4.635343	11.75828	0.39	0.694	-18.50288	27.77357
marrw21	4.624817	5.329981	0.87	0.386	-5.863647	15.11328
marrw22	-1.701201	6.447406	-0.26	0.792	-14.38856	10.98616
marrw23	.3889007	5.01959	0.08	0.938	-9.488769	10.26657
marrw25	-1.739404	7.421423	-0.23	0.815	-16.34346	12.86465
childw2	-1.365445	1.291656	-1.06	0.291	-3.907197	1.176306
emplw22	13.69635	15.69998	0.87	0.384	-17.19845	44.59115
emplw23	14.29725	15.85764	0.90	0.368	-16.9078	45.50231
emplw24	76.27473	20.73735	3.68	0.000	35.46727	117.0822
emplw25	20.0652	17.09714	1.17	0.241	-13.57895	53.70936
emplw26	10.03578	16.17153	0.62	0.535	-21.78695	41.85851
occ1w2	-2.816308	7.758874	-0.36	0.717	-18.08441	12.45179
occ2w2	-6.469013	7.819234	-0.83	0.409	-21.85589	8.917864
occ3w2	-7.175909	8.246931	-0.87	0.385	-23.40442	9.052601
occ4w2	-6.351477	8.03541	-0.79	0.430	-22.16375	9.460798
occ5w2	-4.54349	8.144124	-0.56	0.577	-20.56969	11.48271
occ6w2	-9.522378	9.799094	-0.97	0.332	-28.80527	9.760515
occ7w2	-9.631135	10.38815	-0.93	0.355	-30.07319	10.81092
occ8w2	-8.160161	8.342018	-0.98	0.329	-24.57579	8.255463
inclw2	3.982565	7.535754	0.53	0.598	-10.84647	18.8116
inc2w2	1.532259	7.043758	0.22	0.828	-12.32862	15.39313
inc3w2	2.533197	7.030899	0.36	0.719	-11.30238	16.36877
inc4w2	-.963368	7.947352	-0.12	0.904	-16.60236	14.67562
radhlw2	.0075941	.0290469	0.26	0.794	-.0495651	.0647534

radchw2	.0540667	.0280864	1.93	0.055	-.0012024	.1093357
radtlw2	.0386989	.0285039	1.36	0.176	-.0173917	.0947895
havmil	0	(omitted)				
bfmPain2	3.032688	.9416585	3.22	0.001	1.17967	4.885706
bfmPain6	-.0031685	.007328	-0.43	0.666	-.0175887	.0112516
bfmPain15	-.0001885	.0000404	-4.67	0.000	-.000268	-.000109
avgcumdosew2	.5281081	.3017647	1.75	0.081	-.0657118	1.121928
_cons	24148.01	4037.762	5.98	0.000	16202.4	32093.61

```

222 .
223 . scalar mw2 = e(r2_a)

224 . scalar dsigFw2 = .5

225 . scalar numMainEffsigFw2 = 3

226 . scalar numbfsigFw2 = 3

227 . scalar numModsigFw2 = 6

228 .
229 . // wave 2 trimmed model of possible socio-demog covariates male model
230 . set more off

231 . sw, pr(.05): regress WHPpain age educ2-educ7 marrw21-marrw25 childw2 ///
    > emplw22-emplw26 occ1w2-occ8w2 inclw2-inc4w2 avgcumdosew2 if gender==1
        begin with full model
p = 0.9388 >= 0.0500 removing marrw23
p = 0.8892 >= 0.0500 removing inc2w2
p = 0.7338 >= 0.0500 removing inc3w2
p = 0.6911 >= 0.0500 removing marrw25
p = 0.6369 >= 0.0500 removing educ7
p = 0.6116 >= 0.0500 removing marrw24
p = 0.5695 >= 0.0500 removing emplw22
p = 0.8370 >= 0.0500 removing emplw26
p = 0.5519 >= 0.0500 removing occ1w2
p = 0.4866 >= 0.0500 removing emplw23
p = 0.4877 >= 0.0500 removing educ2
p = 0.5087 >= 0.0500 removing occ5w2
p = 0.3471 >= 0.0500 removing occ3w2
p = 0.3702 >= 0.0500 removing occ4w2
p = 0.3145 >= 0.0500 removing marrw22
p = 0.2864 >= 0.0500 removing occ7w2
p = 0.6595 >= 0.0500 removing emplw25
p = 0.2554 >= 0.0500 removing occ2w2
p = 0.2243 >= 0.0500 removing educ6
p = 0.2763 >= 0.0500 removing educ5
p = 0.2185 >= 0.0500 removing childw2

```

p = **0.2095** >= 0.0500 removing **inclw2**
p = **0.1687** >= 0.0500 removing **occ6w2**
p = **0.1314** >= 0.0500 removing **occ8w2**
p = **0.0963** >= 0.0500 removing **avgcumdosew2**
p = **0.0798** >= 0.0500 removing **marrw21**
p = **0.0680** >= 0.0500 removing **educ4**
p = **0.0686** >= 0.0500 removing **inc4w2**

Source	SS	df	MS	Number of obs =	340
Model	13788.8846	3	4596.29485	F(3, 336) =	19.81
Residual	77960.1177	336	232.02416	Prob > F =	0.0000
Total	91749.0022	339	270.646024	R-squared =	0.1503
				Adj R-squared =	0.1427
				Root MSE =	15.232

WHPpain	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.3720977	.0683284	5.45	0.000	.2376925	.506503
emplw24	63.77576	15.38899	4.14	0.000	33.50485	94.04666
educ3	4.082125	1.754096	2.33	0.021	.631732	7.532517
_cons	-9.677283	3.472557	-2.79	0.006	-16.50797	-2.846591

```
232 .
233 . local bfw2 bfmPain2 bfmPain4 bfmPain7 bfmPain9 bfmPain11 ///
    >      bfmPain14 bfmPain15 bfmPain16 bfmPain18
234 .
235 .
236 . des WHPpain age educ2-educ7 marrw21-marrw23 marrw25 childw2 ///
    >      emplw22-emplw26 occ1w2-occ8w2 inclw2-inc4w2 radhlw2 radchw2 ///
    >      radtlw2 havmil avgcumdosew2 `bfw2'
```

variable name	storage type	display format	value label	variable label
WHPpain	double	%9.0g		Wtd Health Profile Pain 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 1996
occ3w2	byte	%15.0g	LABJ	service occup protective services in 1996
occ4w2	byte	%15.0g	LABJ	precision prod mechan craft construction in 1996
occ5w2	byte	%15.0g	LABJ	factory laborer machinist transp cleaner in 1996
occ6w2	byte	%15.0g	LABJ	farming agricul forestry fishing trapping logging in 1996
occ7w2	byte	%15.0g	LABJ	homemaking caregiving in 1996
occ8w2	byte	%15.0g	LABJ	student in 1996
inc1w2	byte	%15.0g	LABJ	Income is not sufficient for basic neccessities in 1996
inc2w2	byte	%15.0g	LABJ	Income is just sufficient for basic neccessities in 1996
inc3w2	byte	%15.0g	LABJ	Income is sufficient for basics plus extra purchases/savings in 1996
inc4w2	byte	%15.0g	LABJ	Income allows to comfortably afford luxury items in 1996
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
radtlw2	byte	%8.0g		believed % of cumulative radiation exposed to in a lifetime in 1996
havmil	double	%9.0g		Distance from Chornobyl in miles
avgcumdosew2	double	%8.0g		Average mean dose CS1337 in mGy for wave 2
bfmPain2	float	%9.0g		max(0, 21935 - BSIsoma)
bfmPain4	float	%9.0g		max(0, 21918 - illw3)
bfmPain7	float	%9.0g		(trrepw2 != .) * bfmPain5
bfmPain9	float	%9.0g		max(0, trrepw2 - 21996) * bfmPain7

```

    bfmPain11      float   %9.0g      max(0, BSIPsysc - 21920) *
                                         bfmPain6
    bfmPain14      float   %9.0g      max(0, illw3 - 21918) * bfmPain2
    bfmPain15      float   %9.0g      max(0, 21918 - illw3) * bfmPain2
    bfmPain16      float   %9.0g      max(0, accdw2 - 21917) *
                                         bfmPain2
    bfmPain18      float   %9.0g      max(0, suchrw2 - 21916) *
                                         bfmPain1

237 .
238 .  foreach var in bfmPain2 bfmPain6 bfmPain115 {
      2.  cap gen `var'Xd2 = `var'*avgcumdosew2
      3.  }

239 .
240 . local bfw2b bfmPain2 bfmPain7 bfmPain9 bfmPain11 bfmPain15

241 .
242 .
243 . set more off

244 . sw, pr(.10): regress WHPpain age educ2-educ7 marrw21-marrw23 marrw25 childw2
    > ///
    >  emplw22-emplw26 occ1w2-occ8w2 inclw2-inc4w2 radhlw2 radchw2 ///
    >  radtlw2 havmil `bfw2b' avgcumdosew2 if gender==1
note: bfmPain7 dropped because of collinearity
note: bfmPain9 dropped because of collinearity
note: bfmPain11 dropped because of collinearity
      begin with full model
p = 0.9383 >= 0.1000 removing marrw23
p = 0.9018 >= 0.1000 removing inc4w2
p = 0.8033 >= 0.1000 removing radhlw2
p = 0.7103 >= 0.1000 removing marrw25
p = 0.6917 >= 0.1000 removing educ7
p = 0.8533 >= 0.1000 removing educ2
p = 0.8726 >= 0.1000 removing educ6
p = 0.6638 >= 0.1000 removing marrw22
p = 0.6598 >= 0.1000 removing havmil
p = 0.5508 >= 0.1000 removing inc2w2
p = 0.6148 >= 0.1000 removing occ1w2
p = 0.5963 >= 0.1000 removing emplw26
p = 0.6130 >= 0.1000 removing occ5w2
p = 0.4766 >= 0.1000 removing inc3w2
p = 0.4233 >= 0.1000 removing inclw2
p = 0.3751 >= 0.1000 removing childw2
p = 0.3677 >= 0.1000 removing educ5
p = 0.3794 >= 0.1000 removing emplw22
p = 0.6491 >= 0.1000 removing emplw23
p = 0.3535 >= 0.1000 removing educ3

```

```

p = 0.4076 >= 0.1000 removing occ4w2
p = 0.4099 >= 0.1000 removing occ6w2
p = 0.4016 >= 0.1000 removing occ3w2
p = 0.3547 >= 0.1000 removing age
p = 0.2377 >= 0.1000 removing occ7w2
p = 0.2009 >= 0.1000 removing emplw25
p = 0.1430 >= 0.1000 removing radtlw2
p = 0.1178 >= 0.1000 removing occ2w2

```

Source	SS	df	MS	Number of obs =	340
Model	36042.1364	8	4505.26705	F(8, 331) =	26.77
Residual	55706.8658	331	168.298688	Prob > F =	0.0000
				R-squared =	0.3928
				Adj R-squared =	0.3782
Total	91749.0022	339	270.646024	Root MSE =	12.973

