

Original Research Article

Risky Sexual behaviours and Associated Factors among People with Disabilities in Dessie City, Northeast Ethiopia

Abstracts

Background: Despite the assumptions that people with disabilities are considered sexually inactive, people with disabilities are likely to engage in sexual risk behaviours than people without disability. Therefore, the aim of this study was to study the prevalence and factors associated with risky sexual behaviours among people with disabilities in Dessie city Ethiopia.

Methods: Institutional based Cross-sectional study was conducted 2013 in Dessie city. All disabled individuals who were enrolled as a member of the disability associations in the city were included in the study. Data were collected by pre-tested structured interview questionnaires by trained data collectors. The data were coded, entered, cleaned and analyzed using univariate, bivariate and multivariate analysis with SPSS version 16 software package.

Results: About 73.1% of the respondents were sexually debuted, 50.8% were sexually debuted before the age of 18 years and 55.1 % reported that they have had more than one sexual partner in the last twelve months. Besides, 32.5% of the study participants reported to have risky sexual behaviours. Type of disability was a statistically significant predictors of sexual behavior [AOR=0.48, 95%CI: 0.27- 0.85]. Respondents who were drinking alcohol were 1.6 times more likely to be engaged in risky sexual behavior than those who didn't use alcohol [AOR=1.63, 95%CI: 1.01 - 2.63]. Besides, educational status of the respondents was statistically significant predictors of risky sexual behaviour [AOR= 3.14, 95%CI: 1.01- 9.74, AOR= 6.31, 95%CI: 1.79- 22.31, AOR= 3.30, 95%CI: 1.13- 9.68 and AOR= 3.28, 95%CI: 1.07- 10.10].

Conclusion: Large proportions of people with disabilities were engaged in sexual risk behaviour. There were factors significantly affecting risky sexual behaviours among people with disabilities on which interventions need to be done by concerned bodies on this vulnerable group of people, especially by labor and social affairs of Ethiopia.

32 **Key words:** People with disabilities; Risky sexual behaviours; Dessie city; Ethiopia

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36 **1. Introduction**

37 According to World Health Organization 2011 report, around 785 million (15.6%) persons 15
38 years and older live with a disability, while the Global Burden of Disease estimates a figure of
39 around 975 million (19.4%) persons [1]. Based on Ethiopian Ministry of Labor and Social
40 Affairs Report in 2012, the total number person with disabilities in Ethiopia is estimated to be
41 7.5 million people. Besides, according to the evidence of labor and social affairs there are about
42 916 persons with disabilities in the study area (Dessie City) [2].

43 There are wrong assumptions that people with disabilities are not sexually active and as a result
44 are not at risk of sexually transmitted disease including HIV/AIDS [3]. Besides, are incorrectly
45 thought to be unlikely to use drugs, and at less risk for violence or rape than their counter parts
46 people without disability; however, an ample of evidences indicated that people with physical
47 disabilities are actually at increased risk for every known risk factor for HIV/AIDS [4].

48 In many African societies, the general attitudes towards disability are likely to compound this
49 impact on people with physical disabilities, who are also likely to be particularly involved in
50 sexual risk behaviours which may finally end up with sexual transmitted diseases such as
51 HIV/AIDS [5].

52 Despite the assumption that people with disabilities are considered sexually inactive and over
53 looked for studies and prevention strategies to sexually transmitted diseases, young and women
54 with disabilities in particular are likely to have more sexual partners than their without disability
55 counter parts [6].

56 Therefore, people with physical disabilities are more likely engaged in sexual risk behaviour and
57 the most vulnerable groups of population for sexually transmitted diseases than any other
58 segments of the population [7]. Nevertheless, the area remain largely unexplored systematically.

Therefore, the aim of this study was determining the prevalence and factors associated with risky sexual behaviours among people with disability in Dessie City.

2. Methods and Materials

Study setting and design:

A cross-sectional study was conducted among members of the disabled people in Dessie city administration in August 2013. The city is one of the three metropolitan cities in Amhara National Regional State. It is located at about 410 km north-east of Addis Ababa, capital city of

Participants:

The study participants were people with disabilities composing both male and female individuals who were a member of disabled associations in Dessie city in Amhara region. The disabled associations of the city composed of different disabilities including trauma, genetics or disease that may limit mobility, hearing or vision.

