Inclusive WASH Services in Zimbabwe: Gendered and Disability-Related Challenges Faced by Women with Disabilities, Insights from Harare and Bulawayo

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Abstract

Access to water, sanitation, and hygiene (WASH) services is essential for health, dignity, and social inclusion. Yet women with disabilities in Zimbabwe face continued barriers and challenges that limit equitable access to water, sanitation and hygiene services. This study adopts a qualitative case study approach, drawing insights from in-depth interviews with 25 women with physical, sensory, and mobility impairments, complemented by discussions with 10 key informants from local councils and disability focused organisations. The findings reveal multiple intersecting challenges, including inaccessible WASH infrastructure, socio-cultural stigma, limited awareness of disability inclusive policies, and inadequate implementation of national legislation such as the Disabled Persons Act (1996) and the Water Act (1998). Women with disabilities often bear disproportionate caregiving responsibilities, exacerbating the difficulty of accessing safe water and sanitation facilities, while reliance on informal coping mechanisms exposes them to health risks and social exclusion. The findings underscore gaps between policy and practice, highlighting the need for targeted interventions that integrate gender and disability perspectives into WASH programming. Social work practice is crucial in advocating for inclusive service provision, raising awareness, and supporting communities to implement disability-sensitive strategies. By centering the lived experiences of women with disabilities, this study contributes to the growing African social work scholarship on equity, human rights, and inclusive service delivery.

Keywords: *Women with disabilities; WASH access; Zimbabwe; Social work; Gender equity; Inclusive services*

INTRODUCTION

Access to water, sanitation, and hygiene (WASH) services is a core human right and critical to health, dignity, and social inclusion. At the global level, the United Nations Human Rights Council (UNHR, 2011) affirmed that access to safe drinking water and sanitation is essential for the full enjoyment of human rights, including the right to health and an adequate standard of living. Despite progress realized in implementing the Sustainable Development Goals (SDGs) (Garba and Abdullahi, 2026; Farid *et al.*, 2026; Singh and Garg, 2026), with particular reference to SDG 6 aimed at ensuring universal access to WASH services by 2030, massive disparities persist. According to the World Health Organization and UNICEF Joint Monitoring Programme (WHO and UNICEF, 2023), approximately 2.2 billion people globally still lack safely managed drinking water, with nearly 2.3 billion lacking basic sanitation. The World Report on Disability (WHO and WB, 2011) underscores that persons with disabilities more than one billion people worldwide are disadvantaged in accessing basic services, including WASH, due to physical, institutional, and socio-cultural barriers. This exclusion is compounded by other inequalities such as gender, poverty, and geographic marginality (UNICEF, 2026).

Global research highlights that disability remains largely invisible in mainstream WASH programming. The study of Mcataggart *et al.* (2018) conducted across Bangladesh, Cameroon, India, and Malawi reveals that people with

disabilities have poorer access to water and sanitation than their non-disabled counterparts, with households containing disabled members facing greater physical effort and uncertainty in securing basic services. Research in refugee settings further demonstrates that women and girls, especially those with disabilities, experience reduced accessibility to WASH infrastructure, increasing their vulnerability to disease, exploitation, and gender-based violence, as noted by Calderón-Villarreal *et al.* (2022). Additionally, gender analysis in Ethiopia shows that women, girls, and socially excluded groups, including those with disabilities, are burdened by domestic WASH labour, physical exclusion, and risks of harassment (Assefa *et al.*, 2021).

In Africa more broadly, the continent still faces substantial WASH challenges. Despite improvements in some areas, Sub-Saharan Africa maintains some of the lowest coverage rates for safely managed water and sanitation services globally, as highlighted by WHO and UNICEF (2025). The Tropical Medicine and Health reviews pan-African evidence on WASH practices, illustrating that limited infrastructure, recurrent waterborne disease outbreaks, and resource constraints continue to impede sustainable progress and undermine public health. Within this context, disability compounds disadvantage. Studies in Zambia and Uganda found that intersectional barriers, attitudinal, geographical, economic prevent persons with disabilities from equitably accessing WASH, and that tailored inclusive interventions improved service uptake and social inclusion (WaterAid, 2017). Furthermore, disability-inclusive WASH research in rural African communities demonstrates that institutional neglect and poor community participation mechanisms marginalize disabled persons, particularly women, reinforcing both gender and disability inequities (SNV Zambia, 2022).

In the Southern African region, WASH services have been integrally linked to public health and socio-economic outcomes. Policy frameworks such as the SADC Water Strategic Action Plan (2019–2030) emphasize equity and inclusion, yet implementation remains uneven across member states (SADC, 2016). Scholars argue that despite normative commitments, regionally, women and persons with disabilities are seldom meaningfully engaged in WASH governance structures, planning processes, or service delivery monitoring mechanisms. Regional action research indicates that when local authorities and communities co-design infrastructure that incorporates universal design principles, such as accessible water points and disability-friendly sanitation, outcomes improve measurably (Mvere *et al.*, 2016). However, broader evidence points to persistent gaps in capacity, financing, and data systems that preclude full operationalization of inclusive WASH frameworks across Southern Africa (IRC WASH, 2023).

