

APPENDIX

Table A1: First Stage Results – Cluster robust standard errors on care recipient level

	(1)		(2)	
	Intensive caregiving (min. 80 hours a month)		Work for pay in the last week or month	
Number of children	-0.012***	(0.004)	0.003	(0.005)
Reached early retirement age (≥ 62 years old)	-0.018	(0.030)	-0.141***	(0.032)
Widowed (SP)	0.092***	(0.019)	-0.081***	(0.022)
Married	-0.131***	(0.018)	0.057**	(0.020)
Black	0.154***	(0.024)	-0.051*	(0.026)
Other	0.079	(0.045)	-0.024	(0.057)
Hispanic	0.190***	(0.038)	-0.053	(0.036)
Age in years	-0.015	(0.009)	0.016*	(0.008)
Age in years squared/100	0.012	(0.008)	-0.024**	(0.007)
Male	-0.098***	(0.018)	0.032	(0.021)
Numb. of self-care or mob. lim. (SP)	0.028***	(0.003)	-0.001	(0.003)
Proxy answ. NHATS questions (SP)	0.034	(0.033)	-0.014	(0.032)
Heart attack (SP)	0.021	(0.029)	-0.014	(0.029)
Heart disease (SP)	-0.011	(0.019)	-0.003	(0.022)
High blood pressure (SP)	-0.001	(0.022)	-0.025	(0.024)
Arthritis (SP)	-0.012	(0.021)	0.004	(0.023)
Osteoporosis (SP)	-0.005	(0.018)	-0.021	(0.021)
Diabetes (SP)	-0.003	(0.020)	-0.006	(0.021)

Lung disease (SP)	0.046*	(0.021)	-0.055*	(0.023)
Stroke (SP)	0.032	(0.026)	-0.058*	(0.027)
Dementia (SP)	0.035	(0.026)	-0.023	(0.028)
Cancer (SP)	0.023	(0.023)	0.021	(0.027)
Lives in an assisted living facility (SP)	-0.198***	(0.019)	0.058*	(0.029)
NSOC Round II	-0.014	(0.021)	-0.011	(0.022)
NSOC Round III	-0.006	(0.021)	0.006	(0.023)
Constant	0.651**	(0.222)	0.578**	(0.209)
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F-Statistic	11.50		19.98	
Number of observations	3,039		3,039	

Note: SP represents NHATS survey person and denotes care recipient information. All other variables are on caregiver level. Standard Errors in parentheses. Cluster robust standard errors on care recipient level (Number of clusters: 1,809). We estimate regressions for individuals who provide information on all outcomes to better compare results. F-Statistic is the Sanderson-Windmeijer first-stage F statistic of weak identification of individual endogenous regressor (Sanderson & Windmeijer, 2016). * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A2. Main results – Cluster robust standard errors on care recipient level

	(1)		(2)		(3)		(4)		(5)		(6)		(7)	
	PHQ4		GAD2		PHQ2		purpose		growth		closer		satisfaction	
Intensive caregiving	4.632*	(2.237)	3.211*	(1.350)	1.420	(1.075)	-0.037	(0.142)	0.355	(0.260)	-0.528*	(0.252)	-0.164*	(0.083)
Work for pay	0.866	(1.355)	0.275	(0.849)	0.591	(0.649)	0.187	(0.099)	0.039	(0.169)	-0.040	(0.185)	-0.062	(0.067)
Widowed (SP)	-0.141	(0.264)	-0.194	(0.163)	0.053	(0.125)	-0.003	(0.016)	-0.020	(0.032)	0.028	(0.030)	0.010	(0.010)
Married	-0.103	(0.326)	0.175	(0.197)	-0.278	(0.157)	0.008	(0.021)	0.097*	(0.039)	-0.081*	(0.037)	-0.019	(0.011)
Black	-1.005**	(0.363)	-0.785***	(0.225)	-0.219	(0.171)	0.019	(0.025)	-0.021	(0.042)	0.132**	(0.043)	0.036**	(0.013)
Other	-0.597	(0.404)	-0.380	(0.243)	-0.217	(0.190)	0.006	(0.025)	-0.051	(0.048)	0.057	(0.040)	0.012	(0.017)
Hispanic	-1.083*	(0.469)	-0.725*	(0.295)	-0.358	(0.221)	-0.022	(0.034)	-0.107	(0.058)	0.135*	(0.055)	0.039*	(0.018)
Age in years	0.098	(0.079)	0.058	(0.047)	0.040	(0.039)	-0.010*	(0.004)	-0.002	(0.009)	0.001	(0.010)	-0.001	(0.003)
Age in years squared/100	-0.089	(0.083)	-0.056	(0.050)	-0.032	(0.040)	0.012*	(0.005)	0.003	(0.009)	-0.002	(0.011)	-0.000	(0.004)
Male	0.043	(0.246)	-0.009	(0.151)	0.052	(0.119)	-0.012	(0.017)	0.034	(0.029)	-0.064*	(0.030)	-0.025*	(0.011)
Numb. of self-care or mob. lim. (SP)	-0.051	(0.063)	-0.054	(0.038)	0.003	(0.030)	0.000	(0.004)	-0.015*	(0.008)	0.015*	(0.007)	0.005	(0.002)
Proxy answ. NHATS questions (SP)	-0.451	(0.244)	-0.256	(0.154)	-0.195	(0.112)	-0.007	(0.016)	0.031	(0.030)	0.031	(0.031)	0.013	(0.011)
Heart attack (SP)	-0.096	(0.198)	-0.061	(0.130)	-0.035	(0.089)	0.022*	(0.011)	-0.061*	(0.027)	0.046*	(0.024)	0.008	(0.007)
Heart disease (SP)	0.308*	(0.134)	0.173*	(0.086)	0.134*	(0.063)	0.011	(0.009)	0.023	(0.017)	-0.024	(0.017)	0.003	(0.005)
High blood pressure	0.055	(0.159)	0.044	(0.099)	0.011	(0.074)	-0.000	(0.010)	-0.010	(0.019)	0.002	(0.021)	-0.008	(0.006)

