Mothers With Physical Disability: Child Care Adaptations at Home

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MeSH TERMS

- disabled persons
- environment design
- infant care
- mothers
- parenting

OBJECTIVE. This study describes how women with physical disability experience caregiving for a new infant and how they adapt their home environment and care tasks.

METHOD. In 2013, we conducted 2-hr telephone interviews with 22 women with significant physical disability who had delivered babies within the previous 10 yr. The semistructured, open-ended interview protocol addressed wide-ranging pregnancy-related topics. NVivo was used to sort the texts for content analysis.

RESULTS. Night care, bathing, and carrying the baby were identified as the biggest challenges. Typical adaptations (with and without occupational therapy consultation) included use of a wrap for carrying the infant, furniture adaptations for mothers using wheelchairs, and assistance from caregivers.

CONCLUSION. Women with physical disability can be fully capable of caring for an infant and can find ways to adapt their environment. Further research may determine the role of occupation therapy.

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An estimated 6.2% of parents of dependent children in the United States have a disability (National Council on Disability, 2012). Bringing an infant home is a complicated task for any parent, but for parents with physical disability, it may be even more of a challenge. Typical tasks such as carrying, bathing, feeding, and changing a baby may require more planning for mothers with physical disability. Therefore, it is important to understand the unique challenges of parenting with physical disability. The purpose of this study was to explore how mothers with physical disability experience caregiving for a new infant and how they incorporate adaptive techniques and modifications in their home to care for their baby.

Background

Parenting With Physical Disability

Until recently, society viewed women with physical disability as incapable of assuming the role of mother (DAWN–RAFH Canada, 2016; Rogers, 1996). Therefore, relevant literature is limited. One study of mothers with spinal cord injury (SCI) reported that their greatest difficulties involved taking their child to playgrounds, restaurants, and shopping malls and for walks; getting up at night with their child; cleaning and bathing tasks; and picking up after their child (Alexander, Hwang, & Sipski, 2001). In a qualitative study, Kaiser, Reid, and Boschen (2012) looked at the experience of parents with SCI and how they care for their children. Feelings of frustration and helplessness stemmed from physical barriers parents encountered, such as limited aids and adaptations and poor accessibility inside and outside the home that limited their involvement in child care and their opportunity to bond with their child (Kaiser et al., 2012).

Occupational Therapy and Mothers With Disabilities

Tuleja and DeMoss (1999) studied the effect of occupational therapy recommendations and interactions with parents with physical disabilities. Results showed that occupational therapy practitioners often approached the intervention with preconceived ideas regarding types of equipment and how a parent would use it, believing that mothers desired to be the sole care provider. However, they found that family dynamics are also important and that most mothers and families split baby care activities on the basis of schedules and ability to perform tasks. Other findings showed that occupational therapy practitioners' deductive clinical reasoning and assessment of task demands seem to be influenced by how much experience they had working with and observing parents with physical disability. Reid, Angus, McKeever, and Miller (2003) used in-depth individual interviews to examine the experiences of female wheelchair users in their roles as homemaker and mother. They found that mothers with disability felt that their wheelchair liberated them, but they also noted that the women needed advocacy to secure home modifications and accessible housing.

The literature consistently identifies motherhood as an important role that presents many challenges for women with and without disability. Studies describing barriers and adaptations made by mothers with physical disability are limited, especially with regard to care of infants shortly after birth and the role that occupational therapy interventions can play in assisting these new mothers. Therefore, the research question for this study was, "How do women with disabilities experience motherhood, and what strategies do they incorporate to care for infants in the home environment?" Results from this study can inform occupational therapy practitioners on how best to collaborate with these clients to increase their successful participation in the mothering role.

Method

The study was part of a larger exploratory mixed-methods investigation of pregnancy among women with chronic physical disability. The larger study had two components: analyses of national survey data (Iezzoni, Yu, Wint, Smeltzer, & Ecker, 2013) and qualitative descriptive analyses of in-depth individual interviews. The Partners Human Research Committee institutional review board (IRB) reviewed the interview study and approved the use of verbal informed consent; that is, women's agreement to the interview after being told about the interview procedures and protections indicated consent to the study.