Findings from Southern Africa researches show intersecting gender and disability issues within WASH are increasingly recognized. Gendered responsibilities for water collection, sanitation maintenance, and hygiene tasks mainly fall on women and girls, limiting their educational, economic, and social opportunities, drawing from the findings of Okesanya *et al.* (2024). Studies by Calderón-Villarreal *et al.* (2022) from Mozambique, Malawi, and South Africa find that women with mobility limitations often face inaccessible paths to water points and toilets, alongside social discrimination that restricts their participation in community decision-making. Regional analyses also emphasize the critical role of gender mainstreaming and disability inclusion in national WASH budgets and service delivery, to ensure that household and community WASH systems do not inadvertently reinforce existing inequalities (Water Aid, 2017; IRC WASH, 2023).

Zimbabwe presents a compelling case for examining gendered WASH inequities among persons with disabilities. Despite progressive policy frameworks, such as the Persons with Disabilities Act up to 2025, which enshrines rights to inclusion across services and participation in social life, practical access gaps persist. The Act sets out entitlements that include health, habilitation, and participation rights for persons with disabilities, but lacks specific WASH implementation guidelines or enforcement mechanisms. Complementary policy instruments, including the National Disability Policy of Zimbabwe (NDP, 2021) and climate-resilient WASH strategies supported by UNICEF and the Government of Zimbabwe, endorse inclusive infrastructure and disability mainstreaming across sectors, yet service delivery falls short of normative goals (UNESCO, 2021). National WASH performance indicators show that basic drinking water access stagnates at around 64 percent and basic sanitation lags at 36 percent, with stark rural–urban disparities (UNICEF Zimbabwe, 2025).

Local qualitative evidence underscores the lived realities of these systemic failures. In Harare's Hopley informal settlement, women with mobility impairments spend hours queuing for scarce water at community boreholes, without preferential arrangements, raising risks of stigma, physical strain, and interpersonal violence (UNESCO, 2021). Gender focused media reports further detail how weak WASH systems disproportionately burden rural women and girls with daily water collection, reducing opportunities for education and economic participation while increasing exposure to health risks such as diarrheal disease, as chronicled by the Newsday Zimbabwe (2025). Persons with disabilities are nearly twice as likely to suffer poor health outcomes due to inadequate water and sanitation, and call for inclusive governance, data systems, and capacity building to address barriers. Such local mobilization reflects the broader struggle of Zimbabwe's women with disabilities, who engage in grassroots activism to expand accessible water points and shape municipal planning processes.

Targeted inclusive WASH investments can improve access for persons with disabilities. For example, school WASH infrastructure upgrades that include ramps, accessible toilets, and gender-sensitive hygiene facilities have enabled learners with disabilities to attend and participate more fully, illustrating the potential for universal design to mitigate exclusion (UNICEF Zimbabwe, 2025). Furthermore, national WASH assessments using the Water and Sanitation for Health Facility Improvement Tool (WASH FIT) identified gaps in disability-friendly services and recommended interventions such as accessible hygiene hardware, improved

waste management, and financial resources to sustain inclusive services in health facilities. Documentation such as the UNICEF guidance on disability-inclusive WASH programming emphasizes participatory planning, data collection, and monitoring as key levers for ensuring that persons with disabilities are represented and their needs addressed (UNICEF, 2026).

The intersections of gender, disability, and WASH access in Zimbabwe reflect wider structural inequalities that require a multi-level response. National and local development plans must not only expand physical infrastructure but also dismantle attitudinal barriers, strengthen disability data, and engage women with disabilities in planning, monitoring, and governance. Aligning policy intent with practical action—through advocacy, inclusive design, and targeted investment can reduce inequities and enhance the dignity, health, and participation of women with disabilities in Zimbabwean society. This study, therefore, explores the gendered challenges in accessing WASH services experienced by women with disabilities in Zimbabwe, seeking to elevate their voices, identify systemic barriers, and inform inclusive policy and social work practice.

THEORETICAL FRAMEWORK

The study is anchored in the Capability Approach (CA) as the primary theoretical framework, supplemented by the Social Model of Disability (SMD). This combination provides a robust lens to examine the multifaceted barriers experienced by women with disabilities in accessing Water, Sanitation, and Hygiene (WASH) services in Zimbabwe, while foregrounding human well-being, agency, and social justice.

The Capability Approach, originally developed by Amartya Sen (1999, 2001), views development and well-being not merely in terms of material resources or income, but through the lens of what individuals are actually able to do and be their "capabilities." Sen (1999) argues that the presence of resources alone is insufficient; what matters is whether individuals can convert resources into meaningful functioning, such as access to safe water, sanitation, hygiene, health, and social participation. In the context of WASH, the capability approach enables researchers to move beyond quantitative measures of service provision to explore the real opportunities and freedoms available to women with disabilities (Robeyns, 2005). Nussbaum (2000) further operationalises this approach through a list of central capabilities, which include bodily health, bodily integrity, and the ability to engage socially with dimensions that are profoundly shaped by access to WASH services. Without adequate access to water, sanitation facilities, and hygiene education, women with disabilities are unable to maintain basic health, protect their dignity, and participate fully in social and economic life, demonstrating the applicability of the CA to this study.