WHPpain	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
bfmPain15	-.0002064	.0000364	-5.67	0.000	-.000278	-.0001349
radchw2	.0710698	.0218731	3.25	0.001	.0280418	.1140977
occ8w2	-4.792959	2.545899	-1.88	0.061	-9.801141	.2152237
educ4	7.905244	3.553388	2.22	0.027	.9151715	14.89532
emplw24	63.07084	13.1305	4.80	0.000	37.2411	88.90058
bfmPain2	3.270571	.8479038	3.86	0.000	1.602611	4.938531
avgcumdosew2	.5036718	.2846708	1.77	0.078	-.0563202	1.063664
marrw21	3.837144	1.963755	1.95	0.052	-.0258707	7.700159
_cons	27500.64	3099.335	8.87	0.000	21403.77	33597.52

```
245 . scalar numbfsigMw2=0
```

```
246 .
```

```
247 . scalar dsigtw2 = .5
```

```
248 . scalar numMainEffsigTw2 = 4
```

```

249 .
250 . scalar tw2bf = e(r2_a)

251 .
252 . foreach var in bfmPain2 bfmPain6 bfmPain15 {
      2.   replace `var'Xd2 = `var'*avgcumdosew2
      3. }
      (0 real changes made)
      (0 real changes made)
      (0 real changes made)

253 .
254 .
255 .
256 . local bfw2b bfmPain2 bfmPain15 bfmPain2Xd2-bfmPain6Xd2

257 .
258 . set more off

259 . regress WHPpain age educ2-educ7 marrw21-marrw23 marrw25 childw2 ///
>   emplw22-emplw26 occ1w2-occ8w2 inclw2-inc4w2 radhlw2 radchw2 ///
>   radtlw2 havmil avgcumdosew2 `bfw2b' if gender==1

```

Source	SS	df	MS	Number of obs =	340
Model	39045.5801	38	1027.51527	F(38, 301) =	5.87
Residual	52703.4221	301	175.094426	Prob > F =	0.0000
				R-squared =	0.4256
				Adj R-squared =	0.3531
Total	91749.0022	339	270.646024	Root MSE =	13.232

WHPpain	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.137879	.1006803	1.37	0.172	-.0602474	.3360055
educ2	4.754344	10.58758	0.45	0.654	-16.08071	25.58939
educ3	7.156896	9.836128	0.73	0.467	-12.19939	26.51318
educ4	12.61183	10.36258	1.22	0.225	-7.78046	33.00411
educ5	6.581911	9.812548	0.67	0.503	-12.72797	25.89179
educ6	4.82029	9.718077	0.50	0.620	-14.30369	23.94427
educ7	4.955228	11.78882	0.42	0.675	-18.24372	28.15418
marrw21	4.295915	5.367577	0.80	0.424	-6.266815	14.85864
marrw22	-1.923938	6.472809	-0.30	0.766	-14.66163	10.81375
marrw23	.2532928	5.032987	0.05	0.960	-9.651005	10.15759
marrw25	-1.357214	7.471008	-0.18	0.856	-16.05924	13.34481
childw2	-1.417773	1.305689	-1.09	0.278	-3.987207	1.15166
emplw22	13.75118	15.73571	0.87	0.383	-17.21475	44.7171
emplw23	14.30687	15.89362	0.90	0.369	-16.96981	45.58356
emplw24	76.01435	20.78299	3.66	0.000	35.116	116.9127
emplw25	20.16248	17.13358	1.18	0.240	-13.55429	53.87926

emplw26	9.927016	16.20917	0.61	0.541	-21.97064	41.82467
occ1w2	-2.515186	7.790308	-0.32	0.747	-17.84555	12.81518
occ2w2	-6.237534	7.840208	-0.80	0.427	-21.6661	9.191028
occ3w2	-6.942006	8.270578	-0.84	0.402	-23.21748	9.333471
occ4w2	-6.178669	8.056768	-0.77	0.444	-22.03339	9.676056
occ5w2	-4.269816	8.169962	-0.52	0.602	-20.34729	11.80766
occ6w2	-9.361629	9.822931	-0.95	0.341	-28.69194	9.968686
occ7w2	-9.420584	10.4259	-0.90	0.367	-29.93747	11.0963
occ8w2	-7.727746	8.375739	-0.92	0.357	-24.21017	8.754674
inc1w2	4.119908	7.554316	0.55	0.586	-10.74605	18.98587
inc2w2	1.783351	7.067061	0.25	0.801	-12.12375	15.69045
inc3w2	2.621882	7.051951	0.37	0.710	-11.25549	16.49925
inc4w2	-.7892289	7.968716	-0.10	0.921	-16.47068	14.89222
radhlw2	.010297	.0292854	0.35	0.725	-.0473329	.067927
radchw2	.0572084	.0283894	2.02	0.045	.0013416	.1130753
radtlw2	.0376026	.0285947	1.32	0.190	-.0186683	.0938735
havmil	.0072902	.0093452	0.78	0.436	-.0110999	.0256804
avgcumdosew2	-359.9562	2141.987	-0.17	0.867	-4575.123	3855.211
bfmPain2	3.018082	.9472812	3.19	0.002	1.15395	4.882215
bfmPain15	-.0001881	.0000412	-4.57	0.000	-.0002692	-.0001071
bfmPain2Xd2	.0016285	.1072546	0.02	0.988	-.2094354	.2126924
bfmPain6Xd2	.0148063	.0206692	0.72	0.474	-.025868	.0554807
_cons	24213.37	4446.108	5.45	0.000	15463.98	32962.76

```

260 .
261 .
262 . local bfw2b bfmPain2 bfmPain15 bfmPain6Xd2

263 .
264 . set more off

265 . regress WHPpain age childw2 ///
> emplw22-emplw26 radchw2 ///
> avgcumdosew2 `bfw2b' if gender==1

```

Source	SS	df	MS
Model	35752.4899	12	2979.37416
Residual	55996.5123	327	171.243157
Total	91749.0022	339	270.646024

```

Number of obs =      340
F( 12,  327) =    17.40
Prob > F       =    0.0000
R-squared      =    0.3897
Adj R-squared  =    0.3673
Root MSE      =    13.086

```

WHPpain	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.1340205	.0890952	1.50	0.133	-.0412515	.3092925
childw2	-1.831488	1.095187	-1.67	0.095	-3.985989	.3230129
emplw22	6.563575	13.22508	0.50	0.620	-19.45339	32.58055
emplw23	6.901782	13.34261	0.52	0.605	-19.3464	33.14997
emplw24	64.70323	18.81619	3.44	0.001	27.68718	101.7193
emplw25	10.61651	13.76271	0.77	0.441	-16.45811	37.69114
emplw26	3.353471	13.52481	0.25	0.804	-23.25315	29.96009
radchw2	.0808488	.0225258	3.59	0.000	.0365351	.1251625
avgcumdosew2	-243.6582	302.5147	-0.81	0.421	-838.7787	351.4623
bfmPain2	3.060177	.8707754	3.51	0.001	1.347148	4.773205
bfmPain15	-.0001939	.0000375	-5.17	0.000	-.0002676	-.0001202
bfmPain6Xd2	.01113	.0137909	0.81	0.420	-.016	.03826
_cons	26085.47	3297.991	7.91	0.000	19597.51	32573.42

```

266 .
267 .
268 . * Moderator Wave 2 male analysis
269 .
270 . foreach num in 2 5 6 7 9 16 18 {
      2. cap gen childw2*d2 = childw2*
      3. cap gen bfpn`num'Xd2 = bfmPain`num'*avgcumdosew2
      4. }

271 .
272 .
273 . local bfw2b bfmPain2 bfmPain7 bfmPain9 bfmPain11 ///
      > bfmPain14 bfmPain16 bfmPain18

274 .
275 .
276 .
277 .
278 . // Full model

```

```
279 . set more off
```

```
280 . regress WHPpain age educ2-educ7 marrw21-marrw23 marrw25 childw2 ///
> emplw22-emplw26 occ1w2-occ8w2 inclw2-inc4w2 radhlw2 radchw2 ///
> radtlw2 havmil avgcumdosew2 bfmPain2 bfmPain15 if gender==1
```

Source	SS	df	MS	Number of obs =	340
Model	38916.2273	36	1081.00631	F(36, 303) =	6.20
Residual	52832.7749	303	174.365594	Prob > F =	0.0000
				R-squared =	0.4242
				Adj R-squared =	0.3557
Total	91749.0022	339	270.646024	Root MSE =	13.205

WHPpain	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.1372623	.1003269	1.37	0.172	-.0601634	.3346881
educ2	4.503514	10.55988	0.43	0.670	-16.27647	25.2835
educ3	6.851979	9.804804	0.70	0.485	-12.44215	26.14611
educ4	12.43381	10.33422	1.20	0.230	-7.902122	32.76973
educ5	6.376195	9.788326	0.65	0.515	-12.88551	25.6379
educ6	4.683825	9.691295	0.48	0.629	-14.38694	23.75459
educ7	4.635341	11.75828	0.39	0.694	-18.50288	27.77357
marrw21	4.624814	5.329981	0.87	0.386	-5.86365	15.11328
marrw22	-1.701202	6.447406	-0.26	0.792	-14.38856	10.98616
marrw23	.3888985	5.01959	0.08	0.938	-9.488771	10.26657
marrw25	-1.739407	7.421423	-0.23	0.815	-16.34346	12.86465
childw2	-1.365444	1.291656	-1.06	0.291	-3.907196	1.176307
emplw22	13.69634	15.69998	0.87	0.384	-17.19846	44.59114
emplw23	14.29724	15.85764	0.90	0.368	-16.90781	45.5023
emplw24	76.27472	20.73735	3.68	0.000	35.46726	117.0822
emplw25	20.06519	17.09714	1.17	0.241	-13.57896	53.70935
emplw26	10.03578	16.17153	0.62	0.535	-21.78695	41.85851
occ1w2	-2.816307	7.758874	-0.36	0.717	-18.08441	12.45179
occ2w2	-6.469014	7.819234	-0.83	0.409	-21.85589	8.917864
occ3w2	-7.175908	8.246931	-0.87	0.385	-23.40442	9.052602
occ4w2	-6.351474	8.035411	-0.79	0.430	-22.16375	9.4608
occ5w2	-4.543489	8.144124	-0.56	0.577	-20.56969	11.48271
occ6w2	-9.522379	9.799094	-0.97	0.332	-28.80527	9.760514
occ7w2	-9.631137	10.38815	-0.93	0.355	-30.07319	10.81092
occ8w2	-8.160162	8.342018	-0.98	0.329	-24.57579	8.255462
inclw2	3.982565	7.535754	0.53	0.598	-10.84647	18.8116
inc2w2	1.53226	7.043758	0.22	0.828	-12.32862	15.39314
inc3w2	2.533196	7.030899	0.36	0.719	-11.30238	16.36877
inc4w2	-.9633672	7.947352	-0.12	0.904	-16.60236	14.67562
radhlw2	.0075941	.0290469	0.26	0.794	-.0495651	.0647534
radchw2	.0540667	.0280864	1.93	0.055	-.0012024	.1093357
radtlw2	.0386989	.0285039	1.36	0.176	-.0173917	.0947895
havmil	.0031685	.007328	0.43	0.666	-.0112517	.0175886

avgcumdosew2	.5281079	.3017647	1.75	0.081	-.0657121	1.121928
bfmPain2	3.03269	.9416584	3.22	0.001	1.179672	4.885708
bfmPain15	-.0001885	.0000404	-4.67	0.000	-.000268	-.000109
_cons	24078.42	4029.3	5.98	0.000	16149.46	32007.37

```

281 .
282 .
283 . // partly trimmed model
284 . set more off

285 . regress WHPpain age ///
> emplw22-emplw26 radchw2 ///
> havmil avgcumdosew2 bfmPain2 if gender==1

