

How Do Mothers with Disabilities Thrive as Parents and Homemakers?
A Comparison to Mothers without Disabilities Using the American Time Use Survey

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Introduction

In previous research we have demonstrated that women with disabilities place as much importance on motherhood in their life course and have ideal family sizes similar to women without disabilities. Many women with disabilities do become mothers and raise children, although overall they expect to have fewer than their ideal number of children (Shandra, Short, Hogan 2014). Tabulations of the National Health Interview Survey and Cancer Supplement show that women with disabilities are about equally likely to have a first birth as other women. We also know that mothers with disabilities have homes with physical and enriching environments that are as positive for children as other mothers, and are as engaged in positive family activities. They have relationships with their children that are as positive as the mothers without disabilities. [Children whose fathers have disabilities do somewhat more poorly than other children.] Mothers with disabilities are somewhat less involved in their children's schools and in monitoring their children, likely because of restrictions in their activities of daily living. These same findings are true for mothers who live in a two-parent household and single mothers (Hogan, Shandra, Msall 2007). Parents with disabilities also encourage their children's educational aspirations as much as parents without disabilities and their children are equally likely to complete high school and enter college, controlling for their children's slightly poorer academic abilities and school performance (Shandra and Hogan 2009). There is strong evidence that mothers with disabilities, whether in a two-parent household or as a single parent, do an equally good job of parenting their children as mothers without disabilities.

This paper investigates (a) how much additional time mothers with disabilities need for health related self-care, and medical and health services and (b) whether they allocate additional time for tasks typically associated with raising children and making a home, even though they spend additional time on their own needs. We anticipate that mothers with disabilities, because limitations in their activities of daily living may lengthen the time needed to perform tasks, will also take more time than other mothers do on child rearing and homemaker tasks.

Research has shown that mothers who are employed on average spend about the same amount of time in childcare activities as women who do not work out of the home (Bianchi 2000). They do this by spending reduced time in leisure, exercise, and other

homemaker activities. We hypothesize that mothers with disabilities behave in a similar way – they reduce time in leisure, exercise, and other pleasurable activities in order to take care of their own needs, raise their children, and be homemakers. It is well known that women with disabilities are less likely to be employed or to work part-time jobs compared to women without disabilities. This will also be the case for mothers with disabilities.

Measurement of Disability

We use the WHO framework for the classification of disability, known as the International Classification of Functioning, Disability, and Health (ICF) model, describes a person's health and well-being in terms of four components: (1) body structures, (2) body functions, (3) activities, and (4) participation (WHO 2001). The WHO framework emphasizes that disability results from the interaction of medical conditions, ability in activities, and social environments. Within the WHO-ICF framework, body functions are the physiological functions of body systems. Problems with body structures typically can be determined only through careful medical examination and a variety of diagnostic tests, and are available to researchers only through medical records. Information about body functions cannot be accurately gathered in survey interviews. However, population surveys collect excellent information on diagnosed medical conditions/impairments, limitations in everyday activities, and in limitations in participation. The survey used in this paper provided measures of limitations in everyday activities and work (participation) disability.

Data

We analyzed publicly available data from the American Time Use Survey (ATUS), a nationally representative survey sponsored by the U.S. Bureau of Labor Statistics that collects information on daily time use (Abraham, Flood, Sobe, Thorn 2011; US Bureau of Labor Statistics 2013). Respondents aged 15 and over were chosen randomly from households that had undergone their final interview for the Current Population Survey (CPS). The sample was randomized by day such that half the respondents reported on a weekday and half reported on a weekend day. Sample weights were later calculated to correctly represent each day of the week. Computer-assisted telephone interviewing was used to ask respondents to provide demographic information, as well as a detailed account of their activities during a 24-hour period beginning at 4:00 am.

The CPS began to collect data on limitations in activities of daily living from respondents age 15 and older beginning in 2008, continuing annually thereafter. This disability information includes indicators of six aspects of disability, including hearing difficulty, vision difficulty, physical disability, mobility limitation, personal care limitation, and cognitive difficulties (remembering, concentrating, or making decisions) because of a physical, mental, or emotional condition. The CPS and ATUS are surveys of persons, including the disabled who are resident in households; persons, including those with disabilities, who are living in institutional or group quarters settings are not included in

the data we use. The population of disabled mothers represented in this study excludes women with disabilities so severe they do not live in households.

This paper considers disabilities in terms of limitations in activities of daily living. We do not consider work disabilities that are based on CPS questions asking specifically about disabilities that prevent or limit employment. We do this since an employment disability need not affect the personal, child rearing, and other homemaker activities of women.

