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From Constraint to Capability: Examining Institutional Dynamics of Extent of Women with Disabilities via the Affirmative Model in Kohat Division-Pakistan

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Abstract: This study examines how institutional dynamics shape the social exclusion of women with disabilities in the Kohat Division of Khyber Pakhtunkhwa, Pakistan, using the Affirmative Model of Disability. A cross-sectional survey of 370 proportionally selected respondents—with support from Social Welfare Offices and senior oral instructors—focused on women with physical, auditory, verbal, and stature-related disabilities, excluding those with intellectual impairments. Reliability testing produced a strong Cronbach's Alpha of 0.87. Chi-square and Kendall's Tau-b analyses revealed a significant relationship between institutional factors and social exclusion ($\chi^2 = 13.073$, $p = 0.000$; $Tb = 0.188$), showing that weaker institutional mechanisms heighten exclusion, particularly among older women. The findings affirm that exclusion stems from structural and attitudinal barriers rather than impairment itself. The study calls for stronger institutional support, community awareness, and affirmative practices to reduce exclusion in the region.

Introduction

Disability is neither an immutable personal deficit nor a univocal social condition; rather, it is produced at the intersection of corporeal variation and socially organized environments, practices, and institutional arrangements. Contemporary disability scholarship has moved beyond a sterile dichotomy between the medical and the social models to embrace interpretive frameworks that foreground identity, agency, and positive valuation of disability—an evolution crystallized in the so-called Affirmative Model. The affirmative perspective reframes disability as a form of human difference that can furnish cultural resources, social identities, and political claims, challenging deficit-driven narratives and insisting that remedial policy must do more than compensate for impairment: it must proactively cultivate dignity, capability, and social belonging (Barnes, 2019).

Notwithstanding this theoretical shift, lived experiences of women with disabilities remain persistently shaped by institutional dynamics formal policies, administrative practices, service delivery structures, and everyday bureaucratic encounters—that mediate access to education, health care, livelihoods, and

civic participation. Institutional dynamics operate as both mechanisms of inclusion and vectors of exclusion: they can normalize accessibility and accommodation, or they can entrench marginalization through fragmented services, inattentive procedures, and attitudinal gatekeeping. Disability scholars observe that institutional configurations often reproduce gendered hierarchies; women with disabilities frequently occupy compounded margins in which patriarchal norms, ablest assumptions, and resource scarcity coalesce to curtail social mobility and voice (Brinkman, 2022).

The Pakistani milieu poignantly exemplifies how institutional lacunae translate into exclusionary outcomes for women with disabilities. National and civil-society initiatives—ranging from policy fora to targeted summits—have underscored the imperative of mainstreaming disability into multisectoral planning, yet implementation at provincial and district levels remains uneven. Recent convening's and policy reviews document persistent barriers: inaccessible infrastructure, weak institutional capacities, inadequate disaggregated data, and limited training among frontline service providers, all of which conspire to restrict educational opportunities, economic participation, and effective redress for abuse and neglect. These deficits are particularly acute for women, who face intersectional vulnerabilities including gender-based violence and social stigma that institutional responses frequently fail to anticipate or mitigate (Coleridge, 2007).

Empirical work from Pakistan and comparable settings corroborates the centrality of social support mechanisms and institutional responsiveness in attenuating social exclusion. Qualitative and quantitative studies reveal that where formal supports (policy enforcement, accessible public services) and informal networks (family, community peers) are robust, women with disabilities exhibit higher levels of social participation and civic agency; conversely, diminished supports correlate with heightened isolation, curtailed mobility, and reduced access to employment and education. Moreover, scholars note age-differentiated effects: institutional facilitation may have varying potency across life stages, often becoming more consequential for sustaining inclusion as women age and as cumulative disadvantages accrue. These empirical regularities motivate the present focus on institutional dynamics as the primary independent variable influencing the extent of social exclusion among women with disabilities in Kohat Division (Ullah, 2025).