Study Sample

Recruitment details are available elsewhere (Iezzoni, Wint, Smeltzer, & Ecker, 2015a). Briefly, we aimed to interview women with a preexisting physical disability who had a baby in the past 10 yr and had given birth at age 21 or older. Interviewees must have been using a mobility aid (e.g., wheelchair, crutches, cane) or have had significant difficulty using their upper extremities. We recruited 1 participant from our hospital's obstetrical service and 1 participant through networking with disability advocacy groups. To find other women, we developed an IRB-approved flyer describing the study and then networked with local disability advocacy organizations and through social media (e.g., Facebook). Of our 22 interviewees, 20 were recruited through our social media contacts. Table 1 describes participants' demographic characteristics.

Interview Protocol and Procedures

We designed a semistructured, open-ended interview protocol for this qualitative descriptive study. The interview protocol (available on request) covers eight topic areas: nature of disability and attitudes toward disability (Iezzoni, Yu, Wint, Smeltzer, & Ecker, 2014); attitudes toward pregnancy and disability (Iezzoni et al., 2015a); getting pregnant; reactions of family, friends, and strangers to the pregnancy (Iezzoni, Wint, Smeltzer, & Ecker, 2015b); pregnancy, labor, and delivery experiences, including complications and clinical care; physical accessibility of health care facilities (Iezzoni, Wint, Smeltzer, & Ecker, 2015c); overview of postpartum experiences; and sociodemographic characteristics. This article focuses on the women's postpartum experiences, particularly how mothers with physical disability experienced caregiving for a new infant.

One researcher conducted all 22 telephone interviews, obtaining verbal informed consent before starting. Information about the woman's age, years since most recent childbirth, and the nature of the woman's disability was confirmed during the initial screening call. The interviews occurred from October 2, 2013, through December 16, 2013, and averaged roughly 2 hr. Participants received a \$50 gift card. A professional transcription service produced verbatim transcripts of the digitally recorded interviews. We stored the interview data in password-protected computer files.

Analysis

We used conventional content analysis (Hsieh & Shannon, 2005) to identify major themes. We read the interview transcripts several times to become familiar with

Table 1. Interviewee Characteristics

Characteristic	<i>M (SD) or n</i>
Age, yr	34.8 (5.3)
Age category, yr	
25–29	1
30–34	13
35–39	4
40–49	4
Race/ethnicity	
White	20
Black	1
Native American	1
Hispanic	2
Marital or partner status at time of pregnancy	
Married or partnered	17
Boyfriend (broke up after pregnancy)	4
Single	1
Education	
High school	2
Some college	5
College degree	7
Graduate degree	8
Low income at time of birth ^a	8
Medicaid coverage at time of birth	11
Geographic region at time of birth	
Northeast	7
Midwest	7
South	5
West	3
No. of children	
1	16
2	4
3	2
Age of youngest child, yr	
≤2	12
3–5	4
6–7	3
8–9	3
Condition causing disability	
Cerebral palsy	4
Spinal cord injury	8
Other condition ^b	9
More than one condition	1
Mobility aid or other assistive technology used at time of pregnancy	
Cane or crutches	4
Walker	2
Manual wheelchair	12
Scooter	1
Power wheelchair	5
Leg braces or ankle foot orthotic	2

Note. *N* = 22. *M* = mean; *SD* = standard deviation.

^aLow income defined as <\$20,000/yr. All other women self-described as middle income. Employment histories were too complicated to summarize; women frequently changed schooling and employment status once or twice around the time of pregnancy. ^bOther conditions were Charcot-Marie-Tooth disease, osteogenesis, arthrogryposis, congenital myasthenia, spina bifida, missing multiple limbs, multiple injuries from car crash, and stroke.

each participant's response. On the basis of these reviews, we generated an initial list of topics to use in sorting the interview transcripts. Two researchers manually assigned topic codes to several texts in preparation for using NVivo software (Version 10; QSR International, Melbourne, Victoria, Australia) to sort the transcript texts. Each of us independently reviewed the sorted texts within topic areas to identify major themes; we reached consensus on themes through discussion. We addressed the trustworthiness of our results (Hsieh & Shannon, 2005) through independent reviews of the transcripts by members of the study team and through the in-depth, extensive interviews, which reached thematic saturation by around the 17th interview (additional interviews had already been scheduled and were completed).