We calculated four dimensions of disabilities in activities of daily living to characterize women's disabilities. *Self-care limitations* mean it is difficult for persons to take care of their own personal needs, such as bathing, dressing, or getting around inside the home. *Physical impairment* indicated respondents who had serious difficulty walking or climbing stairs or other mobility limitations. *Sensory impairment* indicated respondents who were deaf/had serious difficulty hearing even with a hearing aid, and those who were blind/had serious difficulty seeing even when wearing glasses. *Cognitive impairment* indicated respondents who – because of a physical, mental, or emotional condition – had serious difficulty concentrating, remembering, or making decisions. Each of these disability dimensions includes all women with that disability, whether or not they have other disabilities. Some women have multiple limitations that are especially likely to impact mothers' child raising and homemaker activities. *Multiple impairments* indicate respondents who reported difficulty in more than one (self-care, physical, sensory, cognitive) dimension of disability. In practice women with self-care limitations almost always have other physical and mobility, sensory, or cognitive limitations. Therefore, all mothers with self-care limitations are included in the multiple disability categories. In initial tabulations mothers are characterized by whether they have *any impairment* (at least one of these four types of disabilities). While this does not capture detail about the types of disabilities of women, it has the greatest number of cases of persons with disabilities giving more power to our statistical tests. To unpack the types of disabilities that are most problematic, further analysis distinguishes among all women with physical and mobility limitations, seeing and hearing limitations, and cognitive limitations (whether or not they have other disabilities), and summarizes the situations of mothers with multiple disabilities, including self-care.

For this paper, we selected women of age 15 and older who are mothers of one or more own children under 18 years of age, living in their household. This resulted in a sample of 11,849 mothers, of whom 501 have one or more disabilities in activities of daily living (see Table 1). Of these women, 285 have a single disability and 216 have multiple disabilities, including self-care. The most common types of disability (including in each type of disability persons who have single disabilities and women who have multiple disabilities) are physical and mobility limitations (286) and cognitive impairment (217), followed by vision and hearing impediments (138).

Methods

We first provide descriptive data that examines the mean minutes mothers with and without disabilities spend on an average day across broad categories of activities. This

will reveal whether women with disabilities spend fewer hours in work activities outside of the home, and less time in leisure, social, and civic activities outside of the home in order to take care of their own needs, raise their children, and be homemakers. We then examine more closely how much time women with particular types of disability devote to particular aspects of their personal care, raising children, and homemaking that are most likely to be impacted by disabilities.

Based on these descriptive analyses we will select for further analysis personal care, child rearing, and homemakers activities that have a relationship to one or more kinds of disability. This will be done by estimating regression models that look at how each of the types of disabilities (considered simultaneously) impact the minutes mothers spend on each type of activity, taking into account the age and number of children, family structure (whether it is a two-parent home, mother-only home, or a mother-only home with another coresident adult), and education.

Results

As shown in other research (Shandra 2014), men and women with one or more disabilities spend less time (minutes in a day) working and on work-related activities; this is true among mothers with disabilities who spend 75 minutes on the average day working compared to mothers without disabilities (156 minutes). Consistent with our expectations, women with disabilities spend considerably more time on personal care (613 minutes) than women without disabilities (570) (see Table 2). Women with disabilities also spend more time on professional and personal care services (39 vs. 24 for women who are not disabled), socializing, relaxing, and leisure (257 vs 211), and telephone calls and emails (9 vs 5). Women with disabilities spend fewer minutes in an average day eating and drinking (54 vs. 65), in sports, exercise, and recreation (10 vs. 15), and traveling (66 vs. 76). Contrary to our expectations, women with disabilities appear to spend the same amount of time as women without disabilities on household activities and care for other household members (including children).

In Table 3 we investigate these differences in activities further, distinguishing differences in particular aspects of activities that may be obscured by the broad categories of Table 2. While time allocation does not differ between persons with any disability and those without any disability (tabulation not shown), we expect that the time allocation on these activities will differ considerably by type of disability. We hypothesize that women with more serious disabilities need extra time for health related care, parenting, and for other homemaker activities.

The time use of mothers with physical and mobility limitations differ markedly from mothers without those disabilities, although not always in the way we hypothesized. They spend significantly more time on health related self-care (23 minutes) than mothers who do not have physical and mobility limitations (2 minutes), and about 45 more minutes sleeping. They spend an average of nine minutes in purchasing medical care and services compared to three minutes among mothers without physical and mobility disabilities, and

also spend more time purchasing other personal services. Mothers with physical and mobility difficulties spend about six fewer minutes daily in leisure, exercise, and sports activities. Contrary to our hypothesis, mothers with physical and mobility difficulties do not spend more time in childcare and homemaker activities.

