

Barriers Faced by Women with Physical Disabilities for Reproductive Health Care Services Utilization

Naila Haque¹, Azizur Rahman Sharaque², Adiba Sharmin Sikder¹, Marzan Sultana³, Irfan Nowroze Noor¹, Ummul Khair Alam¹, Sathi Dastider¹

¹Department of Maternal & Child Health, National Institute of Preventive and Social Medicine, Dhaka, Bangladesh

²Department of Public Health and Informatics, Bangabandhu Sheikh Mujib Medical University, Dhaka, Bangladesh

³Nutrition Research Division, International Centre for Diarrhoeal Disease Research, Bangladesh

Received: June 12, 2023

Received in Revised: July 25, 2023

Accepted: August 6, 2023

Abstract

Women with physical disabilities are often marginalized from mainstream healthcare services, and their reproductive health needs are not often met. The study aimed to explore the barriers faced by women with physical disabilities in reproductive health care utilization. This descriptive cross-sectional study was conducted between January to December 2021 among 83 conveniently selected women with physical disabilities of the reproductive age group (18-49 years). Data were obtained through face-to-face interviews from the participants using a pre-tested, semi-structured, interviewer-administered questionnaire. Among participants, the mean age was 29.3 years. All individuals reported that they experienced some sort of barrier to reproductive healthcare utilization. The Majority (50.6%) of the participants reported that disease was the cause of their disability. Traditional hurdles prevented 57% of participants from accessing reproductive healthcare, whereas 32.5% lacked familial support. Most (78.3%) of them said that accessing healthcare was expensive. More than half of the participants seeking reproductive healthcare found no wheelchair ramp or transfer aid. No service provider educated 69.9% of participants about reproductive healthcare services and rights. When asked about healthcare hurdles, individuals reported fear of poor care (75.9%), negative healthcare provider attitudes (68.7%), and communication issues with providers (67.5%). Some barriers to accessing reproductive health care services include high expenses, lack of family support, poor physical accessibility, lack of information, fear of poor care, negative attitudes of providers, and communication difficulties. Improving access to reproductive healthcare for women with physical disabilities requires addressing barriers and implementing necessary interventions.

Keywords: Physically disabled women, Women with disabilities, Reproductive healthcare services, Barriers to reproductive healthcare, Bangladesh

Introduction

Reproductive health is a crucial aspect of overall health and well-being at every stage of life and is a prerequisite for social, economic, and human development (Kalpakjian et al., 2020). Despite the call for universal access to reproductive health services in Cairo in 1994 at the 4th International Conference on Population and Development, the right to access the same scope, quality, and standard of affordable or free health care remains a challenge for persons

with disabilities (Ahumuza et al., 2014). The discrimination against women with disabilities, health services infrastructure, and training issues, they are often considered to have no need for reproductive health services due to beliefs about asexuality and infertility (Casebolt, 2020).

Individual characteristics such as distance to a health facility, costs of care, transportation facilities, and lack of awareness about service availability, nonmedical systemic factors such as transportation, architectural designs, infrastructure, examination tables and beds, and family and community attitudes, and provider perspectives of persons with disabilities influence their access to health care (Gudlavalleti, 2018).

15.6% of the world's population (15 years and older), that is 785 million people have some form of disability, 80% of these people are from low- and middle-income countries (Akasreku et al., 2018). The rights and needs of people with disabilities in terms of sexual and reproductive health continue to be largely unmet, according to substantial evidence from research (Humanity & Inclusion & ThinkPlace Kenya, 2021). In a short report by the United Nations on sustainable development goals (targets 3.7 and 5.6) accessed sexual and reproductive health services and reproductive rights for persons with disabilities found that evidence in developing countries showed, among mothers with disabilities 29% of their delivery were not attended by a skilled health worker and among the married women with disabilities 22% had expressed unmet need for family planning (United Nations, 2019).

