Sexual Reproductive Health Patterns among Cambodian Women with Functional Difficulties

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Cambodia is the only country in Southeast Asia that has incorporated the Washington Group Short Set on Functioning in its Demographic and Health Survey (DHS), offering a unique opportunity to examine the sexual and reproductive health (SRH) experiences of women with functional difficulties. This study analyzes data from the 2021–2022 Cambodia DHS using bivariate and logistic regression methods to explore SRH patterns among women with functional difficulties. Results show that 16.53% of respondents reported at least one functional difficulty. Women with functional difficulties demonstrated slightly greater knowledge of contraceptive methods and were significantly more likely to use modern contraceptives compared to women without difficulties. However, they also had significantly higher odds of experiencing an unmet need for contraception and encountering barriers to healthcare access. These findings highlight persistent inequities and underscore the urgency of developing inclusive policies that promote equitable access, quality, and autonomy in SRH services for women with disabilities.

Keywords: Sexual Reproductive Health, Functional Difficulties, Cambodia

1. Background

Cambodia stands out as the best-performing country in the Asia-Pacific region for family planning, achieving remarkable progress in maternal health and reproductive rights (International Planned Parenthood Federation (IPPF, 2023). The Royal Government of Cambodia (RGC) has demonstrated a strong politcal commitment by allocating USD 2 million annually for family planning, particularly for contraception, ensuring widespread availability even in remote areas (National Maternal and Child Health Centre, 2017). Furthermore, sexual and reproductive health and rights (SRHR) education has been integrated into the curriculum from lower-secondary education, reinforcing comprehensive awareness and access to family planning services (Noij, 2017).

The National Strategy for Reproductive and Sexual Health in Cambodia has outlined the RGC's strategic objectives for enhancing equitable access to and the quality of SRH services (National Maternal and Child Health Centre, 2017). As a result, nearly all women (99%) aged 15-49 either in live birth or stillbirth condition, reported having access to antenatal care (ANC) from a skilled provider (National Institute of Statistics (NIS) [Cambodia], Ministry of Health (MoH) [Cambodia], and ICF, 2023). The use of modern contraceptives among couples in Cambodia has risen from 39% in 2014 to approximately 45%, reflecting steady progress in family planning uptake. (National Institute of Statistics (NIS) [Cambodia], Ministry of Health (MoH) [Cambodia], and ICF, 2023).

Furthermore, the RGC also began its commitment to inclusivity by disaggregating data in the Health Information System (HIS) and incorporating disability awareness into the pre-service midwifery curriculum. This includes tracking GBV/VAW cases by disability status and integrating socio-cultural awareness of disability into midwifery training to improve inclusive SRH service delivery (Australian Government's ACCESS 2 program, 2024; University of Technology Sydney (UTS), 2018). Notably, Cambodia also reflected Washington Group Short Set (WG-SS) on Functioning in their Demographic and Health Survey (DHS) to help understand the experiences of people with functional difficulties (National Institute of Statistics (NIS) [Cambodia], Ministry of Health (MoH) [Cambodia], and ICF, 2023).

World Health Organization (WHO) through International Classification of Functioning, Disability, and Health (ICF) had refers functional difficulties as activity limitation in which problems encountered by individuals on doing specific tasks (i.e walking, seeing, hearing, communicating, cognitive, and personal hygiene) (World Health Organization, 2001). Additionally, functional difficulties are part of the disability, which incorporates impairments (body function issues), activity limitations (functional difficulties), and participation restrictions (Cieza et al., 2009). Following the limitation regarding SRH among women with functional difficulties, especially in low- and middle-income countries, this study broadened its literature pertaining to women with disabilities. Although not entirely interchangeable, the term "disability" often encompasses a wide range of functional limitations as recognized in global surveys such as the DHS.

Despite RGC commitments and achievements to SRH, people with disabilities in Cambodia continue to face significant barriers in accessing SRH services. In general, they face financial

constraints, geographical isolation, poor healthcare quality, limited awareness of social rights, and deep-rooted negative social and cultural beliefs pose challenges (Harder & Wendt, 2021). Women with disabilities are not only systematically excluded from SRH information and services due to physical inaccessibility and communication barriers, but also endure pervasive social stigma that frames them as asexual or incapable of intimate relationships, undermining their autonomy and right to parenthood (Gartrell et al., 2017). These discriminatory attitudes are compounded by heightened vulnerability to emotional, physical, and sexual violence, particularly from family members, where over half of women with disabilities reported emotional abuse, and one in four experienced physical violence, rates significantly higher than their non-disabled peers (Astbury & Walji, 2013). The lack of accessible support services and the normalization of violence against women with disabilities further reinforce their marginalization, illustrating a critical disconnect between policy rhetoric and the lived realities of Cambodian women with disabilities.

To better understand SRH among women with functional difficulties in Cambodia, this study aims to explore the sexual and reproductive health patterns among Cambodian women with difficulties and determine how disability status influences access to health services and reproductive health outcomes. Currently, research on SRH among women with disabilities in Cambodia remains scarce, with most existing studies focusing on qualitative insights. Expanding research to include both qualitative and quantitative approaches would provide a more robust evidence base to inform policy and interventions.

