



Reproductive Concerns Among Women with Disability: A Host of Opportunities for Reproductive Health Care Professionals

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Abstract

Background Maternal health in India is likely to move towards an obstetric transition, wherein there is sustained reduction of maternal mortality and focus shifts towards improving quality of care. In such a context, reproductive concerns of special populations gain prominence. One such population group is women with disability.

What this review contains This mini-review examines the incremental importance given to people with disabilities and the sparse data available on the topic of reproductive concerns among women with disability. The attitudes of the women with disability towards childbearing and the association between disability and obstetric problems are discussed. The limited available data on specific medical and obstetric problems among women with disability are reviewed.

Conclusions The article calls for all obstetricians to display increased sensitivity and heightened cognizance towards the reproductive concerns among women with disability.

Keywords Holistic approach · High risk obstetrics · Maternal medicine · Disability · Rehabilitation · Differently abled · Divyangjan

Introduction

A “disability” is any condition of the body or mind (impairment) that makes it more difficult for persons with a condition to do certain activities (activity limitation) and interact with the world around them (participation restrictions) [1].

The word “disability” can be considered as an umbrella term encompassing a variety of heterogeneous group of “disorders”. Physical disabilities (injuries of the spinal cord, cerebral palsy leading to limitations of flexibility, mobility and dexterity), sensory limitations (visual or auditory impairments), developmental or intellectual disabilities (autism-spectrum disorders or Down syndrome etc.) form the range

of disabilities, which have a common thread running among them—associated social stigma and altered sexuality [2].

Prevalence of Disability

An American estimate shows that around 40 million civilians may have a disability. This is contributed to by motor or ambulatory disability (51%), cognitive disability (38%), auditory impairment (28%), visual impairment (19%) and limitation in self-care (20%) [3].

“*Persons with Disabilities (Divyangjan) in India—A Statistical Profile: 2021*”, estimated the number of differently-abled population in India was project to be around 26.8 million. This accounted for around 2.21% of the entire population, with rural preponderance [4]. In other words, around 12% women in the childbearing age group may have some sort of disability, which is a more-than-meets-the-eye prevalence. Hence this article, with a focus on disabilities and their relationship to reproductive health and pregnancy.

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Disabilities and Reproductive Health: Geographical Heterogeneity and Sparse Data

With recent medical advances and an uptick in recognition of reproductive rights, both at the community level and the individual level, women with disability are likely to experience pregnancy more than before [5]. There may be a large geographic divide in how women with disability (WWD) are being handled, with developing countries being less prepared for the same [6]. Even developed countries do not appear to have robust data on reproductive health among disability [7].

Women with Disability Receive Poor Support

Though women with disability show similar attitude towards conceiving, they may have medical conditions which interfere with conception, depending on the severity of disability [8]. Women with disability who have already had a child tend to show lesser inclination towards having future progeny, owing to suboptimal experiences (discrimination or poor care) in their prior healthcare encounters [9]. With difficulty in accessing trained healthcare professionals for management of their disability itself, women may be forced to down-prioritize conception and reproductive care, and simply focus on self-care [10]. Poor familial support, negative view of general public and lack of sensitization among healthcare providers may contribute towards poor obstetric outcomes [11]. Lower education attainment, lower income level and higher magnitude of social isolation are contributors to poor reproductive outcomes [12].

Association Between Disability and Obstetric Outcomes

There is a higher risk of gestational diabetes mellitus (Odds Ratio of 2.85), higher risk of pregnancy hypertension (Odds ratio of 1.45) and higher need for cesarean section (Odds ratio of 1.31) [5]. Higher prevalence of lower urinary tract infections (asymptomatic bacteriuria approaching 100%, symptomatic UTIs 25%) is noted among women with disability [13]. Risk of pyelonephritis is almost 26 times higher in pregnancy with spinal cord disorders. Asthma, respiratory infections and COPD may be higher among pregnant women with WWD [14]. Higher risk for peripartum hemorrhage (risk ratio of 1.3), higher risk of thromboembolic disorders (risk ratio of 9.16 among

spinal cord disorders) have been noted [15]. Partly owing to the higher risk of preeclampsia, there may be a higher risk of cerebrovascular accidents [16]. One study estimated that there is a 2.59 relative risk of occurrence of any adverse pregnancy related outcomes among women with intellectual and developmental disabilities [17].