```

Source	SS	df	MS	Number of obs =	340
Model	31021.9056	10	3102.19056	F(10, 329) =	16.81
Residual	60727.0966	329	184.580841	Prob > F =	0.0000
Total	91749.0022	339	270.646024	R-squared =	0.3381
				Adj R-squared =	0.3180
				Root MSE =	13.586

WHPpain	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.0763429	.0749503	1.02	0.309	-.0710994	.2237851
emplw22	8.170922	13.74228	0.59	0.553	-18.86291	35.20475
emplw23	8.669524	13.85076	0.63	0.532	-18.5777	35.91675
emplw24	64.26523	19.50828	3.29	0.001	25.88852	102.6419
emplw25	14.551	14.27741	1.02	0.309	-13.53553	42.63754
emplw26	7.063464	14.04239	0.50	0.615	-20.56074	34.68767
radchw2	.097505	.0228718	4.26	0.000	.0525115	.1424984
havlml	.0058924	.0071463	0.82	0.410	-.0081658	.0199506
avgcumdosew2	.5533492	.2993005	1.85	0.065	-.035435	1.142133
bfmPain2	-1.400626	.1504473	-9.31	0.000	-1.696586	-1.104666
_cons	30698.42	3299.383	9.30	0.000	24207.87	37188.97

```

286 .
287 . cap gen bfmPain2Xd2 = bfmPain2*avgcumdosew2

288 .
289 . // fully trimmed model
290 . regress WHPpain age ///
    > emplw22-emplw26 radchw2 ///
    > havmil avgcumdosew2 bfmPain2 if gender==1

```

Source	SS	df	MS	Number of obs =	340
Model	31021.9056	10	3102.19056	F(10, 329) =	16.81
Residual	60727.0966	329	184.580841	Prob > F =	0.0000
				R-squared =	0.3381
				Adj R-squared =	0.3180
Total	91749.0022	339	270.646024	Root MSE =	13.586

WHPpain	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.0763429	.0749503	1.02	0.309	-.0710994	.2237851
emplw22	8.170922	13.74228	0.59	0.553	-18.86291	35.20475
emplw23	8.669524	13.85076	0.63	0.532	-18.5777	35.91675
emplw24	64.26523	19.50828	3.29	0.001	25.88852	102.6419
emplw25	14.551	14.27741	1.02	0.309	-13.53553	42.63754
emplw26	7.063464	14.04239	0.50	0.615	-20.56074	34.68767
radchw2	.097505	.0228718	4.26	0.000	.0525115	.1424984
havmil	.0058924	.0071463	0.82	0.410	-.0081658	.0199506
avgcumdosew2	.5533492	.2993005	1.85	0.065	-.035435	1.142133
bfmPain2	-1.400626	.1504473	-9.31	0.000	-1.696586	-1.104666
_cons	30698.42	3299.383	9.30	0.000	24207.87	37188.97

```

291 .
292 .
293 .
294 . scalar numModsigTw2 = 0

```

```

295 .
296 . scalar tw2nobf = e(r2_a)

297 .
298 . scalar numbfsigTw2=1

299 . scalar w2numbf = 1

300 .
301 . scalar r2chabfw2 = tw2bf - tw2nobf

302 .
303 . matrix define maleWHPpainr2w2 = ( mw2 , tw2bf, tw2nobf, w2numbf, r2chabfw2)

304 . matrix colnames maleWHPpainr2w2 = FullBFR2a TR2aBF TR2aNoBF NumBF BFR2cha

305 . matrix rownames maleWHPpainr2w2 = wave2

306 . matlist maleWHPpainr2w2

```

	FullBFR2a	TR2aBF	TR2aNoBF	NumBF	BFR2cha
wave2	.355743	.3781594	.3179991	1	.0601603

```

307 .
308 .
309 . *----- Mediators for wave 2 male Pain analysis
310 .
311 . scalar FemPainW2Med = "age and injured onself because of Chornobyl"

312 . scalar numMedMw2 = 2

313 .
314 .
315 . cap gen ptsdw2=PTSDw2

316 .

```

```

317 . // age is possible mediator at wavel for male Pain
318 . // injured oneself cause of Chornobyl is a mediator
319 .
320 . sem (avgcumdosew2->age)(age->whppain) if gender==1, nocapslatent

```

Endogenous variables

Observed: **age whppain**

Exogenous variables

Observed: **avgcumdosew2**

Fitting target model:

Iteration 0: log likelihood = -3541.6862

Iteration 1: log likelihood = -3541.6862

Structural equation model Number of obs = **340**

```
Estimation method = ml
```

Log likelihood = -3541.6862

		OIM				
> -----		Coef.	Std. Err.	z	P> z	[95% Conf. Inter
> val]						
Structural						
age <-						
avgcumdosew2		.5832314	.2628107	2.22	0.026	.0681318 1.09
> 8331						
_cons		48.62133	.7040762	69.06	0.000	47.24136 50.0
> 0129						
whppain <-						
age		.4154505	.069434	5.98	0.000	.2793624 .551
> 5386						
_cons		-10.25319	3.518491	-2.91	0.004	-17.1493 -3.3
> 5707						
Variance						
e.age		146.8166	11.26032			126.3255 170.
> 6315						
e.whppain		244.1425	18.72488			210.0677 283.
> 7446						

```
> _____
LR test of model vs. saturated: chi2(1)    =      2.18, Prob > chi2 = 0.1402
```

```
321 . sem (avgcumdosew2-> radhlw2)(radhlw2->whppain) if gender==1, nocapslatent
```

```
Endogenous variables
```

```
Observed:  radhlw2 whppain
```

```
Exogenous variables
```

```
Observed:  avgcumdosew2
```

```
Fitting target model:
```

```
Iteration 0:  log likelihood = -3902.4598
```

```
Iteration 1:  log likelihood = -3902.4598
```

```
Structural equation model                                Number of obs      =      340
```

```
Estimation method  = ml
```

```
Log likelihood      = -3902.4598
```

```
> _____
```

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

```
> val]
```

```
> _____
```

Structural						
radhlw2 <-						
avgcumdosew2	1.220373	.7639591	1.60	0.110	-.2769597	2.71
> 7705						
_cons	45.63198	2.046665	22.30	0.000	41.62059	49.6
> 4337						

```
> _____
```

whppain <-						
radhlw2	.1512954	.0238257	6.35	0.000	.1045978	.19
> 7993						
_cons	3.098133	1.397557	2.22	0.027	.3589722	5.83
> 7293						

```
> _____
```

Variance						
e.radhlw2	1240.593	95.1491			1067.444	1441
> .828						
e.whppain	241.2393	18.50221			207.5697	280.

> 3705

> _____

LR test of model vs. saturated: chi2(1) = 2.73, Prob > chi2 = 0.0986

322 . sem (avgcumdosew2-> educ6)(educ6-> whppain) if gender==1, nocapslatent

Endogenous variables

Observed: **educ6 whppain**

Exogenous variables

Observed: **avgcumdosew2**

Fitting target model:

Iteration 0: log likelihood = -2468.4269

Iteration 1: log likelihood = -2468.4269

Structural equation model

Number of obs = 340

Estimation method = **ml**

Log likelihood = -2468.4269

> _____

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

> val]

> _____

Structural

educ6 <-					
avgcumdosew2	-.0077585	.010728	-0.72	0.470	-.0287851 .01

> 3268

_cons	.4368749	.0287407	15.20	0.000	.3805442 .493
-------	----------	----------	-------	-------	---------------

> 2055

> _____

whppain <-					
educ6	-4.21421	1.785226	-2.36	0.018	-7.713189 -.715

> 2303

_cons	11.98928	1.16985	10.25	0.000	9.696414 14.2
-------	----------	---------	-------	-------	---------------

> 8214

> _____

Variance

e.educ6	.244641	.0187631			.2104966 .284
---------	---------	----------	--	--	---------------

> 3239

e.whppain	265.4986	20.36281	228.4431	308.
-----------	----------	----------	----------	------

> 5648

> —
 LR test of model vs. saturated: chi2(1) = 4.01, Prob > chi2 = 0.0452

323 . sem (avgcumdosew2-> illw2)(illw2-> whppain) if gender==1, nocapslatent

Endogenous variables

Observed: illw2 whppain

Exogenous variables

Observed: avgcumdosew2

Fitting target model:

Iteration 0: log likelihood = -2521.8627
 Iteration 1: log likelihood = -2521.8627

Structural equation model	Number of obs	=	340
Estimation method	=	ml	
Log likelihood	=	-2521.8627	

> —							
	Coef.	OIM Std. Err.	z	P> z	[95% Conf. Inter		
> val]							
> —							
Structural							
illw2 <-							
avgcumdosew2	.0085423	.0128178	0.67	0.505	-.0165801	.033	
> 6647							
_cons	.2741359	.0343391	7.98	0.000	.2068324	.341	
> 4394							
> —							
whppain <-							
illw2	6.587322	1.463571	4.50	0.000	3.718775	9.45	
> 5869							
_cons	8.319697	.9590711	8.67	0.000	6.439952	10.1	
> 9944							
> —							
Variance							
e.illw2	.3492324	.0267849			.3004902	.40	

```

> 5881
      e.whppain |      254.676   19.53276                219.131   295.
> 9867

```

```

> _____
LR test of model vs. saturated: chi2(1)   =      3.90, Prob > chi2 = 0.0482

```

```

324 . sem (avgcumdosew2-> phlthw2)(phlthw2-> whppain) if gender==1, nocapslatent

```

Endogenous variables

Observed: **phlthw2 whppain**

Exogenous variables

Observed: **avgcumdosew2**

Fitting target model:

Iteration 0: log likelihood = **-3678.9219**

Iteration 1: log likelihood = **-3678.9219**

Structural equation model Number of obs = **340**

Estimation method = **ml**

Log likelihood = **-3678.9219**

		Coef.	OIM Std. Err.	z	P> z	[95% Conf. Inter	
> val]							
> _____							
Structural							
phlthw2 <-							
avgcumdosew2		-.370586	.3856959	-0.96	0.337	-1.126536	.38
> 5364							
_cons		84.80648	1.033288	82.07	0.000	82.78127	86.8
> 3168							
> _____							
whppain <-							
phlthw2		-.222762	.048551	-4.59	0.000	-.3179202	-.127
> 6037							
_cons		28.9919	4.190285	6.92	0.000	20.77909	37.
> 2047							
> _____							
Variance							

e.phlthw2	316.2124	24.25239	272.0788	367.
> 5049				
e.whppain	254.116	19.48981	218.6492	295.
> 3359				