We use the Socio-Ecological Model (SEM) to guide the analysis of this research. This framework was chosen because it provides a comprehensive perspective on the multiple and interacting factors that shape SRH behaviours and outcomes (Sidamo et al., 2023). The SEM framework recognises that health behaviours and outcomes are influenced by multiple factors, explains how these influences interact at different levels, identifies which factors have the most significant impact at each level, and suggests that interventions addressing multiple levels tend to be more effective than those targeting only one (Eriksson et al., 2025).

Applying this model to the experiences of women with disabilities (WWDs) highlights the numerous challenges they face in accessing SRH services (Shiwakoti et al., 2021). Socioeconomic barriers, such as a lack of empowerment and family support, limit their ability to make independent decisions about their reproductive health (Casebolt, 2020). Structural challenges, including distant health facilities and inaccessible infrastructure, further hinder their access to essential services (Casebolt, 2020).

Building upon this framework, the present study explores the relationship between functional difficulties, access to health services and sexual and reproductive health (SRH) outcomes among Cambodian women. The first hypothesis posits that women with functional difficulties encounter greater barriers to accessing healthcare. The second hypothesis extends this argument, suggesting that women with disabilities in Cambodia have poorer SRH outcomes.

2. Methods

We analyzed the data from the 2021-2022 Cambodia Demographic and Health Survey (CDHS). The survey provides estimates on key sexual reproductive health indicators and disability across urban and rural areas of all 25 provinces of Cambodia. A two-stage, stratified sampling approach is used by DHS for sample selection. The DHS standard sampling weight variable was applied to account for the complex survey design. For this analysis, data from 19,485 women (15-49) were extracted from the DHS database to compare the distribution of social determinants and SRH variables between women with and without functional difficulties. After weighting, the final sample was 19,483, which consisted of 3,223 women with functional difficulties and 16,250 women without functional difficulties.

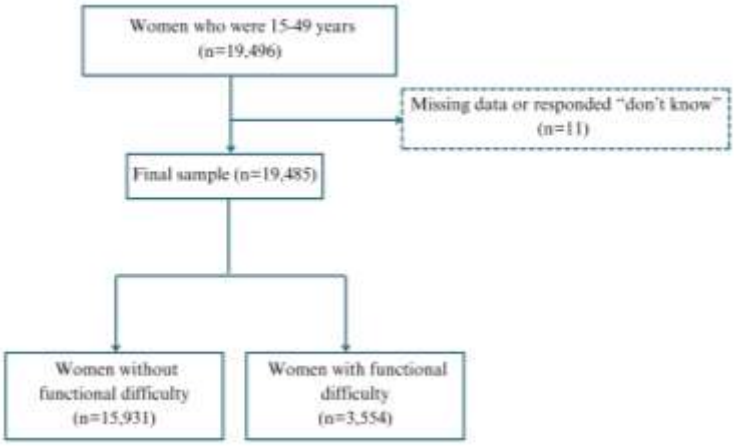

Fig 1. Sample Selection

Study Variables

The Demographic Health Survey gathered data on adult functioning using the "short set" of questions developed by the Washington Group on Disability Statistics (WG), which covers six domains of disability: seeing, hearing, walking, cognition, self-care, and communication. Original Responses were categorized as: “No – no difficulty,” “Yes – some difficulty,” “Yes – a lot of difficulty,” and “Cannot do at all.” A respondent was classified as having a functional disability if she reported “Yes – some difficulty” “Yes- a lot of difficulty” or “Cannot do at all” in at least one of the six domains. This study recategorized the responses into 2 categories: “No difficulty” as No; “Some difficulty”, “a lot of difficulty”, and “cannot do at all” as Yes.

This analysis focuses on three key outcome variables: unmet need for contraception, contraceptive use, and antenatal care (ANC) visits. Unmet need was measured by combining unmet need for spacing and limiting, as defined by DHS guidelines. Contraceptive use was assessed based on self-reported current use of any modern method at the time of the interview and was categorized into a binary variable: "yes" for use of modern methods (coded as 1) and "no" for non-use or use of traditional methods (coded as 0). Antenatal care utilization was also captured as a binary variable, based on the total number of ANC visits during the most recent pregnancy. Following the WHO

recommendation, responses were coded as 1 for women who had four or more visits and 0 for those with fewer than four visits.

Ethical considerations

This study utilised secondary data analysis of anonymous, publicly accessed quantitative data from the Cambodia Demographic and Health Survey (DHS), for which ethical approval and informed consent were obtained by DHS priorly to the time of data collection. We also committed to DHS's program data utilization policies. No personal identity information was accessed or used to ensure strict confidentiality. Given that the study discussed a sensitive topic, which is sexual and reproductive health among women with disabilities, we are committed to presenting results in a manner that respects the dignity of women with disabilities and avoids reinforcing stigma or discriminatory language. Findings and discussion are intended to inform inclusive health policies and programs in Cambodia. The DHS Program of USAID granted access to the dataset which can be publicly accessed at https://dhsprogram.com/data/available-datasets.cfm.