For Promoting sexual and reproductive health for persons with disabilities, World Health Organization and United Nations Population Fund (UNFPA) published a guidance note stating five actions for inclusion of the sexual and reproductive health regarding the persons with disability which are establishing partnerships with organizations, raising awareness and increase accessibility, ensuring that all sexual and reproductive health programmes reach and serve persons with disabilities, development and implication of policy, laws, and budget, promoting research (WHO and UNFPA, 2009). In order to support the full realization of disability inclusive development, UNFPA and Rehabilitation International formed a partnership in December 2019 that aimed to strengthen sexual and reproductive health information and services for women and young people with disabilities in China and developing countries in the Asia-Pacific region (RI Global, 2021).

Among the people of Bangladesh, 2.80% have at least one disability, and 2.34% among the female population, and by type of disability, physical disability accounts for the highest percentage with 1.19% (Bangladesh Bureau of Statistics, 2021). In Bangladesh, government and non-government organizations are working together to provide comprehensive disability healthcare, for example, community-based rehabilitation programs in areas with low resources (Habib et al., 2017).

Though with the improvement of the health sector, healthcare services expanded in every level for physically disabled people in Bangladesh, their access to avail reproductive health services remains a challenge which hinders the path of achieving the sustainable developmental goals. Addressing these barriers will help policymakers, healthcare professionals, and advocates for implementation and development of strategies to improve reproductive health services for the physically disabled women. This study aimed to address the barriers faced by women with physical disabilities in reproductive health care utilization.

Methods

This was a descriptive cross-sectional study. The study was conducted among women only with physical disabilities of reproductive age group (18-49) years and who had the

disabilities for more than one year. Physical disability was defined as physical deformity of lower limbs, partial or complete paralysis, or loss of sensation of lower limbs which causes mobility limitations and participation restrictions in this study (Bangladesh Bureau of Statistics, 2021). The study sample was collected from the Centre for the Rehabilitation of the Paralyzed (CRP) in Savar, Dhaka, Bangladesh and, National Council of Disabled Women (NCDW) in Mirpur, Dhaka, Bangladesh. As this study only focused on the women with physical disability, women having multiple disabilities or combination with other disabilities were excluded.

Data Collection

For this study, data collection was done from September 2021 to January 2022 among conveniently selected 83 women of reproductive age only with physical disabilities. A list of registered women with physical disabilities was obtained from the centers. They were contacted over the phone and after proper explanation of the study those who consented for interview were approached. Data was obtained through a face-to-face interview using a pre-tested, semi-structured, interviewer-administered questionnaire. Medical records were reviewed for confirmation of their disability. The questionnaire consisted questions about the socio-demographic condition, experience of menstrual problems, reproductive tract infections, sexually transmitted infections, infertility, antenatal care, abortion and delivery along with the health seeking behavior of the participants. The questionnaire also inquired about the plausible barrier that might have been faced by the participants including traditional barriers, family support, availability of female healthcare provider, waiting time seeking care, expense, transfer aids, attitude and perceptions regarding healthcare received.

Data Analysis

Variables were descriptively expressed by frequency and percentage. For the variable of age in years, the closest integer value was used. Education up to primary indicates ≤ 5 years of institutional education, up to secondary indicates ≤ 10 years of institutional education, and above secondary indicates > 10 years of institutional education. Menstrual problems included painful menstruation, prolong heavy bleeding, scanty menstruation, frequent bleeding. Infection of reproductive tract related problems included vaginal discharge, lower abdominal pain, itching around the genitalia, low back pain, burning, frequent, painful micturition, fever. Sexually transmitted infection related problems included genital sore, warts around the genitalia. Traditional obstacles are cultural or family norms which do not allow women to seek health care (Chiang et al., 2013). The 25th version of the Statistical Package for Social Science for Windows was used for analysis.