(SP)														
Arthritis (SP)	0.096	(0.146)	0.024	(0.088)	0.073	(0.073)	0.001	(0.009)	-0.005	(0.018)	-0.008	(0.018)	-0.015**	(0.006)
Osteoporosis (SP)	-0.117	(0.126)	-0.003	(0.081)	-0.113	(0.060)	-0.000	(0.009)	0.020	(0.016)	0.011	(0.017)	0.005	(0.006)
Diabetes (SP)	0.076	(0.138)	0.011	(0.086)	0.066	(0.066)	-0.000	(0.009)	0.005	(0.017)	-0.011	(0.016)	-0.007	(0.006)
Lung disease (SP)	-0.018	(0.193)	-0.055	(0.121)	0.037	(0.089)	0.013	(0.012)	-0.053*	(0.024)	0.026	(0.023)	0.013	(0.008)
Stroke (SP)	0.127	(0.215)	0.074	(0.135)	0.053	(0.100)	-0.014	(0.015)	-0.011	(0.027)	0.006	(0.026)	0.009	(0.008)
Dementia (SP)	0.111	(0.205)	0.033	(0.127)	0.078	(0.098)	0.017	(0.012)	-0.044	(0.026)	-0.011	(0.026)	0.002	(0.011)
Cancer (SP)	0.052	(0.179)	-0.002	(0.111)	0.054	(0.088)	-0.012	(0.012)	-0.012	(0.022)	-0.004	(0.023)	-0.000	(0.008)
Lives in an assisted living facility (SP)	0.698	(0.482)	0.542	(0.293)	0.156	(0.231)	-0.006	(0.029)	0.116*	(0.055)	-0.113*	(0.055)	-0.024	(0.018)
NSOC Round II	-0.127	(0.142)	-0.048	(0.092)	-0.079	(0.067)	0.004	(0.009)	0.008	(0.018)	0.002	(0.017)	-0.007	(0.006)
NSOC Round III	-0.051	(0.147)	0.044	(0.093)	-0.094	(0.070)	-0.009	(0.010)	0.012	(0.019)	0.010	(0.018)	-0.012	(0.006)
Constant	-1.914	(2.154)	-1.047	(1.293)	-0.867	(1.057)	1.044***	(0.119)	0.812**	(0.251)	1.039***	(0.238)	1.134***	(0.094)
Outcome is binary	no		no		no		yes		yes		yes		yes	
Number of observations	3,039		3,039		3,039		3,039		3,039		3,039		3,039	

Note: SP represents NHATS survey person and denotes care recipient information. All other variables are on caregiver level. Standard Errors in parentheses. Cluster robust standard errors on care recipient level (Number of clusters: 1,809). We estimate regressions for individuals who provide information on all outcomes to better compare results. Intensive caregiving denotes helping minimum of 80 hours a month. Work for pay denotes working in the last week or month. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A3. Main results – Unadjusted associations

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	PHQ4	GAD2	PHQ2	purpose	growth	closer	satisfaction
Intensive caregiving	2.629*** (0.092)	1.305*** (0.052)	1.324*** (0.048)	0.952*** (0.026)	0.818*** (0.026)	0.929*** (0.026)	0.997*** (0.026)
Work for pay	1.841*** (0.072)	0.992*** (0.040)	0.849*** (0.038)	0.975*** (0.016)	0.889*** (0.016)	0.902*** (0.017)	0.988*** (0.017)
Number of observations	3,039	3,039	3,039	3,039	3,039	3,039	3,039

Standard Errors in parentheses. Unadjusted associations (Separate estimations). We estimate regressions for individuals who provide information on all outcomes to better compare results. Intensive caregiving denotes helping minimum of 80 hours a month. Work for pay denotes working in the last week or month. * p < 0.05, ** p < 0.01, *** p < 0.001