Data analysis

The study employed both bivariate and regression analyses to investigate the relationships between disability status and key SRH outcomes. Odds ratios (OR) with 95% confidence intervals (CI) were calculated to assess the strength of these associations.

3. Result

Socio-demographic and Functional Difficulties Characteristics

This study includes 19,485 women aged 15–49 years, of whom 3,222 (16.53%) reported having difficulty with at least one functional domain. The majority are aged over 40 years (44,42%), currently married (76.98%), have a primary education level (46.54%), are employed (65,99%), reside in rural areas (68,21%), and belong to the poorest wealth quintile (24,36%).

In terms of difficulty characteristics, a higher proportion (93,97%) of the respondents were reported having some difficulty, 5.08% experienced a lot of difficulty, and 0.95% were unable to perform the function at all. The most commonly reported difficulty is related to vision, with 57.14% of respondents experiencing some difficulty seeing, while 1.56% have a lot of difficulty or are completely unable to see. Cognitive challenges are also prevalent, as nearly half (48.33%) of the respondents reported some difficulty remembering or concentrating, with 1.68% experiencing severe impairment. Hearing and communication difficulties are less frequent, with 14.70% reporting some difficulty hearing and 5.30% facing challenges in communication using their usual language. Mobility issues are also notable, as 20.77% of respondents experience some difficulty walking or climbing steps, while 0.55% are entirely unable to do so. In contrast, difficulties with self-care, such as washing or dressing, are the least reported, affecting only 4.14% of respondents, with 0.13% completely unable to perform these tasks.

Table 1. Characteristics of women with functional difficulties in Cambodia

Characteristics	Jumlah	
	n=3,222*	%
Age		
15-19	170	5.29
20-24	193	5.98
25-29	341	10.57
30-34	485	15.06
35-39	602	18.68
40-44	727	22.55
45-49	705	21.87
Current marital status		
never in union	427	13.24
married	2481	76.98
living with partner	56	1.75
widowed	118	3.65
divorced	128	3.96
no longer living together/separated	13	0.41
Highest educational level		
no education	630	19.56
primary	1500	46.54
secondary	945	29.31
higher	148	4.59
Respondent currently working		
no	1096	34.01
yes	2127	65.99
Type of place residence		
urban	1024	31.79
rural	2198	68.21
Wealth Index		
poorest	785	24.36
poorer	692	21.47
middle	590	18.30
richer	581	18.04
richest	574	17.82
Ever had a terminated pregnancy		
no	2148	66.67
yes	1074	33.33
Recent Sexual activity		
never had sex	403	12.50
active in last 4 weeks	1943	60.30
not active in last 4 weeks - postpartum abstinence	116	3.60
not active in last 4 weeks - not postpartum abstinence	760	23.59
Current contraceptive method		
not using	1718	53.32
pill	569	17.67
iud	143	4.44
injections	166	5.16
male condom	37	1.16
female sterilization	124	3.86
male sterilization	2	0.05
periodic abstinence	29	0.89

withdrawal	353	10.94
other traditional	1	0.02
implants/norplant	52	1.61
lactational amenorrhea (lam)	0	0
female condom	0	0
other modern method	1	0.02
standard days method (sdm)	28	0.86
Fertility Preference		
have another	742	23.02
undecided	494	15.33
no more	1711	53.11
sterilized (respondent or partner)	126	3.90
declared infecund	149	4.64
Unmet need		
no	2895	89.83
yes	328	10.17
Type of difficulty		
have difficulty seeing		
no difficulty seeing	1328	41.20
some difficulty	1841	57.14
a lot of difficulty	50	1.56
cannot see at all	3	0.09
have difficulty hearing		
no difficulty hearing	2718	84.34
some difficulty	474	14.70
a lot of difficulty	28	0.88
cannot hear at all	2	0.07
have difficulty communicating using usual language		
no difficulty communicating	3033	94.13
some difficulty	171	5.30
a lot of difficulty	11	0.34
cannot communicate at all	7	0.23
have difficulty remembering or concentrating		
no difficulty remembering/concentrating	1609	49.92
some difficulty	1557	48.33
a lot of difficulty	54	1.68
cannot remember/concentrate at all	2	0.07
have difficulty walking or climbing steps		
no difficulty walking or climbing	2491	77.31
some difficulty	669	20.77
a lot of difficulty	44	1.38
cannot walk or climb at all	18	0.55
have difficulty washing all over or dressing		
no difficulty washing or dressing	3069	95.24
some difficulty	133	4.14
a lot of difficulty	16	0.50
cannot wash or dress at all	4	0.13
Highest degree of difficulty for any of the impairments		
some difficulty	3028	93.97
a lot of difficulty	164	5.08
cannot do at all	31	0.95
Health access difficulty (minimal one)		
no	994	30.84

yes	2229	69.16

Access to healthcare

Among women with functional difficulties, 69.16% experience at least one barrier in accessing healthcare. This proportion is higher than that of women without difficulties (58,68%), and the difference is statistically significant based on the Chi-Square test.

Table 2. Comparison of health access among women with and without disabilities.