Ethical Considerations

This study was conducted after getting approval from the Institutional Review Board, National Institute of Preventive and Social Medicine (Reference No. NIPSOM/IRB/2021/18). Written informed consent was taken after a proper explanation of the purpose, procedure and use of the study. The participants had the freedom to refuse to participate or withdraw at any point from the study. Confidentiality and privacy were maintained, giving maximum priority.

Results and Discussion

This study was conducted among women of reproductive age only with physical disabilities. The participants were enthusiastic, the response rate was 100%, and there was no missing data.

Table 1. Socio-demographic characteristics and cause of disability of the participants (N=83)

Variables		
Age	Mean±SD	29.3±6.6
	Frequency	Percentage
Residence		
Urban	33	39.8
Urban slum	25	30.1
Rural	25	30.1
Education		
No institutional education	7	8.4
Up to primary	29	34.9
Up to secondary	30	36.2
Above secondary	17	20.5
Occupation		
Homemaker	28	33.7
Service holder	27	32.5
Student	12	14.5
Unemployed	10	12.0
Business	6	7.2
Marital status		
Married	55	66.3
Unmarried	28	33.7
Cause of Disability		
Disease	42	50.6
Accidental	27	32.5
Congenital	14	16.9

Table 1 reveals that the participant's mean age was 29.3 years. Most (66.3%) of them were married. The highest proportion (50.6%) of the participants mentioned that their disability was due to disease, followed by accidental cause (32.5) and congenital (16.9).

Table 2. Reproductive health problems and seeking services in healthcare setting

Variables	Frequency	Percentage
Menstrual problem (n=83)	52	66.3
Sought treatment in healthcare setting (n=52)	25	48.1
Reproductive tract infection (n=83)	73	88.0
Sought treatment in healthcare setting (n=73)	28	38.6
Sexually transmitted infections (n=83)	3	5.5
Sought treatment in healthcare setting (n=3)	1	33.3
Infertility (n=55)^a	3	5.5
Sought treatment in healthcare setting (n=3)	3	100
Antenatal care (n=36)^b	29	80.6
Mode of Delivery (n=36)		
Normal vaginal delivery	24	66.7
Caesarean section	12	33.3

Delivery in healthcare setting (n=36)	30	83.3
History of abortion (n=83)	13	15.7
Sought treatment in healthcare setting (n=13)	4	30.8

^aAmong the participants who were married

^bAmong the participants who were ever pregnant

Table 2 reveals that 66.3% of the participants faced menstrual problems among which only 48.1% went to take healthcare services. Among the participants, 88.0% suffered from reproductive tract infections and related problems, and only 38.6% of them sought services in a healthcare setting for the problems. Of the participants who ever got pregnant, 80.6% went for at least one antenatal checkup, and 83.3% of them did their delivery in an institutional setting.

Table 3. Barriers faced utilizing reproductive healthcare services by the participants (N=83)

Variables	Frequency	Percentage
Traditional obstacle	48	57.8
No family support	27	32.5
Availability of female healthcare provider		
Always available	45	54.2
Sometimes unavailable	38	45.8
Waiting time (minutes)		
≤30	50	60.2
>30	33	39.8
High healthcare expense	65	78.3
Absence of wheelchair ramp	58	69.9
Unavailability of transfer aids	47	56.6
Inaccessibility of examination table and bed	35	42.2
Not informed about reproductive healthcare services and rights	58	69.9
Symptoms perceived not as of normal	38	45.8
Fear of poor care	63	75.9
Negative attitude of healthcare provider	57	68.7
Confusion about unnecessary referrals	55	66.3
Confusion about confidentiality	33	39.8
Communication problem with healthcare provider	56	67.5

Table 3 indicates the barriers faced by the participants while availing reproductive healthcare services. All the participants revealed that they faced some sort of barrier while availing reproductive healthcare services. A high proportion (57%) of the participants reported that they could not avail reproductive healthcare services because of traditional barriers. 32.5% of the participants faced lack of family support. Of the participants, 45.8% mentioned that they couldn't find a female healthcare professional for their reproductive health needs in the facilities. Most (78.3%) experienced that the healthcare expenditure was high to their affordability. In the facilities, while availing reproductive healthcare, more than half of the participants could not find wheelchair ramp (78.3%), any form of transfer aid including wheelchair, stretcher, etc. (56.6%), examination table, or bed (42.2%). Among the

participants, 69.9% reported that they were not informed about reproductive healthcare services and rights by any service provider. When inquired about the barriers related to healthcare, they mentioned that they had fear of poor care (75.9%), faced negative attitudes from healthcare providers (68.7%), and experienced communication problem with healthcare providers (67.5%).

