Research Article

Determinants of Functional Difficulty among Women in Nepal: A Cross-sectional Study

[1]Anuska Adhikari, [2,3]Devaraj Acharya*, [1,4]Ramesh Adhikari

[1]Center for Research on Education Health and Social Science (CREHSS), Kathmandu

[2]Bhairahawa Multiple Campus, Siddharthanagar, Rupandehi, Nepal.

[3]Research Centre for Educational Innovation and Development [CERID], TU

[4]Mahendra Ranta Campus, Tribhuvan University, Kathmandu.
*Corresponding Email : devaraj.acharya@bmc.tu.edu.np

ABSTRACT

This study explores the situation of women with functional difficulties in Nepal and identifies key determinants contributing to their challenges. Utilizing data from the 2019 Multiple Indicator Cluster Survey, the research examines the association of various factors with functional difficulties among a sample of 13,255 married women aged 18 to 49. The results reveal significant associations between province, age, education, and media exposure with functional difficulties. Wealthier women and those with higher education exhibit lower odds of experiencing functional difficulties, while women aged 35 and above and those with medium or high media exposure demonstrate higher odds. The study highlights the limited access to healthcare and rehabilitation services, social stigma and discrimination, and high levels of poverty and unemployment faced by women with functional difficulties in Nepal. By shedding light on these issues, this research aims to provide valuable insights for policymakers, healthcare providers, and disability rights advocates, fostering improvements in the lives of women with functional difficulties in Nepal.

Keywords: Determinants; disability; functional difficulty; multiple indicator cluster survey [MICS]; social constructs; women

INTRODUCTION

The World Health Organization (WHO) and World Bank (WB) report on disability estimates that 15% of the global population or about 1.2 billion people, live with some form disability (WHO & WB, 2011). Most of these individuals, 80% reside in the global south and live in rural areas where poverty is prevalent. However, many disability-related international organizations are located in the global north (Grech, 2016).

People with disabilities often face barriers to accessing essential services and opportunities, such as health care, education, and employment. They may also experience discrimination and exclusion from everyday life activities. Functional difficulty, also known as disability, refers to 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 (WHO & WB, 2011). The World Health Organization's (WHO) International Classification of Functioning, Disability, and Health (ICF) forms the foundation for the idea of functional problems. These obstacles include hurdles that people experience in their daily lives. They include trouble seeing, even with glasses; difficulty hearing, even with a hearing aid; difficulty walking or ascending stairs; difficulty remembering or concentrating; difficulty self-caring (bathing or dressing); and difficulty communicating. The ICF framework is used to characterize these functional challenges, which take into account an individual's abilities, limitations, and health-related issues that affect their functioning. Understanding and resolving these issues can lead to improved quality of life and appropriate support for those who are experiencing them (Philippine Statistics Authority, 2020). People with disabilities face numerous challenges including violation, abuse, prejudice, disrespect, barriers, stigmatization and discrimination when accessing services and care (WHO, 2021). Women, the elderly, and those living in rural areas are more likely to experience functional difficulties and face major inequalities in areas such as education, health, work, and living conditions. People with functional difficulties are particularly vulnerable in terms of educational achievement, literacy, food insecurity, exposure to shocks, asset ownership, healthcare costs, and multidimensional poverty (Burchardt, 2003; Mitra & Yap, 2021).

The 2011 census in Nepal indicated that individuals with disabilities make up approximately 1.9% of the overall population, around 3% of them being women with disabilities (Central Bureau of Statistics [CBS], 2014). Nevertheless, disability-focused organizations believe that this statistic underestimates the true number of people with disabilities in the country (Niraula, 2022). Women face a higher risk of experiencing compromised physical

health due to limitations in engaging in social and physical activities. However, existing research often fails to incorporate the intersection of gender and disability, as gender is rarely discussed within the context of disability. This lack of emphasis on the gender aspect is particularly evident in studies conducted in developing countries (Tareque et al, 2017).