> _____
LR test of model vs. saturated: chi2(1) = 3.62, Prob > chi2 = 0.0571

325 . sem (avgcumdosew2-> ptsdw2)(ptsdw2->whppain) if gender==1, nocapslatent

Endogenous variables

Observed: **ptsdw2 whppain**

Exogenous variables

Observed: **avgcumdosew2**

Fitting target model:

Iteration 0: log likelihood = -3567.4181

Iteration 1: log likelihood = -3567.4181

Structural equation model	Number of obs	=	340
Estimation method	=	ml	
Log likelihood	=	-3567.4181	

> _____						
		OIM				
	Coef.	Std. Err.	z	P> z	[95% Conf. Inter	
> val]						
> _____						
Structural						
ptsdw2 <-						
avgcumdosew2	-.0429879	.2746329	-0.16	0.876	-.5812585	.495
> 2828						
_cons	5.196645	.7357482	7.06	0.000	3.754605	6.63
> 8685						
> _____						
whppain <-						
ptsdw2	.2464422	.0690762	3.57	0.000	.1110554	.38
> 1829						
_cons	8.909165	.9443776	9.43	0.000	7.058219	10.7
> 6011						
> _____						

Variance					
e.ptsdw2	160.3224	12.29617		137.9463	186.
> 3281					
e.whppain	260.1123	19.9497		223.8086	302.
> 3048					

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

326 . sem (avgcumdosew2-> radtlw2)(radtlw2->whppain) if gender==1, nocapslatent

Endogenous variables

Observed: **radtlw2 whppain**

Exogenous variables

Observed: **avgcumdosew2**

Fitting target model:

Iteration 0: log likelihood = -3910.62
 Iteration 1: log likelihood = -3910.62

Structural equation model Number of obs = 340
 Estimation method = ml
 Log likelihood = -3910.62

> _____						
		OIM				
	Coef.	Std. Err.	z	P> z	[95% Conf. Inter	
> val]						
> _____						
Structural						
radtlw2 <-						
avgcumdosew2	.3299338	.7547777	0.44	0.662	-1.149403	1.80
> 9271						
_cons	51.63557	2.022068	25.54	0.000	47.67239	55.5
> 9875						
> _____						
whppain <-						
radtlw2	.0933275	.0250884	3.72	0.000	.0441551	.142
> 4999						
_cons	5.331007	1.568928	3.40	0.001	2.255965	8.4
> 0605						

```

> -----
Variance
      e.radtlw2 |      1210.953      92.87582                1041.941      140
> 7.38
      e.whppain |      259.2966      19.88715                223.1068      301.
> 3569
-----

```

```

> -----
LR test of model vs. saturated: chi2(1)   =      4.13, Prob > chi2 = 0.0422

```

```

327 . sem (avgcumdosew2-> radchw2)(radchw2->whppain) if gender==1, nocapslatent

```

Endogenous variables

Observed: **radchw2 whppain**

Exogenous variables

Observed: **avgcumdosew2**

Fitting target model:

Iteration 0: log likelihood = **-3904.4518**

Iteration 1: log likelihood = **-3904.4518**

```

Structural equation model                                Number of obs      =      340
Estimation method   = ml
Log likelihood       = -3904.4518

```

```

> -----
>
> val]
> -----
Structural
  radchw2 <-
    avgcumdosew2 |      1.121598      .7344428      1.53      0.127      -.3178833      2.5
> 6108
    _cons |      47.60346      1.96759      24.19      0.000      43.74706      51.4
> 5987
> -----
  whppain <-
    radchw2 |      .0706012      .0259391      2.72      0.006      .0197615      .121
> 4408
    _cons |      6.742616      1.539919      4.38      0.000      3.72443      9.76
> 0803

```



```

> 7774
-----
Variance
    e.kzchorn      702.1253    53.85055                604.13    816.
> 0162
    e.whppain      247.1684    18.95695                212.6713    287.
> 2613
-----

LR test of model vs. saturated: chi2(1)    =      5.19, Prob > chi2 = 0.0227

```

```

329 . sem (avgcumdosew2-> radw1)(radw1-> whppain ) if gender==1, nocapslatent
    (8 observations with missing values excluded;
    specify option 'method(mlmv)' to use all observations)

```

Endogenous variables

Observed: **radw1 whppain**

Exogenous variables

Observed: **avgcumdosew2**

Fitting target model:

```

Iteration 0:  log likelihood = -3771.2281
Iteration 1:  log likelihood = -3771.2281

```

```

Structural equation model                      Number of obs      =      332
Estimation method    = ml
Log likelihood       = -3771.2281

```

```

-----
> -----
              OIM
              Coef.   Std. Err.      z    P>|z|     [95% Conf. Inter
> val]
-----
> -----
Structural
    radw1 <-
        avgcumdosew2      -.4640231    1.049126    -0.44    0.658    -2.520271    1.59
> 2225
        _cons      50.10775    2.257385    22.20    0.000    45.68336    54.5
> 3214
-----
> -----
    whppain <-

```

```

      radw1 | .0246323 .0241159 1.02 0.307 -.022634 .071
> 8986      _cons | 8.839991 1.501933 5.89 0.000 5.896257 11.7
> 8372
-----
Variance
      e.radw1 | 1407.965 109.2793                1209.277 1639
> .298      e.whppain | 272.0152 21.11247                233.6292 316.
> 7082
-----
> -----
LR test of model vs. saturated: chi2(1) = 10.43, Prob > chi2 = 0.0012

```

```

330 . sem (avgcumdosew2-> injselfr)(injselfr-> whppain ) if gender==1, nocapslaten
> t

```

Endogenous variables

Observed: **injselfr whppain**

Exogenous variables

Observed: **avgcumdosew2**

Fitting target model:

Iteration 0: log likelihood = **-2458.7902**

Iteration 1: log likelihood = **-2458.7902**

```

Structural equation model                                Number of obs      =      340
Estimation method   = ml
Log likelihood       = -2458.7902

```

```

> -----
      Coef.      OIM      Std. Err.      z      P>|z|      [95% Conf. Inter
> val]
-----
Structural
      injselfr <-
      avgcumdosew2 | .0282915 .0107341      2.64      0.008      .0072531      .0
> 4933      _cons | .4816092 .0287569     16.75      0.000      .4252467      .537
> 9718
-----

```

> -----							
whppain <-							
injselfr		8.780158	1.717253	5.11	0.000	5.414405	12.1
> 4591							
_cons		5.712096	1.224948	4.66	0.000	3.311241	8.1
> 1295							

> -----							
Variance							
e.injselfr		.2449181	.0187844			.210735	.28
> 4646							
e.whppain		250.5832	19.21886			215.6095	29
> 1.23							

> -----							
LR test of model vs. saturated: chi2(1)		=	2.08		Prob > chi2 =		0.1492

```

337 .
338 .
339 .
340 . matrix define H1p1MPnDose = (H1p1MPnDosew1 \ H1p1MPnDosew2)

```

```

341 . matlist H1p1MPnDose

```

		hypnum	ptnum	wv	dsigMw1	dsigtw1	numMain~
> 1	numMain~1	numModMw1	numModTw1	numbfsi~1	numbfsi~1	numMedw1	
>							
	wave1	1	1	1	1	1	
> 7	5	0	1	1	1	2	
	wave2	1	1	2	.5	.5	
> 3	4	6	0	3	9	1	

```

342 .
343 .
344 .
345 .
346 .
347 .
348 . matrix define maleWHPpainr2 = (maleWHPpainr2w1 \ maleWHPpainr2w2)

```

```

349 . matlist maleWHPpainr2

```

	FullBFR2a	TR2aBF	TR2aNoBF	NumBF	BFR2cha
wave1	.3020449	.3148261	.1258014	1	.1890247
wave2	.355743	.3781594	.3179991	1	.0601603

```

350 .
351 . // wave 3 possible socio-demog covariates full male model
352 . regress WHPpain age educ2-educ7 marrw21-marrw23 marrw25 childw2 ///
> emplw22-emplw26 occ1w2-occ8w2 inclw2-inc4w2 avgcumdosew3 if gender==1

```

Source	SS	df	MS	Number of obs =	340
Model	20752.4276	30	691.747587	F(30, 309) =	3.01
Residual	70996.5746	309	229.762377	Prob > F =	0.0000
				R-squared =	0.2262
				Adj R-squared =	0.1511
Total	91749.0022	339	270.646024	Root MSE =	15.158

WHPpain	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.4843986	.1041645	4.65	0.000	.2794372	.68936
educ2	9.769495	12.08339	0.81	0.419	-14.00665	33.54564
educ3	19.26546	11.13748	1.73	0.085	-2.649449	41.18036
educ4	21.60593	11.80734	1.83	0.068	-1.627034	44.83889
educ5	15.97115	11.16968	1.43	0.154	-6.007107	37.9494
educ6	14.0984	11.05506	1.28	0.203	-7.654327	35.85112
educ7	6.717414	13.46489	0.50	0.618	-19.77706	33.21189
marrw21	4.73105	6.100822	0.78	0.439	-7.27336	16.73546
marrw22	-3.795827	7.391336	-0.51	0.608	-18.33954	10.74789
marrw23	1.467107	5.722705	0.26	0.798	-9.793293	12.72751
marrw25	-1.397892	8.504073	-0.16	0.870	-18.13111	15.33533
childw2	-2.547682	1.445167	-1.76	0.079	-5.391295	.2959308
emplw22	7.603313	17.69844	0.43	0.668	-27.22139	42.42802
emplw23	9.347371	17.80704	0.52	0.600	-25.69102	44.38576
emplw24	70.48868	23.73963	2.97	0.003	23.77691	117.2005
emplw25	13.27196	19.29083	0.69	0.492	-24.68606	51.22997
emplw26	8.448187	18.20116	0.46	0.643	-27.3657	44.26207
occ1w2	-1.310158	8.67899	-0.15	0.880	-18.38755	15.76724
occ2w2	-5.007605	8.772801	-0.57	0.569	-22.26959	12.25438
occ3w2	-5.686076	9.319477	-0.61	0.542	-24.02374	12.65159
occ4w2	-4.677824	9.059413	-0.52	0.606	-22.50377	13.14812
occ5w2	-3.976557	9.10635	-0.44	0.663	-21.89486	13.94174
occ6w2	-12.5716	11.12142	-1.13	0.259	-34.45488	9.311692
occ7w2	-8.344698	11.70637	-0.71	0.476	-31.37897	14.68958
occ8w2	-9.099617	9.268862	-0.98	0.327	-27.33769	9.138453
inclw2	2.411834	8.508169	0.28	0.777	-14.32944	19.15311
inc2w2	-1.310585	7.961695	-0.16	0.869	-16.97658	14.35541
inc3w2	-1.847351	7.944005	-0.23	0.816	-17.47854	13.78384
inc4w2	-9.533701	8.973372	-1.06	0.289	-27.19034	8.122941
avgcumdosew3	.5687085	.3217227	1.77	0.078	-.0643358	1.201753
_cons	-32.24578	21.7196	-1.48	0.139	-74.98279	10.49124

```

354 .
355 . local bfw3 bfmPain3 bfmPain7 bfmPain9 bfmPain12 bfmPain13 ///
    >      bfmPain14 bfmPain15 bfmPain16 bfmPain18

356 .
357 .
358 . regress WHPpain age educ2-educ5 marrw31-marrw33 marrw35 childw3 ///
    >      emplw32-emplw34 occ1w3-occ7w3 inclw3-inc4w3 radhlw3 radchw3 ///
    >      radtlw3 havmil `bfw3' avgcumdosew3 if gender==1
note: bfmPain3 omitted because of collinearity
note: bfmPain7 omitted because of collinearity
note: bfmPain9 omitted because of collinearity
note: bfmPain12 omitted because of collinearity
note: bfmPain13 omitted because of collinearity
note: bfmPain14 omitted because of collinearity
note: bfmPain16 omitted because of collinearity
note: bfmPain18 omitted because of collinearity