This current study found that 66.3% of the participants faced menstrual problems, and 88.0% suffered from reproductive tract infections. A study in Nepal found that about 82% of disabled women faced common problems (dysmenorrhea, abnormal blood flow, and premenstrual symptom) during menstruation (Pokhrel et al., 2020). A study among unmarried female adolescents aged 12–19 years found that approximately 50% of the participants reported experiencing menstrual problems, which included: lower abdominal pain, back pain, irregular menstruation, and excessive bleeding during menstruation, and only 40% of them sought treatment from qualified physicians (Kabir et al., 2014). A study done in Haimchor, Bangladesh, among women of >15 years of age found that 11% of the women were suffering from menstrual and reproductive tract infections (Paul et al., 2014). These lower percentage of the two studies mentioned above might be because these studies were not conducted among disabled women. While this current study explored women of reproductive age (15-49) and with physical disabilities. Also, the religious and cultural norms might also have contributed to that. However, the difference clearly indicates that women with disabilities are more vulnerable and experience menstrual and reproductive tract related health problems more frequently than those of not disabled women.

This study found that 5.5% of physically disabled women suffered from sexually transmitted diseases in their life. In the United States, a study among young adults with physical disabilities reveals that 13.9% of them were diagnosed with sexually transmitted infections in the past 12 months (McRee et al., 2010). The disparity may be due to the difference in social, cultural, and religious contexts of the two countries. Also, differences in the quality of life and lifestyle could be a factor.

This current study observed that, of the participants who ever got pregnant, 80.6% went for at least one antenatal checkup. Similarly, a large-scale survey in Sierra Leone observed that among the women with mild or moderate disability, 83.3%, and among the women with severe disability, 93.6% received antenatal visits (Trani et al., 2011). Another study showed relatively low numbers in the rate of physically disabled women availing antenatal checkups, which reported that the proportion of women with a disability attending at least four antenatal visits in healthcare facilities for most recent pregnancies in Haiti, Mali, Nigeria, Pakistan, Rwanda, South Africa, Timor-Leste, and Uganda was 68.5%, 44.6%, 59.4%, 46.7%, 60.5%, 69.7%, 77.6%, and 59.9%, respectively (MacQuarrie & Julia Fleuret, 2022). Another study in Nepal reported that 36.0% of disabled women received antenatal care in their last pregnancy (Shiwakoti et al., 2021). The differences in the proportion in this study and other countries might be explained by two facts. Firstly, the study populations were different; where this study only included physically disabled women, the study in other countries included women with any type of disability. Secondly, this study considered at least one antenatal visit made by the participants in any of their pregnancies, but the other study considered at least four antenatal visits for most recent pregnancies and among the disabled women who gave birth during the past five years of the study timeline. Despite that, this current study indicated that a good proportion of physically disabled women were seeking antenatal care in healthcare facilities.

This current study found that, among the participants who ever got pregnant and completed the pregnancy period, 83.3% of them did their delivery in an institutional setting. Similar findings were observed in Sierra Leone; among the women with mild or moderate disability 83.3%, and among the women with severe disability 87.1% had institutional delivery (Trani et al., 2011). The DHS analytical studies 80 revealed a similar higher rate in Rwanda, Senegal, and South Africa while a much lower rate in Haiti, Mali, Nigeria, Timor-Leste, and Uganda (MacQuarrie & Julia Fleuret, 2022). In Nepal, 33.1% of disabled women had institutional delivery during their last pregnancy (Shiwakoti et al., 2021). This could be due to the health services structural differences in different countries. Also, the difference in the study population could also be a contributing factor. While this study considered only physically disabled women who ever got pregnant and completed the pregnancy up to delivery, the other study included all types of disabled women about their last birth history within the past five years.