Mothers with vision and hearing impairments do not differ significantly in their allocation of time in any way compared to mothers without vision or hearing limitations. Mothers with vision and hearing impairments may need somewhat more time for health related home self-care and in purchasing medical and care services than other women but the differences are not statistically significant. Mothers with cognitive differences need an extra 47 minutes of sleep every day. They do not need extra time for health-related self-care, but do spend 10 minutes more each day in purchasing medical and health care services. Contrary to our hypothesis, they do not spend more time on childcare and homemaker activities.

Mothers with multiple disabilities spend significantly more time in personal care than mothers without multiple disabilities. They sleep 37 minutes longer, and use 24 minutes more on health related self-care. They also use an additional 11 minutes each day in the purchase of medical and health care services. They do not spend a different amount of time on childcare or homemaker activities.

These results consistently show that women with more limiting and complex (multiple) disabilities need more time for health-related personal care and medical and health care services. Women with such disabilities spend roughly 35 more minutes daily on health-related care. They also need slightly more than an hour more of sleep each day, a difference that might be explained by the need for them to rest during the day because of their disabilities. Women with serious and complex disabilities spend less time grooming than other women, but the difference amounts to less than ten minutes. They do not compensate for these extra time allocations with significant reductions in other activities relating to parenting, homemaking, or on personally rewarding leisure or social activities, or exercise. Interestingly, women with disabilities do not spend more time in religious or spiritual activities on a daily basis. These results are consistent with the hypothesis that disabilities create additional health-care related time requirements. But we do not find, as hypothesized, that mothers with disabilities spend any more time on taking care of their children or doing homemaker tasks.

Before rejecting our hypothesis about time allocation for motherhood and homemaker tasks among women with disabilities, we will do a multivariate analysis that will consider each type of disability independently, and take into account the women's age, the age and number of children (childcare 'burden'), household structure (father or other adults to help in the home), and mothers' education. We will also investigate whether mothers with disabilities are more likely to have their children placed in preschool, after school, or childcare programs and more often have paid household than mothers without disabilities. This could help explain how it is they do not take more time to do homemaking and childrearing tasks in light of their activity limitations.

Work Cited

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Table 1. Frequency Distribution for Recoded Disability Variables (NOT MUTUALLY EXCLUSIVE) - Unweighted (n=11,849)

		Frequency	Percent
SENSORY	<i>Vision and Hearing Impairment</i>		
	No	11711	98.8
	Yes	138	1.2
COGNITIVE	<i>Difficutly remembering</i>		
	No	11632	98.2
	Yes	217	1.8
PHYSICAL	<i>Physical and mobility impairment</i>		
	No	11563	97.6
	Yes	286	2.4
MULTIPLE	<i>Multiple impairments (including self care)</i>		
	No	11348	98.2
	Yes	216	1.8

Table 2. Sample Descriptives Using t-test for Equality of Means - All ATUS Summary Activity Variables

*For DIFFANY - Any Difficulty

		No Difficulty		Has Difficulty		t-test	
		M	SD	M	SD		
ACT_PCARE	Personal care	570.13	130.35	613.26	175.76	5.43	***
ACT_HHACT	Household activities	152.28	139.37	163.47	161.84	1.52	
ACT_CAREHH	Caring for and helping HH members	99.52	117.18	93.82	128.09	1.06	
ACT_CARENHH	Caring for and helping nonHH members	5.51	35.75	7.90	39.67	1.32	
ACT_WORK	Working and work-related activities	155.80	227.56	75.30	157.54	9.90	***
ACT_EDUC	Educational activities	9.70	56.62	9.62	55.68	0.03	
ACT_PURCH	Consumer purchases	31.70	55.14	31.17	57.10	0.21	
ACT_PROFSERV	Professional and personal care services	4.11	23.90	8.77	39.33	2.63	**
ACT_HHSERV	Household services	0.59	5.92	1.42	12.91	1.44	
ACT_GOVSERV	Govt services and civic obligations	0.30	5.90	0.56	6.38	0.93	
ACT_FOOD	Eat and drinking	64.60	47.44	53.74	40.60	5.81	***
ACT_SOCIAL	Socializing, relaxing, leisure	211.09	162.76	257.47	193.31	5.29	***
ACT_SPORTS	Sports, exercise, and recreation	15.06	50.94	9.69	40.55	2.87	**
ACT_RELIG	Religious and spiritual activities	12.51	43.62	17.07	58.36	1.73	
ACT_VOL	Volunteer activities	10.12	50.11	7.64	34.99	1.52	
ACT_PHONE	Telephone calls	4.84	19.74	8.56	29.65	2.78	**
ACT_TRAVEL	Traveling	76.30	77.67	62.77	66.01	3.84	***