This data should encourage obstetricians to monitor pregnancy with disability with more vigilance.

Overall mortality (non-pregnancy related) is higher among those with disability (a hazard ratio of 1.51) [18]. However, despite an extensive literature search, no meaningful data regarding the specific contribution of disability towards maternal mortality was found.

Reproductive Concerns Among Women with Disability: The Indian Context

In 2009, in Punjab, an institutionalized young woman with intellectual disability, despite being under government sponsored care, was subjected to sexual violence. The ensuing legal proceedings brought into broad public realm the various reproductive concerns among women with disabilities [19].

Murthy et al. (Reproductive health of women with and without disabilities in South India, the SIDE study (South India Disability Evidence) [20] analyzed 247 women with disability and matched them with 324 control. Women with disability had a higher chance of poor pregnancy outcome (7.7% vs 5.3%). The cumulative occurrence of pregnancy was much lesser among those with disability (36.8% vs 53.8%, p value < 0.001). Higher propensity for GDM (Odds ratio of 19.3) and higher propensity for depression (Odds ratio of 9.5) was noted.

Riley et al. [21] in their cross-sectional survey from urban Western India noted that a large burden of intimate partner violence (both physical and sexual) fell on women with functional disability. Apart from these studies, not much recent literature appears to have focused on disability and reproductive rights in the Indian context.

Maher et al. [22] in their recent article which critically examines the relationship between education, intimate partner violence and disability have stated "Despite being a survey on health, the NFHS, surprisingly, is quite limited in the items related to disability. This is an area for future survey design as it has been shown disability is associated with poor health outcomes".

Contrastingly, there has been a spurt of interest in the reproductive rights of women with disability in India. Ganjekar et al. [23] have, recently, elaborately dissected the legal paradigms relating to this topic.

Conclusion

As Indian society moves towards more compassionate care of women with disabilities, the Indian obstetrician community should be the torch bearer for their reproductive concerns. The complex impact of the wide range of disabilities and their associated social factors on reproductive outcomes and pregnancy outcomes should be recognized. The associations between disability and specific medical problems during pregnancy and obstetric problems should be handled with increased vigilance and care.

Declarations

Conflict of interest All the authors declare that they have no conflict of interest.

Ethical Statements All procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional and national) and with the Helsinki Declaration of 1975, as revised in 2008 (5). This is a review article involving no patient interactions. No consents are needed. No data is used.