The present study found that most (78.3%) experienced high healthcare expenditure, which performed as a barrier to availing of reproductive health services. A similar finding was observed in Haiti, where 73.2% of the women with a disability felt that money was a barrier to getting medical help, but elsewhere lower proportion of women with disabilities mention money as a barrier, such as Mali (38.5%), Nigeria (44.4%), Pakistan (28.4%), Rwanda (46.4%), Senegal (45.3%), South Africa (33.4%), Timor-Leste (35.7%) and Uganda (52.1%) (MacQuarrie & Julia Fleuret, 2022). Another study in Kampala, Uganda, found the high cost of services as a barrier to attaining reproductive healthcare services among 35% of women with physical disability (Ahumuza et al., 2014). This study revealed that the absence of wheelchair ramp (69.9%), unavailability of transfer aids (56.6%), and inaccessibility of examination table and bed (42.2%) was indicating poor physical accessibility to healthcare facilities was reported as barrier to availing reproductive healthcare by the participants. Most (80%) of the physically disabled women of Uganda also reported poor physical accessibility as a barrier in a study (Ahumuza et al., 2014). A study in Nepal reported that 28.9% of disabled women faced problems in healthcare facilities due to the unavailability of ramps (Shiwakoti et al., 2021).

This current study identified one of the barriers as lack of information provided by the healthcare professionals regarding reproductive health rights and services reported by 69.9% of the participants. A study in Ethiopia on young people with disability observed that 35.4% of the participants didn't have any information regarding sexual and reproductive health (Kassa et al., 2016). Another study in Addis Ababa, Ethiopia, among reproductive age women with disabilities found that 49.9% of the participants had faced problems getting information related to sexual and reproductive healthcare services, and 20.7% had never heard of any sexual and reproductive health services (Rade et al., 2023). This current study stated that 68.7% of the participants experienced negative attitude from a healthcare service provider, which was also a barrier identified in other studies. The study in Kampala, Uganda, reported that 75% of the physically disabled women who were part of this study faced negative attitudes from health service providers (Ahumuza et al., 2014). While in the study of Nepal, only 0.9% reported experiencing bad behavior from a health service provider (Shiwakoti et al., 2021).

This study explained concern about confidentiality and communication problem with health care providers as a barrier expressed by the participants. Another study in Bangladesh also described that among the disability care services availed by disabled persons, a proportion of 57.0% were not satisfied with privacy and confidentiality, and 25.5% were not satisfied with the way of communication with the healthcare provider (Habib et al., 2017). These

barriers might be due to the nature of the healthcare need of the individual, healthcare infrastructure and setting, individuals economic well-being status, available support by different organizations, existing laws, regulations, and acts, training, sensitization, and enabling of the healthcare service providers on the sexual and reproductive healthcare needs for the physically disabled women. Also, these were based solely on the perspectives of the individuals.

This study had some limitations. Data were collected retrospectively about some previous experiences from the participants. This might lead to recall bias which could influence the findings of the study. This study only explored the barriers faced by the participants; any underlying causes were not explored. This study included physically disabled participants who had only one disability, any participant with any other form of disability along with physical disability was not considered. As this study was performed during the COVID-19 pandemic period, comprehending the participants was a challenge due to movement restrictions.

Despite the limitations and challenges, this study highlighted some barriers faced by women with physical disabilities while utilizing the sexual and reproductive health services. To improve their access these barriers should be addressed and necessary actions should be made. Advocacy should be done to normalize the reproductive and sexual health needs and rights of the disabled women among their families and the society they live in. Health care provider should be trained and familiarized with the sexual and reproductive health rights of the disabled women and the information needed to be provide to them. Healthcare infrastructures should be friendly to the disabled women, so that they can avail services with ease.