Results

We identified four themes: night care and feeding, bathing, carrying, and furniture modifications. Figure 1 displays the interview question related to each theme.

Night Care and Feeding

The majority of women had to adjust their sleeping arrangements to care for their child throughout the night. Most of the mothers coslept with their child or created a bed for the child adjacent to their bed, which made it easier to feed or change the baby in the middle of the night. According to Jennifer (Charcot-Marie-Tooth disease),

We were doing cosleeping, and so she was in our bed, and so that was perfect. . . . I didn't have to get up in the middle of the night and have to lift her out of the crib. I could just turn over, lift her out of her little cosleeper, and, you know, latch her on, and that was wonderful. So I felt a lot more safe that way. The same with changing her diaper. I set up a changing station on our little night table, and, you know, I could do everything I needed to there.

Bathing

Many women feared bathing their child because of safety concerns. Christine (spastic hemiplegic cerebral palsy) said,

I have never given any of my children a bath, ever, because I know that's not my capability with my disability. Timothy [husband] gives them a bath . . . because water and slippery and kids, that just doesn't mix any time with a disability, even when I am the most capable.

1. What kind of help at home did you have in the first few months after [child's name] was born?
2. Did you get any special equipment or furniture because of your disability to help you care for your baby?
If yes, please describe.
3. Did you make any special changes in the baby's room and any place else in your house, such as the bathroom, because of your disability to help you in caring for your baby? If yes, please describe. What might you have done differently when you first brought [child's name] home if you knew then what you know now?
4. Are there any health care services that would have been helpful to you. I am especially interested in physical barriers in caring for [child's name]—or learning to care for [child's name]—during those first weeks or months? If yes, please describe.

Figure 1. Interview questions related to results.

Most of the mothers had other caregivers bathe the baby, including grandmothers, fathers, and personal care assistants. A few mothers cobathed, as did Lauren (osteogenesis):

I know bath time was always a changing challenge because she got heavier, whether she could sit up or she couldn't. So we just thought outside the box. There were several months where it was just the safest and best option for me to get in with her. So I would transfer her to a little bouncer seat beside the tub, [and] I would climb in. And then I would reach over, get her, [and] bathe her.

Carrying

Infants obviously need to be carried. To perform that task, many women found that using a wrap or something similar (scarf, sweatshirt, belly binder, or carrier) to secure the infant to them was easiest. As the child grew, mothers had to change the way in which they carried the child. Becky (SCI) said,

I had a Boppy® pillow, that I turned into . . . a belt, so I had a strap that went all the way around my waist, and the Boppy pillow sat on my legs. Deena [infant] just sat in the middle [and] we rolled around . . . like that. After that . . . a belly binder, that I'd wrap around her and me. She would sit in my lap, and we had the belly binder around us.

A few women said their infants resisted being wrapped despite repeated tries. According to these women, their infants adapted to other ways of being carried or latched onto their arm, abdomen, or shoulder. Maureen (missing multiple limbs), whose son, Ethan, resisted the wrap, described his adapting to riding with her on her motorized wheelchair:

I can't have him on my lap in my wheelchair because I only have one arm, and that arm needs to be operating the joystick. So, I don't have a second arm to protect him from falling off my lap. Ethan got really used to perching on my left shoulder over my 6-in. arm. He seemed to just naturally feel comfortable there, curved on my left shoulder.