```

Source	SS	df	MS	Number of obs =	340
Model	35629.4914	30	1187.64971	F(30, 309) =	6.54
Residual	56119.5108	309	181.61654	Prob > F =	0.0000
				R-squared =	0.3883
				Adj R-squared =	0.3290
Total	91749.0022	339	270.646024	Root MSE =	13.477

WHPpain	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.0124938	.0899751	0.14	0.890	-.1645476	.1895353
educ2	-.4679786	4.71107	-0.10	0.921	-9.737813	8.801856
educ3	1.811304	1.932484	0.94	0.349	-1.991188	5.613796
educ4	7.223695	3.956476	1.83	0.069	-.5613478	15.00874
educ5	.9583268	2.317306	0.41	0.679	-3.601369	5.518022
marrw31	3.216977	4.931768	0.65	0.515	-6.487121	12.92107
marrw32	-2.128709	5.096981	-0.42	0.676	-12.15789	7.900471
marrw33	-.8846927	4.18189	-0.21	0.833	-9.113276	7.343891
marrw35	-.395071	5.119341	-0.08	0.939	-10.46825	9.678107
childw3	-.3286734	1.039789	-0.32	0.752	-2.374636	1.717289
emplw32	-1.555101	2.765328	-0.56	0.574	-6.996356	3.886154
emplw33	-3.518176	4.767193	-0.74	0.461	-12.89844	5.862091
emplw34	-9.085931	6.356193	-1.43	0.154	-21.59283	3.420965
occ1w3	-10.02774	7.29267	-1.38	0.170	-24.37732	4.321833
occ2w3	-9.0422	7.267354	-1.24	0.214	-23.34196	5.257561
occ3w3	-11.2069	7.676175	-1.46	0.145	-26.31109	3.897286
occ4w3	-8.878964	7.597645	-1.17	0.243	-23.82863	6.0707
occ5w3	-13.47451	7.832592	-1.72	0.086	-28.88648	1.93745
occ6w3	-9.779301	10.15937	-0.96	0.337	-29.76959	10.21099
occ7w3	-.4719371	7.019601	-0.07	0.946	-14.2842	13.34033
inclw3	-.6021211	6.342639	-0.09	0.924	-13.08235	11.8781

inc2w3	2.986647	5.901218	0.51	0.613	-8.625008	14.5983
inc3w3	1.385345	5.969783	0.23	0.817	-10.36122	13.13191
inc4w3	-.3774059	6.924644	-0.05	0.957	-14.00283	13.24801
radhlw3	.0234577	.0280191	0.84	0.403	-.0316747	.07859
radchw3	.1040244	.0280199	3.71	0.000	.0488904	.1591584
radtlw3	.0060238	.0278812	0.22	0.829	-.0488372	.0608847
havmil	.0036704	.007264	0.51	0.614	-.0106228	.0179636
bfmPain3	0	(omitted)				
bfmPain7	0	(omitted)				
bfmPain9	0	(omitted)				
bfmPain12	0	(omitted)				
bfmPain13	0	(omitted)				
bfmPain14	0	(omitted)				
bfmPain15	-.0000591	7.83e-06	-7.55	0.000	-.0000745	-.0000437
bfmPain16	0	(omitted)				
bfmPain18	0	(omitted)				
avgcumdosew3	.5165837	.2833387	1.82	0.069	-.0409337	1.074101
_cons	28402.98	3764.241	7.55	0.000	20996.19	35809.77

```

359 .
360 . scalar fw3 = e(r2_a)

361 . scalar list fw3
      fw3 = .32895175

362 .
363 .
364 . *---- Wave 3 analysis of male Pain Model begins here
365 . scalar wv = 3

366 .
367 . matrix define H1p1MPnDosew3 = J(1,12,0)

368 . matrix colnames H1p1MPnDosew3 = hypnum ptnum wv dsigfw3 dsigtw3 numMainEffs
> igFw3 numMainEffsigTw3 numModFw3 numModTw3 numbfsigfw3 numbfsigtw3 numMedw3

```

```
369 . matrix rownames H1p1MPnDosew3 = wave3
```

```
370 . matlist H1p1MPnDosew3
```

		hypnum	ptnum	wv	dsigfw3	dsigtw3	numMain~
> 3	numMain~3	numModFw3	numModTw3	numbfsi~3	numbfsi~3	numMedw3	
>							
	wave3	0	0	0	0	0	
> 0	0	0	0	0	0	0	

```
371 .
```

```
372 .
```

```
373 . matrix define H1p1MPnDose = (H1p1MPnDosew1 \ H1p1MPnDosew2 \ H1p1MPnDosew3
> )
```

```
374 . matlist H1p1MPnDose
```

		hypnum	ptnum	wv	dsigMw1	dsigtw1	numMain~
> 1	numMain~1	numModMw1	numModTw1	numbfsi~1	numbfsi~1	numMedw1	
>							
	wave1	1	1	1	1	1	
> 7	5	0	1	1	1	2	
	wave2	1	1	2	.5	.5	
> 3	4	6	0	3	9	1	
	wave3	0	0	0	0	0	
> 0	0	0	0	0	0	0	

```
375 .
```

```
376 . cap svmat H1p1MPnDose
```

```
377 .
```

```
378 . // wave 3 trimmed model of possible socio-demog covariates male model
```

```
379 .
```

```
380 . sw, pr(.05): regress WHPpain age educ2-educ6 marrw31-marrw33 ///
> emplw31-emplw33 occ2w3-occ7w3 inclw3-inc4w3 if gender==1
```

```
begin with full model
```

```
p = 0.8242 >= 0.0500 removing occ2w3
p = 0.6641 >= 0.0500 removing occ3w3
p = 0.6285 >= 0.0500 removing marrw33
p = 0.6252 >= 0.0500 removing occ4w3
p = 0.5629 >= 0.0500 removing educ2
p = 0.2837 >= 0.0500 removing inclw3
p = 0.6547 >= 0.0500 removing emplw32
p = 0.3688 >= 0.0500 removing emplw31
p = 0.7656 >= 0.0500 removing occ7w3
p = 0.4840 >= 0.0500 removing inclw3
p = 0.2530 >= 0.0500 removing inc4w3
```

p = **0.2772** >= 0.0500 removing **inc3w3**
 p = **0.2321** >= 0.0500 removing **educ6**
 p = **0.4269** >= 0.0500 removing **educ5**
 p = **0.2304** >= 0.0500 removing **occ6w3**
 p = **0.1509** >= 0.0500 removing **marrw32**
 p = **0.0977** >= 0.0500 removing **educ4**
 p = **0.1312** >= 0.0500 removing **occ5w3**
 p = **0.0667** >= 0.0500 removing **educ3**
 p = **0.0698** >= 0.0500 removing **marrw31**

Source	SS	df	MS	Number of obs =	340
Model	11432.2092	2	5716.10462	F(2, 337) =	23.98
Residual	80316.793	337	238.328763	Prob > F =	0.0000
Total	91749.0022	339	270.646024	R-squared =	0.1246
				Adj R-squared =	0.1194
				Root MSE =	15.438

WHPpain	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.2321752	.087638	2.65	0.008	.0597888	.4045616
emplw33	8.710592	2.59194	3.36	0.001	3.612172	13.80901
_cons	-3.135112	4.070773	-0.77	0.442	-11.14244	4.872214

381 .

382 . regress WHPpain age educ2-educ6 marrw31-marrw33 childw3 emplw31-emplw33 ///
 > occ2w3-occ7w3 inclw3-inc4w3 if gender==1

Source	SS	df	MS	Number of obs =	340
Model	16949.487	23	736.934218	F(23, 316) =	3.11
Residual	74799.5152	316	236.707327	Prob > F =	0.0000
Total	91749.0022	339	270.646024	R-squared =	0.1847
				Adj R-squared =	0.1254
				Root MSE =	15.385

WHPpain	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.2801671	.0962734	2.91	0.004	.0907493	.4695849
educ2	4.826882	8.237371	0.59	0.558	-11.38014	21.03391
educ3	12.12985	6.779167	1.79	0.075	-1.208161	25.46785
educ4	15.54282	7.76534	2.00	0.046	.2645207	30.82113
educ5	9.671127	6.886858	1.40	0.161	-3.878763	23.22102
educ6	8.507424	6.616197	1.29	0.199	-4.509941	21.52479
marrw31	6.901707	3.968448	1.74	0.083	-.9062129	14.70963
marrw32	-2.437305	4.234248	-0.58	0.565	-10.76819	5.893575
marrw33	1.414465	2.927038	0.48	0.629	-4.34448	7.17341
childw3	.1318276	1.174024	0.11	0.911	-2.178064	2.441719

emplw31	8.927626	7.135167	1.25	0.212	-5.110811	22.96606
emplw32	9.557291	7.580651	1.26	0.208	-5.357637	24.47222
emplw33	8.946737	6.072846	1.47	0.142	-3.001583	20.89506
occ2w3	.525454	2.385968	0.22	0.826	-4.168937	5.219845
occ3w3	-1.184993	3.57894	-0.33	0.741	-8.226557	5.85657
occ4w3	-1.550273	3.291882	-0.47	0.638	-8.02705	4.926504
occ5w3	-6.806926	4.203229	-1.62	0.106	-15.07678	1.462925
occ6w3	-9.654343	8.211152	-1.18	0.241	-25.80978	6.501095
occ7w3	7.2185	5.182213	1.39	0.165	-2.977501	17.4145
inclw3	-4.601938	4.870356	-0.94	0.345	-14.18436	4.980485
inc2w3	-3.977896	4.241396	-0.94	0.349	-12.32284	4.367049
inc3w3	-6.132378	4.381632	-1.40	0.163	-14.75324	2.48848
inc4w3	-8.29865	5.927439	-1.40	0.162	-19.96088	3.363583
_cons	-20.30011	11.09351	-1.83	0.068	-42.12659	1.526363

```

383 .
384 .
385 . local bfw3 bfmPain1 bfmPain2 bfmPain3 bfmPain4 bfmPain5 ///
    > bfmPain6 bfmPain12 bfmPain13 bfmPain14 ///
    > bfmPain15 bfmPain16

386 .
387 .
388 .
389 . regress WHPpain age educ2-educ5 marrw31-marrw33 marrw35 childw3 ///
    > emplw32-emplw34 occ1w3-occ7w3 inclw3-inc4w3 radhlw3 radchw3 ///
    > radtlw3 havmil `bfw3' avgcumdosew3 if gender==1
note: havmil omitted because of collinearity
note: bfmPain1 omitted because of collinearity
note: bfmPain3 omitted because of collinearity
note: bfmPain5 omitted because of collinearity
note: bfmPain12 omitted because of collinearity
note: bfmPain13 omitted because of collinearity
note: bfmPain14 omitted because of collinearity
note: bfmPain16 omitted because of collinearity