Eligibility criteria: Disabled individuals who were enrolled as a member of the disabled people at the time of data collection were included in the study.

Sample Size determination:

All persons with disabilities in all disabled associations in the city were included in the study. The total disabled persons with disability in all associations included in the study were 442.

Data collection instrument and data collections

Data were collected using face to face interview administered structured questionnaire. The questionnaire was adopted from reviewed literatures. The tool was translated to local language Amharic in order to get the required information from the participants. Pre-test was done on similar populations that are not included in the main survey and the necessary changes were done to the questionnaires.

Measurements

The outcome measure was sexual risk behaviour. The first question asked in the study was: “Have you ever had sexual intercourse?”, individuals answered “Yes” were asked further questions such as: “At what age did you started sex?”, “Have you had sex in the last twelve months?”, respondents answered “Yes” asked a next question “have you had sex with non regular sexual partner in the last twelve months?”, with how many sexual partners did you had sex in the last twelve months?”, “have you ever had sex without condom with non regular sexual partners?” and male respondents asked “ever had sex with commercial sex worker?”. Finally individuals reported had sex before 18 years of age, or had casual sex with non regular partner, or had sex with more than one sexual partner or ever had sex without condom with non regular partner, or ever had sex with commercial sex workers among males were regarded as had sexual risk behaviours.

Data quality assurance

To control the quality data supervisors and data collectors were trained on the way they commence the data collection and how to approach the disabled people to collect the required information. Pre test was done among similar populations with disabilities didn’t included in the main survey to insure the quality and to improve the validity of the questionnaire. Besides, supervisions were done by the supervisors and the principal investigators.

Data processing and analysis

Data were double-entered onto the EPI-data Version 3.1 software. The double-entered data were validated and exported to SPSS version 16 software package. Bivariate and multivariate analysis were computed to test whether there is association and significance difference between risky sexual behaviour and selected independent variables respectively. Factors associated with risky sexual practices at bivariate were identified and the variables with p-value of 0.20 and less were taken to multivariable logistic regression analysis and the model was built with backward elimination. Hosmer- Lemeshow model fitness test was employed to check model fitness. Finally, the p-values less than 0.05 were considered statistically significant.

Ethical Considerations

Ethical clearance was obtained from ethical review committee of Bahir Dar University and communicated with Zonal health bureau of Dessie city before the time of data collection. Letter of permission was obtained from the Zonal health bureau and each disability associations. The confidentiality of information was maintained by excluding personal identifiers; data were collected after securing informed consent from every respondent. Besides, data collection among respondents was done with similar gender to reduce social desirability bias.

3. Result

3.1 Socio-Demographic Characteristics of Respondents

The this study indicated a total of 412 (149-males and 263-females) members of people with disability associations whose age is greater than 18 years of old participated in the study giving a response rate was 93.21%. The median age of participants was 26, in a range between 18-76 years.

Out of the study population 60.2% were followers of Orthodox Christians, 37.6% were Muslims and 2.2% were Protestants by religion. Regarding educational status of the participants 24.8% completed grade five to eight, 24% completed grade nine to twelve and 22.8% were unable to read and write.

Concerning the occupation of the respondents, out of a total of 412 study participants 60% were unemployed whereas 40% were employed in different areas including in civil servant, self-employed and private sectors.

Regarding types of disability, out of the total respondents 35% were visually impaired, 34.7% were physically handicapped, 14.6% were leprosy affected persons, 11.4% had hearing impairment. Besides, this study revealed that 60.2% of respondents have less than five, and about 39.6% of the respondents reported to have greater than five family sizes (see table 1).

143 **Table 1: Socio-demographic characteristics of members of people with disability associations in Dessie City,**
 144 **Administration, South Wollo Zone, 2013**

Variables	Number(<i>n</i> =412)	Percent
Type of disability		
Leprosy affected persons	60	15
Mentally challenged	18	4
Physical handicapped	143	35
Hearing impaired	47	11
Visually impaired	144	35
Sex		
Male	149	36
Female	263	64
Age		
18-24	160	38.8
25-34	143	34.7
35-44	38	9.2
45+	71	17.2
Marital Status		
Unmarried	172	42
Married	240	58
Ethnicity		
Amhara	393	96
Tigre	10	2
Oromo	9	2
Religious status		
Orthodox	248	60.2
Muslims	155	37.6
Protestants	9	2.2
Educational status		
Unable to read and write	94	22.8
Literate	36	8.7
1-4 grade complete	45	10.9
5-8 grade complete	102	24.8
9-12 grade complete	99	24.0
12+	36	8.7
Occupation		
Unemployed	248	60
Employed	164	40
Income		
< 600	371	90.3
600-1200	25	6.1
1200+	15	3.6
family size		
≤ 5	249	60.4
>5	163	39.6

