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Modern Contraceptive Use and Associated Factors among Women with Disabilities in Gondar City, Amhara Region, North West Ethiopia: A Cross Sectional Study

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Abstract

Attention to the sexual reproductive health needs of persons with disabilities is important to ensure the protection and promotion of their human rights, to move forward the international development agenda, and to build a truly inclusive society. The objective of this study was to assess modern contraceptive use and associated factors among women with disabilities in Gondar city, Ethiopia. A community-based cross- sectional study was employed, from 25 June to 05 August 2013. All 280 reproductive age women with disabilities who were found in the town during study period were included. Data were coded, entered and cleaned using EPI INFO statistical software version 3.5.2, and analysed by Software Statistical Packages for Social Sciences version 16. About 18% of participants had ever used modern contraceptive and the contraceptive prevalence rate among study participants and currently married women were 13.1% and 20.2% respectively. One fourth of respondents believed that existing family planning service delivery points were not accessible. The proportion of modern contraceptive use among participants was low. Age, marital status, education, income, and type of disability were significant predictors of modern contraceptive use. Therefore**,** social behavioural change communication interventions should be designed to improve the awareness of people living with disabilities on modern contraceptives based on the needs and type of disabilities. *(Afr J Reprod Health 2019; 23[2]: 101-109).*

Keywords: Women with Disability, modern contraceptive use, Gondar city, Ethiopia

Résumé

Il est important de prêter attention aux besoins des personnes handicapées en matière de santé sexuelle et de la reproduction afin d'assurer la protection et la promotion de leurs droits fondamentaux, de faire avancer l'agenda du développement international et de construire une société véritablement inclusive. L'objectif de cette étude était d'évaluer l'utilisation dela contraception moderne et les facteurs associés chez les femmes handicapées de la ville de Gondar, en Éthiopie. Une étude transversale à base communautaire a été réalisée du 25 juin au 5 août 2013. Les 280 femmes handicapées en âge de procréer trouvées dans la ville au cours de la période de l'étude ont été incluses. Les données ont été codées, enregistrées et nettoyées à l'aide du logiciel statistique EPI INFO version 3.5.2, puis analysées à l'aide de logiciels de statistiques pour la version 16 des sciences sociales. Environ 18% des participantes avaient déjà utilisé un moyen de contraception moderne et le taux de prévalence de la contraception parmi les participantes à l'étude et les femmes déjà mariées étaient respectivement de 13,1% et 20,2%. Un quart des interviewées ont estimé que les lieux de prestation des services de planification familiale existants n'étaient pas accessibles. La proportion d'utilisation de contraceptifs modernes parmi les participantes était faible. L'âge, l'état civil, l'éducation, le revenu et le type d'incapacité sont des indices significatifs de l'utilisation de la contraception moderne. Par conséquent, les interventions de communication pour une modification de comportement social devraient être conçues pour améliorer la sensibilisation des personnes handicapées aux contraceptifs modernes en fonction des besoins et du type d'handicap. *(Afr J Reprod Health 2019; 23[2]:101-109).*

Mots-clés: Femmes handicapées, utilisation des contraceptifs modernes, ville de Gondar, Éthiopie

Introduction

The World Health Organization (WHO) defines disability as "any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being"[1]. The 2004 WHO statistics and International Labour

Organization (ILO) estimates show that about 10% of the world's populations have some forms of disabilities[2].

Not surprisingly, 80% of people with disabilities (PWDs) live in developing countries; 60 million in Africa and 7.7 million in Ethiopia[3-4]. Disability does not usually affect fertility. Where contraception is required, the method chosen must be within the physical and mental capabilities of the disabled person, or their partner and appropriate to their state of health, lifestyle and personal preferences. There are extra considerations in the choice of contraception for a disabled person[5].

Attention to the sexual reproductive health (SRH) needs of persons with disabilities is important to ensure the protection and promotion of their human rights, to move forward the international development agenda, and to build a truly inclusive society. Although the full picture of SRH issues for persons with disabilities is not yet clear, it is certain that there are significant unmet needs[6].