Table A4. Main results – OLS estimations

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	PHQ4	GAD2	PHQ2	purpose	growth	closer	satisfaction
Intensive caregiving	0.544*** (0.115)	0.239*** (0.065)	0.306*** (0.064)	-0.008 (0.008)	-0.037* (0.016)	0.015 (0.012)	0.009** (0.004)
Work for pay	-0.589*** (0.107)	-0.250*** (0.060)	-0.338*** (0.057)	0.020** (0.007)	0.060*** (0.014)	-0.012 (0.011)	0.004 (0.004)
Widowed (SP)	0.090 (0.106)	0.019 (0.061)	0.071 (0.057)	-0.020** (0.008)	0.016 (0.015)	-0.016 (0.012)	0.001 (0.004)
Married	-0.556*** (0.103)	-0.184** (0.059)	-0.372*** (0.056)	0.021* (0.008)	0.044** (0.014)	-0.011 (0.012)	0.000 (0.004)
Black	-0.485*** (0.120)	-0.383*** (0.067)	-0.102 (0.067)	0.007 (0.009)	0.037* (0.016)	0.056*** (0.014)	0.014** (0.005)
Other	-0.338 (0.273)	-0.179 (0.158)	-0.160 (0.141)	-0.001 (0.021)	-0.022 (0.040)	0.019 (0.027)	0.002 (0.013)
Hispanic	-0.445* (0.203)	-0.234 (0.127)	-0.212* (0.108)	-0.036 (0.021)	-0.037 (0.031)	0.042* (0.021)	0.012 (0.007)
Age in years	0.084 (0.047)	0.031 (0.026)	0.053* (0.025)	-0.004 (0.002)	-0.009 (0.006)	0.008 (0.005)	-0.001 (0.002)
Age in years squared/100	-0.103* (0.042)	-0.044 (0.023)	-0.059** (0.023)	0.004 (0.002)	0.008 (0.005)	-0.007 (0.005)	0.001 (0.002)
Male	-0.299** (0.100)	-0.274*** (0.058)	-0.025 (0.054)	-0.004 (0.008)	-0.003 (0.014)	-0.014 (0.013)	-0.011* (0.005)
Numb. of self-care or mob. lim. (SP)	0.057** (0.018)	0.025* (0.010)	0.032*** (0.010)	-0.001 (0.001)	-0.005 (0.003)	0.000 (0.002)	0.000 (0.001)
Proxy ans. NHATS questions (SP)	-0.320 (0.169)	-0.155 (0.099)	-0.164 (0.090)	-0.010 (0.013)	0.045 (0.024)	0.012 (0.022)	0.007 (0.008)
Heart attack (SP)	-0.030 (0.146)	-0.006 (0.087)	-0.024 (0.077)	0.019* (0.009)	-0.053* (0.023)	0.035* (0.016)	0.006 (0.004)
Heart disease (SP)	0.258* (0.106)	0.139* (0.062)	0.119* (0.057)	0.011 (0.007)	0.018 (0.015)	-0.018 (0.013)	0.005 (0.004)
High blood pressure (SP)	0.005 (0.121)	0.022 (0.069)	-0.017 (0.065)	-0.005 (0.009)	-0.010 (0.017)	0.004 (0.015)	-0.006 (0.004)

Arthritis (SP)	0.053	(0.112)	-0.010	(0.063)	0.063	(0.062)	0.002	(0.008)	-0.010	(0.016)	-0.002	(0.014)	-0.013**	(0.004)
Osteoporosis (SP)	-0.162	(0.100)	-0.025	(0.058)	-0.137*	(0.054)	-0.004	(0.008)	0.019	(0.014)	0.013	(0.012)	0.007	(0.005)
Diabetes (SP)	0.051	(0.107)	-0.006	(0.060)	0.056	(0.060)	-0.001	(0.008)	0.003	(0.015)	-0.008	(0.012)	-0.006	(0.005)
Lung disease (SP)	0.087	(0.118)	0.051	(0.067)	0.037	(0.063)	0.002	(0.008)	-0.034*	(0.016)	0.003	(0.013)	0.009*	(0.004)
Stroke (SP)	0.187	(0.145)	0.149	(0.086)	0.038	(0.076)	-0.025*	(0.012)	0.004	(0.020)	-0.011	(0.016)	0.007*	(0.003)
Dementia (SP)	0.230	(0.142)	0.133	(0.085)	0.097	(0.075)	0.011	(0.010)	-0.029	(0.021)	-0.031	(0.018)	-0.003	(0.008)
Cancer (SP)	0.177	(0.132)	0.079	(0.076)	0.099	(0.073)	-0.009	(0.010)	-0.003	(0.018)	-0.018	(0.017)	-0.006	(0.006)
Lives in an assisted living facility (SP)	-0.026	(0.139)	-0.015	(0.080)	-0.010	(0.073)	0.010	(0.009)	0.037*	(0.017)	-0.008	(0.019)	0.006	(0.007)
NSOC Round II	-0.200	(0.109)	-0.096	(0.063)	-0.105	(0.060)	0.002	(0.008)	0.003	(0.016)	0.010	(0.013)	-0.004	(0.004)
NSOC Round III	-0.062	(0.117)	0.031	(0.067)	-0.093	(0.064)	-0.008	(0.009)	0.009	(0.017)	0.013	(0.014)	-0.011*	(0.005)
Constant	1.041	(1.310)	0.940	(0.741)	0.100	(0.697)	1.077***	(0.069)	1.047***	(0.156)	0.697***	(0.133)	1.008***	(0.053)
Number of observations	3,039		3,039		3,039		3,039		3,039		3,039		3,039	