References

- Centers for Disease Control (CDC). Disability and health overview: Impairments, activity limitations, and participation restrictions. <https://www.cdc.gov/ncbddd/disabilityandhealth/disability.html>. Last accessed 25th Mar 2023.
- Horner-Johnson W, Darney BG, Kulkarni-Rajasekhara S, et al. Pregnancy among US women: differences by presence, type, and complexity of disability. *Am J Obstet Gynecol*. 2016;214:529.e1-529.e9.
- Courtney-Long EA, Carrol DD, Zhang QC, et al. Prevalence of disability and disability type among adults. *MMWR Morb Mortal Wkly Rep*. 2015;64:777–83.
- Government of India. Ministry of Statistics and Programme Implementation. National Statistical Office. Social Statistics Division. Persons with Disabilities (Divyangjan) in India—a Statistical Profile: 2021. http://www.nhfdc.nic.in/upload/nhfdc/Persons_Disabilities_31mar21.pdf. Last accessed on 25th Mar 2023
- Tarasoff L, Ravindran S, Malik H, et al. Maternal disability and risk for pregnancy, delivery, and postpartum complications: a systematic review and metaanalysis. *Am J Obstet Gynecol*. 2020;222(27):e1-27.e32.
- Doraiswamy S, Cheema S, Maisonneuve P, et al. Maternal mortality in the Middle East and North Africa region—how could countries move towards obstetric transition stage 5? *BMC Pregnancy Childbirth*. 2022;22(1):552. <https://doi.org/10.1186/s12884-022-04886-7>.
- Akobirshoev I, Parish SL, Mitra M, Rosenthal E. Birth outcomes among US women with intellectual and developmental disabilities. *Disabil Health J*. 2017;10:406–12.
- Signore C, Spong CY, Krotoski D, et al. Pregnancy in women with physical disabilities. *Obstet Gynecol*. 2011;117:935–47.
- Bloom T, Mosher W, Alhusen J, et al. Fertility desires and intentions among US women by disability status: findings from the 2011–2013 National Survey of Family Growth. *Matern Child Health*. 2017;21:1606–15.
- National Council on Disability. Rocking the cradle: Ensuring the rights of parents with disabilities and their children. National Council on Disability, Washington, DC; 2012. <https://ncd.gov/publications/2012/Sep272012/>. Last accessed 23rd Mar 2023
- Signore C. Eliminating inequities for women with disabilities: reproductive and sexual health. Washington, DC: American Psychological Association; 2016. <https://doi.org/10.1037/14943-001>.
- Petersen EE, Davis NL, Goodman D, et al. Racial/ethnic disparities in pregnancy-related deaths—United States, 2007–2016. *MMWR Morb Mortal Wkly Rep*. 2019;68:762–5.
- Cross LL, Meythaler JM, Tuel SM, et al. Pregnancy, labor and delivery post spinal cord injury. *Paraplegia*. 1992;30:890–902.
- MacDonald SC, McElrath TF, Hernandez-Diaz S. Use and safety of disease-modifying therapy in pregnant women with multiple sclerosis. *Pharmacoepidemiol Drug Saf*. 2019;28:556–60.
- Crane DA, Doody DR, Schiff MA, et al. Pregnancy outcomes in women with spinal cord injuries: a population-based study. *PMR*. 2019;11:795–806.
- Darney BG, Biel FM, Quigley BP, et al. Primary cesarean delivery patterns among women with physical, sensory, or intellectual disabilities. *Womens Health Issues*. 2017;27:336–44.
- Brown HK, Cobigo V, Lunskey Y, et al. Maternal and offspring outcomes in women with intellectual and developmental disabilities: a population-based cohort study. *BJOG*. 2017;124:757–65.
- Mueller BA, Crane D, Doody DR, et al. Pregnancy course, infant outcomes, rehospitalization, and mortality among women with intellectual disability. *Disabil Health J*. 2019;12:452–9.
- Bhagianadh D. Disability and the Medical Termination of Pregnancy Act, 1972. *Indian J Med Ethics*. 2010;7(1):32–4. <https://doi.org/10.20529/IJME.2010.012>.
- Murthy GV, John N, Sagar J. South India Disability Evidence Study Group. Reproductive health of women with and without disabilities in South India, the SIDE study (South India Disability Evidence) study: a case control study. *BMC Womens Health*. 2014;14:146. <https://doi.org/10.1186/s12905-014-0146-1>.
- Riley A, Daruwalla N, Kanougiya S, et al. Intimate partner violence against women with disability and associated mental health concerns: a cross-sectional survey in Mumbai India. *BMJ Open*. 2022;12(4):e056475. <https://doi.org/10.1136/bmjopen-2021-056475>.
- Maher CA, Hayes BE. Association between disabilities, educational attainment, literacy, and intimate partner violence: findings from the Indian National Family Health Surveys. *Asian J Criminol*. 2023;18(1):1–20. <https://doi.org/10.1007/s11417-022-09389-0>.
- Ganjekar S, Moirangthem S, Kumar CN, et al. Reproductive rights of women with intellectual disability in India. *Indian J Med Ethics*. 2023;8(1):53–60. <https://doi.org/10.20529/IJME.2022.050>.

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