Contraceptive use for women with disabilities (WWDs) is a concern of all bodies because of the discrimination and exclusion of this group from active participation in the society as compared to their non-disabled peers[7]. Access to family planning (FP) clinics is partial, and access to information and services is extremely limited, so that people with disabilities do not use the services that FP clinics provide[8]. The SRH of PWDs has been overlooked by both the disabled community and those working on SRH that leaves PWDs among the most marginalized groups when it comes to SRH services. Yet, PWDs have the same needs for SRH services as everyone else. In fact, persons with disabilities may have greater needs for SRH education and care than persons without disabilities due to their increased vulnerability to abuse[9]. A study conducted in Uganda among PWDs showed that 33% of WWDs ever used modern contraceptive and 21% of WWDs currently used modern contraceptives[10]. Another study conducted in Addis Ababa also indicated that 84.5% and 70.8% WWDs ever used and currently used modern contraceptives, respectively. A similar study which was conducted in Ethiopia showed that 25% and 20% of WWDs had ever used and currently used modern contraceptive methods respectively[11,12].

Lack of information about contraceptives, inconvenience of FP distribution places and lack of money were the major factors affecting modern contraceptive use among WWDs[12].

The aim of this study was to assess modern contraceptive use and associated factors among women with disabilities. Without enough and accurate data on problems of disabled people on modern contraceptive use, it is difficult to design programmes which would benefit WWDs and many studies have largely ignored issues of modern contraceptive use among people with disabilities. Therefore, this study is crucial in that an attempt was made to understand modern contraceptive use and related problems of this group of people for designing and implementing tailored interventions targeting WWDs.

Methods

Community based cross- sectional study design was employed in Gondar city administration, Northwest Ethiopia from 25 June – 05 August 2013. Gondar city is an old town situated about 748 kilometres from Addis Ababa, the capital city of Ethiopia. The population of Gondar city is 308, 257[13]. According to North Gondar social affairs office registration there are 11,990 and 1674 people with disabilities in North Gondar zone and Gondar city administration, respectively. In the town there are one specialized referral hospital, two private hospitals, one non-governmental hospital, and three health centres. All of health facilities provide SRH services including FP service for all women of reproductive age including women with disabilities[14]. The study included women with disabilities who had hearing, visual and limb defects (physical impairments) and who were living in Gondar city during the study period. The sample size included 280 reproductive age women with disabilities (WWD) who were registered in Gondar city social affairs office census at the end of 2012 and fulfilled the inclusion criteria. Women with disabilities who were critically sick during data collection period and women with both vision and hearing impairments were excluded from the study.

Participants were addressed through house-to-house interview. Three checks were done to address participants who were not available during time of data collection period.

Operational definition

Contraceptive use: - who had ever used and/or currently using any modern contraceptive method.
Modern contraceptive: - WWDs who had ever used/currently use condom, oral contraceptive, injectable, implannon and IUDs family planning methods.
People with disabilities: - for this study, PWDs are defined as women having hearing, visual and physical impairments or limb defects.
Physical accessibility: - accessibility of services within 5 kilo meter radius or one hour walking distance for single trip for the general population but when it comes to PWDs accessibility is affected by various reasons, since there are peoples who travel with wheelchairs or assisting devices, people who had visual impairment cannot access service delivery points without assistance easily so that in this study accessibility is considered from the perception of PWDs.
Data were collected using semi structured Amharic (the local language) questionnaire through face to face interview. Two days training was given to data collectors who know sign language and two supervisors on the objectives of the study, such as techniques how to approach respondents, techniques of face to face interview and how to keep confidentiality. Pre-test was done in similar setting outside the study area. Data was checked for accuracy, completeness and consistency of responses manually by supervisors and principal investigator every day. Data were coded, entered and cleaned using epidemiological information (EPINFO) version 3.5.2, and exported to statistical packages for social sciences (SPSS) 16 for analysis. Descriptive statistics was used to summarize the data. The degree of association between dependent and predictor variables were assessed using crude odds ratio (COR). Adjusted odds ratio (AOR) for each independent variable was calculated using backward stepwise binary logistic regression analysis model to control potential confounding variables. Ethical clearance was obtained from Bahir Dar University. Permission was also obtained from Zonal and Woreda Health Offices. Informed oral consent was obtained from the study participants after explaining the purpose and objectives of the study. Confidentiality and privacy were insured throughout the study.