Furniture Modifications

Furniture barriers were common in homes, especially inaccessible cribs and changing tables. Most women adapted by changing their baby on the floor or bed. Some modified their furniture to improve access. A few women described their partners as good with carpentry projects; they proactively reassembled furniture or built items from scratch. Examples included creating space underneath the changing table to accommodate the knees of a mother using a wheelchair, making the crib door swing open so that a mother using a wheelchair could reach in from the side to access the child (rather than having to stand up and lean over the crib rail), and adding wheels to the legs of tables or other support surfaces so that a mother could easily move the child positioned on that surface from room to room. Cribs with drop-down sides are no longer manufactured, but they were prized by about half of the women. Becky (T5 SCI), a wheelchair user, said,

I got a crib that you can't get anymore. . . . It was a drop down. . . . I could get up alongside it and drop it down. And the mattress starts up high, so I could reach her easily and then go down. As she was older, she was able to sort of help crawl over the rail. Then . . . all of the changing tables are really high, and they're not really wheelchair friendly. So we just basically made a desk. We got two cabinets and a Formica countertop because the space was cut out, so I could get under it. And that was her changing table. It wasn't complicated.

Occupational Therapy Intervention

Nine of the participants had direct interactions with occupational therapy services. Interviewees who had received occupational therapy services had generally positive experiences. Rachel (SCI) described her experiences:

I think one of the best things I ever did at that point [was] I went for occupational therapy. Because I'm like I need to know how I'm going to get my kid in and out of this car, because I can't, I can't stay homebound. I need to figure out how I'm going to carry her when I can't hold her. We had gotten a stroller, but you know what? It wasn't that easy for me to push. So, you know,

I went to OT [occupational therapy] and I started working out some of these issues, and that was a really good thing for me to do. Now, my doctor at [Rehabilitation Institute of Chicago] at the time was like, “Well, do you want to go to OT?” This was before when I was pregnant. I’m like I don’t know what I need yet. I don’t know what I’d go for. And so, well, I know now, and I try and tell women when I do peer counseling or anything, you know, these are some of the things you might want to think about. And if you want, this is a good time to go and get it. But it’s hard to know sometimes until you’re there.

Discussion

All interviewees reported having had to adapt the way they performed infant care tasks or had to make modifications in their home environments to care for their infants, either with or without consultation with an occupational therapist. The main tasks requiring adaptations included night care and feeding, bathing, carrying the infant, and activities involving placing babies on surfaces (e.g., in cribs, on changing tables). The mothers became accustomed to troubleshooting difficulties and adapting how they took care of their infants, especially recognizing situations in which their physical disability might affect safety (e.g., during bathing). Many interviewees said they just “figured it out.” (See Table 2.)

Our results are consistent with those of previous studies of mothers with SCI described earlier, including the types of aids and adaptations the mothers used to accommodate their disability in child care tasks, such as adaptive changing tables, cribs, and highchairs (Alexander et al., 2001; Tuleja & DeMoss, 1999). Our results are also congruent with general findings and expectations about the roles, perceptions, and experiences of women with disabilities in U.S. society with regard to the challenges they face and the need for adaptive strategies (Filax & Taylor, 2014; Nosek, Howland, Rintala, Young, & Chanpong, 2001; Signore, Spong, Krotoski, Shinowara, & Blackwell, 2011), and thus they have good face validity.

Tuleja and DeMoss (1999) recommended that occupational therapy practitioners assist with providing expertise in equipment development and design of adaptive equipment as well as education for parents with physical disability on child development, transitional tasks such as carrying and moving the infant, adaptive techniques, and accessible or universal design. Our results suggest that occupational therapy practitioners can collaborate with mothers with physical disability to incorporate strategies to care more easily and safely for their infants.

Implications for Occupational Therapy Practice

The results of this study have the following implications for occupational therapy practice:

- The occupational participation of mothers with a physical disability can be increased by providing adaptive strategies (e.g., for carrying the baby, getting the baby in and out of a car).
- Mothers with a physical disability can benefit from referral to occupational therapy for assistance in adapting tasks and the environment to increase their independence in child care.
- Additional research is necessary to examine the most effective strategies and adaptations to assist mothers with a physical disability in child care.

