

RESEARCH PAPER

How to support the needs of mothers with physical disabilities?

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Abstract

Purpose: The objectives of this study were: (1) to understand and describe the challenges that women with physical disabilities face during their motherhood process; (2) to understand and describe their strengths, and (3) to produce a list of supports that health professionals and policy makers should apply in order to address the needs of these mothers. **Methods:** The study was conducted within the phenomenological-constructivist paradigm. In-depth semi-structured interviews were conducted with 17 mothers age 32–62 with various physical disabilities. **Results:** The findings revealed both physical and mental challenges that these women have faced during their motherhood. Although these challenges, the women evaluated that motherhood, in the context of disability, helped them to develop positive disability identity, to frame and accept their interdependence and to become resilient. Their disability also influenced the children, i.e. they have learned how to cope with difficulties. The mothers recommended making the environment more accessible for them, providing physical and emotional support, parental guidance, information about their rights, and financial benefits to meet their children's needs. **Conclusions:** Mothering with a disability can result in personal growth, but this positive process requires interdependence, creative and collaborative approach applied in rehabilitation practices.

Keywords

Coping, disability, motherhood, support

History

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► Implications for Rehabilitation

- Supporting mothers with physical disabilities should address not only their physical needs but also their mental and social needs. In particular, mothers with physical disabilities want and need parental guidance as well as accessible recreational activities for them and their children.
- An interdependence and creative approach should be applied in rehabilitation practices in a way that recognizes the right of women with physical disabilities to become mothers, express their needs and develop solutions in collaboration with health professionals.
- Health professionals should look for strengths of mothers with physical disabilities and use their strengths to accomplish personal aims within individual rehabilitation programs.

Introduction

The last two decades mark an unprecedented period of health advocacy by and for women with disabilities. Still, women with disabilities experience the combined disadvantages associated with gender as well as disability. They are less likely to find a job, to receive health services, to marry and to raise children than non-disabled women [1,2]. These barriers may hinder women with disabilities from connecting with the community and medical services and establishing diverse support networks [3].

Empirical studies documented that compared to women without disabilities, women with disabilities experienced significantly more physical and mental health problems [4–7].

Society may devalue women with disabilities, especially visible disabilities such as physical and visual impairments, because they do not fit aesthetic ideals of the physically perfect woman. Women with disabilities may also depart from society's functional ideals, resulting in their categorization as incapable wives and mothers who are unable to fulfill traditional gender roles [8,9]. Grue and Laerum [10] interviewed 30 Norwegian mothers (age 28–49 years) with physical disabilities such as multiple sclerosis, neuromuscular diseases, cerebral palsy and spinal cord injury, who had a child under the age of 13. The researchers found that the women felt they had to go to great lengths to present themselves and their children as managing “normally” in order to be accepted as “ordinary” mothers.

Prilleltensky [11,12] conducted focus groups and interviews to learn about the experiences of Canadian mothers with physical disabilities. The participants reported a range of reactions and attitudes to their pregnancy, with some facing opposition and skepticism. Mothers varied in level of formal and informal support available to them and in number and magnitude of

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stressors that they faced. Those who required assistance to carry out caring tasks emphasized the importance of retaining control over the parental role. The shortage of funded resources to help meet children's needs was noted as a major hurdle for mothers with physical disabilities. They also focused on parent-child relationship and reported a strong commitment to their children. They took actions to ensure their care and well-being, and attempts to shield them from any burden related to the maternal disability.

Poole et al. [13] quantitatively examined the parenting ability, pain, fatigue, and activity limitations of 75 mothers with scleroderma (SSc) who had a child between birth and 18 years old. Mothers with SSc reported difficulty with parenting. In particular, mothers with children aged 5 or younger reported that getting up and down from the floor to play with their children was the most difficult task, and mothers with children between age 6 and 18 years reported that playing with their children outdoors, doing household chores, and shopping were the most difficult tasks. In addition, parenting difficulty was significantly associated with self-reported health, pain, fatigue, and activity limitations.