Results

Socio demographic characteristics of respondents

A total of two hundred and sixty-seven WWDs were included in the study (95.3% response rate). Among participants interviewed in the study, majority (40.0%) were found in the age range between 35-44 years. The mean and median ages of participants were 33.37 and 35 years respectively with the standard deviation of 8.41 years. About 35% of participants were married. Majority of the participants (79%) were Orthodox Christians. Concerning educational status, majority of participants (78.3%) were not able to read and write. Half of the participants had limb defects or physical disabilities. Majority of participants (58.05%) were casual labourers and about 32.58% of participants had no work to earn money. Most of the participants (89.1%) perceived their household economy status as poor.

Sexual reproductive health history

Regarding sexual history, majority of the study participants (82.8%) had experienced sexual intercourse. Ninety-nine (44.5%) of the respondents started sexual intercourse too early (between 10-15 years of age) followed by age between 16-20 (39.4%) and the median age at first sexual intercourse was 16 years. More than half (54.3%) of the respondents had more than one sexual partner and the rest 43.7% had only one sexual partner.

Modern contraceptive use

More than one fifth (21.7%) of the participants had ever used modern contraceptives. Thirty-five (15.8%) of the respondent were current users of modern contraceptive methods. The contraceptive prevalence rate (CPR) for this study

Table 1: Socio demographic characteristics of women with disabilities, Gondar city, NW Ethiopia

	Characteristics	No (%)
Age group	15-19	24 (9.0)
	20-24	23 (8.6)
	25-29	31 (11.6)
	30-34	49 (18.4)
	35-39	50 (18.7)
	40-44	57 (21.3)
	45-49	33 (12.4)
Marital status	Married	94 (35.2)
	Unmarried	59 (22.1)
	Divorced	54 (20.2)
	Widowed	60 (22.5)
Religion	Orthodox	211 (79)
	Muslim	43 (16.1)
	Protestant	10 (3.8)
	Catholic	3 (1.1)
Educational level	Unable to read & write	209 (78.3)
	Read and write	10 (3.74)
	Primary	42 (15.4)
	Secondary	4 (1.5)
	Above secondary	2 (0.7)
Forms of disability	Hearing impairment	32 (12)
	Visual impairment	101(37.8)
	limb defects	133 (49.8)
Occupation status	Government employ	1 (0.37)
	Non-government employ	1 (0.37)
	Private work	23 (8.61)
	Casual labourer	155 (58.1)
	No work to earn money	87 (32.58)

among currently married and all women were 13.1% and 20.2% respectively. Majority of the respondents (56%) reported that they had used injectable to prevent pregnancy at their first sexual intercourse followed by combined oral contraceptives (COC) (36%).

Among respondents who were current users of modern contraceptives, the dominant modern contraceptive used were injectable methods (65.70%) follwed by both COC and condoms (8.60%) as depicted in figure 1.

Participants who were current users of modern contraceptives were asked whether they were satisfied or not with the services given. Twenty (57.1%) of the participants were satisfied whereas fifteen (42.9%) of participants were not satisfied with the services given. From the total participants who were not satisfied, about 48% reported that health professionals' attitude was not good, nearly 30% said that health institutions were inconvenient, about 18% mentioned that no special care was given to them and the rest 3.7% reported that other clients who received services from the clinic humiliated them. Participants were also asked to state potential obstacles that hinder WWDs to use modern contraceptives. About 33% of participants believed that inconvenience of health institutions was the major obstacle to use modern contraceptives.

Participants were asked the type of health institution they preferred to visit when they need FP service. Almost all (91%) of respondent preferred government health institutions, fourteen (5%) preferred private health institutions, ten (4%) preferred non-governmental clinics for use FP service. Among respondents asked on the physical accessibility of FP delivery points for WWDs, about 40% of respondents responded that FP service delivery points were difficult to access by WWDs but 24.7% responded that FP service delivery points were easy to access by WWDs and the rest (41.6%) of participants did not know whether service delivery points were difficult or not to access. Among reasons mentioned by participants for difficulty of service delivery points to be accessed by WWDs, lack of information and inconvenience of FP methods distribution places were the major reasons.