*p<.05, ** p<.01, ***p<.001

Table 3a. Sample Descriptives Using t-test for Equality of Means - Select BLS Summary Activity Variables - WEIGHTED

*For PHYSICAL - Physical and Mobility Impairment (Not mutually exclusive)

		No Difficulty		Has Difficulty		t-test
		M	SD	M	SD	
BLS_PCARE_SLEEP	Personal Care -Sleeping	513.96	124.41	558.92	174.66	3.59 ***
BLS_PCARE_GROOM	Personal Care - Grooming	42.29	34.77	33.55	36.11	3.49 ***
BLS_PCARE_HEALTH	Personal Care - Health-related self care	2.31	31.05	22.56	101.85	2.79 **
BLS_HHACT_HWORK	Household activities - Housework	64.42	97.14	65.07	98.50	0.09
BLS_HHACT_FOOD	Household activities - Food prep & cleanup	60.76	64.17	58.67	65.78	0.45
BLS_PURCH_HEALTH	Purchasing goods - Medical and care services	2.81	25.39	9.42	38.19	2.42 *
BLS_PURCH_PCARE	Purchasing goods - Personal care services	1.07	12.21	0.16	2.55	4.09 ***
BLS_CAREHH_KID	Caring for HH members - HH children	102.52	119.68	94.76	128.62	0.90
BLS_CAREHH_KIDEDUC	Caring for HH members - Children's educ	10.03	33.86	9.45	32.02	0.24
BLS_KIDHEALTH	Caring for HH memberse - Children's health	2.73	24.54	8.39	44.78	1.77
BLS_SOCIAL_RELIG	Religious and spiritual activities	8.81	36.07	12.89	53.76	1.06
BLS_LEIS_SPORT	Leisure and sports - exercise	13.34	47.23	7.34	33.52	2.46 *
BLS_COMM_TELE	Telephone calls	4.92	19.88	6.41	23.96	1.04
BLS_COMM_MSGMAIL	HH and pesonal mail and messages	2.35	11.14	1.71	9.72	0.79
BLS_COMM_MSGEMAIL	HH and personal email and messages	0.69	9.77	0.50	7.98	0.27

*p<.05, ** p<.01, ***p<.001

Table 3b. Sample Descriptives Using t-test for Equality of Means - Select BLS Summary Activity Variables - WEIGHTED

*For SENSORY - Vision and Hearing Impairment (Not mutually exclusive)

		No Difficulty		Has Difficulty		t-test
		M	SD	M	SD	
BLS_PCARE_SLEEP	Personal Care -Sleeping	514.93	125.31	519.51	172.14	-.266
BLS_PCARE_GROOM	Personal Care - Grooming	42.12	34.82	39.31	34.50	.806
		2.60	32.23	17.44	116.76	-
BLS_PCARE_HEALTH	Personal Care - Health-related self care					1.276
BLS_HHACT_HWORK	Household activities - Housework	64.47	97.11	61.46	101.67	.310
BLS_HHACT_FOOD	Household activities - Food prep & cleanup	60.77	64.25	56.22	60.70	.707
		2.87	25.56	10.25	39.10	-
BLS_PURCH_HEALTH	Purchasing goods - Medical and care services					1.889
BLS_PURCH_PCARE	Purchasing goods - Personal care services	1.05	12.07	1.02	13.05	.026
BLS_CAREHH_KID	Caring for HH members - HH children	102.30	119.43	105.99	154.06	-.307
		9.96	33.73	14.47	40.46	-
BLS_CAREHH_KIDEDUC	Caring for HH members - Children's educ					1.115
BLS_KIDHEALTH	Caring for HH memberse - Children's health	2.82	25.08	5.88	33.18	-.924
		8.82	36.24	16.14	58.05	-
BLS_SOCIAL_RELIG	Religious and spiritual activities					1.265
BLS_LEIS_SPORT	Leisure and sports - exercise	13.25	47.05	9.49	39.42	.798
		4.90	19.79	9.82	31.97	-
BLS_COMM_TELE	Telephone calls					1.543
BLS_COMM_MSGMAIL	HH and pesonal mail and messages	2.34	11.16	1.26	5.79	.973
BLS_COMM_MSGEMAIL	HH and personal email and messages	0.68	9.72	1.10	11.18	-.431