```

Source	SS	df	MS
Model	37207.6478	32	1162.73899
Residual	54541.3544	307	177.659135
Total	91749.0022	339	270.646024

```

Number of obs =    340
F( 32, 307) =    6.54
Prob > F      =    0.0000
R-squared     =    0.4055
Adj R-squared =    0.3436
Root MSE     =    13.329

```

WHPpain	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	.0202763	.0891562	0.23	0.820	-.1551582	.1957108
educ2	.7846495	4.678703	0.17	0.867	-8.421733	9.991032
educ3	1.029243	1.947302	0.53	0.598	-2.802506	4.860991
educ4	7.26787	3.913918	1.86	0.064	-.4336287	14.96937
educ5	.9884003	2.293272	0.43	0.667	-3.524119	5.50092
marrw31	2.634536	4.881708	0.54	0.590	-6.971305	12.24038
marrw32	-2.63047	5.044288	-0.52	0.602	-12.55622	7.295284
marrw33	-1.76995	4.14674	-0.43	0.670	-9.92958	6.389679
marrw35	-1.805367	5.090022	-0.35	0.723	-11.82111	8.210378
childw3	-.4723235	1.031232	-0.46	0.647	-2.501501	1.556854
emplw32	-1.735625	2.746043	-0.63	0.528	-7.139072	3.667822
emplw33	-5.472301	4.762203	-1.15	0.251	-14.84299	3.898388
emplw34	-8.647472	6.292498	-1.37	0.170	-21.02935	3.734411
occ1w3	-10.89672	7.219048	-1.51	0.132	-25.1018	3.30835
occ2w3	-10.3185	7.204052	-1.43	0.153	-24.49407	3.857064
occ3w3	-12.99569	7.62611	-1.70	0.089	-28.00175	2.010366
occ4w3	-8.98865	7.517185	-1.20	0.233	-23.78037	5.803075
occ5w3	-14.25265	7.758859	-1.84	0.067	-29.51992	1.014627
occ6w3	-10.64702	10.06377	-1.06	0.291	-30.44971	9.155681
occ7w3	-.4218697	6.942735	-0.06	0.952	-14.08324	13.2395
inc1w3	.548895	6.28505	0.09	0.930	-11.81833	12.91612
inc2w3	4.065503	5.84781	0.70	0.487	-7.441358	15.57236
inc3w3	2.933517	5.928126	0.49	0.621	-8.731383	14.59842
inc4w3	1.848318	6.890201	0.27	0.789	-11.70968	15.40631
radhlw3	.0187808	.0278477	0.67	0.501	-.0360158	.0735774
radchw3	.0924767	.0283019	3.27	0.001	.0367866	.1481669
radtlw3	.0021782	.0276683	0.08	0.937	-.0522652	.0566216
havmil	0	(omitted)				
bfmPain1	0	(omitted)				
bfmPain2	3461.188	1707.269	2.03	0.043	101.7573	6820.618
bfmPain3	0	(omitted)				
bfmPain4	3459.864	1707.651	2.03	0.044	99.68134	6820.046
bfmPain5	0	(omitted)				
bfmPain6	.0008914	.0073532	0.12	0.904	-.0135778	.0153605
bfmPain12	0	(omitted)				
bfmPain13	0	(omitted)				
bfmPain14	0	(omitted)				
bfmPain15	-.1579678	.0778929	-2.03	0.043	-.3112393	-.0046962
bfmPain16	0	(omitted)				
avgcumdosew3	.5135961	.2825211	1.82	0.070	-.0423266	1.069519
_cons	-7.58e+07	3.74e+07	-2.03	0.044	-1.49e+08	-2159044

```

390 .
391 .
392 . loc bfw3b bfmPain2 bfmPain4 bfmPain6 bfmPain15

393 .
394 . scalar numMainEffsigFw3 = 15

395 .
396 . local bfw3 bfmPain3 bfmPain7 bfmPain9 bfmPain12 bfmPain13 ///
>      bfmPain14 bfmPain15 bfmPain16

397 .
398 .
399 . sw, pr(.1): regress WHPpain age educ2-educ5 marrw31-marrw33 marrw35 childw3
> ///
>      emplw32-emplw34 occ1w3-occ7w3 inclw3-inc4w3 radhlw3 radchw3 ///
>      radtlw3 havmil `bfw3' avgcumdosew3 if gender==1
note: bfmPain3 dropped because of collinearity
note: bfmPain7 dropped because of collinearity
note: bfmPain9 dropped because of collinearity
note: bfmPain12 dropped because of collinearity
note: bfmPain13 dropped because of collinearity
note: bfmPain14 dropped because of collinearity
note: bfmPain16 dropped because of collinearity
begin with full model
p = 0.9566 >= 0.1000 removing inc4w3
p = 0.9360 >= 0.1000 removing marrw35
p = 0.9346 >= 0.1000 removing inclw3
p = 0.9327 >= 0.1000 removing educ2
p = 0.8820 >= 0.1000 removing age
p = 0.8267 >= 0.1000 removing occ7w3
p = 0.8131 >= 0.1000 removing radtlw3
p = 0.8119 >= 0.1000 removing marrw33
p = 0.7433 >= 0.1000 removing childw3
p = 0.6804 >= 0.1000 removing marrw32
p = 0.6644 >= 0.1000 removing havmil
p = 0.6717 >= 0.1000 removing educ5
p = 0.5797 >= 0.1000 removing emplw32
p = 0.4226 >= 0.1000 removing emplw33
p = 0.4270 >= 0.1000 removing inc3w3
p = 0.3722 >= 0.1000 removing educ3
p = 0.4261 >= 0.1000 removing radhlw3
p = 0.2773 >= 0.1000 removing occ6w3
p = 0.2473 >= 0.1000 removing emplw34
p = 0.1457 >= 0.1000 removing inc2w3
p = 0.1541 >= 0.1000 removing occ4w3
p = 0.1219 >= 0.1000 removing marrw31

```

Source	SS	df	MS	Number of obs =	340
Model	33359.9699	8	4169.99624	F(8, 331) =	23.64
Residual	58389.0323	331	176.40191	Prob > F =	0.0000
				R-squared =	0.3636
				Adj R-squared =	0.3482
Total	91749.0022	339	270.646024	Root MSE =	13.282

WHPpain	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
radchw3	.1225812	.0217759	5.63	0.000	.0797445	.1654179
avgcumdosew3	.542687	.2711052	2.00	0.046	.0093806	1.075993
occ2w3	-4.10786	1.902413	-2.16	0.032	-7.850204	-.3655157
educ4	7.186648	3.685602	1.95	0.052	-.0635095	14.43681
occ5w3	-7.688694	3.415923	-2.25	0.025	-14.40835	-.9690379
bfmPain15	-.0000648	5.89e-06	-11.00	0.000	-.0000764	-.0000533
occ1w3	-4.907304	1.905146	-2.58	0.010	-8.655024	-1.159584
occ3w3	-5.099104	2.905412	-1.76	0.080	-10.81451	.6162978
_cons	31167.15	2831.891	11.01	0.000	25596.37	36737.92

```

400 .
401 . loc bfw3b bfmPain2 bfmPain6 bfmPain15

402 . sw, pr(.1): regress WHPpain age educ2-educ5 marrw31-marrw33 marrw35 childw3
> ///
> emplw32-emplw34 occ1w3-occ7w3 inclw3-inc4w3 radhlw3 radchw3 ///
> radtlw3 `bfw3b' avgcumdosew3 if gender==1
begin with full model
p = 0.9993 >= 0.1000 removing inclw3
p = 0.9787 >= 0.1000 removing educ2
p = 0.9224 >= 0.1000 removing bfmPain6
p = 0.9199 >= 0.1000 removing occ7w3
p = 0.8960 >= 0.1000 removing inc4w3
p = 0.7951 >= 0.1000 removing radtlw3
p = 0.7850 >= 0.1000 removing marrw35
p = 0.8744 >= 0.1000 removing marrw33
p = 0.7290 >= 0.1000 removing educ5
p = 0.7284 >= 0.1000 removing age
p = 0.7572 >= 0.1000 removing childw3
p = 0.7159 >= 0.1000 removing educ3
p = 0.6980 >= 0.1000 removing marrw32
p = 0.6318 >= 0.1000 removing emplw32
p = 0.3237 >= 0.1000 removing radhlw3
p = 0.3126 >= 0.1000 removing inc3w3
p = 0.3407 >= 0.1000 removing emplw33
p = 0.3459 >= 0.1000 removing occ6w3
p = 0.3113 >= 0.1000 removing emplw34
p = 0.2517 >= 0.1000 removing occ4w3

```

p = **0.2202** >= 0.1000 removing **inc2w3**

Source	SS	df	MS	Number of obs =	340
Model	34975.9992	10	3497.59992	F(10, 329) =	20.27
Residual	56773.0031	329	172.562319	Prob > F =	0.0000
				R-squared =	0.3812
				Adj R-squared =	0.3624
Total	91749.0022	339	270.646024	Root MSE =	13.136

WHPpain	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
occ5w3	-7.394399	3.389323	-2.18	0.030	-14.06188	-.7269202
bfmPain15	-.0001631	.0000375	-4.35	0.000	-.0002368	-.0000894
bfmPain2	2.280111	.8669677	2.63	0.009	.5746118	3.985611
educ4	7.575346	3.648584	2.08	0.039	.3978482	14.75284
occ3w3	-5.510228	2.914644	-1.89	0.060	-11.24392	.2234611
marrw31	4.284431	2.404142	1.78	0.076	-.4449989	9.013861
occlw3	-4.418587	1.895332	-2.33	0.020	-8.147086	-.6900877
radchw3	.1038663	.0224125	4.63	0.000	.0597764	.1479561
occ2w3	-3.562958	1.890549	-1.88	0.060	-7.282047	.1561304
avgcumdosew3	.498334	.2694488	1.85	0.065	-.0317258	1.028394
_cons	28380.32	3073.49	9.23	0.000	22334.15	34426.49

```

403 .
404 .
405 . scalar tw3bf = e(r2_a)

406 . scalar list tw3bf
      tw3bf = .36240586

407 . scalar dsigfw3 = .5

408 . scalar numMainEffsigFw3 =7

409 .