The Affirmative Model offers both a conceptual lens and an ethical charge that reorients empirical inquiry: rather than treating disability primarily as a problem to be managed, the model invites researchers and policymakers to interrogate how institutions can embody affirmation by enabling capabilities, fostering positive social identity, and valuing the full participation of disabled women. Interpreted through this lens, institutional deficits are not merely administrative failings but affronts to social dignity—failures that systematically transform corporeal difference into exclusion. Hence, an analysis that marries robust empirical methods with affirmative theory can reveal not only the distributional contours of exclusion but also the institutional levers most amenable to reform (Dixon, 2023).

AFFIRMATIVE MODEL OF DISABILITY



Focusing on the Kohat Division—a socioeconomically heterogeneous and administratively stratified region within Khyber Pakhtunkhwa—permits investigation of institutional dynamics at a scale where district-level social welfare offices, educational institutions, and local governance structures are directly implicated in shaping disabled women's life chances. Localized research is indispensable because national policies often lose traction in practice: the translation of statutory entitlements into lived inclusion depends on district capacities, cultural norms, and the availability of intermediary actors (NGOs, advocacy groups, and trained interpreters) who can bridge policy and practice. Recent regional studies, including surveys and qualitative inquiries, document a tapestry of exclusionary mechanisms that range from infrastructural inaccessibility to the absence of trained personnel for communication with hearing-impaired women—problems that are both technical and profoundly political (Fredman, 2020).

This study therefore situates institutional dynamics as the independent variable and the extent of social exclusion as the dependent outcome, operationalizing institutional dynamics in terms of service accessibility, administrative responsiveness, and the presence of affirmative support mechanisms. By employing a mixed quantitative approach—with stratified sampling across the three districts of Kohat Division and statistical tests designed to detect bivariate and multivariate associations—the research seeks to quantify the relationship between institutional supports and exclusion while also offering theoretically informed interpretation through the Affirmative Model. The project's methodological choices (including collaboration with district social welfare offices and engagement of sign-language interpreters) reflect a commitment to epistemic justice: ensuring that data collection is both inclusive and capable of capturing the textured experiences of women with diverse impairments (Grech & Soldatic, 2016).

Methodology

The present is proposed to be undertaken in the Kohat Division comprising the districts of Kohat, Hangu, and Karak with the primary objective of examining the association between the extent of social exclusion experienced by women with disabilities and the prevailing institutional dynamics. The scope of the study is deliberately confined to these districts.

Research Design

Owing to the time constraints, a *Cross-Sectional* or single-shot research design was employed, as it offers methodological adequacy for exploring social issues, lived experiences, and perceptual realities within a defined temporal frame.

Validity & Reliability

The instrument underwent rigorous validity and reliability assessments to ensure its empirical soundness. Reliability was evaluated through Cronbach's Alpha, which yielded a coefficient of 0.87, indicating a high level of internal consistency. These tests collectively affirmed that the scale was both methodologically robust and suitable for further statistical analyses.

Sampling Procedure

As per the official record of Directorate of Social Welfare, Special Education and Women Empowerment, Government of Khyber Pakhtunkhwa, a total of 22,492 individuals with disabilities have been officially registered and assessed by the Disability Assessment Board in the Kohat Division. Among them, 9,396 constitute the population of women with disabilities. From this population, a sample of 370 respondents was determined and subsequently selected through simple random sampling, adhering to the sampling criteria delineated by Sekaran (2003).

The proportional allocation of sample size was also made to the all tehsils of the Kohat Division by using

the equation proposed by Chaudhry (2009) as under;

$$n = \frac{N\hat{p}\hat{q}z^2}{\hat{p}\hat{q}z^2 + Ne^2 - e^2}$$

Statistical Significance Test

For data analysis SPSS 21 version was used to run Chi-Square (χ^2) at Bivariate level aimed at ascertaining hypothetical association between the study variables;

$$\chi^2 = \sum_{i=1}^r \sum_{j=1}^c \frac{(O_{ij} - E_{ij})^2}{E_{ij}}$$

Kendall's Tau-b (τ^b) Statistics

Similarly, for ascertaining spurious and non-spurious correlation Kendall's Tau-b (τ^b) was carried out which keep age & education as controlled variables.