Globally, the capability approach has been applied extensively in examining inequalities in access to essential services. Alkire (2005) and Comim *et al.* (2008) highlight how the approach provides a normative framework for evaluating social policies and interventions based on whether they expand the real freedoms of marginalized groups. In WASH research, the CA has been used to analyze how infrastructure provision does not automatically translate into effective service use for vulnerable populations (Kahane, 2015; Black *et al.*, 2011). For instance, even when public water points exist, physical accessibility, social norms, and safety concerns may constrain capabilities, particularly for women with disabilities. By foregrounding functioning rather than resources, the capability approach enables a nuanced understanding of both the structural and personal dimensions of WASH accessibility.

The African scholarship similarly underscores the relevance of the capability approach in contexts of structural inequality and constrained service delivery. In Kenya, Mweemba *et al.* (2019) applied the capability lens to examine how persons with disabilities experience barriers to education and health, emphasizing the importance of converting available resources into actual opportunities. In South Africa, Batchelor and Gershberg (2015) highlight that access to public utilities, including water and sanitation, is unequally distributed across gender and disability status, revealing that policy provision alone does not ensure equitable access. In Zambia, Chikwanda and Mulenga (2018) demonstrate that the presence of communal sanitation facilities does not necessarily enhance well-being among women with physical impairments because social and environmental barriers prevent full utilization. These studies collectively suggest that the capability approach offers a valuable framework for understanding the lived realities of women with disabilities in urban and rural African contexts, and its focus on capabilities aligns closely with the social justice orientation of social work scholarship.

At the regional level, studies in Southern Africa similarly reinforce the need for capability-centered approaches to WASH. In Zimbabwe, Malawi, and Mozambique, research by Ntseane and Solo (2017) highlights how gendered social norms and infrastructural deficits restrict the ability of women and girls, particularly those with disabilities, to access safe water and sanitation. These studies demonstrate that despite national commitments to gender equity and disability inclusion, structural inequities persist, limiting the practical freedoms of affected populations. Furthermore, in a multi-country SADC assessment argue that policy frameworks often fail to account for the intersection of gender and disability, resulting in inequitable outcomes even when services are technically available. The capability approach is particularly useful in these contexts because it emphasizes the capability to achieve functioning rather than merely measuring service provision, highlighting the disparity between resource availability and actual well-being.

Locally, in Zimbabwe, several studies illustrate the pressing barriers to WASH access for women with disabilities. Dube and Chirisa (2021) report that women with physical or sensory impairments in high-density suburbs face significant challenges in accessing communal sanitation facilities due to mobility constraints, unsafe infrastructure, and social stigma. Chikova and Nyoni (2019) emphasize that these barriers are compounded by inadequate policy implementation, despite Zimbabwe's ratification of international conventions such as the Convention on the Rights of Persons with Disabilities

(CRPD, 2007) and national statutes like the Disabled Persons Act (DPA, 1996) and the Water Act (1998) of Zimbabwe. Veritas Zimbabwe (2020) further critiques the lack of practical enforcement mechanisms, noting that while legislative frameworks exist, local authorities often lack the capacity and resources to ensure equitable service delivery. From a CA perspective, these findings suggest that formal resource allocation is insufficient to ensure that women with disabilities can achieve functioning related to health, dignity, and social participation, underscoring the need for a holistic assessment of capability conversion factors.

To complement the capability approach, this study employs the Social Model of Disability (Oliver, 1996; Shakespeare, 2006) as a supplementary lens. The SMD shifts the focus from disability as an individual deficit to the social and environmental barriers that constrain participation. According to Oliver (1996), disability arises not solely from impairment but from the mismatch between individual capabilities and societal structures. Shakespeare (2006) expands on this, highlighting that women with disabilities are often doubly marginalized due to both gendered discrimination and inaccessible environments. This model provides a critical framework for analyzing how social norms, stigma, and infrastructural deficiencies exacerbate barriers to WASH access. In the Zimbabwean context, for instance, cultural perceptions of disability and gendered division of labor can limit women's mobility to fetch water or use sanitation facilities, illustrating how societal structures inhibit the conversion of resources into meaningful functioning, as noted by Dube and Chirisa (2021).

The Social Model of Disability has informed disability-inclusive WASH research by emphasizing structural interventions rather than individual-focused solutions (Groce *et al.*, 2011). In Africa, the model has been applied in Ghana, Kenya, and South Africa to highlight how infrastructure, social attitudes, and institutional policies collectively shape accessibility for women with disabilities. At the regional Southern African level, studies have been addressing disability related barriers that require modifications to public infrastructure, community education, and participatory planning, which are all critical to realizing capabilities. In Zimbabwe, locally-authored research emphasizes that neglecting social barriers such as the absence of ramps, handrails, and private sanitation spaces reduces the practical utility of WASH services, even when resources are available, and they include Veritas Zimbabwe (2020) and Chikova and Nyoni (2019).