Conclusion

Access to reproductive health care services by women with physical disabilities is limited by a multitude of barriers. High health care expenses, traditional obstacles, lack of family support, poor physical accessibility, lack of information about reproductive healthcare services and rights, fear about poor care, negative attitude of health care providers, concern of confidentiality, hardship in communicating with the health service providers were found as some of the barriers which prevent them to accessing reproductive health care services. To improve access to reproductive healthcare services by women with physical disabilities, it is necessary to address these barriers and look for a solution through advocacy, education, counseling, and strategic development.

Funding

This study didn't receive any form of funding from government or non-government corporations or institutions.

Conflict of interest

The authors declare no conflict of interest.

References

Ahumuza, S. E., Matovu, J. K. B., Ddamulira, J. B., & Muhanguzi, F. K. (2014). Challenges in accessing sexual and reproductive health services by people with physical disabilities in Kampala, Uganda. *Reproductive Health*, 11(1), 1–9. <https://doi.org/10.1186/1742-4755-11-59>

- Akasreku, B. Dela, Habib, H., & Ankomah, A. (2018). Pregnancy in Disability: Community Perceptions and Personal Experiences in a Rural Setting in Ghana. *Journal of Pregnancy*, 2018. <https://doi.org/10.1155/2018/8096839>
- Bangladesh Bureau of Statistics. (2021). Report on National Survey on Persons with Disabilities (NSPD) 2021 Bangladesh Bureau of Statistics (BBS) Statistics and Informatics Division (SID) Ministry of Planning Government of the People's Republic of Bangladesh www.bbs.gov.bd. www.bbs.gov.bd
- Casebolt, M. T. (2020). Barriers to reproductive health services for women with disability in low- and middle-income countries: A review of the literature. *Sexual & Reproductive Healthcare*, 24, 100485. <https://doi.org/10.1016/J.SRHC.2020.100485>
- Chiang, C., Labeeb, S. A., Higuchi, M., Mohamed, A. G., & Aoyama, A. (2013). BARRIERS TO THE USE OF BASIC HEALTH SERVICES AMONG WOMEN IN RURAL SOUTHERN EGYPT (UPPER EGYPT). *Nagoya Journal of Medical Science*, 75(3–4), 225. [/pmc/articles/PMC4345669/](https://pubmed.ncbi.nlm.nih.gov/24345669/)
- Gudlavalleti, V. S. M. (2018). Challenges in Accessing Health Care for People with Disability in the South Asian Context: A Review. *International Journal of Environmental Research and Public Health*, 15(11). <https://doi.org/10.3390/IJERPH15112366>
- Habib, M. A., Rahaman, K. S., & Chaklader, M. A. (2017). Client's Satisfaction With Disability care Services Available in a Selected District in Bangladesh. *International Journal of Epidemiologic Research*, 4(3), 199–204. <https://doi.org/10.15171/IJER.2017.04>
- Humanity & Inclusion, & ThinkPlace Kenya. (2021). Access to Sexual and Reproductive Health and Rights Information and Services Perspectives of women and girls with disabilities in Uganda and Bangladesh.
- Kabir, H., Saha, N. C., Wirtz, A. L., & Gazi, R. (2014). Treatment-seeking for selected reproductive health problems: Behaviours of unmarried female adolescents in two low-performing areas of Bangladesh. *Reproductive Health*, 11(1), 1–7. <https://doi.org/10.1186/1742-4755-11-54/TABLES/4>
- Kalpakjian, C. Z., Kreschmer, J. M., Slavin, M. D., Kisala, P. A., Quint, E. H., Chiaravalloti, N. D., Jenkins, N., Bushnik, T., Amtmann, D., Tulsy, D. S., Madrid, R., Parten, R., Evitts, M., & Grawi, C. L. (2020). Reproductive Health in Women with Physical Disability: A Conceptual Framework for the Development of New Patient-Reported Outcome Measures. *Journal of Women's Health* (2002), 29(11), 1427–1436. <https://doi.org/10.1089/JWH.2019.8174>
- Kassa, T. A., Luck, T., Bekele, A., & Riedel-Heller, S. G. (2016). Sexual and reproductive health of young people with disability in Ethiopia: A study on knowledge, attitude and practice: A cross-sectional study. *Globalization and Health*, 12(1), 1–11. <https://doi.org/10.1186/S12992-016-0142-3/TABLES/4>
- MacQuarrie, K. L. D., & Julia Fleuret. (2022). Patterns of Reproductive Health among Women with Disabilities. In *DHS ANALYTICAL STUDIES* (Issue June, p. 80).