Women with functional difficulties in Nepal face numerous challenges in their daily lives, including limited access to healthcare and rehabilitation services, social stigma and discrimination, and high levels of poverty and unemployment. According to a study conducted by the WHO found that women with disabilities in Nepal are more likely to experience poverty and unemployment compared to their male counterparts, as well as limited educational and economic opportunities (WHO & WB, 2011). In this article, we aim to address this gap by exploring the current situation of women with functional difficulties in Nepal and identifying the key determinants that contribute to their difficulties. Our goal is to provide valuable insights for policymakers, healthcare providers, and disability rights advocates, in order to improve the lives of women with functional difficulties in Nepal.

DATA AND METHODS

Study Design and Setting

The research utilized the data collected from the Multiple Indicator Cluster Survey (MICS), conducted in Nepal by Central Bureau of Statistics (CBS) with support from UNICEF. The MICS is a nationwide survey that gathers information regarding various aspects of society such as health, education, environment, social protection, domestic violence and the socioeconomic, demographic and geographic characteristics of individuals and households.

Study Population and Sampling Procedure

The study focused on a population of 13,255 married women between the ages of 18 and 49. The sampling frame for the Nepal MICS 2019 was based on the 2011 National Population and Housing Census and used a multistage, stratified cluster probability sampling design with urban and rural arrears being the main sampling strata within each province. The sample of households were selected in two stages. First, a number of census enumeration areas were picked systematically based on their size, then 25 households were selected through systematic random sampling from each selected enumeration areas. In total, 512 enumeration areas and 12,800 households were chosen resulting in 12655 households being interviewed with 14,805 women (aged 15-49) and 5501 men (aged 15-49) participating (MICS, 2019).

Data Collection

The sixth iteration of the MICS survey in Nepal used Computer-Assisted Personal Interviewing (CAPI) as its method of data collection. The CAPI system was built using version 6.3 of the CSPro (Census and Survey Processing System) software and had a separate platform for managing data. The MICS program's global standards and procedures were adapted to fit the MICS questionnaire used in Nepal. The CAPI system was tested in the Kavre district in April of 2019 and improvements were made to both the questionnaire and the application based on the results of the test.

Variables

The aim was to evaluate the functional difficulties faced by women aged 18-49, which was the dependent variable. The independent variables were wealth index quintile, province, place of residence, age of women, educational status and level of media exposure. Wealth index was divided into five groups: poorest, second, middle, fourth and richest. The research encompassed all of the provinces in Nepal. Women's age was split into three groups: 15-24, 25-34 and 35 and above. Residence was classified as urban or rural and education divided into four categories: no formal education, basic education (grades 1-8), secondary education (grades 9-12) and higher secondary education or above (above grade 12). Media exposure was also divided into four categories: no exposure, low exposure, medium exposure and high exposure.

Table 1

Independent and Dependent Variable

Independent Variables	Dependent Variable
Socio-demographic factors	
Wealth index quintile	
Province	Functional Difficulty
Place of residence	
Age of women	
Education	
Level of media exposure	

Examination of missing values and outliers in the dataset was done prior to analysis. The statistical package for the social sciences (SPSS) version 26 was used to analyse the data. Descriptive statistics were utilized to outline fundamental socio-demographic variables. The bivariate and multivariate analysis was performed to determine the relationship between the

independent variables and knowledge.

RESULTS AND DISCUSSION

Socio-demographic Characteristics of Respondents

A sample size of 13,255 women were surveyed. The wealthiest quintile of women made up 23.0% of the total sample, while the poorest quintile made up 16.9%. The Bagmati province had the highest representation (25.2%), followed by the Lumbini province (19.2%) and Madhesh province (17.3%). Most of the women (69.8%) lived in urban areas, with the remaining 30.2% residing in rural areas. The largest age group was comprised of women between 25 and 34 years old (34.0%), followed by women aged 35 years or older (38.1%) and those between 15 and 24 years old (27.8%). The majority of women had a basic level of education (Grades 1-8 or 9-12, accounting for 60.6% of the sample), while 29.5% had no education and 9.9% had higher education. When it came to media exposure, 36.9% of women had low exposure, 27.2% had medium exposure, and 12.5% had high exposure, with 23.4% having no exposure.