Still, the emerging research on parents with disabilities, and particularly mothers, includes some problems. First, most of the studies that explored the motherhood experience of women with disabilities conducted in the US, Canada, UK and Australia. This topic has not been explored in Israel. Second, much of the research on parents with disabilities has been driven by the pathologizing assumptions such as inability of these individuals to parent and negative effects of their disability on the children [14]. Previous studies presented a medical discourse of disability, i.e. they focused primarily on difficulties and barriers of motherhood in the context of disability [15]. A third problem in the literature is the failure to consider fundamental distinctions among disabilities [14].

In response to these problems, the present study aimed to explore the motherhood experience of women with physical disabilities while focusing not only on the mothers' difficulties but also on their personal strengths and coping strategies. The objectives of this study were: (1) to understand and describe the challenges that women with physical disabilities face during their motherhood process; (2) to understand and describe their strengths, and (3) to produce a list of supports that health professionals and policy makers should apply in order to address the needs of these mothers.

Methods

Participants

The sampled mothers conformed to three inclusion criteria: (a) Jewish women, (b) being 18 years or older, and (c) having a physical (mobility) disability. Disability is defined by the Americans with Disabilities Act of 1990 [16] as "(A) a physical or mental impairment that substantially limits one or more major life activities of such individual; (B) a record of such an impairment; or (C) being regarded as having such an impairment" (42 U.S.C. 12102).

Recruitment flyers were distributed both face-to-face and online (mailing lists, websites, Facebook pages) through the Israeli disability community, including disability organizations and groups. Mothers with a wide range of ages were recruited from the early 30's to the early 60's while some of them had an adult child (18 years or older).

Twenty-six mothers contacted the investigator during the year 2013 while only 17 mothers were eligible to participate in the study. The participants were 32 to 62 years old ($M=45$ years). The majority of the mothers (15 of 17) had a developmental physical disability, i.e. a disability that originates before the age of

22. Approximately half of the mothers (9 of 17) were married, and the rest were single mothers (4 divorced mothers and 4 single mothers by choice). The demographics of the participants are presented in Table 1.

Data collection and analysis

A phenomenological-constructivist paradigm was applied in order to hear the voices of mothers with disabilities and learn about their motherhood experience [17,18]. This paradigm is also compatible with the "social model of disability" that privileges the voices of socially oppressed groups such as the target population (i.e. mothers with disabilities), acknowledges their authority to frame their own experience, and allows for the context in which they live to be vividly captured in their narratives [19].

In-depth semi-structured interviews were conducted individually with each mother in a face-to-face setting; each interview was conducted over 1.5–2 hours. Both key and probing questions were used to elicit information about the motherhood experience with an emphasis on personal strengths and coping strategies. The interview guide included key open-ended questions related to four phases of the motherhood process: (1) the decision to become a mother, (2) the pregnancy period, (3) after the delivery and when the children were growing up, (4) a future vision of the mothering role. The three first phases included probing questions about the challenges that the mothers had to face with as well as their personal strengths and coping strategies. At the end of the interview, the mothers were asked to produce a list of supports that they would like to submit to health professionals and policy makers.

Interviews were audio-recorded and transcribed verbatim. All data were organized into major themes and sub-themes by the investigator (the author) in collaboration with a research assistant, using a four-phase inductive content analysis procedure, as described below [20,21]. In the first phase of the analysis, the investigator dissected the transcripts into meaningful chunks (words, phrases, sentences and clusters of related sentences), coded by assigning a category name or brief descriptor ("code"), and organized into thematic clusters. Then, the investigator grouped the codes, eliminated redundant codes, and arranged them into major themes and sub-themes to facilitate analysis of important thematic interrelationships, a process referred to as "axial coding". As the analysis proceeded, the research assistant audited the investigator's analysis, checking the data to determine relationships between thematic categories. Conflicting feedback was resolved through discussions (the investigator and research assistant) until consensus was reached. This process resulted in a stronger definition of themes and a more coherent organization of themes and sub-themes. The central purpose of these data analysis procedure was to produce a descriptive analysis of themes as well as to explore conceptual relationships between them.

In order to minimize bias and enhance trustworthiness, the participants themselves, in addition to the research assistant, reviewed a completed draft of the manuscript and provided feedback. First, a draft of the findings (themes and sub-themes) was sent by e-mail to the participants who could review and provide their feedback. Approximately half of the participants responded to the e-mail and gave positive feedback. Then, the investigator contacted via phone the rest of them, the participants who have not responded to the first e-mail, and asked their opinion. In general, 13 of 17 participants gave feedback with no recommended changes.