*p<.05, ** p<.01, ***p<.001

Table 3c. Sample Descriptives Using t-test for Equality of Means - Select BLS Summary Activity Variables - WEIGHTED

*For COGNITIVE - Cognitive Impairment (Not mutually exclusive)

		No Difficulty		Has Difficulty		t-test
		M	SD	M	SD	
BLS_PCARE_SLEEP	Personal Care -Sleeping	514.18	125.12	570.66	164.93	3.79 ***
BLS_PCARE_GROOM	Personal Care - Grooming	42.19	34.81	35.06	35.23	2.26 *
BLS_PCARE_HEALTH	Personal Care - Health-related self care	2.71	34.22	7.32	47.66	1.07
BLS_HHACT_HWORK	Household activities - Housework	64.28	96.24	75.17	147.90	0.82
BLS_HHACT_FOOD	Household activities - Food prep & cleanup	60.83	64.33	52.39	54.05	1.45
BLS_PURCH_HEALTH	Purchasing goods - Medical and care services	2.82	25.09	12.84	54.32	2.05 *
BLS_PURCH_PCARE	Purchasing goods - Personal care services	1.07	12.17	0.00	0.00	8.11 ***
BLS_CAREHH_KID	Caring for HH members - HH children	102.41	119.63	97.88	136.59	0.42
BLS_CAREHH_KIDEDUC	Caring for HH members - Children's educ	9.96	33.73	13.70	39.66	1.04
BLS_KIDHEALTH	Caring for HH memberse - Children's health	2.83	25.14	4.37	28.79	0.67
BLS_SOCIAL_RELIG	Religious and spiritual activities	8.85	36.36	12.18	48.99	1.00
BLS_LEIS_SPORT	Leisure and sports - exercise	13.25	47.05	9.73	40.52	0.83
BLS_COMM_TELE	Telephone calls	4.89	19.80	9.36	29.98	1.65
BLS_COMM_MSGMAIL	HH and pesonal mail and messages	2.32	10.69	2.93	27.72	0.60
BLS_COMM_MSGEMAIL	HH and personal email and messages	0.68	9.72	1.12	10.42	0.49

*p<.05, ** p<.01, ***p<.001

Table 3d. Sample Descriptives Using t-test for Equality of Means - Select BLS Summary Activity Variables - WEIGHTED

*For MULTI_ME -Multiple Impairments (Includes personal care)

		No Difficulty		Has Difficulty		t-test
		M	SD	M	SD	
BLS_PCARE_SLEEP	Personal Care -Sleeping	514.35	124.90	551.21	171.95	2.61 *
BLS_PCARE_GROOM	Personal Care - Grooming	42.23	34.79	33.99	35.44	2.88 **
BLS_PCARE_HEALTH	Personal Care - Health-related self care	2.36	31.11	26.25	114.60	2.55 *
BLS_HHACT_HWORK	Household activities - Housework	64.45	97.05	63.66	103.87	0.10
BLS_HHACT_FOOD	Household activities - Food prep & cleanup	60.77	64.21	57.60	63.85	0.60
BLS_PURCH_HEALTH	Purchasing goods - Medical and care services	2.77	25.27	13.44	44.59	2.92 **
BLS_PURCH_PCARE	Purchasing goods - Personal care services	1.06	12.10	0.73	10.76	0.33
BLS_CAREHH_KID	Caring for HH members - HH children	102.45	119.43	96.48	143.57	0.60
BLS_CAREHH_KIDEDUC	Caring for HH members - Children's educ	10.04	33.94	8.65	26.04	0.50
BLS_KIDHEALTH	Caring for HH memberse - Children's health	2.81	25.06	5.14	31.79	0.89
BLS_SOCIAL_RELIG	Religious and spiritual activities	8.84	36.23	12.12	52.20	0.77
BLS_LEIS_SPORT	Leisure and sports - exercise	13.29	47.10	8.13	38.52	1.62
BLS_COMM_TELE	Telephone calls	4.91	19.86	7.73	26.10	1.32
BLS_COMM_MSGMAIL	HH and pesonal mail and messages	2.35	11.16	1.12	7.60	1.95
BLS_COMM_MSGEMAIL	HH and personal email and messages	0.69	9.74	0.65	9.16	0.05

*p<.05, ** p<.01, ***p<.001