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146 3.2 Sexual behaviors of people with disabilities in Dessie city

147 As portrayed in table 2 below, in this study 301(73.1%) of the respondents reported that they had
 148 practiced sexual intercourse. Out of those who had started sex 153(50.8%) were below the age of
 149 18 years and the median age at first sexual commencement was 18 years.

150 The reasons reported for the initiation of the first sexual encounter among those who ever
 151 practiced sexual intercourse 174(57.8%) of them were saying in their personal interest,
 152 68(22.6%) of them reported that it was through peer pressure and about 3.7% reported because
 153 of economical problem.

154 The findings of this study further explored that among sexually experienced members of people
 155 with disability associations, 34.9% have had their last sexual intercourse with an individual
 156 whose age was in the same level as them and 13.6% of them were had sex with individuals of
 157 greater than 5 to 10 years. Of those participants who reported have had a sexual intercourse
 158 experiences, 229(82.1%) were sexually active in the last twelve months before the data
 159 collection period.

160 Besides, the current finding showed that about 11.2% of the study participants reported that they
 161 coerced to have sex in their life time. Moreover, the findings of this study declared that, of the
 162 sexually experienced members of people with disability associations, 132(43.9%) reported that
 163 they have had two to five sexual partners in the last twelve months and 34(11.2%) had more than
 164 five sexual partners. Surprisingly 43 (19.2%) of the study participants ever received or gave
 165 money or gift in exchange of sex in their life time. Eventually, the current study revealed that
 166 about 134(32.5%) of the study participants reported to have risky sexual behaviours (see table 2)

167 **Table 2: Sexual behaviors of members of people with disability associations in Dessie City Administration,**
 168 **South Wollo Zone, 2013**

Variables	Male (%)	Female (%)	Total (%)
Ever had sex (n=409)			
Yes	102(68.5)	199(76.5)	301(73.6)
No	47(31.5)	61(23.5)	108(26.4)
Age at first sex(n=301)			
<18	81(80.2)	72(36.0)	153(50.8)

≥18	20(19.8)	128(64.0)	148(49.2)
Reasons for initiation of sex(n=301)			
Personal interest	45(44.6)	129(64.5)	174(57.8)
Peer pressure	15(14.9)	53(26.5)	68(22.6)
Influence of alcohol	24(23.8)	3(1.5)	27(9.0)
Influence of chat and drugs	0(0.0)	3(1.5)	3(1.0)
Economic problem	6(5.9)	5(2.5)	11(3.7)
Marital problem	11(10.9)	7(3.5)	18(6.0)
Age of sexual partner during first sex(n=301)			
Similar age	30(29.4)	75(37.7)	105(34.9)
10 years older	25(24.5)	20(10.1)	45(15.0)
5-10 years older	22(21.6)	19(9.5)	41(13.6)
5 years younger	18(17.6)	37(18.6)	55(18.3)
Younger than me	2(2)	38(19.1)	40(13.3)
I don't remember/know	5(4.9)	10(5)	15(5)
Had sex in the last 12 months(n=279)			
Yes	64(71.9)	165(86.8)	229(82.1%)
No	25(28.1)	25(13.2)	50(17.9%)
Had sex with Commercial sex workers (n= 270)			
Yes	4(4.8)	0(0.0)	4(1.5)
No	79(95.2)	187(100)	266(98.5)
Coerced sex(n=329)			
Yes	22(19.3)	15(7)	37(11.2)
No	92(80.7)	200(93)	292(88.8)
Are you with regular partner (n=292)			
Yes	56(62.2)	140(69.3)	196(67.1)
No	34(37.8)	62(30.7)	96(32.9)
Number of sexual partners in the last 12 months(301)			
One	53(51.9)	82(41.2)	135(44.9)
One to five	44(43.1)	88(44.2)	132(43.9)
More than five	5(4.9)	29(14.6)	34(11.2)
Ever received or gave gift in exchange of sex(224)			
Yes			
No	19(28.4)	24(15.3)	43(19.2)
	48(71.6)	133(84.7)	181(80.8)
Risky sexual behaviours(412)			
Yes	52(34.9)	82(31.2)	134(32.5)
No	97(65.1)	181(68.8)	278(67.5)