Health access difficulty (at least one barrier)	Functional Difficulties			p-value
	No n= 16,260	Yes n=3,223	Total n=19.483	
				<0.001
no	41.32	30.84	39.59	
yes	58.68	69.16	60.41	

Sexual and Reproductive Health-Related Characteristics

Table 3 explains the information regarding sexual and reproductive health characteristics of the respondents. Over half of the women with functional difficulties reported being sexually active in the four weeks preceding the interview, while 23.6% were not sexually active during that period.

In terms of contraceptive knowledge, women with functional difficulties demonstrated a slightly higher average number of known methods (9.40) compared to women without disabilities (9.19). More than half of women with functional difficulties (53.3%) reported not using any contraceptive method. Among those who use contraception, the most common methods were the pill (17.7%) and withdrawal (10.9%). Notably, female sterilization (3.9%) was more commonly used than implants (1.6%), and its use among women with functional disabilities (1.9%) was nearly double that of women without functional difficulties..

Table 3. Comparison of demographic and SRH characteristics among women with and without difficulties

Characteristics	Functional Difficulties			p-value
	No n= 16,260	Yes n=3,223	Total n=19.483	
Ever had a terminated pregnancy				<0.001
no	78.10	66.67	76.21	
yes	21.90	33.33	23.79	
Recent Sexual activity				<0.001
never had sex	26.45	12.50	24.14	
active in last 4 weeks	53.16	60.30	54.35	
not active in last 4 weeks - postpartum abstinence	3.95	3.60	3.89	
not active in last 4 weeks - not postpartum abstinence	16.44	23.59	17.62	
Current contraceptive method				<0.001
not using	57.61	53.32	56.90	
pill	17.67	17.67	17.67	

iud	3.37	4.44	3.55	
injections	4.06	5.16	4.24	
male condom	1.25	1.16	1.23	
female sterilization	1.91	3.86	2.23	
male sterilization	0.04	0.05	0.04	
periodic abstinence	0.70	0.89	0.73	
withdrawal	11.26	10.94	11.21	
other traditional	0	0.02	0.00	
implants/norplant	1.43	1.61	1.46	
lactational amenorrhea (lam)	0.05	0	0.04	
female condom	0	0	0	
emergency contraception	0.05	0	0.04	
other modern method	0	0.02	0.00	
standard days method (sdm)	0.62	0.86	0.66	
Fertility Preference				<0.001
have another	38.99	23.02	36.35	
undecided	20.30	15.33	19.48	
no more	36.04	53.11	38.86	
sterilized (respondent or partner)	1.95	3.90	2.27	
declared infecund	2.72	4.64	3.04	
Unmet need				<0.001
no	92.18	89.83	91.79	
yes	7.82	10.17	8.21	

A larger proportion of women with disabilities (53.11%) reported not wanting any more children compared to women without disabilities (36.04%). A similar proportion (53.3%) were not using any form of contraception, leading to an unmet need for family planning of 10.17% in this group. This is higher than those without disabilities (7.82%).

Regarding reproductive history, one-third of respondents (33.3%) reported having experienced a terminated pregnancy. Among women who had given birth or were pregnant in the two years prior to the survey (n=3251), the proportion who attended at least four antenatal care (ANC) visits was slightly lower among women with disabilities. Although the proportion of women attending at least 4 ANC visits is high across both groups, it is slightly lower among women with disabilities (84.0%) compared to those without disabilities (86.9%).

Table 4. Comparison of antenatal care visit among women with and without difficulties

Attend 4+ ANC Visit	**Functional Difficulties**			p-value
	No n=2.838	Yes n=413	Total n=3.251	
				<0.001
no	13.1	16	13	
yes	86.9	84	87	

Decision-making related characteristics

In both groups, joint decision-making with a husband or partner remains the most common pattern in contraceptive decision-making. However, it is slightly less prevalent among women with functional difficulties (54.13%) compared to those without such difficulties (57.48%).

Interestingly, a greater proportion of women with disabilities (39.40%) reported making independent decisions about contraception, relative to women without disabilities (35.78%). However, The differences between these groups are not statistically significant.

Table 5. Comparison of decision-making characteristics among married women with and without difficulties

Decision-making characteristics	**Functional Difficulties**		p-value
	No n=10.944	Yes n=2537	
Decision maker for using contraception			p<0.07
Respondent	35.78	39.40	
Husband/Partner	6.11	5.75	
Joint decision	57.48	54.13	
Someone else	0.61	0.70	
Other	0.02	0	
Decision maker for seeking care			p<0.05
Respondent	43.24	46.91	
Husband/Partner	48.33	44.50	
Joint decision	8.35	8.40	
Someone else	0.06	0.09	
Other	0.02	0.10	

In contrast, decision-making regarding care-seeking shows statistically significant differences. A higher proportion of women with disabilities (46.91%) reported making healthcare decisions independently compared to those without disabilities (43.24%). However, joint decision-making with a husband or partner is slightly less common among women with disabilities (44.50%) than among those without disabilities (48.33%). The proportion of decisions made solely by the husband/partner remains similar between the two groups.