Note: SP represents NHATS survey person and denotes care recipient information. All other variables are on caregiver level. Standard Errors in parentheses. Cluster robust standard errors on caregiver individual level. We estimate regressions for individuals who provide information on all outcomes to better compare results. Intensive caregiving denotes helping minimum of 80 hours a month. Work for pay denotes working in the last week or month. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A5: First Stage Results – Estimations including sampling strata to consider geographic clustering

	(1)		(2)	
	Intensive caregiving (min. 80 hours a month)		Work for pay in the last week or month	
Number of children	-0.012**	(0.004)	0.003	(0.004)
Reached early retirement age (≥ 62 years old)	-0.018	(0.029)	-0.141***	(0.032)
Widowed (SP)	0.092***	(0.018)	-0.081***	(0.021)
Married	-0.130***	(0.018)	0.056**	(0.020)
Black	0.145***	(0.023)	-0.041	(0.025)
Other	0.071	(0.047)	-0.014	(0.053)
Hispanic	0.179***	(0.038)	-0.040	(0.038)
Age in years	-0.015	(0.008)	0.015	(0.008)
Age in years squared/100	0.012	(0.008)	-0.024**	(0.008)
Male	-0.098***	(0.018)	0.033	(0.020)
Numb. of self-care or mob. lim. (SP)	0.027***	(0.003)	-0.001	(0.003)
Proxy answ. NHATS questions (SP)	0.036	(0.031)	-0.015	(0.032)
Heart attack (SP)	0.022	(0.028)	-0.015	(0.029)
Heart disease (SP)	-0.011	(0.019)	-0.003	(0.021)
High blood pressure (SP)	-0.001	(0.021)	-0.024	(0.024)
Arthritis (SP)	-0.012	(0.020)	0.004	(0.023)
Osteoporosis (SP)	-0.005	(0.018)	-0.020	(0.020)
Diabetes (SP)	-0.003	(0.019)	-0.005	(0.021)

Lung disease (SP)	0.045*	(0.021)	-0.054*	(0.023)
Stroke (SP)	0.031	(0.026)	-0.057*	(0.026)
Dementia (SP)	0.034	(0.025)	-0.022	(0.026)
Cancer (SP)	0.021	(0.023)	0.024	(0.026)
Lives in an assisted living facility (SP)	-0.196***	(0.019)	0.056*	(0.029)
NSOC Round II	-0.015	(0.020)	-0.011	(0.021)
NSOC Round III	-0.006	(0.021)	0.007	(0.022)
Sampling strata	0.001	(0.001)	-0.001	(0.001)
Constant	0.630**	(0.221)	0.603**	(0.213)
F-Statistic	9.65		19.68	
Number of observations	3,039		3,039	

Note: SP represents NHATS survey person and denotes care recipient information. All other variables are on caregiver level. Standard Errors in parentheses. Cluster robust standard errors on caregiver level (Number of clusters: 2,440). Sampling strata variable indicates the stratum from which the Primary Sampling Units were drawn and addresses geographic clustering in the regression to account for the survey design. We estimate regressions for individuals who provide information on all outcomes to better compare results. F-Statistic is the Sanderson-Windmeijer first-stage F statistic of weak identification of individual endogenous regressor (Sanderson & Windmeijer, 2016). * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A6. Main results – Estimations including sampling strata to consider geographic clustering