$$\tau^b = \frac{(\tau_{12} - \tau_{13} \tau_{23})}{\sqrt{(1 - \tau_{13}^2)(1 - \tau_{23}^2)}}$$

Social Exclusion Scale

The present study employed a multidimensional Social Exclusion Scale to rigorously assess the depth and breadth of exclusion experienced by women with disabilities across psycho-social and institutional domains. This instrument, comprising structured indicators of material deprivation, constrained access to rights and services, limited social participation, and relational marginalization, enabled a systematic quantification of exclusionary processes that operate both at the interpersonal and structural levels. By capturing nuanced variations in women's interactions with social networks, community environments, and institutional mechanisms, the scale provided a comprehensive analytic lens through which the entangled effects of discriminatory attitudes, procedural barriers, and resource inequalities could be empirically examined. Its deployment within the methodological framework ensured a robust, evidence-driven evaluation of how psycho-social vulnerabilities and institutional dynamics coalesce to reproduce and intensify the social exclusion of women with disabilities.

Dimensions	Description
I- Material Deprivation	Shortfalls in essential needs and material resources, deprivation in standards of living, burdensome indebtedness, and persistent arrears in financial obligations etc.
II- Inadequate access to social rights/institutions	Waiting lists, social justice, social security, social support, employment agencies, healthcare, education, equality, importance, respect etc.
III- Insufficient social participation	Limited engagement in both formal and informal social networks, social isolation, participation in social and leisure activities
IV- Insufficient cultural integration	Insufficient adherence to the social norms and civic values underpinning active social citizenship, including cultural responsibilities and divergence from collectively endorsed perspectives.

Results & Discussion

Results of Bivariate and Multivariate are as follow;

Association between institutional dynamics and extent of social exclusion of women with disabilities

The perception that the existing job quota for Persons with Disabilities (PWDs) is adequate shows a significant association with the extent of social exclusion ($\chi^2 = 4.396$, $p = 0.036$; $Tb = 0.109$). This reflects the broader argument that institutional arrangements determine individuals' social positioning and opportunities for participation (Sen, 2000). Respondents' view that women's job quotas should be treated at par with men with disabilities also demonstrates a significant association ($\chi^2 = 5.259$, $p = 0.022$; $Tb = 0.119$). This result resonates with Kabeer's (2006) assertion that gendered inequalities act as durable structures that deepen exclusion. The belief that women are often denied employment when gender intersects with disability exhibits a strong association with social exclusion ($\chi^2 = 5.372$, $p = 0.020$; $Tb = 0.120$). This aligns with Shakespeare's (2014) interpretation that intersectional discrimination disproportionately disadvantages women with disabilities. Perceptions that access to suitable positions enhances psychological and social strength show a highly significant relationship ($\chi^2 = 7.023$, $p = 0.008$; $Tb = 0.138$). Emerson (2012) emphasizes that institutional access and occupational inclusion directly influence psychological well-being and social participation, supporting this statistical link. The availability of reserved seats for PWDs in public transportation is also significantly associated with social exclusion ($\chi^2 = 4.156$, $p = 0.041$; $Tb = 0.106$). According to WHO (2011), accessible mobility systems are essential determinants of social engagement and independence. When asked whether the number of reserved seats is sufficient, the association appears marginally significant ($\chi^2 = 3.195$, $p = 0.074$; $Tb = 0.093$). This borderline relationship mirrors broader debates on infrastructural adequacy in disability-inclusive policy frameworks (WHO, 2011). Participants' belief that they have easy access to the healthcare system shows a significant association with exclusion levels ($\chi^2 = 3.893$, $p = 0.048$; $Tb = 0.103$). Sen (2000) and WHO (2011) both stress that institutional accessibility, particularly in healthcare, is a central pillar of social inclusion. The perception that specialized healthcare facilities exist for disabled persons is among the strongest associations in the dataset ($\chi^2 = 9.107$, $p = 0.003$; $Tb = 0.157$). This finding is strongly aligned with WHO's (2011) argument that disability-sensitive health systems reduce barriers and foster equitable social participation. Finally, the belief in the availability of separate OPDs for PWDs also significantly correlates with social exclusion ($\chi^2 = 5.259$, $p = 0.022$; $Tb = 0.119$). Emerson (2012) similarly argues that institutional specialization when appropriately implemented supports psychological resilience and mitigates exclusion.