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170 Condom utilization among people with disability

171 The findings of this study indicated that about a quarter of the respondents utilized condom
 172 during their first sex episode. Out of individuals who commenced sex, quite a large proportion of

173 them 90.2 % used condoms inconsistently in the last 12 months during any sexual episodes and
174 only 8.8 percent used condom consistently.

175 It also found out that 75.2% of sexually experienced members of people with disability
176 associations did not use condom at first sex (table 3).

177 **Table 3: Condom utilization by members of people with disability associations in Dessie**
178 **City Administration, South Wollo Zone, 2013**

Variables	Male	Female	Total
Condom utilization during first sex (n= 302)			
Yes	19(18.6)	56(28)	75(25)
No	83(81.4)	144(72)	227(75.2)
Condom utilization in the last 12 months (n= 236)			
Never used	50(73.5)	101(59.4)	151(63.4)
Sometimes	6(8.8)	34(20)	40(16.8)
Most of the time	8(11.8)	16(9.4)	24(10.1)
Always	3(4.4)	18(10.6)	21(8.8)
Ever used condom with regular partner(n=200)			
Yes	12(21.4)	39(27.1)	51(25.5)
No	44(78.6)	105(72.9)	149(74.5)

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180 **3.4 Substance use of people with disabilities among people in Dessie City**

181 Regarding substance use, the findings of this study indicated that 39.1% of respondents drunk
182 alcohol, 24.3% were khat chewers, 3.6% were cigarette smokers and about 1.6% of them were
183 used hashish. The frequency of substance use was ranging from occasionally, 2 to 3 times a
184 month to daily bases based on the report from study participants (table 4)

185 **Table 4: Substance use among members of people with disability associations in Dessie City**
 186 **Administration, South Wollo Zone, 2013**

Variables	Male (%)		Female (%)	Total (%)
Alcohol consumption				
Ever drunk	30(20.1)		132(49.9)	162(39.2)
Never drunk	119(79.9)		131(49.8)	250(60.7)
Chat chewing				
Ever chewed	32(21.5)	68(25.9)	100(24.3)	
Never chewed	117(78.5)	195(74.1)	312(75.7)	
Cigarette smoking				
Ever smoked	15(5.7)	0(0.0%)	15(3.6)	
Never smoked	149(100)	248(94.4)	397(96.4)	
Hashish				
Ever used	2(1.3)	4(1.5)	6(1.5)	
Never used	147(98.7)	259(98.5)	406(98.5)	

187 **3.5 Multivariate logistic regression analysis between risky sexual behaviour and selected** 188 **predictor variables among disabled people in Dessie City**

189 The findings of this study declared that type of disability, alcohol consumption, household size
 190 and educational level showed statistically significant association ($p < 0.05$) up on risky sexual
 191 behavior.

192 The study explored that physically handicapped respondents were 52 percent less likely to be
 193 engaged in risky sexual behavior than visually impaired individuals [AOR=0.48, 95%CI: 0.27-
 194 0.85].

Regarding alcohol consumption among disabled people, respondents who were drinking alcohol were 1.6 times more likely to be engaged in risky sexual behavior than those who didn't use alcohol [AOR=1.63,95%CI:1.01 - 2.63].

Besides, our study revealed that respondents who had less than or equal to five family sizes were about 2 times more likely to engaged in risky sexual behaviors than those respondents who had greater than five family members [AOR=1.87, 95%CI: 1.14 - 3.05].