Table 1

Socio-demographic Characteristics of Women (aged 18-49 years)

Variables	Categories	N	%
Wealth index quintile	Poorest	2238	16.9
	Second	2533	19.1
	Middle	2597	19.6
	Fourth	2836	21.4
	Richest	3051	23.0
Province	Koshi province	2149	16.2
	Madhesh province	2299	17.3
	Bagmati province	3334	25.2
	Gandaki province	1135	8.6
	Lumbini province	2549	19.2
	Karnali province	673	5.1
	Sudurpaschim province	1116	8.4
Place of residence	Urban	9256	69.8
	Rural	3999	30.2
Age of women	15-24	3690	27.8
	25-34	4513	34.0
	35 and above	5053	38.1

Variables	Categories	N	%
Education	None	3908	29.5
	Basic (Gr 1-8)	3648	27.5
	Secondary (Gr 9-12)	4381	33.1
	Higher	1318	9.9
Level of media exposure	No exposure	3099	23.4
	Low	4897	36.9
	Medium	3605	27.2
	High exposure	1654	12.5

Status of Functional Difficulty Among Women Aged 18-49 Years

The table shows information on five different aspects of functional difficulty: seeing, hearing, walking/climbing steps, remembering/concentrating, and self-care/dressing. The "No Difficulty" category had the highest percentage of women in each aspect of functional difficulty, ranging from 87.4% to 98.6%. The "Some Difficulty" category was the next highest percentage, ranging from 3.3% to 11.8%. The "A Lot of Difficulty" category was the lowest percentage, with values ranging from 0.3% to 8.0%. The "Cannot Say at All" or "Cannot Care for Self" categories had very low percentages, with values ranging from 0.0% to 7.1%. The "No Response" category accounted for less than 1.0% of the total sample in all aspects of functional difficulty.

Table 2

Percentage of Women Aged 18-49 Years with Functional Difficulty

Variables	Categories	N	%
Difficulty seeing, even if wearing glasses or contact lenses	No Difficulty	11580	87.4
	Some difficulty	1568	11.8
	A lot of difficulty	103	.8
	Cannot say at all	4	.0
Difficulty hearing, even if using a hearing aid	No Difficulty	12768	96.3
	Some difficulty	443	3.3
	A lot of difficulty	42	.3
	Cannot say at all	1	.0
	No Response	1	.0
Difficulty walking or climbing steps	No Difficulty	12335	93.1
	Some difficulty	830	6.3
	A lot of difficulty	81	.6
	Cannot say at all	9	.1

Variables	Categories	N	%
Difficulty remembering or concentrating	No Difficulty	12152	91.7
	Some difficulty	1047	7.9
	A lot of difficulty	55	.4
	Cannot remember/concentrate at all	1	.0
	No Response	1	.0
Difficulty with self-care, such as washing all over or dressing	No Difficulty	12990	98.0
	Some difficulty	227	1.7
	A lot of difficulty	31	.2
	Can not care for self	7	.1
Difficulty communicating	No Difficulty	13063	98.6
	Some difficulty	173	1.3
	A lot of difficulty	18	.1
	No Response	1	.0

Association of Background Characteristics of Women and Functional Difficulty

The study analyzed the association of background characteristics of women with functional difficulty. Results showed that there was a significant association between the province, age of women, education, and level of media exposure with functional difficulty. The highest proportion of women facing functional difficulty was found in the Gandaki province (36.0%) and among women aged 35 and above (34.9%). On the other hand, the highest proportion of women without functional difficulty was found among women aged 15-24 (87.6%) and those with higher education (85.8%). In terms of media exposure, women with high exposure had the lowest proportion of functional difficulty (19.9%). The chi-square test was used to determine the significance of the association and the results showed that the association was statistically significant ($p<0.05$) in all cases except for the place of residence and level of media exposure with lots of difficulty.