Table 1.1 Association between institutional dynamics and extent of social exclusion of women with disabilities

Independent Variable (Institutional Dynamics)	Dependent Variable (Indexed)	Chi-Square Statistics, (P-Value) & (T ^b) Value
You believe the existing employment quota sufficiently accommodates Persons with Disabilities (PWDs)	Extent of social exclusion of women with disabilities	$\chi^2 = 4.396$ (0.036) $T^b = 0.109$
You believe women's employment quota should be equivalent to that of disabled men	Extent of social exclusion of women with disabilities	$\chi^2 = 5.259$ (0.022) $T^b = 0.119$

You think women are denied employment opportunities whenever their gender intersects with a disabling social condition	Extent of social exclusion of women with disabilities	$\chi^2=5.372$ (0.020) $T^b= 0.120$
Securing appropriate roles within organizations can enhance psychological and social wellbeing	Extent of social exclusion of women with disabilities	$\chi^2=7.023$ (0.008) $T^b= 0.138$
Public transport buses provide specially designated seats for PWDs	Extent of social exclusion of women with disabilities	$\chi^2= 4.156$ (0.041) $Tb= 0.106$
You are of the view that the number of reserved seats for persons with disabilities is sufficient	Extent of social exclusion of women with disabilities	$\chi^2= 3.195$ (0.074) $Tb= 0.093$
You experience convenient access to the healthcare system	Extent of social exclusion of women with disabilities	$\chi^2= 3.893$ (0.048) $Tb= 0.103$
Specialized health facilities have been established specifically for people with disabilities	Extent of social exclusion of women with disabilities	$\chi^2= 9.107$ (0.003) $Tb= 0.157$
You believe that a separate OPD exists exclusively for Persons with Disabilities	Extent of social exclusion of women with disabilities	$\chi^2= 5.259$ (0.022) $Tb= 0.119$

Association between institutional dynamics and extent of social exclusion of women with disabilities (controlling age of the respondents)

The age-wise analysis of institutional dynamics and social exclusion reveals both spurious and non-spurious correlations embedded within the dataset. The association reported for respondents aged 15–25 years ($\chi^2 = 0.017$, $p = 0.599$; $T^b = 0.016$) appears spurious, as the statistical insignificance indicates that any observed relationship is accidental rather than theoretically or structurally meaningful—consistent with Sen's (2000) argument that weak institutional linkages cannot produce stable explanatory associations. In contrast, the correlations for the 26–35 age group ($\chi^2 = 18.736$, $p = 0.000$; $T^b = 0.413$) demonstrate a non-spurious relationship, implying that age functions as a substantive determinant of institutional experiences, aligning with Kabeer's (2006) view that social positioning intersects meaningfully with structural inequalities. Likewise, the strongly significant results for individuals aged 36–45 years ($\chi^2 = 28.498$, $p = 0.000$; $T^b = 0.425$) further support a non-spurious and theoretically robust association, as mid-life adults often navigate institutional systems more extensively, echoing Emerson's (2012) claim that institutional embeddedness intensifies with life-course transitions. For respondents 46 years and above, the significant association ($\chi^2 = 4.406$, $p = 0.041$; $T^b = 0.365$) also reflects a non-spurious relationship, indicating that older women with disabilities experience institutional marginalities in ways consistent with WHO's (2011) finding that disability-related exclusion increases with age due to compounding structural barriers. The overall statistical pattern ($\chi^2 = 46.199$, $p = 0.002$; $T^b = 0.253$) confirms that age is not a random correlate but a substantively meaningful explanatory variable, reinforcing Shakespeare's (2014) argument that institutional disadvantages accumulate across the lifespan, generating durable exclusion rather than incidental patterns. Overall, the data illustrate that spurious relationships emerge where institutional mechanisms are weak or

irrelevant, whereas non-spurious correlations appear where structural, life-course, and institutional dynamics converge to produce systematic social exclusion.