- McRee, A. L., Haydon, A. A., & Halpern, C. T. (2010). Reproductive health of young adults with physical disabilities in the U.S. *Preventive Medicine*, 51(6), 502–504. <https://doi.org/10.1016/J.YPMED.2010.09.006>
- Paul, A., Murshed, M. M., & Akther, S. (2014). Women health and disease pattern in the rural areas of Bangladesh: a case study on Haimchar upazila under Chandpur district. *Journal of the Asiatic Society of Bangladesh, Science*, 40(1), 27–37. <https://doi.org/10.3329/JASBS.V40I1.31731>
- Pokhrel, B., Mahat, S., Parajuli, K., & Lama, N. (2020). Knowledge and Practice Regarding Menstrual Health among Physically Disabled Women in Kathmandu, Nepal. *Journal of Karnali Academy of Health Sciences*, 3(1), 1–18. <https://doi.org/10.3126/JKAHS.V3I1.28836>
- Rade, B. K., Tamiru, A. T., Aynalem, G. L., Taye, E. B., Melkie, M., Abera, A., Cherkos, E. A., & Asaye, M. M. (2023). Prevalence and factors associated with sexual and reproductive health services use among reproductive age women with disabilities: a community based cross-sectional study. *BMC Women’s Health*, 23(1), 1–11. <https://doi.org/10.1186/S12905-023-02373-5/TABLES/5>
- RI Global. (2021). UNFPA and Rehabilitation International Joint Initiative Improving Sexual and Reproductive Health of Women and Young People with Disabilities. <https://www.riglobal.org/unfpa-and-rehabilitation-international-joint-initiative-improving-sexual-and-reproductive-health-of-women-and-young-people-with-disabilities/>
- Shiwakoti, R., Gurung, Y. B., Poudel, R. C., Neupane, S., Thapa, R. K., Deuja, S., & Pathak, R. S. (2021). Factors affecting utilization of sexual and reproductive health services among women with disabilities- a mixed-method cross-sectional study from Ilam district, Nepal. *BMC Health Services Research*, 21(1), 1–19. <https://doi.org/10.1186/S12913-021-07382-4/FIGURES/1>
- Trani, J. F., Browne, J., Kett, M., Bah, O., Morlai, T., Bailey, N., & Groce, N. (2011). Access to health care, reproductive health and disability: A large scale survey in Sierra Leone. *Social Science & Medicine*, 73(10), 1477–1489. <https://doi.org/10.1016/J.SOCSCIMED.2011.08.040>
- United Nations. (2019). UN-report-disability-sdgs Realizing the Sustainable Development Goals by, for and with Persons with Disabilities Accessing sexual and reproductive health services and reproductive rights for all persons with disabilities (Targets 3.7 a. https://www.un.org/development/desa/disabilities/wp-content/uploads/sites/15/2019/12/Sexual_Reproductive_Health_Brief_final_20190822-1.pdf
- WHO and UNFPA. (2009). Promoting sexual and reproductive health for persons with disabilities. https://www.unfpa.org/sites/default/files/pub-pdf/srh_for_disabilities.pdf