Our study has limitations, particularly relating to our small, nongeneralizable sample of interviewees. Given the sample’s limited racial and ethnic diversity, we cannot make assertions about barriers that might disproportionately affect minorities or specific cultural practices relating to child care. One woman, who lives on the Pueblo in New Mexico, followed the Native American tradition of using a cradleboard at nighttime. Further research should look at the influence of cultural traditions on child care.

In addition, we did not member check women’s assertions about their physical disabilities or home environment. Nonetheless, women’s reports were consistent and authentic throughout the 2-hr interviews, suggesting that their statements accurately represented their own experiences. Sixteen women had their youngest child within the preceding 3 yr. For the remaining women, 9–10 yr had passed since their last pregnancy, raising questions about the accuracy of their memories. Because of the length and breadth of the interview—and the other research questions we addressed (Iezzoni et al., 2015a, 2015b, 2015c)—we did not ask in-depth questions about women’s experiences with or perceptions of occupational therapy services. Therefore, future research should focus on more specific roles for occupational therapy practitioners in assisting mothers with a physical disability in successful occupational participation in child care tasks.

Conclusion

This research showed how mothers with physical disability experience the tasks of caring for their infants and discussed unique challenges and creative adaptations made by the mothers. Future research should examine how occupational therapy practitioners might collaborate with mothers with physical disability to accommodate infant

Table 2. Examples of Women's Experiences

Pseudonym	Condition	Experience
Night Care and Feeding		
Kayla	SCI	I had everything, like diapers, wipes, everything, on the dresser by the bed. . . . So I was able to get up and change diapers and feed her, do all that.
Kachina	SCI	She had slept in a cradle board on my bed with me, like the Native American cradle board. [The] tradition in our family is to have the baby sleep in a cradle board, and then after she outgrew the cradle board . . . we had a little bassinet kind of bed, and then we put her in the crib. . . . I could do everything from the bed. . . . I had like a little basket full of everything I would pack for the night, like I put it on my bed, like her Pampers, her wipes, like the formula and things that I needed. I would just have it on my bed so that I wouldn't have to jump on my wheelchair and then come into the kitchen . . . everything was just right there, easy for me to reach.
Bathing		
Jennifer	CMT	Bath time was always a changing challenge because she got heavier, whether she could sit up or she couldn't. So we just thought outside the box. There were several months where it was just the safest and best option for me to get in with her. So I would transfer her to a little bouncer seat beside the tub, [and] I would climb in. And then I would reach over, get her, bathe her, and put her back on a towel that I laid out on the bouncer seat.
Maureen	Missing multiple limbs	[Bathing] was the one thing that I was afraid of. My best friend lived with me the first couple of months. And my mother came over a lot. So either my mother or my best friend gave Ethan [infant son] his bath. I had bought a couple of plastic tubs, one that fit in the sink, but I felt better having someone else bathe him for the first 2 mo.
Hannah	SCI	When he was young, so itty bitty, we had one of those baby baths, those little plastics ones. . . . I would put it on the kitchen table and we would just give him a bath on the table. So I never really got down in the tub with him like in a big tub. . . . That's like Peter [husband] and Adam's [son] time. Bath time is their time, and it has been pretty much since he was born.
Annemarie	Arthrogryposis	The bath was something I had to have assistance with. And due to the fact that my [personal care aide] was my friend, she came in and helped with that whenever I needed it. . . . The first time I gave him a bath myself, I cried. It was the single one thing that I couldn't do myself, and he was 3 years old.
Kachina	SCI	I have a shower bench, and I would take it out of the tub and then I would put her little bathtub there so she was like kind of level with my wheelchair. And then I would just go sit and pull up my wheelchair like sideways to the shower bench and her tub. . . . That's how I would bathe her.
Carrying		
Nicole	SCI	When she was 2 months old and younger, I just would get a scarf and sit her in my lap and tie it around her.
Bethany	SCI	I just started putting Gwendolyn on my left leg, like she was sitting on a horse, so I'd have her straddle my leg so that her bottom was being supported and then I would hold her with my left arm . . . pushing with my right arm. With Jeremy, I used this brilliant thing called a Moby Wrap. . . . You wrap it around yourself and then wrap it so that it fits the baby to your chest so that they are laying with their face to the side.
Margie	Arthrogryposis	I didn't mind carrying him, but I didn't like going from the carpet to the linoleum and stuff like that, so I have a manual wheelchair that I very rarely use, and I had two care seats, so I took one of his seats and tied it to the wheelchair.
Maureen	Missing most of one arm and both legs at hip	I tried all sorts of wraps, but Evan [son] wasn't going to have any of that. . . . I can't have him on my lap in my wheelchair because I only have one arm, and that arms needs to be operating the joystick. . . . Evan got really used to perching on my left shoulder over my 6-inch arm. He seemed to just naturally feel comfortable there, curved on my left shoulder. He didn't want any of the tighter things like wraps.
Kayla	SCI	I would hold them up . . . on my shoulder. They'd just kind of naturally rest on my shoulder and on my breast and just lay there. I was about to drive around with them, no problem, or hold them on my lap.
Cecelia	Cerebral palsy	We bought one of those carrying things . . . when you carry it on your front or back . . . that worked a lot . . . because it gave me the chance to hold the baby. . . . I could do other things if I wanted to.
Annemarie	Arthrogryposis	I lifted him by swaddling him in a blanket and putting it in my teeth and lifting him that way. Eventually, with his onesies and his outfits, once he could hold his head up, I didn't have to swaddle him. . . . I could just do that with his outfit. I also got a highchair that had wheels on it, and I took the clasp and made it Velcro instead.
Furniture Adjustments		
Becky	SCI	I got a crib that you can't get anymore, but it was a drop down because I could get up alongside it and drop it down. Then a changing table, we just made one because [they] are really high and not wheelchair friendly. So we just basically made a desk. We got two cabinets and a Formica countertop because the space was cut out so I could get under it and that was her changing table.
Gabriela	SCI	We had work together to come up with a design . . . that would be possible for a crib. My mom's husband was able to kind of put like a piano hinge so that it could fold down. And we actually used two window locks to be latches on the sides.
Nina	SCI	I took my office table that I could wheel under. It was a great height. And we moved that, and we made that her changing station. And I've put a little shelf on the back that has all her . . . stuff, and then the changing pad is in the front of it, and I can wheel under it so she's right over me.