Table 3

Adult Functional Difficulty by Socio-demographic Characteristics, MICS 2019

Variables	At least one functional difficulty		At least one functional difficulty (lots of difficulty)		Total	
	Not difficulty	At least one difficulty	Not difficulty	At least one difficulty	%	N
Wealth index quintile	Chi-square=9.1, p=0.059		Chi-square=8.0, p=0.091			
Poorest	75.7	24.3	97.2	2.8	100	2238
Second	78.2	21.8	97.9	2.1	100	2533

Variables	At least one functional difficulty		At least one functional difficulty (lots of difficulty)		Total	
	Not difficulty	At least one difficulty	Not difficulty	At least one difficulty	%	N
Middle	78.6	21.4	98.2	1.8	100	2597
Fourth	76.9	23.1	98.1	1.9	100	2836
Richest	76.2	23.8	98.3	1.7	100	3051
Province	Chi-square=326.7, p=0.000		Chi-square=56.8,p=0.000			
Koshi province	78.1	21.9	98.4	1.6	100	2149
Madhesh province	82.4	17.6	98.7	1.3	100	2299
Bagmati province	71.2	28.8	97.8	2.2	100	3334
Gandaki province	64.0	36.0	96.0	4.0	100	1135
Lumbini province	83.0	17.0	98.4	1.6	100	2549
Karnali province	70.8	29.2	95.5	4.5	100	673
Sudurpaschim province	85.9	14.1	98.8	1.2	100	1116
Place of residence	Chi-square=0.9, p=0.342		Chi-square=2.3, p=0.122			
Urban	77.4	22.6	98.1	1.9	100	9256
Rural	76.6	23.4	97.7	2.3	100	3999
Age of women	Chi-square=704.4, p=0.000		Chi-square=66.5,p=0.000			
15-24	87.6	12.4	98.9	1.1	100	3690
25-34	82.0	18.0	98.6	1.4	100	4513
35 and above	65.1	34.9	96.7	3.3	100	5053
Education	Chi-square=214.2, p=0.000		Chi-square=58.1, p=0.000			
None	70.3	29.7	96.6	3.4	100	3908
Basic (Gr 1-8)	75.9	24.1	98.1	1.9	100	3648
Secondary (Gr 9-12)	81.7	18.3	98.6	1.4	100	4381
Higher	85.8	14.2	99.3	.7	100	1318
Level of media exposure	Chi-square=14.3, p=0.003		Chi-square=24.9, p=0.000			
No exposure	76.8	23.2	97.2	2.8	100	3099
Low	77.6	22.4	97.7	2.3	100	4897
Medium	75.5	24.5	98.4	1.6	100	3605
High exposure	80.1	19.9	99.1	.9	100	1654

***=$p<0.001$

Multivariate Analysis on Socio-demographic Characteristics of Respondents and Functional Difficulties

Multivariate analysis was conducted to examine the adjusted odds ratio (aOR) and 95% confidence interval (CI) for functional difficulties among adult women aged 18-49 by selected predictors. The outcome measures were having at least one functional difficulty (some or

lots) and having at least one functional difficulty (lots of difficulty). Residing in Madhesh (aOR=0.72, 95% CI=0.61-0.85) , Lumbini (aOR=0.74, 95% CI=0.64-0.87) and Sudurpaschim (aOR=0.55, 95% CI=0.44-0.67) provinces was associated with a lower aOR for having at least one functional difficulty (some or lots) compared to Koshi Province (aOR=1). On the other hand, residing in Bagmati (aOR=1.60, 95% CI=1.39-1.85), Gandaki(aOR=2.21, 95% CI=1.88-2.61), and Karnali (aOR=1.42, 95% CI=1.15-1.77) provinces was associated with a higher aOR for having at least one functional difficulty (some or lots).Women aged 35 and above had a higher OR for having at least one functional difficulty (some or lots)(aOR=3.05, 95% CI=2.68-3.47) compared to women aged 15-24. Women with higher levels of education (aOR=0.44, 95% CI=0.36-0.55) had a lower aOR for having at least one functional difficulty (some or lots) compared to those with no education. Women with medium (aOR=1.25, 95% CI=1.09-1.44) exposure to media had a higher aOR for having at least one functional difficulty (some or lots) compared to women with high and no exposure to media.