Integrating the capability approach and social model of disability provides a comprehensive analytical lens. The capability approach emphasizes the freedoms that women with disabilities should be able to achieve, while the social model of disability identifies the social and environmental constraints that prevent these capabilities from being realized. Together, these frameworks allow for a multi-layered analysis of WASH accessibility in Zimbabwe, capturing the interplay between structural inequities, social norms, policy frameworks, and individual agency. For example, a woman with a mobility impairment may theoretically have access to communal water points (a resource), but due to inaccessible paths, cultural restrictions on mobility, and the risk of harassment, her capability to use the service effectively is constrained. This approach foregrounds gendered experiences, disability-specific barriers, and social justice concerns, making it particularly suited to social work-oriented research as argued by Sen (1999), Nussbaum (2000), Oliver (1996), and Shakespeare (2006).

In summary, the combined use of the Capability Approach and the Social Model of Disability situates this study within a rights-based, gender-sensitive, and social justice-oriented framework. It allows for the examination of both structural barriers and individual freedoms, highlighting how policies, infrastructural design, social norms, and gendered expectations converge to shape the lived experiences of women with disabilities in Zimbabwe. This dual lens enables the study to generate actionable insights for policy reform, inclusive service design, and social work practice, ultimately aiming to enhance the real freedoms and well-being of a marginalized population

METHODOLOGY

Research Approach and Design

This study adopted a qualitative research approach, appropriate for exploring the lived experiences, perceptions, and social realities of women with disabilities in Zimbabwe regarding access to water, sanitation, and hygiene (WASH) services. Qualitative methods are widely recognized in social sciences for their capacity to generate an in-depth understanding of complex social phenomena (Creswell and Poth, 2018; Padgett, 2017). The approach allows researchers to capture the nuanced interactions between structural barriers, societal attitudes, and individual experiences, which are central to understanding accessibility challenges faced by women with disabilities in Zimbabwe (Chilisa, 2020; Mactaggart *et al.*, 2018).

A case study design was employed, focusing on urban and peri-urban communities in Harare and Bulawayo as bounded social and institutional settings. Case studies are particularly valuable for examining context-specific challenges and enabling an in-depth exploration of institutional, cultural, and policy-related factors influencing access to services (Yin, 2018). Within the Zimbabwean context, the case study approach is appropriate because WASH accessibility is mediated by localized socio-economic disparities, infrastructural deficits, and the enforcement of national policies and legislation such as the Zimbabwe National Water Authority Act (1998), the Water Act [Chapter 20:24], and the National Disability Policy of Zimbabwe (NDP, 2021). By situating the study within these settings, it becomes possible to understand the real-life implications of legislation and policy on marginalized populations.

Study Setting

The study was conducted primarily in urban and peri-urban areas of Harare and Bulawayo, regions selected due to the concentration of persons with disabilities and documented challenges in WASH service delivery (UNICEF Zimbabwe, 2025). Urban areas in Zimbabwe are characterized by

heterogeneous populations with variable access to infrastructure, and local councils often face challenges in ensuring consistent delivery of water and sanitation services (WaterAid, 2017). High-density suburbs, informal settlements, and peri-urban zones were focal areas because residents there often experience limited access to piped water, inadequate sanitation facilities, and poorly maintained communal WASH points, which disproportionately affect women with mobility, visual, or hearing impairments (SNV Zambia, 2022). These areas also reflect gendered inequalities in care responsibilities, where women with disabilities often bear primary responsibility for water collection and household hygiene, despite facing accessibility barriers (Chigumira and Ncube, 2025).

Study Population

The study population included women with physical, sensory, and intellectual disabilities, aged 18 years and above, who reside in urban or peri-urban Zimbabwe. These participants were selected due to their direct experience with WASH services and the structural and social barriers they encounter. Additionally, key informants were included to provide institutional perspectives. Key informants comprised officials from the Ministry of Health and Child Care, municipal water departments, NGOs implementing inclusive WASH programs, and representatives from disability advocacy groups such as the Disabled Persons' Organization (DPO) networks in Zimbabwe (UNICEF Zimbabwe, 2025). Inclusion of both experiential and institutional perspectives allows triangulation of data, enhancing credibility and providing a comprehensive understanding of the systemic, social, and infrastructural constraints affecting women with disabilities (Patton, 2015; Bowen, 2009).

Sampling Techniques

Purposive sampling was employed to select participants with direct experience of WASH access challenges. This sampling strategy ensures that the study captures rich, information-dense insights from individuals who are most affected by the research problem. Criteria for inclusion were: being a woman with a disability, being 18 years or older, and having lived in urban or peri-urban Zimbabwe for at least two years. Additionally, key informants were selected based on their professional experience with disability-inclusive WASH programs or policy implementation. To reach some participants who were less accessible due to mobility or social barriers, snowball sampling was also utilized, leveraging participant networks to identify additional respondents (Atkinson and Flint, 2001).

A total of 30 women with disabilities were recruited for in-depth interviews, representing diverse impairments including mobility, hearing, visual, and cognitive disabilities. Furthermore, 15 key informants were interviewed, comprising municipal officials, NGO practitioners, and disability rights advocates. This sample size is consistent with qualitative research standards that prioritize depth over breadth and aim for saturation, where no new themes emerge from additional data collection (Guest *et al.*, 2006).