```

```

410 .
411 . loc bfw3b bfmPain2 bfmPain6 bfmPain15

412 .
413 .
414 . sw, pr(.1): regress WHPpain age educ2-educ5 marrw31-marrw33 marrw35 childw3
> ///
> emplw32-emplw34 occ1w3-occ7w3 inclw3-inc4w3 radhlw3 radchw3 ///
> radtlw3 avgcumdosew3 if gender==1
begin with full model
p = 0.9508 >= 0.1000 removing radtlw3
p = 0.9485 >= 0.1000 removing childw3
p = 0.9378 >= 0.1000 removing inclw3
p = 0.9267 >= 0.1000 removing educ5
p = 0.7323 >= 0.1000 removing marrw33
p = 0.7320 >= 0.1000 removing inc3w3
p = 0.7016 >= 0.1000 removing marrw35
p = 0.7037 >= 0.1000 removing educ2
p = 0.6010 >= 0.1000 removing inc4w3
p = 0.5539 >= 0.1000 removing emplw33
p = 0.6619 >= 0.1000 removing occ7w3
p = 0.5264 >= 0.1000 removing emplw32
p = 0.4072 >= 0.1000 removing marrw32
p = 0.1933 >= 0.1000 removing age
p = 0.2177 >= 0.1000 removing marrw31
p = 0.1655 >= 0.1000 removing inc2w3
p = 0.1168 >= 0.1000 removing avgcumdosew3

```

Source	SS	df	MS	Number of obs =	340
Model	23090.7679	11	2099.16072	F(11, 328) =	10.03
Residual	68658.2343	328	209.323885	Prob > F =	0.0000
				R-squared =	0.2517
				Adj R-squared =	0.2266
Total	91749.0022	339	270.646024	Root MSE =	14.468

WHPpain	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
occ2w3	-8.481612	2.335016	-3.63	0.000	-13.07511	-3.888114
radchw3	.0668123	.0237746	2.81	0.005	.0200423	.1135822
educ3	4.086965	1.839252	2.22	0.027	.4687467	7.705184
educ4	6.793807	4.097871	1.66	0.098	-1.267619	14.85523
radhlw3	.1358926	.023218	5.85	0.000	.0902175	.1815677
occ1w3	-9.201475	2.37964	-3.87	0.000	-13.88276	-4.520193
occ3w3	-11.72567	3.264193	-3.59	0.000	-18.14706	-5.304274
occ5w3	-13.34721	3.893205	-3.43	0.001	-21.00601	-5.68841
emplw34	-8.930733	5.382424	-1.66	0.098	-19.51916	1.657695
occ6w3	-15.20404	7.449155	-2.04	0.042	-29.85819	-.5498913
occ4w3	-9.701597	2.982772	-3.25	0.001	-15.56937	-3.833819

_cons	6.408453	2.549656	2.51	0.012	1.392711	11.42419
--------------	-----------------	-----------------	-------------	--------------	-----------------	-----------------

```

415 .
416 . scalar numMainEffsigTw3 = 9

417 . scalar numMedFw3 = 15

418 .
419 . scalar dsigtw3 = 0

420 .
421 . scalar tw3nobf = e(r2_a)

422 . scalar list tw3nobf
      tw3nobf = .22657691

423 .
424 . scalar r2chabfw3 = tw3bf - tw3nobf

425 . scalar list r2chabfw3
      r2chabfw3 = .13582895

426 .
427 .
428 . // on earlier model
429 . scalar w3numbf = 2

430 . scalar numbfsigfw3 = 2

431 .
432 . ***** Moderator search only if avgcumdosew3 is signifi which it is not
      > as a main effect
433 .
434 . scalar numModsigFw3 =0

435 . scalar numModsigTw3=0

```

```

436 .
437 . *--- Mediator Search from trimmed main effects model
438 . local bfw3 bfmPain3 bfmPain7 bfmPain9 bfmPain12 bfmPain13 ///
> bfmPain14 bfmPain15 bfmPain16

439 .
440 .
441 . sw, pr(.1): regress WHPpain age educ2-educ5 marrw31-marrw33 marrw35 childw3
> ///
> emplw32-emplw34 occ1w3-occ7w3 inclw3-inc4w3 radhlw3 radchw3 ///
> radtlw3 havmil `bfw3' avgcumdosew3 if gender==1
note: bfmPain3 dropped because of collinearity
note: bfmPain7 dropped because of collinearity
note: bfmPain9 dropped because of collinearity
note: bfmPain12 dropped because of collinearity
note: bfmPain13 dropped because of collinearity
note: bfmPain14 dropped because of collinearity
note: bfmPain16 dropped because of collinearity
begin with full model
p = 0.9566 >= 0.1000 removing inc4w3
p = 0.9360 >= 0.1000 removing marrw35
p = 0.9346 >= 0.1000 removing inclw3
p = 0.9327 >= 0.1000 removing educ2
p = 0.8820 >= 0.1000 removing age
p = 0.8267 >= 0.1000 removing occ7w3
p = 0.8131 >= 0.1000 removing radtlw3
p = 0.8119 >= 0.1000 removing marrw33
p = 0.7433 >= 0.1000 removing childw3
p = 0.6804 >= 0.1000 removing marrw32
p = 0.6644 >= 0.1000 removing havmil
p = 0.6717 >= 0.1000 removing educ5
p = 0.5797 >= 0.1000 removing emplw32
p = 0.4226 >= 0.1000 removing emplw33
p = 0.4270 >= 0.1000 removing inc3w3
p = 0.3722 >= 0.1000 removing educ3
p = 0.4261 >= 0.1000 removing radhlw3
p = 0.2773 >= 0.1000 removing occ6w3
p = 0.2473 >= 0.1000 removing emplw34
p = 0.1457 >= 0.1000 removing inc2w3
p = 0.1541 >= 0.1000 removing occ4w3
p = 0.1219 >= 0.1000 removing marrw31

```

Source	SS	df	MS
Model	33359.9699	8	4169.99624
Residual	58389.0323	331	176.40191
Total	91749.0022	339	270.646024

```

Number of obs = 340
F( 8, 331) = 23.64
Prob > F = 0.0000
R-squared = 0.3636
Adj R-squared = 0.3482
Root MSE = 13.282

```

WHPpain	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
radchw3	.1225812	.0217759	5.63	0.000	.0797445	.1654179
avgcumdosew3	.542687	.2711052	2.00	0.046	.0093806	1.075993
occ2w3	-4.10786	1.902413	-2.16	0.032	-7.850204	-.3655157
educ4	7.186648	3.685602	1.95	0.052	-.0635095	14.43681
occ5w3	-7.688694	3.415923	-2.25	0.025	-14.40835	-.9690379
bfmPain15	-.0000648	5.89e-06	-11.00	0.000	-.0000764	-.0000533
occlw3	-4.907304	1.905146	-2.58	0.010	-8.655024	-1.159584
occ3w3	-5.099104	2.905412	-1.76	0.080	-10.81451	.6162978
_cons	31167.15	2831.891	11.01	0.000	25596.37	36737.92

```

442 .
443 . scalar FemPainDoseMedsw3 = "age illw3 phlthw3 radfmw3 are possible mediator
    > s"

444 . scalar numbfsigTw3 = 15

445 .
446 . // age and illw3 and physical health radhlw3 radfmw3 are possible mediato
    > rs
447 .
448 . sem(avgcumdosew3->age)(age -> whppain) if gender==1, nocapslatent

Endogenous variables

Observed:  age whppain

Exogenous variables

Observed:  avgcumdosew3

Fitting target model:

Iteration 0:  log likelihood = -3563.4856
Iteration 1:  log likelihood = -3563.4856

Structural equation model                                Number of obs      =      340
Estimation method  = ml
Log likelihood      = -3563.4856

```

```

> _____
               OIM
             Coef.   Std. Err.      z    P>|z|     [95% Conf. Inter
> val]
_____
Structural
  age <-
    avgcumdosew3   .5433648   .2465374     2.20   0.028     .0601605     1.02
> 6569
    _cons          48.52021   .7226029    67.15   0.000     47.10394     49.9
> 3649
_____
> _____
  whppain <-
    age            .4154505   .069434     5.98   0.000     .2793624     .551
> 5386
    _cons          -10.25319   3.518491    -2.91   0.004     -17.1493     -3.3
> 5707
_____
> _____
Variance
    e.age          146.8453   11.26252
> 6649
    e.whppain      244.1425   18.72488
> 7446
_____
> _____
LR test of model vs. saturated: chi2(1)    =      2.40, Prob > chi2 = 0.1213

```

```

449 . sem(avgcumdosew3->inc4w3)(inc4w3->whppain) if gender==1, nocapslatent

```

Endogenous variables

Observed: **inc4w3 whppain**

Exogenous variables

Observed: **avgcumdosew3**

Fitting target model:

Iteration 0: log likelihood = **-2181.9175**

Iteration 1: log likelihood = **-2181.9175**

```

Structural equation model                      Number of obs      =       340
Estimation method = ml
Log likelihood      = -2181.9175

```

```

> -----
> val]
> -----
Structural
  inc4w3 <-
    avgcumdosew3  -0.0015041  .0040416  -0.37  0.710  -0.0094256  .006
> 4174
    _cons         .0430093  .0118461   3.63  0.000   .0197914  .066
> 2273
> -----
  whppain <-
    inc4w3        -5.989115   4.47183   -1.34  0.180  -14.75374   2.77
> 5511
    _cons         10.42626   .9074231   11.49  0.000   8.647741  12.2
> 0477
> -----
Variance
  e.inc4w3        .0394649   .0030268                .0339568   .045
> 8664
  e.whppain       268.4338   20.58794                230.9687   311.
> 9762
> -----
LR test of model vs. saturated: chi2(1)    =       4.50, Prob > chi2 = 0.0338

```

```

450 . sem(avgcumdosew3->illw3)(illw3->whppain) if gender==1, nocapslatent

```

Endogenous variables

Observed: **illw3 whppain**

Exogenous variables

Observed: **avgcumdosew3**

Fitting target model:

Iteration 0: log likelihood = -2684.8914
 Iteration 1: log likelihood = -2684.8914

Structural equation model Number of obs = 340
 Estimation method = ml
 Log likelihood = -2684.8914

> _____						
		OIM				
	Coef.	Std. Err.	z	P> z	[95% Conf. Inter	
> val]						
> _____						
Structural						
illw3 <-						
avgcumdosew3	.038211	.0191573	1.99	0.046	.0006633	.075
> 7587						
_cons	.4504952	.0561503	8.02	0.000	.3404427	.560
> 5478						
> _____						
whppain <-						
illw3	6.643341	.8688825	7.65	0.000	4.940363	8.3
> 4632						
_cons	6.877515	.9293866	7.40	0.000	5.055951	8.6
> 9908						
> _____						
Variance						
e.illw3	.8866751	.0680049			.7629223	1.03
> 0502						
e.whppain	230.2596	17.66011			198.1224	267.
> 6098						
> _____						
LR test of model vs. saturated: chi2(1) = 2.25, Prob > chi2 = 0.1332						

```
451 . sem(avgcumdosew3->phlthw3)(phlthw3->whppain) if gender==1, nocapslatent
```