The Cox & Snell R Square for the model was .081 for having at least one functional difficulty (some or lots) and .011 for having at least one functional difficulty (lots of difficulty). The -2 Log likelihood was 13134.0 for having at least one functional difficulty (some or lots) and 2487.6 for having at least one functional difficulty (lots of difficulty).

Table 4

Adjusted Odds Ratio (aOR) and 95% Confidence Interval (CI) for Having Functional Difficulty Among Adult Women (aged 18-49) by Selected Predictors

Predictors	Categories	At least one functional difficulty (some or lots)			At least one functional difficulty (lots of difficulty)		
		aOR	95% CI		aOR	95% CI	
			Lower	Upper		Lower	Upper
Wealth index quintile	Poorest (ref.)	1.00			1,00		
	Second	.886	.759	1.035	1.015	.664	1.550
	Middle	.874	.745	1.025	.990	.632	1.550
	Fourth	.984	.834	1.159	1.145	.722	1.817
	Richest	.895	.744	1.077	1.081	.639	1.829
Province	Koshi (ref.)	1.00			1,00		
	Madhesh Province	.723***	.617	.846	.681	.412	1.125
	Bagmati province	1.601***	1.390	1.845	1.541*	1.001	2.374
	Gandaki province	2.215***	1.876	2.614	2.775***	1.765	4.362
	Lumbini province	.744***	.639	.865	.873	.550	1.385
	Karnali province	1.424**	1.147	1.767	2.257**	1.315	3.874
	Sudurpaschim province	.545***	.444	.669	.646	.343	1.218

Predictors	Categories	At least one functional difficulty (some or lots)			At least one functional difficulty (lots of difficulty)		
		aOR	95% CI		aOR	95% CI	
			Lower	Upper		Lower	Upper
Place of residence	Urban (ref.)	1.00			1,00		
	Rural	1.043	.941	1.156	1.056	.793	1.406
Age of women	15-24 (ref.)	1.00			1,00		
	25-34	1.371***	1.205	1.560	1.011	.671	1.525
	35 and above	3.046***	2.677	3.467	1.995**	1.344	2.960
Education	None (ref.)	1.00			1,00		
	Basic (Gr 1-8)	.837**	.745	.941	.620**	.447	.860
	Secondary (Gr 9-12)	.659***	.575	.755	.572**	.386	.846
	Higher	.444***	.359	.549	.293**	.134	.643
Level of media exposure	No exposure (ref.)	1.00			1,00		
	Low	.978	.866	1.105	.848	.616	1.167
	Medium	1.254**	1.095	1.436	.682	.461	1.009
	High exposure	1.103	.921	1.321	.480*	.260	.887
Constant		.191***			.020***		
-2 LL		13134.0			2487.6		
Cox & Snell R Square		.081			.011		

***=p<0.001, **=p<0.01 and *=p<0.05, ref= reference category

The findings from this study provide insights into the association between various factors and the presence of functional difficulty. The findings revealed variations in functional difficulties across different provinces, age groups and educational levels. The results of this study indicated that there was no significant difference in the prevalence of functional difficulty based on wealth index quintile and place of residence (Disability Data Initiative, 2021), whether urban or rural. These findings contrast with previous studies conducted in various developing countries, where wealth index quintile and place of residence were identified as strong predictors of functional difficulty. In those studies, individuals from lower wealth quintiles and those residing in rural areas exhibited higher rates of functional difficulty. The variation in findings could be attributed to the specific socioeconomic and environmental contexts of the study populations. Factors such as access to healthcare services, living conditions, and socioeconomic disparities may contribute to the disparities in functional difficulty observed in different populations (Bora & Saikia, 2015; Ćwirlej-Sozańska et al, 2019; Dunlop et al, 2002; Malik, 2022).