Ethical considerations

The protocol used for this study was approved by the Ethical Committee of the Faculty of Social Welfare and Health Sciences

Table 1. Demographics of the participants.

The participant's pseudonym	Age (years)	Education	Marital status	Number of children (ages – years)	Disability type
1. Mary	50	B.A.	Married	4 (18, 20, 22, 23)	Acquired disability – Paralysis caused by accident during military service
2. Linda	54	M.A.	Married	3 (14, 20, 32)	Developmental disability – Paralysis caused by cancer, hearing impairment, diabetes
3. Susan	58	Ph.D.	Married	2 (25, 29)	Developmental disability – Paralysis caused by Polio virus
4. Sarah	50	Secondary education	Divorced	2 (20, 22)	Developmental disability – Paralysis from birth
5. Lisa	40	B.A.	Married	4 (12, 13, 17, 20)	Developmental disability – Paralysis caused by virus
6. Nancy	32	B.A.	Married	2 (3, 5)	Developmental disability – Cerebral palsy from birth
7. Karen	62	M.A.	Single	1 (17)	Developmental disability – Paralysis caused by Polio virus
8. Ruth	58	B.A.	Married	3 (18, 30, 34)	Developmental disability – Paralysis caused by Polio virus
9. Sharon	39	Secondary education	Divorced	1 (15)	Developmental disability – Paralysis caused by muscular dystrophy from birth
10. Amy	45	Secondary education	Single	1 (11)	Developmental disability – Paralysis from birth
11. Debra	42	Secondary education	Single	1 (3.5)	Developmental disability – Paralysis caused by meningitis
12. Ann	50	B.A.	Married	2 (20, 24)	Developmental disability – Cerebral palsy from birth
13. Diane	38	M.A.	Single	1 (5 months)	Developmental disability – Paralysis
14. Alice	42	Secondary education	Divorced	4 (2 pairs of twins – 9, 16)	Developmental disability – Cerebral palsy from birth
15. Doric	37	Secondary education	Divorced	1 (12)	Developmental disability – Paralysis caused by muscular dystrophy from birth
16. Jean	37	M.A.	Married	2 (3, 7)	Developmental disability – Little person
17. Rose	41	B.A.	Married	2 (7, 12)	Acquired disability – Paralysis caused by accident during military service

at the author's university. Mothers who volunteered to participate in the study reviewed and signed informed consent form before the interview. In addition, the results were linked to pseudonyms in order to protect the participants' privacy.

Results

Qualitative analysis of the interview transcripts revealed two major themes and six related sub-themes that illuminated the motherhood experience of women with physical disabilities. The two major themes referred to the impact of disability on the mothers themselves and the impact of disability on the children (from the mothers' point of view), as indicated in Figure 1.

The impact of disability on the mothers

The mothers encountered both physical and mental challenges. Some of these challenges were directly related to their physical disability, but many of them were related to social expectations and perception of an ideal mothering role. Despite these challenges, the women viewed their disability as an empowering factor that positively influenced their motherhood.

Challenges

The mothers emphasized the interrelation between their physical health (body function) and mental health. The reported physical challenges included difficulties in caring tasks

related to the children such as taking a shower, dressing them up and doing outdoor activities: "It was very hard for me to pick them [kids] up, chasing them in the playground, I didn't take them out by myself unless someone else joined me, and I was very anxious that something would happen to them" (Rose); "I remember once when I stayed alone with her [kid] at home, for only 15 minutes, and she was crying in her bed and I couldn't take her out. I felt helpless because I couldn't pick her up" (Ann).

The mothers also reported three main mental challenges:

(1) Independence – Many of them faced a dilemma related to independence perception. On one hand, they said that they needed assistance and support, especially in the infancy or childhood period, but on the other hand, it was very hard for them to ask for help as it means being dependent on someone else: "I can't think of asking for help. Only my family, my siblings [helped me]" (Ruth); "Sometimes I have pangs of conscience that I can't do more and so he [her husband] gets more responsibilities. It is hard for me. I am an independent person, I do everything by myself and I don't like to be dependent" (Jean). The mothers preferred to ask for help from close family members (e.g. partner, parents, and siblings) rather than government services (e.g. social welfare services). Few said that they have learned to ask for help from others. They viewed this process as personal growth: "I have learned to ask for help, even from strangers, for example if I am in a new place and I need a hand to go upstairs, I can ask for help.