Association Between Disability Status and Access to Healthcare

The logistic regression analysis reveals a significant association between disability status and reported problems in accessing healthcare among women of reproductive age. Women with disabilities were found to have 1.58 times higher odds of experiencing difficulties in accessing healthcare compared to women without disabilities (OR = 1.58, 95% CI: 1.41–1.77, $p < 0.0001$).

Table 6. Association between disability status and Access to Healthcare

Variable	**Functional Difficulties** Odds Ratio (95% CI)		p-value
	No	Yes	
Access to Healthcare	Reference	1.58 [1.41-1.77]	p<0.0001

Association Between Disability Status and Reproductive Health Outcomes

Table 7 presents the logistic regression analysis examining the association between difficulty status and selected sexual and reproductive health (SRH) outcomes. Women with functional difficulties had 33% higher odds of experiencing an unmet need for contraception compared to those without difficulties (OR = 1.33, 95% CI: 1.12–1.57), and this association is statistically significant ($p < 0.001$). They also had 22% higher odds of using contraception (OR = 1.22, 95% CI: 1.09–1.36), which is likewise statistically significant ($p < 0.001$). In contrast, women with difficulties had 21% lower odds of attending at least four ANC visits within two years of a live birth or stillbirth, but the association was not statistically significant (OR = 0.79, 95% CI: 0.54–1.15; $p = 0.226$).

Table 7. Association between disability status and SRH outcomes

Outcome Variables	**Functional Difficulties** Odds Ratio (95% CI)		p-value
	No	Yes	
Unmet Need	Reference	1.33 [1.12-1.57]	p<0.001
Contraceptive Use	Reference	1.22 [1.09- 1.36]	p<0.001
4+ ANC Visit	Reference	0.79 [0.54 - 1.15]	0.226

4. Discussion

This study explores the SRH outcomes among women with functional difficulties in Cambodia. Initial descriptive findings align with those reported in several earlier studies conducted in low-middle income countries (Du et al., 2022; Kakchapati et al., 2022). Women with disabilities (WWD) were significantly disadvantaged. They were more likely to have lower educational attainment and belong to poorer wealth quintiles, with a higher concentration in rural areas. No significant difference was found in current employment status between women with and without disabilities, suggesting that labor force participation does not differ substantially by disability status in this sample.

This research found that women with functional difficulties were more likely to report problems when accessing healthcare and faced a higher likelihood of encountering at least one barrier. One possible explanation for this is that women with disabilities in Cambodia face “triple jeopardy” (Astbury & Walji, 2013). They face multiple disadvantages resulting from the interplay between gender, disability and poverty. A systematic research on barriers to reproductive health services for women with disability in LMICs supported this, which revealed that WWD faced sociocultural, financial, and structural barriers that hindered their access to healthcare (Casebolt, 2020). The findings reinforce that improving SRH for WWD requires dismantling the multifaceted barriers they face.

Statistically significant differences were observed in fertility preferences and unmet need for family planning between women with and without difficulties in this study. The majority of women with functional difficulties in this study reported not wanting any more children and experiencing higher unmet need. (Rizvi et al., 2020) identifies low literacy, misinformation, and restricted autonomy as

major contributors to unmet need for modern contraception in Cambodia. Previous studies on unmet need among women with disability found that barriers to family planning among women with disabilities stem from individual-level knowledge gaps and low autonomy, interpersonal and provider biases, institutional inaccessibility and unresponsiveness, and broader structural issues such as financial constraints and inadequate policy support (Naghdi-Dorabati et al., 2024).

A study using previous Cambodia DHS data suggested that unmet need for contraception is linked to age, employment status, and autonomy in accessing healthcare, but not to education, residence and wealth level (Hukin, 2012; Rizvi et al., 2020). This study revealed both consistent and divergent patterns compared to earlier research. Among women with functional difficulties in Cambodia, age, employment status, residence, and wealth index were significantly associated with unmet need for contraception, whereas education showed no significant association. In contexts where healthcare remains physically and socially inaccessible, formal education alone may be insufficient to mitigate access challenges. Instead, factors such as economic means, place of residence, and employment—which may influence mobility, financial independence, and exposure to health information—could play a more prominent role in shaping contraceptive access for women with disabilities.

We found that women with and without functional difficulties demonstrated a similar awareness level of contraceptive methods and comparable levels of contraceptive use. In fact, women with functional difficulties in this study were more likely to use modern contraceptive methods compared to those without functional difficulties. These findings stand in contrast to earlier research, which consistently reported a lower likelihood of modern contraceptive use among persons with disabilities (Casebolt et al., 2022; Mac-Seing et al., 2022). This could be attributed to Cambodia's strong national family planning programs in recent years (IPPF, 2023). Notably, an analysis of U.S. population-based data by (Haynes et al., 2018) produced similar results to ours, showing comparable rates of sexual activity and contraceptive use between women with and without disabilities.