Factors associated with contraceptive method use multivariate

In bivariate analysis, age, religion, educational status, marital status, forms of disability, work to earn money, and perceived family economy status were significantly associated with modern contraceptive use among WWDs. In multivariate analysis; age, marital status, educational status, forms of disability and perceived family economy status remained significantly associated with modern contraceptive use among WWDs. WWDs aged between 26 - 35 and 36 - 45 were 5

Table 2: Sexual reproductive health history of women with disabilities, in Gondar city, NW Ethiopia

Characteristics		No (%)
Ever had sexual intercourse	Yes	221 (82.8)
	No	46 (17.2)
First sexual partner's age	Older than the respondent	151 (68.3)
	Younger or the same age	16 (7.2)
	Don't Remember	54 (24.4)
Lifetime number of sexual partner	One sexual partner	101 (45.7)
	More than one sexual partner	120 (54.3)
Had sexual intercourse with in last 12 months	Yes	85 (38.5)
	No	136 (61.5)

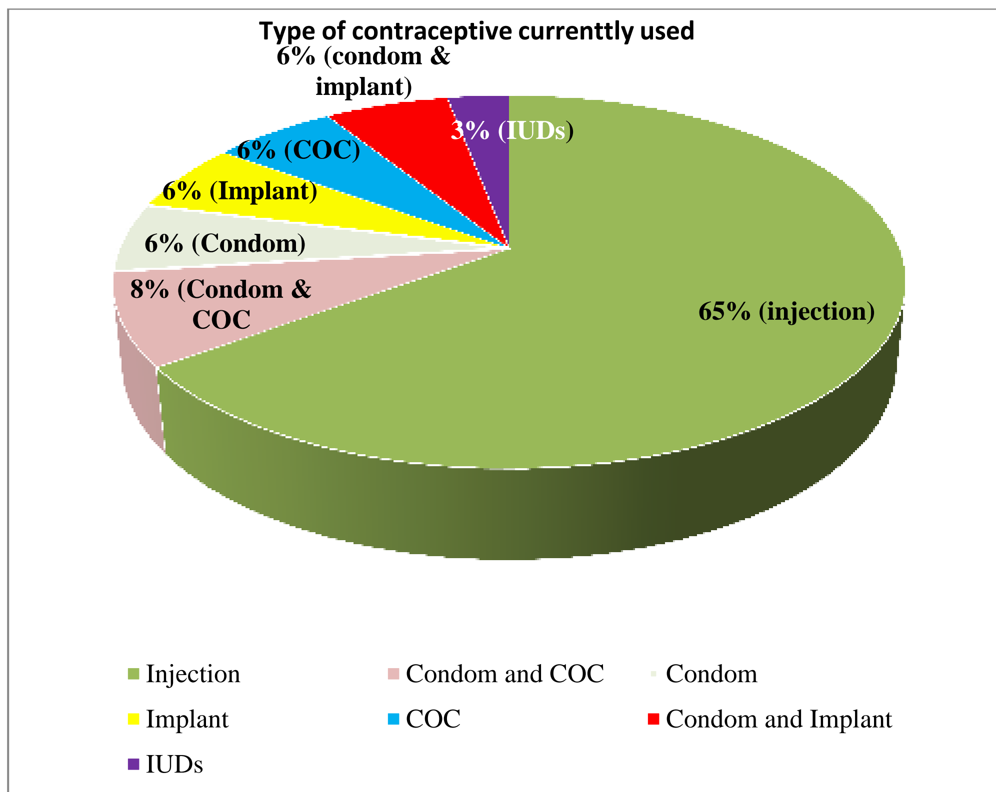

Figure 1: Type of contraceptives used among current users of modern contraceptive methods by women with disabilities, in Gondar city, NW Ethiopia

[AOR=5.43, CI: 1.71-17.81] and 4 [AOR=3.6, CI: 1.11-11.32] times more likely to use modern contraceptives than those aged 15-25. Similarly, participants who were in union were 2 [AOR=2.13, CI: 1.01-4.52] times more likely to use modern contraceptives than non-union WWDs. Literate women with disabilities were 5.0 [AOR= 5.0, CI: 1.87-13.40] times more likely to use modern contraceptive than those women who were illiterate. WWDs who had limb defects/physical impairment were 6 [AOR= 5.9, CI: 1.21-28.80] times more likely to use modern contraceptive than those who had hearing impairment.