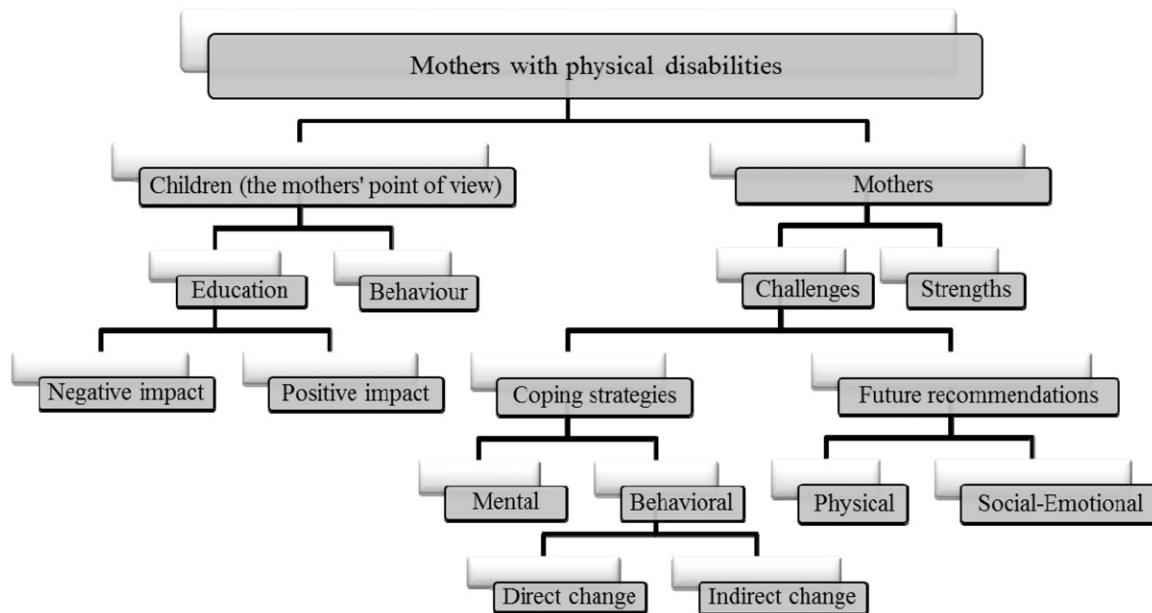


Figure 1. The impact of disability on motherhood experience.

otherwise I would stay downstairs” (Ann). Debra, a 42-year-old mother, described it:

When I was at the hospital [the delivery], I had to climb and get into the bed so I asked for help from the nurses, I wasn’t ashamed and asked for help from everyone, I presented my disability as a fact and told them [the medical staff] what I can or can’t do. ... I instructed them how to locate my hand, like a manager, a teacher. I gave instructions.

(2) Identity – The women raised another dilemma related to their identity as a disabled mother. On one hand, all of them perceived themselves as other non-disabled mothers. In this sense, they felt like they had to prove that they are not disabled and can fulfill the traditional mothering role (e.g. raising children and doing household chores). Some of them even described it as a *super-mom* identity, i.e. a perception that they have to invest more resources in raising their children than non-disabled mothers so the children will grow up to be good and successful adults. Later, they realized that disavowal of their disability identity negatively influenced their health: “All the time I had pains, but I had to ignore it because there was someone else in the center of my life [the kid]” (Rose); “If you would ask me what am I – a disabled person or a mom? ... I think I am first a mom, but the disability is always there” (Ruth). On the other hand, few of them accepted their identity as a disabled mother, i.e. a mother that copes with health issues: “I live ‘full life.’ If I accept myself as a wheelchair user so everyone would accept me” (Amy); “Today I think I should have made my disability more visible, to give it more weight since it was there all the time, including physical difficulties” (Ruth).

(3) Social stigmas – The mothers expressed anger and frustration from the negative social attitudes they encountered; attitudes that disputed their ability to parent: “A physician told me ‘why did you decide to have a child if you suffer from so many medical problems?’” (Alice). Karen, a 62-year-old mother, stated:

There are some things that I carry with me all my life... the lack of encouragement and belief that a disabled woman can’t become a mother, she has no feelings, no needs, she has nothing... she has to live with her disability... and be excluded from the society.