Women with functional difficulties in Cambodia use short-acting contraceptive methods at rates similar to those without disabilities, suggesting adequate access to these options. However, higher rates of female sterilization among women with disabilities were observed, echoing earlier findings by (Wu et al., 2017). Some studies, including Aunos & Feldman (2002), suggest that sterilization may sometimes be driven by family decisions to prevent pregnancy from abuse, and in some cases, it occurs without full consent (Greenwood & Wilkinson, 2013). While recent data show no overall increased likelihood of sterilization over other modern methods among WWD, those living in urban areas had significantly higher odds of being sterilized (Casebolt et al., 2022). This pattern may point to systemic issues such as provider bias, limited counselling on reversible methods, or societal perceptions of disability and parenting. These findings underscore the urgent need for rights-based, disability-inclusive family planning services that ensure informed, voluntary contraceptive choices and protect the reproductive rights of women with disabilities.

In both groups, joint decision-making with a husband or partner was the most common approach to contraceptive use, though slightly less common among women with functional difficulties. Notably, a greater proportion of women with functional difficulties reported making independent

decisions about contraception and healthcare. Our findings indicate that personal decision-making autonomy is positively associated with modern contraceptive use among women with functional difficulties, while joint or partner-led decisions are linked to lower use. This contrasts with earlier research in Cambodia, which found higher contraceptive use among women who perceived spousal support (Samandari et al., 2010). This divergence may suggest that, despite persistent barriers, women with disabilities in Cambodia are increasingly making informed, self-directed choices about their reproductive health—highlighting emerging agency and the importance of empowering individual decision-making. At the same time, findings suggest nuanced shifts in decision-making dynamics, indicating both areas of growing empowerment and persistent gaps in partner or household support that may influence reproductive autonomy.

The data revealed that a higher proportion of women with functional difficulties reported recent sexual activity compared to those without, challenging the persistent myth of asexuality among women with disabilities. This aligns with prior research (Braathen et al., 2021; Nosek et al., 1996; Seidu et al., 2023), which underscores that disability does not diminish sexual agency. Bolarinwa et al. (2025) similarly found that women with disabilities did not view their impairments as barriers to sexual activity; instead, societal stigma was the main obstacle Silva et al. (2025). In Cambodia, Gartrell et al. (2017) documented how stigma often denies WWD recognition as individuals capable of love and fulfillment. These patterns reflect not only sexual agency but also the assertion of intimacy needs and rights, often in resistance to social marginalization.

A significantly higher proportion of women with functional difficulties reported ever having a terminated pregnancy, which includes miscarriages, stillbirths, and induced abortions in DHS data. This may reflect persistent structural inequities and barriers to maternal care. Women with disabilities were also slightly less likely to complete the recommended four antenatal visits. Consistent with global findings (Horner-Johnson et al., 2017; Shin et al., 2020; Tang et al., 2023), WWD face poorer pregnancy outcomes and lower prenatal care use. In Cambodia, access is further hindered by distance, cost, and transportation challenges (Hwang & Park, 2019). Although Cambodian midwives showed strong commitment to supporting WWD, a lack of training, referral systems, and disability-specific guidelines limits their ability to provide equitable care (Ven et al., 2025). These findings underscore the need for inclusive, accessible maternal health services and provider capacity strengthening to improve outcomes for women with disabilities.

To our knowledge, this is the first study to examine factors influencing access to sexual and reproductive health (SRH) services among women with disabilities in Cambodia using nationally representative survey data. However, several limitations should be considered when interpreting the findings. First, the cross-sectional nature of the data limits causal interpretation. Second, the analysis did not account for parity, despite evidence that Cambodian women's family planning needs vary across reproductive life stages (Samandari et al., 2010). Third, the study did not disaggregate findings by type of functional difficulty, although prior research indicates that contraceptive use may differ significantly across disability types (Haynes et al., 2018; Mac-Seing et al., 2022).

5. Conclusion

This study highlights critical implications for advancing disability-inclusive sexual and reproductive health (SRH) policy and programming in Cambodia. The findings confirm that women with difficulties face compounded disadvantages that affect their access to care, fertility preferences, and contraceptive use. Despite comparable awareness and use of short-acting methods, higher rates of sterilization and unmet need signal gaps in counselling, informed consent, and method choice. The association between personal decision-making autonomy and modern contraceptive use further underscores the importance of empowering women to make informed reproductive choices. Moreover, disparities in antenatal care use and higher rates of pregnancy termination among women with functional difficulties point to persistent structural barriers in maternal health services. These results call for targeted, rights-based interventions that strengthen provider capacity, improve physical and social accessibility, and ensure that national SRH programs recognize and address the unique needs of women with disabilities.

While our study specifically analyzed women with functional difficulties as defined by the DHS functional domains, many of the observed barriers and patterns resonate with findings from broader disability research. This overlap allows for cautious interpretation and suggests that structural barriers may similarly affect women across varying definitions and severities of disability. Moreover, as this study conducted a quantitative approach using secondary data analysis, the analysis based on the Socio-Ecological Model (SEM) was limited to the personal and interpersonal levels. Although access to healthcare was presented, the study could not explore the broader contextual experiences of women with functional difficulties at the community and organizational levels. Furthermore, the methodological design constrained our ability to examine policy-related determinants influencing SRH outcomes among this population. Future research should further explore disability type-specific barriers and incorporate reproductive life stages, as well as the experiences and to better inform inclusive health strategies.