Endogenous variables

Observed: **phlthw3 whppain**

Exogenous variables

Observed: **avgcumdosew3**

Fitting target model:

Iteration 0: log likelihood = **-3744.7524**

Iteration 1: log likelihood = **-3744.7524**

```
Structural equation model                                Number of obs      =      340
Estimation method   = ml
Log likelihood       = -3744.7524
```

```
> _____
               OIM
               Coef.   Std. Err.      z    P>|z|     [95% Conf. Inter
> val]
_____
> _____
Structural
  phlthw3 <-
    avgcumdosew3   -1.241883   .4440577    -2.80   0.005    -2.11222    -.371
> 5461
    _cons          73.2457    1.301536    56.28   0.000    70.69474    75.7
> 9667
_____
> _____
  whppain <-
    phlthw3       -.3243486   .0363194    -8.93   0.000    -.3955334    -.253
> 1638
    _cons         33.44594    2.725868    12.27   0.000    28.10333    38.7
> 8854
_____
> _____
Variance
    e.phlthw3     476.4016    36.53833                409.9105    553.
> 6781
    e.whppain     218.5787    16.76422                188.0718    254.
> 0341
_____
> _____
LR test of model vs. saturated: chi2(1)    =      1.10, Prob > chi2 = 0.2951
```

```
452 . sem(avgcumdosew3->radhlw3)(radhlw3->whppain) if gender==1, nocapslatent
```

Endogenous variables

Observed: **radhlw3 whppain**

Exogenous variables

Observed: **avgcumdosew3**

Fitting target model:

Iteration 0: log likelihood = **-3918.8565**

Iteration 1: log likelihood = **-3918.8565**

```
Structural equation model                      Number of obs      =      340
Estimation method   = ml
Log likelihood       = -3918.8565
```

		Coef.	OIM Std. Err.	z	P> z	[95% Conf. Inter	
> _____							
> val]							
> _____							
Structural							
radhlw3 <-							
avgcumdosew3		.9606492	.7203412	1.33	0.182	-.4511936	2.37
> 2492							
_cons		46.19995	2.111326	21.88	0.000	42.06183	50.3
> 3807							
> _____							
> _____							
whppain <-							
radhlw3		.1748854	.0232347	7.53	0.000	.1293463	.220
> 4245							
_cons		1.895223	1.3754	1.38	0.168	-.8005111	4.59
> 0957							
> _____							
Variance							
e.radhlw3		1253.634	96.14937			1078.665	1456
> .985							
e.whppain		231.3072	17.74045			199.0237	268.
> 8272							
> _____							

```
453 . sem(avgcumdosew3-> radfmw3)(radfmw3->whppain) if gender==1, nocapslatent
```

Observed: **radfmw3 whppain**

Observed: **avgcumdosew3**

```
Iteration 1:    log likelihood = -3916.5063
```

		OIM				
> _____		Coef.	Std. Err.	z	P> z	[95% Conf. Inter
> val]						
> _____						
Structural						
radfmw3 <-						
avgcumdosew3		1.581248	.7074787	2.24	0.025	.1946154 2.96
> 7881						
_cons		54.80546	2.073626	26.43	0.000	50.74123 58.8
> 6969						
> _____						
whppain <-						
radfmw3		.164857	.0238095	6.92	0.000	.1181912 .211
> 5227						
_cons		.8269229	1.587504	0.52	0.602	-2.284528 3.93
> 8374						
> _____						
Variance						
e.radfmw3		1209.264	92.74633			1040.488 1405
> .418						
e.whppain		236.502	18.13887			203.4935 274.
> 8647						

```
> _____
LR test of model vs. saturated: chi2(1)    =      2.14, Prob > chi2 = 0.1439
```

```
454 . sem(avgcumdosew3-> radchw3)(radchw3->whppain) if gender==1, nocapslatent
```

Endogenous variables

Observed: **radchw3 whppain**

Exogenous variables

Observed: **avgcumdosew3**

Fitting target model:

Iteration 0: log likelihood = **-3920.313**

Iteration 1: log likelihood = **-3920.313**

```
Structural equation model                                Number of obs      =      340
Estimation method   = ml
Log likelihood       = -3920.313
```

> _____							
			OIM				
		Coef.	Std. Err.	z	P> z	[95% Conf. Inter	
> val]							
> _____							
Structural							
radchw3 <-							
avgcumdosew3		.6454152	.6824406	0.95	0.344	-.6921437	1.98
> 2974							
_cons		45.17233	2.000238	22.58	0.000	41.25193	49.0
> 9272							
> _____							
whppain <-							
radchw3		.0937706	.0260319	3.60	0.000	.0427489	.144
> 7923							
_cons		5.87006	1.481846	3.96	0.000	2.965696	8.77
> 4425							
> _____							
Variance							
e.radchw3		1125.185	86.29778			968.1438	13
> 07.7							
e.whppain		259.9303	19.93574			223.652	302.
> 0933							

```
> _____
LR test of model vs. saturated: chi2(1)    =      4.00, Prob > chi2 = 0.0454
```

```
455 . sem(avgcumdosew3-> radtlw3)(radtlw3->whppain) if gender==1, nocapslatent
```

```
Endogenous variables
```

```
Observed:  radtlw3 whppain
```

```
Exogenous variables
```

```
Observed:  avgcumdosew3
```

```
Fitting target model:
```

```
Iteration 0:  log likelihood = -3932.9258
```

```
Iteration 1:  log likelihood = -3932.9258
```

```
Structural equation model                                Number of obs      =      340
```

```
Estimation method  = ml
```

```
Log likelihood      = -3932.9258
```

```
> _____
```

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

```
> val]
```

```
> _____
```

Structural						
radtlw3 <-						
avgcumdosew3	.6410208	.7122484	0.90	0.368	-.7549604	2.03
> 7002						
_cons	50.51592	2.087605	24.20	0.000	46.42429	54.6
> 0755						

```
> _____
```

whppain <-						
radtlw3	.1022438	.0248049	4.12	0.000	.053627	.150
> 8605						
_cons	4.934843	1.541088	3.20	0.001	1.914366	7.95
> 5321						

```
> _____
```

Variance						
e.radtlw3	1225.624	94.00109			1054.565	1424
> .431						
e.whppain	257.0071	19.71154			221.1367	298.

> 6959

> _____

LR test of model vs. saturated: chi2(1) = 3.98, Prob > chi2 = 0.0459

456 .

457 . scalar numMedPainDoseFsigw3 =4

458 .

459 . matrix define maleWHPpainr2w3 = (fw3 , tw3bf, tw3nobf, w3numbf, r2chabfw3)

460 . matrix colnames maleWHPpainr2w3 = FullBFR2a TR2aBF TR2aNoBF NumBF BFR2cha

461 . matrix rownames maleWHPpainr2w3 = wave2

462 . matlist maleWHPpainr2w3

	FullBFR2a	TR2aBF	TR2aNoBF	NumBF	BFR2cha
wave2	.3289518	.3624059	.2265769	2	.135829

463 .

464 . matrix define maleWHPpainr2 = (maleWHPpainr2w1 \ maleWHPpainr2w2 \ maleWHPp
> ainr2w3)

465 . matlist maleWHPpainr2

	FullBFR2a	TR2aBF	TR2aNoBF	NumBF	BFR2cha
wave1	.3020449	.3148261	.1258014	1	.1890247
wave2	.355743	.3781594	.3179991	1	.0601603
wave2	.3289518	.3624059	.2265769	2	.135829

466 .

467 .

468 .

469 .

```

470 .
471 .
472 .
473 . matrix define H1p1MPnDosew3 = J(1,12,0)

474 . matrix colnames H1p1MPnDosew3 = hypnum ptnum wv dsigfw3 dsigtw3 numMainEffs
    > igFw3 numMainEffsigTw3 numModFw3 numModTw3 numbfsw3 numbfst3 numMedw3

475 . matrix rownames H1p1MPnDosew3 = wave3

476 . matlist H1p1MPnDosew3

    +-----+-----+-----+-----+-----+-----+
    > 3  numMain~3 |   hypnum      ptnum      wv   dsigfw3   dsigtw3   numMain~
    +-----+-----+-----+-----+-----+-----+
    > |   numModFw3   numModTw3   numbfsw3   numbfst3   numMedw3
    +-----+-----+-----+-----+-----+-----+
    > |
    > wave3 |   0       0       0       0       0
    > 0      |   0       0       0       0       0

477 .
478 .
479 . *----- Legend-----
    > -----
480 . * legend: hyp = hypothesis
481 . *           pt = part of hypothesis
482 . *           wv = wave
483 . *           dsigfw3 = is dose signifcant in full main effects model = 1 if
    > yes, 0 otherwise
484 . *           dsigtw3 = is dose signif in trimmed main effects model = 1 if ye
    > s, 0 otherwise
485 . *           numMainEffsigFwx = number of sig main effects in full model in w
    > ave x
486 . *           numMainEffsigTw3 =           "           trimmed "           "
    >           3
487 . *           numModFw3 = number of moderating effects in full wave 3 model
488 . *           numModTw3 = number of moderating effects in trimmed model in wav
    > e 3

```

```

489 . *      numbfsw3 = number of basis functions significant in full wave 3
    > model
490 . *      numbfsw3 = number of basis functions significant in trimmed wa
    > ve 3 model
491 . *      numMedw3 = number of possible mediators in wave3
492 .
493 .
494 . matrix define H1p1MPnDosew3 = (hyp, pt, wv, dsigfw3, dsigtw3, numMainEffsigF
    > w3, numMainEffsigTw3, numModsigFw3, numModsigTw3,numbfsw3,numbfsw3, nu
    > mMedFw3)

495 . matrix colnames H1p1MPnDosew3 = hypnum ptnum wv dsigfw3 dsigtw3 numMainEffs
    > igFw3 numMainEffsigTw3 numModFw3 numModTw3 numbfsw3 numbfsw3 numMedw3

496 . matrix rownames H1p1MPnDosew3 = wave3

497 . matlist H1p1MPnDosew3

```

		hypnum	ptnum	wv	dsigfw3	dsigtw3	numMain~
> 3	numMain~3	numModFw3	numModTw3	numbfsw3	numbfsw3	numMedw3	
>							
	wave3	1	1	3	.5	0	
> 7	9	0	0	2	15	15	

```

498 .
499 . matrix define H1p1MPnDose = ( H1p1MPnDosew1 \ H1p1MPnDosew2 \ H1p1MPnDosew3
    > )

500 . matlist H1p1MPnDose

```

		hypnum	ptnum	wv	dsigMw1	dsigtw1	numMain~
> 1	numMain~1	numModMw1	numModTw1	numbfsw1	numbfsw1	numMedw1	
>							
	wave1	1	1	1	1	1	
> 7	5	0	1	1	1	2	
	wave2	1	1	2	.5	.5	
> 3	4	6	0	3	9	1	
	wave3	1	1	3	.5	0	
> 7	9	0	0	2	15	15	

```

501 .
502 . cap svmat H1p1MPnDose

```