Strengths

The mothers emphasized their personal strengths that helped them to overcome the above challenges. They perceived themselves as resilient, i.e. their disability motivated them to become *super-mom* and advocate for their rights as well as their children’s rights: “I don’t give up, I am stubborn. I will try to find a way to overcome [every challenge]”; “I am not an educated person but I am persistent. Persistence is the keyword” (Debra). Alice, a 42-year-old mother, stated:

A physician told me “Why do you want to raise kids in your state?” I responded “Excuse me, who put you in a position to decide if I can raise kids or not?” ... Then she [the physician] didn’t say anything. I was very determined. It took me years of assisted reproductive therapy.

Susan, a 58-year-old mother, described her optimistic life approach:

When I meet mothers with disabilities they are inspired by my optimism. Although the difficulty, it is possible. I persist to accommodate the environment, accessibility, especially for mothers with disabilities ... Everyone knows that I am a fighter.

Some of the mothers reported they became advocates in disability organizations, as described by Lisa, a 40-year-old mother:

I have personally evolved over the years, my awareness and self-esteem increased, and my occupation is related to rights and accessibility for people with disabilities... My kids experienced it since they were young. I came to their classes and organized things.

Coping strategies

Besides the personal strengths that helped these women to overcome motherhood challenges, they developed two main types of strategies – mental and behavioral strategies. The mental strategies included:

(1) Creative thinking – the ability to search, find or invent technical solutions: “When you encounter a problem it doesn’t

mean that you can't solve it. You just find other ways to deal with it, sometimes unconventional ways. I found a way to make things happen'' (Doris). Ann, a 50-year-old mother, described it:

I give you an example. When the kids were young I bought frozen meals [rather than cooking] ... I also bought a lot of wipes to clean the babies while other moms could wash them in a tub. It was small but a huge thing for me.

Jean, a 37-year-old mother, also said:

I had to adapt to the new situation [raising a kid], coming up with new ideas how to physically deal with the situation. I have discovered new abilities like I can do things that I wouldn't think I could do. For example, it is difficult for me sitting on the floor with the kids so I put them on the table.

(2) Pre-planning – the mothers learned to think and plan in advance every action they had to take: “You have to plan to drive there [the school] earlier so you can find a close parking lot” (Susan); “I defined exactly what I needed and they made a diaper cabinet that was accommodated to my height. You have to pre-plan everything so you will not be surprised and can be ready” (Diane).

(3) Humor – A mother noted that she used her sense of humor to cope with the challenges: “There are a lot of difficulties but I don't stop laughing about it because disability is not necessarily a sad thing and misery” (Ann)

(4) Spirituality – Few of the mothers were empowered by faith and spirituality: “I didn't enroll in an academic degree program but I did learn healing and other spiritual techniques. It gives me hope and makes me stronger” (Doris).

The behavioral strategies included both direct and indirect strategies. The direct strategies referred to actions they took to accommodate the situation or environment: “I widened my apartment, the doors so I could get around with the wheelchair” (Karen). Susan, a 58-year-old mother, described it:

It was very important for me that the kindergarten and school would be accessible; it was a serious fight ... there were stairs in the entrance of the school so I turned to the mayor's office and demanded that they make it accessible. Eventually, all schools where my kids were learning became accessible.

The indirect strategies referred to changing the situation or environment by getting support (both physical and emotional) from others, staying at “safe place”, and being involved in the children's life: “I invited a neighbor to stay over the night so I could sleep, if the baby woke up [during the night] she could wake me up or take care of her” (Linda); “I have a personal assistant, she does everything but she is not the mom. She takes the kids to their friends.... We view her as only our legs and hands” (Nancy); “I am lucky because I met other women online – ‘difficulties in getting pregnant’ [group's name] – it helped me a lot that I had a support group” (Jean). Ruth, a 58-year-old mother, described a strategy that she developed:

I remember that my kids were staying a lot in the cradle because it was easy for me to move it around the house. They could play or sleep there [the cradle] ... it was close so I could keep their boundaries and watched them.