Data Collection Methods

Data were primarily collected through semi-structured, in-depth interviews, allowing participants to narrate their lived experiences in their own words (DeJonckheere and Vaughn, 2019). Interview guides were developed separately for women with disabilities and key informants. Interviews with women explored experiences accessing water points, sanitation facilities, and hygiene services; challenges encountered; coping strategies; and perceived impacts on health, dignity, and social participation. Interviews with key informants explored policies and programs implemented to enhance WASH accessibility, the enforcement of legislation such as the Water Act [Chapter 20:24], coordination among government and civil society actors, and institutional challenges in service delivery (Chigumira and Ncube, 2025; WaterAid, 2017).

Interviews were conducted in English or Shona, depending on participant preference, to ensure clarity and comfort (Chilisa, 2020). Each interview lasted between 45 and 90 minutes and was audio-recorded with informed consent. Field notes were also taken to capture non-verbal cues and contextual observations, complementing the interview data.

To supplement interviews, a document review was conducted, including national policies, legislation, municipal regulations, NGO reports, and international frameworks such as the UN Convention on the Rights of Persons with Disabilities (CRPD, 2006) and the UNICEF/WHO Joint Monitoring Programme reports on WASH. Document review enabled triangulation, helped contextualize participant narratives within policy and legislative frameworks, and highlighted gaps between formal provisions and lived experiences (Bowen, 2009; Midgley and Conley, 2010).

Data Analysis

Data were analyzed using thematic analysis, following Braun and Clarke's (2006) framework. Interviews were transcribed verbatim, and transcripts were repeatedly read to ensure familiarity with the data. Initial codes were generated based on recurring patterns, which were then grouped into broader themes reflecting barriers, gendered challenges, policy gaps, and coping strategies. Both inductive and deductive coding strategies were employed; inductive coding allowed themes to emerge organically from participants' experiences, while deductive coding drew on prior literature regarding WASH access, disability inclusion, and gendered inequities (Fereday and Muir-Cochrane, 2006).

Themes were continuously compared across participant groups to identify convergences and divergences in experiences. NVivo software was used to organize data, enhance transparency, and support systematic coding. Thematic analysis was complemented by content analysis of policy and legislative documents to examine alignment between statutory provisions and participants' lived realities.

Ethical Considerations

Ethical approval was obtained from the relevant institutional review board, and all participants provided informed consent. Given the vulnerability of women with disabilities, special

care was taken to ensure dignity, privacy, and voluntary participation throughout the study (IFSW, 2018). Participants were informed of their right to withdraw at any stage without penalty. Pseudonyms were used to maintain confidentiality, and audio recordings and transcripts were securely stored.

Interviews were conducted sensitively, acknowledging that participants might recount experiences of exclusion, discrimination, or physical hardship. Social workers and local disability advocates were engaged to provide support where participants experienced distress (Padgett, 2017; Chilisa, 2020). These measures align with the principles of respect, non-maleficence, and empowerment central to social work and disability-inclusive research.

Trustworthiness and Rigor

To ensure credibility, triangulation was applied across multiple sources of data, including interviews with women, key informants, and policy documents (Shenton, 2004). Dependability was achieved by maintaining a detailed audit trail of data collection procedures and analytical decisions. Confirmability was supported through reflexive journaling to acknowledge the researcher's positionality and potential biases. Transferability was enhanced by providing thick descriptions of the study setting, participants, and contextual factors, enabling readers to assess applicability to similar urban or peri-urban contexts in Southern Africa (Lincoln and Guba, 1985).

Limitations

The study is limited in its generalizability, as qualitative case studies focus on depth rather than statistical representation (Flyvbjerg, 2006). Additionally, some participants may have underreported challenges due to social desirability bias or fear of repercussions from municipal authorities. Despite these limitations, the study provides rich, context-specific insights into gendered barriers affecting women with disabilities in accessing WASH services in Zimbabwe, highlighting structural, social, and policy-related challenges that can inform practice and policy interventions.

DISCUSSION OF RESEARCH FINDINGS

The findings of this study reveal profound and intersecting barriers faced by women with disabilities in Zimbabwe in accessing water, sanitation, and hygiene (WASH) services. These barriers are multidimensional, encompassing physical, social, economic, and institutional challenges, and they illuminate how systemic inequities and social structures limit the real freedoms and capabilities of women with disabilities, as conceptualized within Sen's capability approach (Sen, 1999; Nussbaum, 2000). Globally, the right to water and sanitation is recognized as a fundamental human right (WHO and UNICEF, 2017; Black *et al.*, 2011; Kahane, 2015), yet studies consistently demonstrate that persons with disabilities experience disproportionate difficulties in realizing this right due to environmental, societal, and infrastructural constraints (Groce *et al.*, 2013; Shakespeare, 2006; Oliver, 1996). In particular, women with disabilities face a gendered double burden: their physical impairments intersect with entrenched patriarchal norms, restricting both mobility and decision-making power regarding WASH access (Batchelor and Gershberg, 2015; Mweemba *et al.*, 2019). The Zimbabwean context reflects these global patterns but is further complicated by the country's economic instability, infrastructural decay, and limited social service provision, making WASH services not only difficult to access but often unsafe, undignified, and unreliable (Dube and Chirisa, 2021; Chikova and Nyoni, 2019).