	(1)		(2)		(3)		(4)		(5)		(6)		(7)	
	PHQ4		GAD2		PHQ2		purpose		growth		closer		satisfaction	
Intensive caregiving	4.838*	(2.330)	3.385*	(1.445)	1.453	(1.097)	-0.049	(0.144)	0.338	(0.274)	-0.532*	(0.267)	-0.169*	(0.085)
Work for pay	0.850	(1.384)	0.261	(0.884)	0.588	(0.647)	0.188	(0.098)	0.041	(0.170)	-0.039	(0.183)	-0.062	(0.067)
Widowed (SP)	-0.161	(0.273)	-0.211	(0.172)	0.050	(0.128)	-0.002	(0.016)	-0.018	(0.032)	0.029	(0.031)	0.011	(0.010)
Married	-0.079	(0.339)	0.195	(0.211)	-0.274	(0.160)	0.006	(0.021)	0.095*	(0.041)	-0.081*	(0.039)	-0.019	(0.012)
Black	-0.993**	(0.357)	-0.775***	(0.225)	-0.217	(0.167)	0.018	(0.024)	-0.022	(0.041)	0.132**	(0.042)	0.036**	(0.013)
Other	-0.569	(0.376)	-0.356	(0.230)	-0.213	(0.175)	0.004	(0.025)	-0.053	(0.046)	0.056	(0.039)	0.012	(0.017)
Hispanic	-1.067*	(0.468)	-0.711*	(0.299)	-0.356	(0.216)	-0.023	(0.034)	-0.108	(0.056)	0.135*	(0.054)	0.039*	(0.017)
Age in years	0.101	(0.079)	0.061	(0.049)	0.041	(0.039)	-0.010*	(0.005)	-0.002	(0.009)	0.000	(0.010)	-0.001	(0.003)
Age in years squared/100	-0.091	(0.084)	-0.058	(0.052)	-0.033	(0.040)	0.012*	(0.005)	0.003	(0.010)	-0.001	(0.011)	-0.000	(0.004)
Male	0.067	(0.258)	0.012	(0.162)	0.055	(0.122)	-0.013	(0.017)	0.032	(0.031)	-0.065*	(0.032)	-0.026*	(0.011)
Numb. of self-care or mob. lim. (SP)	-0.055	(0.065)	-0.058	(0.041)	0.002	(0.030)	0.001	(0.004)	-0.015	(0.008)	0.015	(0.008)	0.005*	(0.002)
Proxy answ. NHATS questions (SP)	-0.465	(0.240)	-0.268	(0.152)	-0.197	(0.111)	-0.006	(0.016)	0.032	(0.029)	0.031	(0.029)	0.013	(0.010)
Heart attack (SP)	-0.103	(0.199)	-0.067	(0.128)	-0.036	(0.092)	0.022*	(0.011)	-0.060*	(0.027)	0.046*	(0.022)	0.009	(0.007)
Heart disease (SP)	0.310*	(0.133)	0.175*	(0.085)	0.135*	(0.063)	0.011	(0.008)	0.022	(0.016)	-0.024	(0.017)	0.003	(0.005)
High blood pressure (SP)	0.061	(0.154)	0.049	(0.097)	0.012	(0.072)	-0.001	(0.010)	-0.010	(0.019)	0.002	(0.020)	-0.008	(0.006)
Arthritis (SP)	0.099	(0.142)	0.026	(0.087)	0.073	(0.070)	0.001	(0.009)	-0.005	(0.018)	-0.008	(0.018)	-0.015**	(0.006)
Osteoporosis (SP)	-0.115	(0.125)	-0.002	(0.080)	-0.113	(0.060)	-0.000	(0.009)	0.020	(0.016)	0.011	(0.016)	0.005	(0.006)
Diabetes (SP)	0.080	(0.133)	0.014	(0.084)	0.066	(0.064)	-0.000	(0.009)	0.004	(0.016)	-0.011	(0.016)	-0.007	(0.006)

Lung disease (SP)	-0.025	(0.193)	-0.060	(0.122)	0.036	(0.089)	0.013	(0.012)	-0.053*	(0.024)	0.026	(0.023)	0.013	(0.008)
Stroke (SP)	0.124	(0.208)	0.071	(0.133)	0.053	(0.097)	-0.014	(0.014)	-0.011	(0.027)	0.007	(0.026)	0.009	(0.008)
Dementia (SP)	0.108	(0.201)	0.030	(0.127)	0.078	(0.095)	0.017	(0.012)	-0.044	(0.025)	-0.011	(0.025)	0.002	(0.010)
Cancer (SP)	0.060	(0.174)	0.005	(0.108)	0.056	(0.085)	-0.012	(0.011)	-0.012	(0.021)	-0.004	(0.022)	-0.001	(0.008)
Lives in an assisted living facility (SP)	0.732	(0.496)	0.571	(0.309)	0.161	(0.233)	-0.008	(0.029)	0.113*	(0.057)	-0.114*	(0.057)	-0.025	(0.018)
NSOC Round II	-0.122	(0.142)	-0.044	(0.092)	-0.078	(0.067)	0.004	(0.009)	0.008	(0.019)	0.002	(0.017)	-0.007	(0.006)
NSOC Round III	-0.049	(0.147)	0.045	(0.093)	-0.094	(0.070)	-0.009	(0.010)	0.012	(0.019)	0.010	(0.018)	-0.012	(0.006)
Sampling strata	-0.006	(0.006)	-0.005	(0.004)	-0.001	(0.003)	0.000	(0.000)	0.000	(0.001)	0.000	(0.001)	0.000	(0.000)
Constant	-1.930	(2.101)	-1.061	(1.292)	-0.869	(1.025)	1.045***	(0.125)	0.813**	(0.249)	1.039***	(0.228)	1.135***	(0.087)
Outcome is binary	no		no		no		yes		yes		yes		yes	
Number of observations	3,039		3,039		3,039		3,039		3,039		3,039		3,039	

Note: SP represents NHATS survey person and denotes care recipient information. All other variables are on caregiver level. Standard Errors in parentheses. Cluster robust standard errors on caregiver level (Number of clusters: 2,440). Sampling strata variable indicates the stratum from which the Primary Sampling Units were drawn and addresses geographic clustering in the regression to account for the survey design. We estimate regressions for individuals who provide information on all outcomes to better compare results. Intensive caregiving denotes helping minimum of 80 hours a month. Work for pay denotes working in the last week or month. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A7: First Stage Results using NSOC cross-sectional weights