Future recommendations

Based on their experiences, the mothers recommended providing future supports for other mothers with disabilities.

Their recommendations included physical support such as accommodating the environment, having homemaker, personal assistant, nanny or mentor for the children, parental guidance, information about their rights, and financial benefits for mothers with disabilities: “I can't go with my kid to the playground, the maximum I can do is holding his hand and taking him to the mall. I wish I had someone who would take the kid out” (Debra); “I bought a lot of frozen meals because it was convenient for me [rather than cooking] so it was expensive. Mothers with disabilities have a lot more expenses than non-disabled mothers” (Ann); “There are women that don't work or don't have a job with an adequate salary. In such cases, they need financial support so the baby will grow up living in good conditions” (Susan); “I wish I could get more information about my rights. These days you don't know what you should get or not from the social security administration. You should check and ask by yourself. They should provide this information explicitly” (Doris); “If someone would guide me from the beginning, it would prevent the frustration... I wish someone would teach me then a technique how to take her [baby] out of the bed” (Ann). Mary, a 50-year-old mother, asked policy makers to provide a formal assistance:

When I was young the ministry of defense [her disability was acquired during the military service] told me that I live with my family so they would help me. But they [the ministry of defense] should provide homemaking assistance, whether it was cleaning or cooking or going to the grocery.

The mothers also recommended providing social and emotional support such as peer support groups (face-to-face and online) and recreational activities for parents with disabilities: “First of all, emotional support for mothers. A lot of conversations so the mother will cope with her difficulties related to the disability and not transfer it to the kids” (Mary); “When the kids were young. Recreational activities with them were missing. If there were classes or groups for parents with disabilities and their children...” (Sharon). Jean, a 37-year-old mother, stated:

I would recommend establishing support groups for parents with disabilities but parents for kids at the same age range because there is a difference raising a 3-year-old kid and an 18-year-old kid. The group should be homogenous [kids' ages]. The disability [of the parents] should also be homogeneous. Mothers with physical disabilities face different difficulties than blind or deaf mothers

The impact of disability on the children

The second core theme referred to the impact of the mother's disability on her children (from the mother's point of view). Two types of impacts (sub-themes) were found: the kid's personality and behavior and the kid's education. The mothers evaluated that their disability positively influenced the children's personality and behavior, i.e. the children have learned to accept other people, became independent in early ages, they have learned how to cope with difficulties and became resilient: “They [the kids] became very sensitive, they accept ‘the other’, they also meet our friends that they are people with disabilities. They have learned to accept difficulties; they understand it and they don't view it as exceptional thing” (Susan). Linda, a 54-year-old mother, noted:

I was a good example for him [the kid] in terms of coping with difficulties. I felt very strong then [when the kid was young] ... I was a symbol of resilience and hardness. When he was young he thought I can manage the world.

Ann, a 50-year-old mother, also described the impact of her disability on the children:

Because of my disability they [the kids] had to adjust to things that other kids didn't have to cope with. They did household chores that other kids don't do and it was not because it is hard for mommy or mommy can't do it, but because it is part of their life, to help, to do. They became more independent and I less protected them, I wasn't worried, if they fell, it wasn't so terrible, I also fall a lot. I know what it means to fall down. Once when I fell down my son lifted me up... . When I dropped something, my son immediately picked it up. I didn't tell him to do that, he just saw and did.

In addition, the mothers said that living with a disability influenced both negatively and positively the way they educated their children. The negative effects included less restricted education and failure in providing confidence to the children: "My son asked me to walk away from him [when he was around his friends] because the other kids pointed on me [ridiculed], so I felt that I failed in providing them confidence" (Linda); "When I knew I couldn't cope with X, I gave them [the kids] Y, I mean free education... I had a difficulty saying 'no.' I couldn't say it because of my problems" (Rose). Jean, a 37-year-old mother, said:

The kids sometimes take advantage of the disability and it is hard for me setting a limit. I remember once when my daughter discovered I can't run after her, so she did something bad and then run away because she knew I couldn't catch her up.