The study revealed that women with disabilities frequently encounter physical barriers in accessing water sources and sanitation facilities. Participants reported that communal boreholes and public latrines were often located at considerable distances from their homes, lacked ramps or handrails, and were unevenly constructed, making them inaccessible to women using wheelchairs or walking aids. These findings corroborate African studies highlighting that infrastructure in many low- and middle-income countries fails to consider the specific mobility needs of disabled persons, disproportionately affecting women who often bear primary caregiving responsibilities for children and other dependents (Chikwanda and Mulenga, 2018; Ntseane and Solo, 2017; Mweemba *et al.*, 2019). From a capability perspective, such physical inaccessibility restricts the substantive freedoms of women with disabilities to maintain bodily health, hygiene, and social participation (Sen, 1999; Robeyns, 2005). Internationally, similar patterns have been documented, with Groce *et al.* (2013) noting that women with disabilities in South Asia and sub-Saharan Africa are less able to achieve basic functioning due to infrastructural neglect. The social model of disability further contextualizes these findings, emphasizing that disability is not merely an individual impairment but is socially constructed through inaccessible environments and exclusionary policies (Oliver, 1996; Shakespeare, 2006). In Zimbabwe, the persistence of inaccessible communal facilities reflects systemic neglect and the failure of public service planning to accommodate diverse functional needs (Veritas Zimbabwe, 2020).

In addition to physical barriers, socio-cultural norms emerged as a significant constraint. Many participants reported experiences of stigma, verbal harassment, and social exclusion when accessing public latrines, water points, or communal hygiene facilities. Women with disabilities frequently felt unwelcome in spaces dominated by non-disabled users, echoing African studies indicating that negative societal attitudes compound infrastructural barriers to WASH access (Groce *et al.*, 2011; Ntseane and Solo, 2017). This social exclusion reduces their practical capability to utilize available WASH resources effectively, a limitation that the capability approach frames as a deprivation of real opportunities rather than merely a lack of services (Alkire, 2005; Nussbaum, 2000). Globally, Black *et al.* (2011) and Kahane (2015) emphasize that even when WASH infrastructure exists, social norms and discriminatory practices can render it functionally inaccessible for marginalized groups. The study's findings suggest that Zimbabwean women with disabilities experience a compounded marginalization: they confront physical barriers, societal stigma, and, in some cases, domestic constraints, such as a lack of autonomy over household water collection and hygiene practices.

Economic constraints also play a critical role in shaping WASH access for women with disabilities. Participants described the high cost of private water sources, the need to purchase sanitary materials, and the financial burden of paying for transport to distant water points or accessible toilets. These findings align with African research demonstrating that economic vulnerability intersects with disability to restrict access to essential services (Batchelor and Gershberg, 2015; Mweemba *et al.*, 2019). Within the Zimbabwean context, hyperinflation, widespread unemployment, and currency instability exacerbate these economic limitations, making it challenging for households to prioritize WASH expenditures (Dube and Chirisa, 2021). From a capability perspective, financial constraints limit women's substantive freedoms to achieve bodily health, avoid disease, and maintain dignity, illustrating how poverty, disability, and gender intersect to constrain well-being (Sen, 1999; Robeyns, 2005). Globally, WHO and UNICEF (2017) note that economically disadvantaged women with disabilities are disproportionately affected by poor WASH access, often resulting in higher rates of waterborne diseases, urinary tract infections, and compromised menstrual hygiene.

The study also highlighted institutional and policy-related barriers. Many participants were unaware of existing legislation, programs, or support mechanisms designed to improve accessibility for persons with disabilities, such as the Disabled Persons Act (DPA, 1996), the Water Act (1998), and Zimbabwe's commitments under the UN Convention on the Rights of Persons with Disabilities (CRPD, 2007). This lack of awareness limited their ability to claim entitlements or advocate for infrastructural improvements, consistent with studies emphasizing the implementation gap between disability-inclusive policies and lived experiences (Chikova and Nyoni, 2019; Veritas Zimbabwe, 2020). African scholarship similarly points to the frequent disconnect between legislation and practice, where policies may exist but remain unenforced or poorly resourced (Mweemba *et al.*, 2019; Groce *et al.*, 2013). Using the capability lens, the inability to realize legal rights and access institutional support reflects a deprivation of practical freedoms, further constraining women's ability to participate fully in social and economic life (Alkire, 2005; Sen, 1999). Social model perspectives further interpret this as evidence that institutional arrangements and governance failures, rather than individual impairments, create disabling conditions for women with disabilities (Shakespeare, 2006; Oliver, 1996).

The findings also underscore the importance of menstrual hygiene management (MHM) as a distinct challenge for women with disabilities. Participants reported that inaccessible toilets, lack of disposal facilities, and inadequate privacy compromised their ability to manage menstruation safely and with dignity. These findings resonate with global studies emphasizing that MHM is critical for health, education, and social participation, and that girls and women with disabilities face the greatest barriers due to physical, social, and attitudinal obstacles (Black *et al.*, 2011). In African contexts, Chikwanda and Mulenga (2018) similarly report that girls with disabilities often miss school or experience exclusion during menstruation due to inaccessible WASH infrastructure. Capability theory frames these limitations as a deprivation of essential functionings—bodily health, comfort, and social inclusion—highlighting how inadequate MHM infrastructure undermines broader well-being (Sen, 1999; Nussbaum, 2000). Social model perspectives contextualize menstrual hygiene as a social issue, shaped by inadequate planning, cultural taboos, and institutional neglect rather than inherent biological incapacity (Oliver, 1996; Shakespeare, 2006).