	(1)		(2)	
	Intensive caregiving (min. 80 hours a month)		Work for pay in the last week or month	
Number of children	-0,009*	0,004	0,012*	0,005
Reached early retirement age (≥ 62 years old)	0,011	0,032	-0,159***	0,041
Widowed (SP)	0,076***	0,021	-0,097***	0,026
Married	-0,144***	0,021	0,088***	0,024
Black	0,176***	0,028	-0,039	0,031
Other	0,013	0,045	-0,009	0,064
Hispanic	0,182***	0,045	-0,010	0,040
Age in years	-0,005	0,010	0,017	0,010
Age in years squared/100	0,003	0,010	-0,025*	0,010
Male	-0,078***	0,021	0,040	0,025
Numb. of self-care or mob. lim. (SP)	0,025***	0,004	-0,003	0,004
Proxy answ. NHATS questions (SP)	0,033	0,034	0,012	0,037
Heart attack (SP)	-0,012	0,030	-0,019	0,035
Heart disease (SP)	-0,033	0,022	0,029	0,026
High blood pressure (SP)	-0,030	0,025	0,000	0,028
Arthritis (SP)	0,004	0,023	0,002	0,027
Osteoporosis (SP)	-0,015	0,021	-0,015	0,024
Diabetes (SP)	0,020	0,023	-0,022	0,027
Lung disease (SP)	0,028	0,025	-0,085**	0,030

Stroke (SP)	0,035	0,029	-0,045	0,034
Dementia (SP)	-0,010	0,027	-0,017	0,031
Cancer (SP)	0,034	0,025	0,019	0,032
Lives in an assisted living facility (SP)	-0,141 ^{***}	0,021	0,083 [*]	0,033
NSOC Round II	-0,011	0,023	-0,005	0,027
NSOC Round III	0,017	0,025	-0,003	0,028
Constant	0,412	0,249	0,468	0,254
<hr/>				
F-Statistic	13.97		16.56	
Number of observations	3,039		3,039	

Note: SP represents NHATS survey person and denotes care recipient information. All other variables are on caregiver level. Standard Errors in parentheses. Caregivers are clustered within SPs (Number of strata: 56, number of PSUs: 1.810). We estimate regressions for individuals who provide information on all outcomes to better compare results. F-Statistic is the Sanderson-Windmeijer first-stage F statistic of weak identification of individual endogenous regressor (Sanderson & Windmeijer, 2016). * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A8. Main results – 2SLS estimations using NSOC cross-sectional weights

	(1)		(2)		(3)		(4)		(5)		(6)		(7)	
	PHQ4		GAD2		PHQ2		purpose		growth		closer		satisfaction	
Intensive caregiving	11.348	(7.814)	7.514	(5.206)	3.834	(2.999)	0.239	(0.394)	0.882	(0.886)	-0.997	(0.764)	-0.146	(0.195)
Work for pay	2.719	(2.824)	1.745	(1.813)	0.974	(1.131)	0.187	(0.123)	0.113	(0.283)	-0.120	(0.301)	-0.083	(0.074)
Widowed (SP)	-0.313	(0.504)	-0.302	(0.338)	-0.011	(0.190)	-0.033	(0.026)	-0.033	(0.059)	0.047	(0.047)	0.001	(0.014)
Married	0.618	(0.983)	0.701	(0.665)	-0.083	(0.371)	0.052	(0.053)	0.186	(0.118)	-0.154	(0.095)	-0.020	(0.023)
Black	-2.309	(1.333)	-1.563	(0.883)	-0.746	(0.512)	-0.030	(0.066)	-0.108	(0.145)	0.237	(0.129)	0.039	(0.033)
Other	-0.315	(0.628)	-0.222	(0.405)	-0.094	(0.253)	0.015	(0.023)	-0.042	(0.070)	-0.010	(0.064)	-0.016	(0.027)
Hispanic	-2.350	(1.486)	-1.488	(1.005)	-0.862	(0.555)	-0.063	(0.077)	-0.189	(0.168)	0.224	(0.146)	0.042	(0.036)
Age in years	0.072	(0.117)	0.019	(0.080)	0.053	(0.042)	-0.004	(0.006)	-0.012	(0.012)	0.002	(0.013)	-0.001	(0.002)
Age in years squared/100	-0.027	(0.140)	0.008	(0.094)	-0.035	(0.052)	0.007	(0.006)	0.012	(0.014)	-0.005	(0.016)	-0.000	(0.003)
Male	0.395	(0.609)	0.183	(0.413)	0.212	(0.224)	0.008	(0.031)	0.074	(0.066)	-0.075	(0.061)	-0.021	(0.015)
Numb. of self-care or mob. lim. (SP)	-0.220	(0.193)	-0.164	(0.129)	-0.056	(0.074)	-0.007	(0.010)	-0.026	(0.022)	0.023	(0.019)	0.004	(0.004)
Proxy answ. NHATS questions (SP)	-0.545	(0.519)	-0.306	(0.340)	-0.239	(0.201)	-0.021	(0.027)	0.015	(0.053)	0.100	(0.059)	0.019	(0.014)
Heart attack (SP)	0.039	(0.409)	0.033	(0.273)	0.006	(0.155)	0.030*	(0.014)	0.009	(0.039)	0.050	(0.040)	0.004	(0.008)
Heart disease (SP)	0.481	(0.363)	0.323	(0.244)	0.159	(0.134)	0.013	(0.016)	0.053	(0.040)	-0.038	(0.036)	0.005	(0.009)
High blood pressure	0.307	(0.397)	0.238	(0.260)	0.069	(0.151)	0.010	(0.018)	0.015	(0.040)	-0.024	(0.041)	-0.012	(0.008)