Although the negative effects, the mothers viewed the positive side of their education, i.e. they invested a lot of efforts in educating their children in order to prove the society that their children are 'normal': "I spent more quality of time with my son because I was concentrating on what I can teach him, where to travel with him... being together with him." Debra, a 42-year-old mother, described it:

Today I am sitting with him [her son] and teaching him. This is important for me because all the time people told me he is not going to be 'normal', so I want to prove he is normal. I play with him, we watch together the TV... . I do the best so he will grow up properly.

Discussion

The present study explored the motherhood experience of women with physical disabilities in order to understand and map their needs and to produce a list of supports for health professionals and policy makers. The 17 qualitative interviews revealed that these mothers experience various challenges. Still, they viewed their motherhood in the context of disability as an empowering process because they succeeded in overcoming the challenges, and successfully raise their children.

The findings supported those of previous studies [11–13] indicating that mothers with disabilities face physical challenges such as caring tasks, household chores, and outdoor activities with the children. The findings also revealed mental challenges that influenced and were influenced by the physical challenges. These included social stigmas held by other people (non-disabled) and especially health professionals that seemed to apply the "medical model of disability" linking the embodied functional limitation to the individual [19,22,23].

Another mental challenge raised by the mothers was the formation of their identity as a *non-disabled and super-mom versus a disabled-mom*. Gill [24] described the identity dilemma that people with disabilities experience as a struggle to resolve opposing pulls toward separation and unity into society. In accordance with the four steps of integration in disability identity developed by Gill [24], it seems that the majority of the mothers in the present study were in the first step toward development of positive disability identity – *coming to feel we belong (integrating into society)* – meaning that they still feel they have to assert their right to become mothers like non-disabled women. The women had to prove they are not disabled and could fulfill the traditional mothering role in order to be accepted in the motherhood community. Some of them adopted the super-mom identity but in the context of disability. A super-mom discourse usually refers to non-disabled mothers who manage the demands of motherhood and career [25,26]. A perception of disabled super-mom refers to the fundamental right of woman with disability to become a mother and raise children [27].

Few of the mothers accepted their identity as a disabled-mom, whether it was at the early or late stage of their motherhood. They were aware of their health issues and their ability to do or not some traditional mothering chores. It seems that they have adopted progressive steps of the disability identity process, i.e. *coming home* - integrating with the disability community, *coming together* - internally integrating disability sameness and differentness, or *coming out* - integrating how persons with disabilities feel with how they present themselves [24]. Following the acceptance of loss theory [28], acceptance of loss is a process of value changes and this process is necessary for better adjustment to disability. As indicated in Farber's study [28], self-acceptance as person with a disability is not only considered a general beneficial psychological characteristic but is also an important factor in the resilience process during the parenthood.

The mothers also experienced a mental challenge related to their independence. The dilemma experienced by the mothers in this study of being independent versus dependent reflects the *independence–dependence–interdependence* discourse in the disability community. Disability activists who have promoted the social model of disability argue that there is an over-emphasis on physical independence achievements rather than viewing independence as socio-psychological decision-making [29]. A new notion has emerged – *interdependence* – that recognizes the human condition as two-way responsibility and not solely an individual ability. In this sense, people with disabilities are in control of and make decisions about their life [30,31]. Few of the mothers that were interviewed in the present study seemed to apply this last approach. They have solved their independence dilemma by learning how to manage others in order to get the assistance they need within their mothering role.

To overcome the above challenges, the mothers creatively developed coping strategies; these included accommodation of the situation through making the environment physically accessible for them, pre-planning each action, and getting assistance and support from others [32–34]. The coping strategies included not only behavioral or physical strategies, but also mental strategies such as developing a sense of humor and becoming a spiritual person. Humor at disability was found to be an effective coping strategy in past research of general coping with a disability [35–37]. It seems that humor might facilitate the coping process with mothering role and the related difficulties for women with disabilities. Previous studies also found that spirituality can facilitate emotional adjustment to chronic illness and disabilities [38–40]. The present study linked spirituality to coping with a disability in the context of motherhood.