Moreover, educational status of the respondents was statistically significant predictors of risky sexual behaviour, showing that respondents who were unable to read and write, able to read and write but no formal education, completed grade 1 to 8, and completed grade 9 to 12 were more likely to be engaged in risky sexual behaviours compared to respondents whose educational status was more than grade 12, [AOR= 3.14,95%CI: 1.01- 9.74, 6.31,95%CI: 1.79- 22.31, 3.30,95%CI: 1.13- 9.68 and 3.28, 95%CI: 1.07- 10.10] respectively. On the other hand, although age, marital status, ethnicity, cigarette smoking and khat chewing did show association at p-value of 0.2 with risky sexual behavior on binary analysis, yet they failed to show statistical significance association with risky sexual behavior on multivariate analysis (see table 5)

Table 5: Multivariate logistic regression analysis between risky sexual behaviour and selected predictor variables among disabled people in Dessie City Administration, South Wollo Zone, 2013

Variables	Risky sexual behavior		OR(95%CI for OR)	
	Yes (%)	No (%)	Crude	Adjusted
Type of disability				
Leprosy affected persons	35(26.1)	25(9)	2.477(1.338-4.585)	2.103(0.984-4.495)
Mentally challenged	1(0.7)	17(6)	0.805(0.013-0.805)	0.135(0.017-1.091)
Physical handicapped	32(23.9)	111(39.9)	0.510(0.303-0.858)	0.481(0.272-0.853)*
Hearing Impaired	14(10.4)	33(11.9)	0.751(0.368-1.529)	1.072(0.489-2.347)
Visually Impaired	52(38.8)	92(33.1)	1.00	1.00
Age				
18-24	38(28.4)	122(43.9)	0.303(0.168-0.547)	0.503(0.217-1.166)
25-34	48(35.8)	95(34.2)	0.491(0.275-0.878)	0.850(0.408-1.773)
35-44	12(9)	26(9.4)	0.449(0.196-1.026)	0.919(0.363-2.324)
45 and above	36(26.9)	35(12.6)	1.00	1.00
Marital Status				
Married	72(53.7)	168(60.4)	1.315(0.868-1.994)	1.103(0.655-41.049)
Unmarried	62(46.3)	110(39.6)		1.00

Ethnicity				
Amhara	125(93.3)	268(96.4)	1.088(0.277-4.279)	1.419(0.312-6.457)
Tigre	7(2.5)	3(2.2)	4.667(0.673-32.360)	5.185(0.655-41.049)
Oromo	3(1.1)	6(4.5)	1.00	1.00
Educational status				
Unable to read and write	39(29.1)	55(19.8)	4.396(1.570-12.312)	3.140(1.012-9.738)*
Literate	16(11.9)	20(7.2)	4.960(1.569-15.677)	6.312(1.786-22.310)*
1-8 grade complete	47(35.1)	100(36%)	2.914(1.065-7.970)	3.302(1.127-9.680)*
9-12 grade complete	27(20.1)	72(25.9)	2.325(0.819-6.598)	3.284(1.067-10.103)*
12+	5(3.7)	31(11.2)		1.00
family size				
≤5	69(51.5)	179(64.4)	0.013(1.121-2.588)	1.866(1.142-3.048)*
>5	65(48.5)	99(35.6)		1.00
Alcohol				
Ever drunk	65(48.5)	185(66.5)	0.000(1.387-3.216)	1.634(1.014-2.631)*
Never drunk	69(51.5)	93(33.5)		1.00
Chat				
Ever chewed	93(69.4)	219(78.8)	0.039(1.026-2.609)	1.329(0.777-2.273)
Never chewed	41(30.6)	59(21.2)		1.00
Cigarette				
Ever smoked	271(97.5)	126(94)	0.089(0.872-6.928)	1.357(0.430-4.276)
Never smoked	7(2.5)	8(6)		

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215 4. Discussion

216 This study revealed that 73 percent of the study participants were found to be sexually active and
 217 about half of them (50.8%) had initiated sex before 18 years of age. The finding of this study was
 218 slightly similar with study done in Addis Ababa where 57% of people with disability were
 219 initiated sexual activities [8].

220 A similar study done in Tanzania declared that nearly half of people with disabilities were
 221 sexually active; half of them have had sex by the age of nineteen [9]. However, our study was
 222 different from a study done in Kenya, where 89% of people with disability were to be sexually
 223 active and 29 % of them commenced first sexual practice below the age of 16 [10].

224 The findings of this study indicated that 11.2% of people with disabilities were encountered
 225 coerced sex in their life time. This figure is lower than prevalence of coerced sex among people
 226 with disabilities according to the report of national institute of statistics of Rwanda where 22.3%

of people with disabilities have ever experienced sexual violence [11]. The difference could be attributed to socio cultural difference and time gap. This finding evidences that people with disabilities in the study area were more vulnerable for HIV/AIDS.