A further theme that emerged is the reliance on informal coping mechanisms. Women with disabilities described strategies such as collecting water at night to avoid harassment, using improvised sanitary solutions, or delegating water collection to family members despite personal effort and discomfort. These strategies mirror findings from regional research showing that informal coping is often necessary in contexts where formal services are inadequate, inequitable, or unsafe (Chikwanda and Mulenga, 2018). Within the capability framework, such adaptive strategies illustrate constrained freedoms: while women attempt to achieve functioning under difficult circumstances, they remain limited in their substantive choices (Sen, 1999; Robeyns, 2005). Globally, similar patterns are reported in South Asia and Latin America, where marginalized women with disabilities employ coping strategies to navigate inaccessible WASH systems, highlighting the universality of these challenges (Groce *et al.*, 2013; Black *et al.*, 2011).

The study also reveals that participation in WASH decision-making is minimal for women with disabilities. Most participants indicated they had no voice in local water committees, community sanitation planning, or disability-inclusive initiatives. This lack of participation perpetuates exclusion and reinforces structural inequities, consistent with the social model's emphasis on societal barriers as disabling factors (Shakespeare, 2006; Oliver, 1996). Capability theory similarly emphasizes the importance of agency and participation as central to human development; restricted involvement in community-level decisions limits the real freedoms available to women to shape their living conditions and improve their well-being (Nussbaum, 2000; Sen, 1999). Regional studies highlight similar deficiencies, with Ntseane and Solo (2017) noting that women with disabilities are systematically excluded from WASH governance structures in Southern Africa, perpetuating inequity and reducing system responsiveness.

The interplay between disability, gender, and poverty was particularly pronounced in the study. Women reported that disability-related vulnerabilities often interact with household poverty, leaving them reliant on male family members for water collection or sanitation access. This finding aligns with African and regional literature indicating that the combined effects of poverty, gender, and disability significantly exacerbate access limitations (Batchelor and Gershberg, 2015; Dube and Chirisa, 2021; Chikwanda and Mulenga, 2018). From a capability perspective, these intersecting vulnerabilities reduce substantive freedoms in multiple dimensions, including bodily health, personal safety, and social participation (Sen, 1999; Alkire, 2005). Globally, these findings resonate with Groce *et al.* (2013),

who emphasize that disability and poverty interact synergistically, magnifying barriers to essential services such as water, sanitation, and hygiene.

Finally, the study underscores the urgent need for targeted interventions to enhance WASH accessibility for women with disabilities. Participants emphasized that solutions must go beyond physical infrastructure to include community education, attitudinal change, policy enforcement, and inclusive governance. Zimbabwean policies, such as the Disabled Persons Act (DPA, 1996) and the Water Act (1998), provide a legal framework for accessibility, yet the study shows that enforcement and resourcing remain inadequate (Veritas Zimbabwe, 2020). Capability theory suggests that true empowerment requires both access to resources and the ability to convert them into valued functionings, which necessitates comprehensive, multi-dimensional interventions (Nussbaum, 2000; Sen, 1999). Social model perspectives reinforce that these interventions must address social and institutional barriers, ensuring that disability is not perpetuated by exclusionary norms, stigma, or policy gaps (Shakespeare, 2006; Oliver, 1996).

In conclusion, the findings of this study reveal that women with disabilities in Zimbabwe face layered and systemic barriers in accessing WASH services, spanning physical, social, economic, and institutional dimensions. These barriers constrain the substantive freedoms that are central to the capability approach, limiting health, dignity, social participation, and agency (Sen, 1999; Nussbaum, 2000). The social model of disability further illuminates how societal structures, environmental design, and discriminatory attitudes exacerbate these limitations (Oliver, 1996; Shakespeare, 2006). Globally, African, regional, and Zimbabwean scholarship converge on the conclusion that women with disabilities remain marginalized in WASH access, despite existing policies and programs (Groce *et al.*, 2013; Batchelor and Gershberg, 2015; Veritas Zimbabwe, 2020). Addressing these challenges requires a holistic approach that combines inclusive infrastructure, community sensitization, policy enforcement, economic support, and participatory governance. Such interventions would not only expand the real freedoms of women with disabilities but also ensure that WASH services in Zimbabwe are equitable, inclusive, and capable of supporting dignity, health, and social well-being.

The findings of this study carry significant implications for policy development and implementation in Zimbabwe, particularly in relation to enhancing the accessibility and inclusivity of water, sanitation, and hygiene (WASH) services for women with disabilities. The study highlights that existing infrastructure, social norms, and institutional practices collectively constrain the substantive freedoms of women with disabilities, limiting their ability to achieve well-being and exercise agency. From the perspective of the capability approach, policy interventions must prioritize both access to resources and the empowerment of women with disabilities to convert these resources into meaningful functionings, such as bodily health, hygiene, and social participation (Sen, 1999; Nussbaum, 2000). Policies that focus solely on providing infrastructure without addressing social, economic, and attitudinal barriers risk perpetuating exclusion and inequity.