(Continued)

Table 2. Examples of Women's Experiences (cont.)

Pseudonym	Condition	Experience
Occupational Therapy		
Annemarie	Arthrogryposis	I asked to have an occupational therapist come in. I specifically asked because I wanted two things done. . . . I wanted to be checked over . . . to make sure everything that I was doing was not affecting the way he was growing, moving, changing, and whatnot. And I also wanted that paperwork just in case we had a custody issue. . . . She just proved that everything was fine, but it was nice to know I had that information if I needed it.
Rachel	SCI	I think one of the best things I ever did at that point [was] I went for occupational therapy. . . . I need to know how I'm going to get my kid in and out of this car because I can't . . . stay homebound. I need to figure out how I'm going to carry her when I can't hold her. We had gotten a stroller, but . . . it wasn't that easy for me to push. . . . I went to OT, and I started working out some of these issues, and that was a really good thing for me to do.

Note. Quotations have been lightly edited to delete repetitive phrases (e.g., *you know*, and *so*) and redundant comments. No words have been changed. Clarifying words appear in brackets. CMT = Charcot-Marie-Tooth disease; OT = occupational therapy; SCI = spinal cord injury.

care tasks. Going beyond physical disability, additional studies should investigate how new mothers with other types of disabilities (e.g., intellectual, sensory) perform child care tasks, what barriers they confront and adaptations they make, and how occupational therapy practitioners can best serve these women to increase participation in their motherhood role. ▲