Regarding condom use and casual sex, this study showed that 8.8 percent of those sexually active members of people with disability associations used condoms properly and consistently and only 6.2 percent of them have had non-regular sexual partner. Whereas, a study done in Addis Ababa indicated that among people with disabilities 20.7% had sex with a casual sexual partner and 58.3% of them used condoms consistently [12]. This might be happened due to socio-demographic differences of the study participants in the two settings.

Regarding multiple sexual partnerships among people with disabilities, this study declared that 43.9% of those sexually active people with disabilities reported that they have had more than two sexual partners in the last twelve months. This study was not in accordance with a study in Addis Ababa where multiple sexual partnerships was reported by 32.2% of the sexually active members of people with disability [12].

Besides, the present study revealed that out of sexually active members of people with disability, 1.5% of them were reported that they ever had sex with commercial sex workers. This was slightly lower than a study conducted in Adama among people with disabilities and reported that the proportion of sex with commercial sex worker to be 4.8% [13].

Regarding condom use, this study indicated that out of sexually debuted members of the disabled people, 90.3% of people with disabilities were used condom inconsistently in the last 12 months. However, our finding was not in accordance with a study done in Addis Ababa, where 48% of sexually active people with disability used condom consistently [8].

Eventually, the overall prevalence of risky sexual behaviours among disable people in this study revealed that about 32.5% of the study participants reported to have risky sexual behaviours. Based on this evidence people with disabilities were engaged in sexual behaviour, implying that the study participants were at higher risk of sexually transmitted diseases including HIV/AIDS.

According to the analytic part of our study, alcohol consumption among disabled people, respondents who were drinking alcohol were 1.6 times more likely to be engaged in risky sexual

behavior than those who didn't use alcohol [AOR=1.63,95%CI:1.01 - 2.63]. A similar study confirmed that the use of alcohol has been considered as a risk factor for risky sexual behaviours, particularly when substances are used during the individual's sexual and behavioral inhabitations, leading to an increased possibility of engaging in unsafe sex [14].

Besides, our study revealed that respondents who had less than or equal to five family sizes were about 2 times more likely to engaged in risky sexual behaviors than those respondents who had greater than five family members [AOR=1.87, 95%CI: 1.14 - 3.05]. This finding was supported by similar studies where family size affects sexual risk involvements [15].

Moreover, educational status of the respondents was statistically significant predictors of risky sexual behaviour, showing that respondents who were unable to read and write, able to read and write but no formal education, completed grade 1 to 8, and completed grade 9 to 12 were more likely to be engaged in risky sexual behaviours compared to respondents whose educational status was more than grade 12, [AOR= 3.14,95%CI: 1.01- 9.74, 6.31,95%CI: 1.79- 22.31, 3.30,95%CI: 1.13- 9.68 and 3.28, 95%CI: 1.07- 10.10] respectively.

This finding clearly shows that as educational status advances the chance that people engaged in sexual risk behaviour decreases. This might be due to the fact that education raises one's own awareness and increases perceived treat.

Conclusion

According to the finding of this study, the prevalence of risky sexual behaviours among disable people was found to be 32.5%.

About two-third of respondents of members of people with disability associations are found to be sexually active. Early age of sexual initiation of the respondents and not to use condom consistently were evidences that members of people with disability associations are at elevated risk of sexual practice to expose them to HIV.

Besides, types of disability, family size and educational status of people with disability were statistically significant predictors of risky sexual behaviours. Therefore, AIDS actors (government line ministries, CBOs, and NGOs working on HIV/AIDS) at all level should

283 support members of people with disability associations on developing their life skills so that they
284 may delay sex and avoid risky sexual behavior.

285 AIDS actors should also arrange education for people with disabilities to the specific population
286 in order to address their specific needs according to the type of impairment.

287 Information, Education and Communication (IEC) on HIV/AIDS for members of people with
288 disability associations also needs to be developed with specific focus not only on the messages
289 but also specifically focus on the various forms of disability.

290 Single people with disabilities should form/establish a family and bear a reasonable number of
291 children so that sense of responsibility is given thereby keeping from risky sexual behavior.

292 The zonal educational bureau of Dessie city should give attention for educational provision of
293 people with disabilities, to enable them at least complete grade eight.

294 **Disclosure**

295 The authors declared that they don't have any conflicts of interest in this work.

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