Disclaimer:

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Ministry of Population and Family Development Indonesia.

References

Astbury, J., & Walji, F. (2013). *Triple Jeopardy: Gender-based violence and human rights violations experienced by women with disabilities in Cambodia*.

Aunos, M., & Feldman, M. A. (2002). Attitudes towards Sexuality, Sterilization and Parenting Rights of Persons with Intellectual Disabilities. *Journal of Applied Research in Intellectual Disabilities*, *15*(4), 285–296. https://doi.org/10.1046/j.1468-3148.2002.00135.x

Australian Government's ACCESS 2 program. (2024). *Enhancing Disability Inclusion, Equity and Rights in Cambodia: A resource for action*. Australian Government's ACCESS 2 program.

Bolarinwa, O. A., Odimegwu, C., Babalola, B. I., & Mohammed, A. (2025). A Qualitative Study Exploring the Sexual Experiences of Women with Disabilities in Lagos, Nigeria. *Sexuality and Disability*, *43*(1), Article 1. https://doi.org/10.1007/s11195-024-09881-8

Braathen, S. H., Carew, M. T., Chiwaula, M., & Rohleder, P. (2021). Physical Disability and Sexuality, Some History and Some Findings. In X. Hunt, S. H. Braathen, M. Chiwaula, M. T. Carew, P. Rohleder, & L. Swartz (Eds.), *Physical Disability and Sexuality* (pp. 27–51). Springer International Publishing. https://doi.org/10.1007/978-3-030-55567-2_2

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

Casebolt, M. T., Singh, K., Speizer, I. S., & Halpern, C. T. (2022). Use of modern contraceptives by women with disabilities in Rajasthan, India: An analysis of the annual health survey. *Sexual & Reproductive Healthcare*, *31*, 100699. https://doi.org/10.1016/j.srhc.2022.100699

Cieza, A., Hilfiker, R., Chatterji, S., Kostanjsek, N., Üstün, B. T., & Stucki, G. (2009). The International Classification of Functioning, Disability, and Health could be used to measure functioning. *Journal of Clinical Epidemiology*, *62*(9), 899–911. https://doi.org/10.1016/j.jclinepi.2009.01.019

Du, K. C., Mohosin, A. B., Amin, A., & Hasan, M. T. (2022). Influence of education on sexual and reproductive health service utilization for persons with disabilities in nationwide Bangladesh: An explanatory sequential mixed-methods study. *Reproductive Health*, *19*(1), Article 1. https://doi.org/10.1186/s12978-022-01352-7

Eriksson, M., Sundberg, L. R., Santosa, A., Lindgren, H., Ng, N., & Lindvall, K. (2025). Health behavioural change – the influence of social-ecological factors and health identity. *International Journal of Qualitative Studies on Health and Well-Being*, *20*(1), 2458309. https://doi.org/10.1080/17482631.2025.2458309

Gartrell, A., Baesel, K., & Becker, C. (2017). " We do not dare to love": women with disabilities' sexual and reproductive health and rights in rural Cambodia. *Reproductive Health Matters*, *25*(50), 31–42. https://doi.org/10.1080/09688080.2017.1332447

Greenwood, N. W., & Wilkinson, J. (2013). Sexual and Reproductive Health Care for Women with Intellectual Disabilities: A Primary Care Perspective. *International Journal of Family Medicine*, *2013*, 1–8. https://doi.org/10.1155/2013/642472

Harder, J. L., & Wendt, C. (2021). Access barriers to health and social services in Cambodia: Experiences in healthcare use of people with disabilities. *South East Asia Research*, *29*(4), 469–485. https://doi.org/10.1080/0967828X.2021.2016033

Haynes, R. M., Boulet, S. L., Fox, M. H., Carroll, D. D., Courtney-Long, E., & Warner, L. (2018). Contraceptive use at last intercourse among reproductive-aged women with disabilities: An analysis of population-based data from seven states. *Contraception*, *97*(6), 538–545. https://doi.org/10.1016/j.contraception.2017.12.008

Horner-Johnson, W., Kulkarni-Rajasekhara, S., Darney, B. G., Dissanayake, M., & Caughey, A. B. (2017). Live birth, miscarriage, and abortion among U.S. women with and without disabilities. *Disability and Health Journal*, *10*(3), 382–386. https://doi.org/10.1016/j.dhjo.2017.02.006

Hukin, E. F. (2012). *Contraception in Cambodia—Explaining Unmet Need*. London School of Economics and Political Science.