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References

- Alexander, C., Hwang, K., & Sipski, M. (2001). Mothers with spinal cord injuries: Impact on family division of labor, family decision making, and rearing of children. *Topics in Spinal Cord Injury Rehabilitation*, 7, 25–36. <http://dx.doi.org/10.1310/WAP0-YXQB-2WB4-TJBW>
- DAWN-RAFH Canada. (2016). *The only parent in the neighbourhood: Mothering and women with physical disabilities*. Retrieved from <http://www.dawnCanada.net/issues/issues/mothering/the-only-parent-in-the-neighbourhood-mothering-and-women-with-disabilities/>
- Filax, G., & Taylor, D. (Eds.). (2014). *Disabled mothers: Stories and scholarship about mothers with disabilities*. Bradford, Ontario: Demeter Press.
- Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, 15, 1277–1288. <http://dx.doi.org/10.1049732305276687>
- Iezzoni, L. I., Wint, A. J., Smeltzer, S. C., & Ecker, J. L. (2015a). Effects of disability on pregnancy experiences among women with impaired mobility. *Acta Obstetrica et Gynecologica Scandinavica*, 94, 133–140. <http://dx.doi.org/10.1111/aogs.12544>
- Iezzoni, L. I., Wint, A. J., Smeltzer, S. C., & Ecker, J. L. (2015b). "How did that happen?" Public responses to women with mobility disability during pregnancy. *Disability and Health Journal*, 8, 380–387. <http://dx.doi.org/10.1016/j.dhjo.2015.02.002>
- Iezzoni, L. I., Wint, A. J., Smeltzer, S. C., & Ecker, J. L. (2015c). Physical accessibility of routine prenatal care for women with mobility disability. *Journal of Women's Health*, 24, 1006–1012. <http://dx.doi.org/10.1089/jwh.2015.5385>
- Iezzoni, L. I., Yu, J., Wint, A. J., Smeltzer, S. C., & Ecker, J. L. (2013). Prevalence of current pregnancy among US women with and without chronic physical disabilities. *Medical Care*, 51, 555–562. <http://dx.doi.org/10.1097/MLR.0b013e318290218d>
- Iezzoni, L. I., Yu, J., Wint, A. J., Smeltzer, S. C., & Ecker, J. L. (2014). Conditions causing disability and current pregnancy among US women with chronic physical disabilities. *Medical Care*, 52, 20–25. <http://dx.doi.org/10.1097/MLR.0000000000000015>
- Kaiser, A., Reid, D., & Boschen, K. A. (2012). Experiences of parents with spinal cord injury. *Sexuality and Disability*, 30, 123–137. <http://dx.doi.org/10.1007/s11195-011-9238-0>
- National Council on Disability. (2012). *Rocking the cradle: Ensuring the rights of parents with disabilities and their children*. Washington, DC: National Council on Disability.
- Nosek, M. A., Howland, C., Rintala, D. H., Young, M. E., & Chanpong, G. F. (2001). National study of women with physical disabilities: Final report. *Sexuality and Disability*, 19, 5–40. <http://dx.doi.org/10.1023/A:1010716820677>
- Reid, D., Angus, J., McKeever, P., & Miller, K. L. (2003). Home is where their wheels are: Experiences of women wheelchair users. *American Journal of Occupational Therapy*, 57, 186–195. <http://dx.doi.org/10.5014/ajot.57.2.186>
- Rogers, J. (1996). Pregnancy and physical disability. In D. M. Krotoski, M. A. Nosek, & M. A. Turk (Eds.), *Women with physical disabilities: Achieving and maintaining health and well-being* (pp. 101–108). Baltimore: Brookes.
- Signore, C., Spong, C. Y., Krotoski, D., Shinowara, N. L., & Blackwell, S. C. (2011). Pregnancy in women with physical disabilities. *Obstetrics and Gynecology*, 117, 935–947. <http://dx.doi.org/10.1097/AOG.0b013e3182118d59>
- Tuleja, C., & DeMoss, A. (1999). Babycare assistive technology. *Technology and Disability*, 11, 71–78.