Table 3: Factors associated with modern contraceptive use among women with disabilities, in Gondar city, North West Ethiopia

Characteristics	Ever used FP		P-value		
	Yes	No		COR (95% CI)	AOR (95% CI)
Age group (years)					
15-25	8	52		1	1
26-35	24	73	P<0.05	2.14 (0.89-5.13)	5.43 (1.71-17.81)*
36-45	16	94	P<0.05	1.1 (0.44-2.76)	3.59 (1.11-11.32)
Educational status					
Illiterate	29	180		1	1
Literate	19	39	P<0.001	3.02(1.02-3.61)	5.01(1.87-13.4)***
Marital Status					
Union	23	71	P<0.05	1.92 (1.2-5.5)	2.13 (1.01-4.52)*
Non union	25	148		1	1
Religion					
Orthodox	37	174	P>0.05	0.87 (0.41-1.8)	0.7 (0.3-1.7)
Other	11	45		1	1
Forms of Disability					
Hearing impairment	2	30		1	1
Vision impairment	18	83	P<0.05	3.25 (0.71-14.8)	4.9 (0.9-24.6)
Limb defects	28	106	P<0.05	3.96(0.89-17.6)	5.9 (1.21-28.80)*
Perceived economy status					
Poor	33	205		1	1
Medium	7	8	P<0.001	5.4 (1.84-15.9)	6.0 (1.61-22.10)***
Rich	8	6	P<0.001	8.28 (2.7-25.4)	11.62(2.81 47.31)***
Work to earn money					
No	10	77		1	1
Yes	38	142	P>0.05	2.06 (0.97-4.4)	1.76 (0.74-4.2)

* Statistically significant at P<0.05 ** highly significant= P<0.01very highly significant*** = P<0.001

Those who perceived their family economic status rich and medium were 12 [AOR= 11.6, CI: 2.81-47.31] and 6.0 [AOR= 6.0, CI: 1.61-22.10] times more likely to use modern contraceptives respectively than those who perceived their family economic status as poor.

Discussion

The study represents an initial effort to assess modern contraceptive use and associated factors among WWDs in Gondar city, Ethiopia.

Concerning modern contraceptive use, about 21.7% of respondents had ever used modern contraceptives which were lower compared with other studies done in Addis Ababa (84.5%), Uganda (33%) and Ethiopia (25%)[10-12]. CPR for this study was 13.1% which is inconsistent with studies done in Addis Ababa, Ethiopia, Uganda, Kenya and Nigeria[10-12,15,16]. This could be due to difference in study area, level of education of participants; access to media and services. The Addis Ababa study included young men with disabilities who used condoms as a modern contraceptive method that increases the proportion of contraceptive users[11].

The CPR among currently married women with disabilities was 20.2% which is lower than Ethiopian Demographic Health Survey 2011 finding[17]. This difference could be that the Ethiopian Demographic Health Survey included both participants with and without disabilities in which women without disabilities had a better access to information about contraceptives and services than women with disabilities.

In this study educational status of respondents was found to be a significant predictor for modern contraceptive use. Literate respondents were five times more likely to use modern contraceptives compared with illiterate respondents [AOR= 5.01 95% CI: 1.87-13.4]. Similar study which was conducted in Addis Abeba also indicated that literate respondents were six times more likely to use modern contraceptive than illiterate respondents [AOR= 6.5 95% CI: 3.1-13.6][11]. Education increases uptake of

contraception by eradicating myths associated with side effects, safety and long-term effects and it is an important structural factor that increases self-esteem and self-efficacy of women with disabilities regardless of their life situations. This self-efficacy empowers women with disabilities to demand and obtain contraceptive by overcoming systemic barriers.