(SP)														
Arthritis (SP)	0.114	(0.286)	0.008	(0.191)	0.106	(0.108)	0.005	(0.012)	-0.016	(0.028)	0.028	(0.030)	-0.011	(0.008)
Osteoporosis (SP)	0.061	(0.287)	0.124	(0.190)	-0.063	(0.111)	-0.000	(0.011)	0.022	(0.031)	-0.012	(0.030)	0.004	(0.009)
Diabetes (SP)	-0.027	(0.320)	-0.066	(0.215)	0.039	(0.117)	-0.005	(0.014)	-0.011	(0.032)	-0.003	(0.031)	-0.011	(0.009)
Lung disease (SP)	0.053	(0.362)	-0.018	(0.241)	0.072	(0.136)	0.016	(0.014)	-0.060	(0.038)	0.019	(0.035)	0.012	(0.008)
Stroke (SP)	0.016	(0.419)	0.029	(0.286)	-0.013	(0.155)	-0.013	(0.019)	-0.027	(0.044)	-0.013	(0.047)	0.011	(0.009)
Dementia (SP)	0.322	(0.380)	0.201	(0.244)	0.121	(0.149)	0.015	(0.018)	-0.012	(0.039)	-0.086*	(0.043)	-0.006	(0.011)
Cancer (SP)	-0.148	(0.430)	-0.142	(0.279)	-0.006	(0.171)	-0.019	(0.020)	-0.051	(0.045)	0.025	(0.045)	-0.002	(0.011)
Lives in an assisted living facility (SP)	1.284	(1.011)	0.876	(0.675)	0.408	(0.385)	0.022	(0.051)	0.143	(0.112)	-0.139	(0.097)	0.003	(0.026)
NSOC Round II	-0.160	(0.305)	-0.063	(0.204)	-0.097	(0.115)	0.014	(0.014)	0.012	(0.030)	0.003	(0.031)	-0.007	(0.007)
NSOC Round III	-0.253	(0.339)	-0.112	(0.223)	-0.142	(0.129)	-0.004	(0.015)	-0.002	(0.034)	0.041	(0.035)	-0.015	(0.011)
Constant	-4.626	(4.377)	-2.521	(2.952)	-2.106	(1.639)	0.789**	(0.245)	0.878	(0.480)	1.174*	(0.461)	1.158***	(0.104)
Outcome is binary	no		no		no		yes		yes		yes		yes	
Number of observations	3,039		3,039		3,039		3,039		3,039		3,039		3,039	

Note: SP represents NHATS survey person and denotes care recipient information. All other variables are on caregiver level. Standard Errors in parentheses. Caregivers are clustered within SPs

(Number of strata: 56, number of PSUs: 1.810). We estimate regressions for individuals who provide information on all outcomes to better compare results. Intensive caregiving denotes helping minimum of 80 hours a month. Work for pay denotes working in the last week or month. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A9. Main results – Unadjusted associations using NSOC cross-sectional weights

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	PHQ4	GAD2	PHQ2	purpose	growth	closer	satisfaction
Intensive caregiving	2.655*** (0.117)	1.324*** (0.069)	1.331*** (0.066)	0.945*** (0.010)	0.808*** (0.017)	0.917*** (0.014)	0.994*** (0.004)
Work for pay	1.824*** (0.071)	1.013*** (0.044)	0.811*** (0.038)	0.974*** (0.005)	0.890*** (0.010)	0.881*** (0.011)	0.983*** (0.005)
Number of observations	3,039	3,039	3,039	3,039	3,039	3,039	3,039

Standard Errors in parentheses. Unadjusted associations (Separate estimations). We estimate regressions for individuals who provide information on all outcomes to better compare results.

Caregivers are clustered within SPs (Number of strata: 56, number of PSUs: 1.810). Intensive caregiving denotes helping minimum of 80 hours a month. Work for pay denotes working in the last week or month. * p < 0.05, ** p < 0.01, *** p < 0.001