Hwang, W. J., & Park, Y. M. (2019). Factors Influencing the Accessibility of Maternal Health Service in Cambodia. *International Journal of Environmental Research and Public Health*, *16*(16), 2909. https://doi.org/10.3390/ijerph16162909

International Planned Parenthood Federation (IPPF). (2023). *Contraception Policy Atlas Asia Pacific Region 2023: Highlights*. International Planned Parenthood Federation (IPPF). https://eseaor.ippf.org/stories/strengthening-rights-equitable-access-and-transparency-contraceptive-policy-atlas-launch

Kakchapati, S., Kc, S. P., Giri, S., Bhattarai, S., & Baral, S. C. (2022). Factors associated with access to sexual and reproductive health services among women with disabilities in Nepal. *Dialogues in Health*, *1*, 100068. https://doi.org/10.1016/j.dialog.2022.100068

Mac-Seing, M., Zarowsky, C., Yuan, M., & Zinszer, K. (2022). Disability and sexual and reproductive health service utilisation in Uganda: An intersectional analysis of demographic and health surveys between 2006 and 2016. *BMC Public Health*, *22*(1), 438. https://doi.org/10.1186/s12889-022-12708-w

Naghdi-Dorabati, P., Shahali, S., Montazeri, A., & Ahmadi, F. (2024). The unmet need for sexual health services among women with physical disabilities: A scoping review. *Journal of Public Health*. https://doi.org/10.1007/s10389-024-02191-5

National Institute of Statistics (NIS) [Cambodia], Ministry of Health (MoH) [Cambodia], and ICF. (2023). *Cambodia 2021-2022 Demographic and Health Survey* [Summary Report]. NIS, MoH, and ICF.

National Maternal and Child Health Centre. (2017). *National Strategy for Reproductive and Sexual Health in Cambodia 2017-2020*. Ministry of Health Cambodia.

Noij, F. (2017). *UNFPA CAMBODIA Country Programme Review Fifth Programme Cycle, 2016—2018* [Review Report]. UNFPA.

Nosek, M. A., Rintala, D. H., Young, M. E., Howland, C. A., Clubb Foley, C., Rossi, D., & Chanpong, G. (1996). Sexual functioning among women with physical disabilities. *Archives of Physical Medicine and Rehabilitation*, *77*(2), 107–115. https://doi.org/10.1016/S0003-9993(96)90154-9

Rizvi, F., Williams, J., Bowe, S., & Hoban, E. (2020). Factors influencing unmet need for contraception amongst adolescent girls and women in Cambodia. *PeerJ*, *8*, e10065. https://doi.org/10.7717/peerj.10065

Samandari, G., Speizer, I. S., & O'Connell, K. (2010). The Role of Social Support and Parity in Contraceptive Use in Cambodia. *International Perspectives on Sexual and Reproductive Health*, *36*(03), Article 03. https://doi.org/10.1363/3612210

Seidu, A.-A., Malau-Aduli, B. S., McBain-Rigg, K., Malau-Aduli, A. E. O., & Emeto, T. I. (2023). A mixed-methods study of the awareness and functionality of sexual and reproductive health services among persons with disability in Ghana. *Reproductive Health*, *20*(1), Article 1.

https://doi.org/10.1186/s12978-023-01700-1

Shin, J. E., Cho, G. J., Bak, S., Won, S. E., Han, S. W., Bin Lee, S., Oh, M.-J., & Kim, S. J. (2020). Pregnancy and neonatal outcomes of women with disabilities: A nationwide population-based study in South Korea. *Scientific Reports*, *10*(1), 9200. https://doi.org/10.1038/s41598-020-66181-9

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), 1361. https://doi.org/10.1186/s12913-021-07382-4

Sidamo, N. B., Kerbo, A. A., Gidebo, K. D., & Wado, Y. D. (2023). Socio-Ecological Analysis of Barriers to Access and Utilization of Adolescent Sexual and Reproductive Health Services in Sub-Saharan Africa: A Qualitative Systematic Review. *Open Access Journal of Contraception*, *Volume 14*, 103–118. https://doi.org/10.2147/OAJC.S411924

Silva, I., Santos, A. C., & Oliveira, A. (2025). Disabling Norms, Affirming Desires: A Scoping Review on Disabled Women's Sexual Practices. *Societies*, *15*(6), 154. https://doi.org/10.3390/soc15060154

Tang, M.-B., Kung, P.-T., Chiu, L.-T., & Tsai, W.-C. (2023). Comparison of the use of prenatal care services and the risk of preterm birth between pregnant women with disabilities and those without disabilities: A nationwide cohort study. *Frontiers in Public Health*, *11*, 1090051. https://doi.org/10.3389/fpubh.2023.1090051

University of Technology Sydney (UTS). (2018). *UNFPA Cambodia Midwifery Education Project*. Research at UTS. https://www.uts.edu.au/research/centres/who-collaborating-centre/what-we-do/maternal-and-child-health/unfpa-cambodia-midwifery-education-project

Ven, C., Marella, M., Vaughan, C., & Devine, A. (2025). "I feel like I'm not confident enough": A qualitative study of Cambodian midwives' experiences in disability-inclusive maternity care. *Midwifery*, *148*, 104472. https://doi.org/10.1016/j.midw.2025.104472

World Health Organization. (2001). *International Classification of Functioning Disability and Health (ICF)*. World Health Organization.

Wu, J. P., McKee, M. M., Mckee, K. S., Meade, M. A., Plegue, M., & Sen, A. (2017). Female sterilization is more common among women with physical and/or sensory disabilities than women without disabilities in the United States. *Disability and Health Journal*, *10*(3), 400–405. https://doi.org/10.1016/j.dhjo.2016.12.020