The other factor found to be associated with modern contraceptive use was type of disability; visually impaired participants were six time more likely to use modern contraceptive than participants with hearing impairments [AOR= 5.9 95% CI: 1.21-28.8]. This finding is consistent with another study conducted in Addis Ababa which showed that visually impaired participants were thirteen time more likely use modern contraceptive than hearing impaired participants [AOR= 13.3 95%CI: 3.8-46.9]. The possible difference might be that women with visual impairment had an increased access to information on contraceptives from radio channel than hearing impaired women. Radios are the most effective channel of transmitting communications about behaviour change to marginalized and vulnerable populations and for breaking down cultural barriers on modern contraceptives use.

Among respondents who were using modern contraceptivea at the time of study, the dominant modern contraceptive method used were injectable methods which was consistent with other study done in Ethiopia[12].

About 33.7% responded that FP service delivery points were difficult to access by WWDs. Of participants who responded that FP service delivery points were difficult to access, lack of information and inconvenience of FP distribution places were the major reasons which is consistent with other studies done in Zimbabwe and Ghana[18,19]. These studies exclusively identified barriers of accessing family planning services by women with disabilities; the barriers included inability to get access to sexual and reproductive health information and services and poor physical accessibility. Deaf women also pointed out that they did not have access to information. This was also supported by women who are visually impaired who highlighted the unavailability of Braille information on sexual and reproductive health issues.

A study conducted in Uganda also identify barriers of contraceptives use among people with disabilities and the finding revealed that the and utilization of family planning services by people with disabilities in Kampala was constrained by lack of appropriate physical facilities such as ramps, adjustable beds, wheel chairs, and disability-friendly sanitation facilities in service delivery points[20].

The physical inaccessibility dimensions revealed in our study are in part, a reflection of integral inadequacies and marginalization of WWDs within the planning and design of health facilities in Ethiopia.

The implication here is that whereas the Government of Ethiopia strives to increase access to health facilities by reducing physical distance for disabled and nondisabled women and to make the services user friendly for people with disabilities, our findings indicate that reducing physical distances to the health facilities is not enough to warrant accessibility to services by WWDs. It is thus imperative that physical disability-friendly facilities, such as ramps, adjustable beds, wheel chairs and sanitation and increase access of information and services for deaf and blind women are provided in all existing and future health facilities by providing sign language training to health care professionals to make the services user friendly.

Inconvenience of health institutions was the major obstacles that hinder WWDs not to use modern contraceptive which is consistent with other studies done in Ethiopia and Addis Ababa[11,12].

Regarding sexual history, about 82.8% of respondents ever had sexual intercourse and majority (44.5%) started sexual intercourse early 10-15 years followed by age 16-20 years (39.4%) with the mean age of first sexual debut 16.7 years of age. The possible reason might be women with disabilities were highly exposed to rape at early age by males with and without disabilities. This finding is consistent with studies done in Uganda. But the finding is inconsistent with studies done in Addis Ababa and Nigeria among young PWDs[11,16].

Conclusion and Recommendations

The findings of this study showed that the proportion of modern contraceptive use among women with disabilities was low. Age of respondents, marital status, educational status, perceived family economic status, and type of disability were found to be factors associated with modern contraceptive use among WWDs.

Therefore, based on the above findings and conclusions, social behavioral change communication interventions should be designed by governmental and non-governmental organizations to improve the awareness of WWDs on modern contraceptives based on the needs and type of disabilities. There is a need to prepare key messages on modern contraceptives targeting rumors, misconceptions and benefits of using family planning. Ensuring expansion of integrated functional adult literacy program for WWDs by Gondar city social affairs office in collaboration with Zonal education department and Gondar Woreda education office should be done. In addition, women with disabilities should be encouraged to participate in income generating activities. The organization of the service delivery points and/or design and infrastructure of health facilities need to be considerate of people living with disabilities. Further research with increased sample size and more geographic areas is also recommended to identify other factors that are associated with modern contraceptive use among women with disabilities.

Competing Interests

The authors declare that they have no conflicting interests.

Authors' Contributions

GAB: designed the study, organized data collection, analyzed the data, interpreted the data and prepared the manuscript.
AMM: assisted in designing the study, data collection, and analysis.
GAF: also assisted in designing the study, data collection and manuscript preparation.

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