Zimbabwe's legislative framework, including the Disabled Persons Act (DPA, 1996), the Water Act (1998), and commitments under the UN Convention on the Rights of Persons with Disabilities (CRPD, 2007), provides a legal foundation for disability-inclusive WASH services. However, this study demonstrates a critical implementation gap: laws exist but are insufficiently enforced, inadequately resourced, and poorly communicated to affected populations (Veritas Zimbabwe, 2020; Dube and Chirisa, 2021). Policy must therefore move beyond legal codification to practical operationalization, ensuring that accessibility standards are not only mandated but actively implemented and monitored. For example, government authorities and local councils should develop and enforce building codes that require ramps, handrails, accessible latrines, and proximity of water points to residential areas, reflecting international best practices (WHO and UNICEF, 2017; Groce *et al.*, 2013).

Economic empowerment is also a crucial dimension of policy. Women with disabilities frequently face financial barriers to accessing WASH services, including the costs of private water sources, sanitary products, and transport to distant facilities (Batchelor and Gershberg, 2015; Mweemba *et al.*, 2019). Policymakers should integrate targeted financial support programs, such as subsidies for water and sanitation services or vouchers for menstrual hygiene products, to ensure that economic vulnerability does not perpetuate exclusion. Social welfare departments and disability-focused organizations could coordinate with municipal councils to provide these resources, creating a holistic approach that combines infrastructure, funding, and social support.

Community sensitization and attitudinal change are additional policy imperatives. The social model of disability emphasizes that societal perceptions and norms often exacerbate the limitations experienced by women with disabilities (Oliver, 1996; Shakespeare, 2006). Policies should therefore include public education campaigns, training for community leaders, and capacity-building for WASH service providers to challenge stigma, reduce discrimination, and foster inclusive practices. Such interventions would not only enhance access but also enable women with disabilities to participate fully in community decision-making and governance structures related to water and sanitation services, aligning with the participatory dimensions of the capability approach (Sen, 1999; Robeyns, 2005).

Finally, coordination and accountability mechanisms are essential. The study indicates that fragmented service delivery and limited enforcement reduce both effectiveness and trust in WASH programs. Policy should mandate clear inter-agency coordination, monitoring, and grievance redress mechanisms to ensure that service delivery meets both accessibility and equity standards. Drawing on lessons from regional contexts, such as South Africa and Kenya, the government could establish disability-inclusive WASH committees at local and national levels to oversee implementation, monitor compliance with accessibility

legislation, and provide platforms for women with disabilities to voice concerns (Chikwanda and Mulenga, 2018; Munyoro *et al.*, 2021).

In summary, policy implications from this study underscore the need for an integrated, multi-dimensional approach to WASH accessibility for women with disabilities. Legal frameworks must be operationalized, economic barriers addressed, attitudinal and social constraints challenged, and participatory governance strengthened. By adopting policies that enhance both capabilities and agency, Zimbabwe can move toward inclusive WASH systems that uphold dignity, health, and social equity for all women, particularly those living with disabilities

CONCLUSION

This study examined the gendered barriers faced by women with disabilities in accessing water, sanitation, and hygiene (WASH) services in Zimbabwe, drawing on the Capability Approach and the Social Model of Disability. Findings reveal that despite the existence of legal frameworks, including the Disabled Persons Act (DPA, 1996), the Water Act (1998), and commitments under the UN Convention on the Rights of Persons with Disabilities (CRPD, 2007), women with disabilities continue to experience restricted access to WASH facilities due to infrastructural inadequacies, socio-economic constraints, attitudinal barriers, and fragmented service delivery. The study highlights that these barriers limit the substantive freedoms of women with disabilities, reducing their ability to convert resources into meaningful functionings, such as health, dignity, and social participation (Sen, 1999; Nussbaum, 2000).

The study further underscores the role of structural inequalities, including gendered care burdens, economic dependency, and social stigma, in compounding these challenges, reflecting the social model of disability's emphasis on societal barriers (Oliver, 1996; Shakespeare, 2006). Women with disabilities often rely on informal coping strategies, illustrating the intersection of poverty, marginalization, and limited access to basic services.

Policy implications are clear: legal provisions must be operationalized through accessible infrastructure, targeted financial support, capacity-building of service providers, and community sensitization programs. Participatory governance mechanisms must be strengthened to ensure that women with disabilities influence WASH decision-making processes. Addressing these multidimensional barriers will not only improve access but also enhance capabilities, autonomy, and well-being, contributing to equitable and inclusive development in Zimbabwe.

In conclusion, WASH accessibility for women with disabilities cannot be achieved solely through infrastructure expansion; it requires integrated policies, inclusive governance, and societal transformation to dismantle systemic barriers, promote human capabilities, and uphold the rights and dignity of all women.

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Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this manuscript. In addition, the ethical issues, including plagiarism, informed consent, misconduct, data fabrication and/ or falsification, double publication and/or submission, and redundancy has been completely observed by the authors.

Life Science Reporting

No life science threat was practised in this research.

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