The association between province and functional difficulty was significant, with Gandaki and Karnali provinces having the highest prevalence of functional difficulty. The higher odds

of functional difficulty in these provinces suggest the need for targeted interventions to address the specific challenges faced by individuals in these regions.

This study revealed a significant association between the age of women and functional difficulty, particularly among those aged 35 and above, with a prevalence rate of 34.9%. This finding aligns with previous research conducted in India and England, which also reported a higher prevalence of functional difficulty among women in older age groups. These findings suggest that advancing age may contribute to an increased likelihood of experiencing functional difficulties. Factors such as declining physical health, age-related chronic conditions and reduced mobility and flexibility could potentially explain the higher prevalence of functional difficulty in older women (Dunlop et al., 2002; Malik, 2022).

Education level showed a significant association with functional difficulty, with higher education being associated with lower odds (14.2%). These results are consistent with previous studies highlighting the role of education as a protective factor against functional limitations (Rillotta & Nettelbeck, 2007; Zajacova & Montez, 2017). Access to educational opportunities and resources may contribute to improved health literacy, better self-care practices, and overall well-being, reducing the likelihood of functional difficulty (Gupta et al, 2014; Lamichhane, 2013; Leicester & Lovell, 1997; Rillotta & Nettelbeck, 2007).

The level of media exposure showed a significant association with functional difficulty in this study. However, it is important to note that the relationship between media exposure and functional difficulty may be complex and influenced by various factors, including the type of media content, individual health knowledge, and socioeconomic disparities.

Strength and Limitations of the Study

This study has several strengths that contribute to its reliability and usefulness. Firstly, the study is based on a large sample size, which ensures that the findings are representative of the population being studied and increases the confidence in the conclusions drawn. Secondly, the study follows international standards for data collection, making the results comparable with other similar studies and allowing for tracking of progress over time. Moreover, the study applies statistical methods, such as chi-square test and multivariate analysis, to examine the relationship between various factors and functional difficulties among women. The study is also designed to be user-friendly, making the data accessible and understandable to relevant stakeholders, including policy-makers, practitioners, and researchers.

However, there are also limitations to the study. Firstly, the data collected is only accurate as of the time of the survey and may not reflect any changes that have taken place since then. Secondly, the study relies on self-reported data, which may be subject to recall and social desirability bias. Thirdly, the quality of the data depends on the willingness of respondents to provide accurate information, which may introduce bias into the results. Finally, the study only focuses on adult women aged 18-49, so the results may not be generalizable to other populations. In summary, despite its limitations, the study offers valuable insights into the situation and difficulties faced by women with functional difficulties in Nepal. The strengths of the study, such as the large sample size and statistical analysis, make it a valuable contribution to the understanding of this issue.

CONCLUSIONS

The study analyzed the association of five different aspects of functional difficulty among a sample of 13,255 women in Nepal. Results showed that province, age, education, and media exposure were significantly associated with functional difficulty, with some notable differences in adjusted odds ratios. Wealthier women and those with higher levels of education had a lower odds ratio for having functional difficulties, while women aged 35 and above and those with medium or high exposure to media had a higher odds ratio. Policy makers can use research findings to inform their decision-making and develop policies and interventions that promote the inclusion of people with disabilities.

REFERENCES

Bora, J. K., & Saikia, N. (2015). Gender differentials in self-rated health and self-reported disability among adults in India. *PLoS One, 10*(11), e0141953. https://doi.org/10.1371/journal.pone.0141953

Burchardt, T. (2003). *Being and becoming: Social exclusion and the onset of disability*. https://ssrn.com/abstract=1163131

Central Bureau of Statistics (CBS). (2014). *Population monograph of Nepal* (Social Demography: Vol: 2nd). Central Bureau of Statistics, Kathmandu. https://cbs.gov.np/wp-content/upLoads/2018/12/Population-Monograph-V02.pdf