Table A10. Main results – OLS estimations using NSOC cross-sectional weights

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	PHQ4	GAD2	PHQ2	purpose	growth	closer	satisfaction
Intensive caregiving	0.455** (0.140)	0.170* (0.084)	0.285*** (0.077)	-0.010 (0.010)	-0.049* (0.020)	0.012 (0.016)	0.007 (0.005)
Work for pay	-0.676*** (0.138)	-0.300*** (0.081)	-0.375*** (0.071)	0.018* (0.009)	0.053** (0.019)	-0.034* (0.014)	-0.001 (0.005)
Widowed (SP)	0.163 (0.132)	0.042 (0.080)	0.121 (0.067)	-0.031** (0.010)	0.030 (0.019)	-0.019 (0.017)	-0.002 (0.007)
Married	-0.653*** (0.128)	-0.178* (0.074)	-0.476*** (0.070)	0.031** (0.010)	0.057** (0.018)	-0.017 (0.016)	-0.005 (0.006)
Black	-0.571*** (0.140)	-0.384*** (0.081)	-0.187* (0.076)	0.007 (0.011)	0.047* (0.018)	0.069*** (0.015)	0.015** (0.006)
Other	-0.236 (0.329)	-0.166 (0.185)	-0.071 (0.181)	0.016 (0.017)	-0.033 (0.047)	-0.020 (0.052)	-0.016 (0.026)
Hispanic	-0.476* (0.189)	-0.225 (0.127)	-0.251* (0.108)	-0.020 (0.018)	-0.029 (0.032)	0.050* (0.025)	0.016* (0.007)
Age in years	0.115* (0.051)	0.039 (0.035)	0.076*** (0.023)	0.000 (0.004)	-0.016** (0.005)	0.006 (0.006)	-0.003 (0.002)
Age in years squared/100	-0.135** (0.046)	-0.054 (0.031)	-0.081*** (0.021)	0.000 (0.004)	0.013** (0.005)	-0.005 (0.006)	0.003 (0.002)
Male	-0.306* (0.126)	-0.300*** (0.076)	-0.007 (0.065)	-0.004 (0.009)	0.005 (0.017)	-0.001 (0.016)	-0.013 (0.007)
Numb. of self-care or mob. lim. (SP)	0.037 (0.021)	0.010 (0.013)	0.027* (0.011)	-0.001 (0.002)	-0.003 (0.003)	-0.002 (0.003)	0.001 (0.001)
Proxy answ. NHATS questions (SP)	-0.131 (0.203)	-0.031 (0.123)	-0.100 (0.113)	-0.010 (0.017)	0.047 (0.029)	0.065* (0.033)	0.013 (0.010)
Heart attack (SP)	-0.158 (0.185)	-0.096 (0.116)	-0.063 (0.092)	0.024** (0.009)	-0.003 (0.023)	0.064** (0.023)	0.008 (0.006)
Heart disease (SP)	0.214 (0.126)	0.136 (0.080)	0.078 (0.064)	0.010 (0.008)	0.024 (0.018)	-0.007 (0.018)	0.008 (0.006)
High blood pressure (SP)	-0.024 (0.157)	0.015 (0.088)	-0.039 (0.083)	0.002 (0.013)	-0.013 (0.020)	0.006 (0.022)	-0.007 (0.006)

Arthritis (SP)	0.170	(0.145)	0.045	(0.089)	0.125	(0.073)	0.007	(0.011)	-0.012	(0.019)	0.023	(0.020)	-0.012	(0.007)
Osteoporosis (SP)	-0.147	(0.122)	-0.012	(0.074)	-0.135*	(0.065)	-0.007	(0.010)	0.009	(0.018)	0.003	(0.016)	0.007	(0.008)
Diabetes (SP)	0.115	(0.133)	0.034	(0.081)	0.080	(0.069)	-0.004	(0.010)	0.006	(0.018)	-0.021	(0.018)	-0.012	(0.007)
Lung disease (SP)	0.064	(0.152)	0.008	(0.091)	0.055	(0.078)	0.009	(0.010)	-0.041*	(0.020)	-0.001	(0.019)	0.014*	(0.006)
Stroke (SP)	0.258	(0.184)	0.204	(0.115)	0.055	(0.094)	-0.012	(0.012)	0.004	(0.022)	-0.046	(0.027)	0.010**	(0.004)
Dementia (SP)	0.154	(0.167)	0.092	(0.101)	0.062	(0.089)	0.009	(0.013)	-0.022	(0.026)	-0.075*	(0.030)	-0.003	(0.010)
Cancer (SP)	0.283	(0.169)	0.144	(0.097)	0.139	(0.090)	-0.007	(0.012)	-0.018	(0.022)	-0.011	(0.021)	-0.009	(0.008)
Lives in an assisted living facility (SP)	0.038	(0.176)	0.017	(0.100)	0.021	(0.092)	0.001	(0.013)	0.018	(0.023)	-0.005	(0.023)	0.018**	(0.006)
NSOC Round II	-0.284*	(0.141)	-0.145	(0.088)	-0.139	(0.073)	0.011	(0.011)	0.003	(0.019)	0.013	(0.019)	-0.005	(0.006)
NSOC Round III	-0.068	(0.150)	0.014	(0.092)	-0.081	(0.077)	0.000	(0.012)	0.014	(0.020)	0.024	(0.020)	-0.017*	(0.008)
Constant	0.441	(1.392)	0.857	(0.968)	-0.416	(0.602)	0.919***	(0.123)	1.274***	(0.138)	0.741***	(0.179)	1.081***	(0.056)
Number of observations	3,039		3,039		3,039		3,039		3,039		3,039		3,039	

Note: SP represents NHATS survey person and denotes care recipient information. All other variables are on caregiver level. Standard Errors in parentheses. Caregivers are clustered within SPs (Number of strata: 56, number of PSUs: 1.810). We estimate regressions for individuals who provide information on all outcomes to better compare results. Intensive caregiving denotes helping minimum of 80 hours a month. Work for pay denotes working in the last week or month. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$