In addition to the coping strategies that these mothers have actively developed, analysis of the interview transcripts revealed personal strengths that helped them to overcome the challenges. Historically, women with disabilities have been perceived as incapable wives and mothers [11,27,41]. However, the mothers in this study viewed their disability as an empowering characteristic which supports the concept of positive growth following disability [42]. As indicated above, the majority of the mothers in the present study did not fully accept their disabled identity, but still successfully adjusted to the mothering role in the context of disability and raised their children. This finding challenges the acceptance of loss theory that links a person's growth to his or her acceptance of disability [28]. This finding provides further support to the integrative and dynamic model of positive growth and optimal adjustment following physical disability [43] that reflects the ongoing process of growth, adaptation, and development in the person and the environment, and the subsequent alterations in interactions between these entities. It also supports the resilience literature showing that some life adversity builds resilience, as conceptualized in laymen's terms as "what doesn't kill us, makes us stronger" [42,43]. Accordingly, the mothers in the present study perceived themselves as resilient. Their disability motivated them to advocate for their rights as well as their children's rights. Some of them became advocates in Israeli disability organizations.

Besides the challenges, coping strategies, and personal strengths related to motherhood with a disability, the women talked about the impact of disability on their children. Children of disabled parents are presented in the literature as "young career", "little helper" or "parental child" in a negative manner, i.e. they become independent in early ages which might lead to degradation in mental and physical health in their adult life [10,44,45]. Recently, scholars have criticized these studies by arguing they are compromised by an inherent pathological bias, presuming incapability of individuals with disabilities to parent [46–49]. The findings of the present study support this criticism by indicating that the mothers viewed their disability as empowering factor in their children's life, i.e. the children have learned how to cope with difficulties and became resilient. The mothers also said they invested a lot of time and thoughts in raising and educating their children so they will grow up to be successful adults. Again, they wanted to fight social stigmas by proving their children are "normal". On the other hand, this ongoing need to prove their capability to parent, led some of the mothers to not set educational limits for their children. The less restricted education was perceived by them as a negative impact of their disability.

Finally, the challenges that these mothers have faced motivated them to list recommendations of supports that mothers with disabilities want and need. As indicated in previous studies [11,50–53], the mothers in the present study recommended making the environment more accessible for them, providing physical (homemaker or personal assistance) and emotional support (peer support), parental guidance, information about their rights, and financial benefits to meet their children's needs. The mothers also raised an issue that received little attention in past research, i.e. their need for accessible recreational activities with the children (outdoor activities). Recreational activities accommodated especially for parents with disabilities would allow them to play with the children as non-disabled parents as well as expanding their social circles.

Conclusions

The findings of this study indicate that Israeli mothers with physical disabilities experience similar challenges as mothers with physical disabilities from other countries. They face difficulties in

caring tasks and outdoor activities with the children due to inaccessibility of the environment. Moreover, they experience social stigmas, expressed primarily by health professionals, which dispute their right and ability to become a mother and raise children. The social expectations of an ideal mother influence the way they perceive themselves and behave in terms of disability identity and independence.

In addition to the physical and mental challenges experienced by these mothers, the present study brings a new point of view to the discourse of parenthood with a disability, i.e. psychological growth. A social model of disability was applied to emphasize the personal strengths as well as the coping strategies that these women have developed during their motherhood, e.g. accommodating the environment, pre-planning each action, applying a concept of interdependence which allowed them to ask and get assistance and support from others, and having a sense of humor and spirituality.

The findings also contribute to an under-studied area of research, i.e. the disability impact on the children, those who were born into a reality of disabled mother. Although children of disabled parents are usually perceived as young career in a negative manner, the mothers in this study viewed their disability as empowering factor in their children's life, i.e. they became resilient and learned to accept every person whether he or she is disabled or non-disabled. In addition, the mothers themselves were self-motivated by their disability to provide the best education for their children.

However, this finding was based only on the mothers' point of view. Future research should further explore this topic and include both the children's and the fathers' point of view. Future research should also compare the experiences of mothers with different disabilities, including mothers from different cultural background in the Israeli society (e.g. Jewish versus Arab women).

The present study has important implications for rehabilitation practices in terms of accommodating the environment to meet the physical and mental needs of mothers with disabilities. Health professionals and policy makers have to learn how to think creatively and find or develop solutions in collaboration with mothers with disabilities. In this sense, rehabilitation practices should highlight and strengthen the competences that these mothers have already had or developed. Future practices should not only focus on the physical environment but also the mental and social environments. Health professionals and policy makers should address the mothers' emotional and social needs by developing parental guidance especially for individuals with disabilities, peer support groups and accessible recreational activities for disabled parents and their children.

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