Ćwirlej-Sozańska, A., Wiśniowska-Szurlej, A., Wilmowska-Pietruszyńska, A., & Sozański, B. (2019). Determinants of ADL and IADL disability in older adults in southeastern Poland. *BMC Geriatrics, 19*(1), 1-13. https://doi.org/10.1186/s12877-019-1319-4

Dunlop, D. D., Manheim, L. M., Sohn, M.-W., Liu, X., & Chang, R. W. (2002). Incidence of functional limitation in older adults: the impact of gender, race, and chronic conditions. *Archives of physical medicine and rehabilitation, 83*(7), 964-971. https://doi.org/10.1053/apmr.2002.32817

Grech, S. (2016). Disability and development: Critical connections, gaps and contradictions. In: Grech, S., Soldatic, K. (eds) *Disability in the global South*. International perspectives on social policy, administration, and practice. Springer, Cham. https://doi.org/10.1007/978-3-319-42488-0_1

Gupta, P., Mani, K., Rai, S. K., Nongkynrih, B., & Gupta, S. K. (2014). Functional disability among elderly persons in a rural area of Haryana. *Indian Journal of Public Health, 58*(1), 11-16. https://doi.org/10.4103/0019-557X.128155

Disability Data Initiative. (2021). *Prevalence of functional difficulties*. Available from https://disabilitydata.ace.fordham.edu/reports/disability-data-initiative-2021-report/prevalence-of-functional-difficulties/

Lamichhane, K. (2013). Disability and barriers to education: Evidence from Nepal. *Scandinavian Journal of Disability Research, 15*(4), 311-324. https://doi.org/10.1080/15017419.2012.703969

Leicester, M., & Lovell, T. (1997). Disability voice: Educational experience and disability. *Disability & Society, 12*(1), 111-118. https://doi.org/10.1080/09687599727506

Malik, M. A. (2022). Functional disability among older adults in India; A gender perspective. *PLoS One, 17*(9), e0273659. https://doi.org/10.1371/journal.pone.0273659

Central Bureau of Statistics (CBS). (2020). *Nepal multiple indicator cluster survey 2019: survey findings report*. Central Bureau of Statistics and UNICEF Nepal. Available from https://www.unicef.org/nepal/media/11081/file/Nepal%20MICS%202019%20Final%20Report.pdf

Mitra, S., & Yap, J. (2021). *The disability data report: Disability data initiative. Fordham Research Consortium on Disability.* Fordham University. https://disabilitydata.ace.fordham.edu/wp-content/uploads/2021/05/The-Disability-Data-Report-2021.pdf

Niraula, R. (2022). Disability and gender: A study of lived experiences of economic hardships faced by women with disabilities from Sudurpaschim Province, Nepal. *International Journal of Social Sciences and Management, 9*(2), 55-62. https://doi.org/10.3126/ijssm.v9i2.42794

Philippine Statistics Authority. (2020). *Functional difficulty*. Available from https://psa.gov.

ph/content/functional-difficulty-1

Rillotta, F., & Nettelbeck, T. (2007). Effects of an awareness program on attitudes of students without an intellectual disability towards persons with an intellectual disability. *Journal of Intellectual and Developmental Disability, 32*(1), 19-27. https://doi.org/10.1080/13668250701194042

Tareque, M. I., Tiedt, A. D., Islam, T. M., Begum, S., & Saito, Y. (2017). Gender differences in functional disability and self-care among seniors in Bangladesh. *BMC Geriatrics, 17*, 1-12. https://doi.org/10.1186/s12877-017-0577-2

World Health Organization & World Bank. (2011). *World report on disability 2011*. World Health Organization. https://apps.who.int/iris/handle/10665/44575

World Health Organization. (2021). *Disability and health*. from https://www.who.int/news-room/fact-sheets/detail/disability-and-health

Zajacova, A., & Montez, J. K. (2017). Physical functioning trends among US women and men age 45–64 by education level. *Biodemography and Social Biology, 63*(1), 21-30. https://doi.org/10.1080/19485565.2016.1263150.