Table 1.2 Association between institutional dynamics and extent of social exclusion of women with disabilities (controlling age of the respondents)

Age	Independent Variable	Indexed Dependent Variable	Statistics χ^2 , (P-Value) & T^b	Statistics χ^2 , (P-Value) & T^b for entiretable
15-25 years	Institutional Dynamics	Extent of social Exclusion of women with disabilities	$\chi^2=0.017$ P= 0.599 $T^b=0.016$	$\chi^2=46.199$ P= 0.002 $T^b=0.253$
26-35 years			$\chi^2=18.736$ P= 0.000 $T^b=0.413$	
36-45 years			$\chi^2=28.498$ P= 0.000 $T^b=0.425$	
46 years and above			$\chi^2=4.406$ P= 0.041 $T^b=0.365$	

Association between institutional dynamics and extent of social exclusion of women with disabilities (controlling education of the respondents)

The analysis of educational categories reveals a mixture of spurious and non-spurious correlations in the association between institutional dynamics and the extent of social exclusion among women with disabilities. For illiterate respondents, the relationship is statistically significant ($\chi^2 = 6.779$, $p = 0.010$; $T^b = 0.192$), indicating a non-spurious correlation, as structural barriers disproportionately affect individuals with the lowest educational capital—an argument consistent with Sen's (2000) conceptualization of institutional deprivation. In the primary-educated group, the very strong association ($\chi^2 = 13.146$, $p = 0.000$; $T^b = 0.411$) likewise represents a non-spurious linkage, demonstrating that limited schooling interacts with institutional inadequacies to intensify exclusion, echoing Kabeer's (2006) emphasis on durable inequalities rooted in socio-institutional dynamics. Conversely, the middle-educated group shows an insignificant relationship ($\chi^2 = 1.476$, $p = 0.196$; $T^b = 0.162$), reflecting a spurious correlation, as any perceived association appears accidental rather than grounded in systematic exclusion—a pattern aligned with Emerson's (2012) argument that institutional influence becomes uneven across transitional educational strata. A similar spurious pattern emerges among high-educated respondents ($\chi^2 = 2.586$, $p = 0.128$; $T^b = 0.284$), suggesting that greater educational attainment may buffer institutional disadvantages, consistent with WHO's (2011) findings on education as a protective factor against structural marginalization. Finally, the intermediate-and-above group exhibits a clearly insignificant association ($\chi^2 = 0.202$, $p = 0.500$; $T^b = 0.101$), representing another spurious correlation, implying that higher educational credentials reduce dependence on flawed institutional mechanisms—an interpretation resonating with Shakespeare's (2014) contention that social exclusion diminishes as personal agency and social capital expand. The collective table significance ($\chi^2 = 25.706$, $p = 0.000$; $T^b = 0.264$) confirms that education overall operates as a non-spurious, substantive determinant of exclusionary experiences, shaping both vulnerability and resilience

within institutional frameworks.

Table 1.3 Association between institutional dynamics and extent of social exclusion of women with disabilities (controlling education of the respondents)

Education	Independent Variable	Indexed Dependent Variable	Statistics χ^2 , (P-Value) & T^b	Statistics χ^2 , (P-Value) & T^b for entiretable
Illiterate	Institutional Dynamics	Extent of social Exclusion of women with disabilities	$\chi^2=6.779$ P= 0.010 $T^b=0.192$	$\chi^2=25.706$ P= 0.000 $T^b=0.264$
Primary			$\chi^2=13.146$ P= 0.000 $T^b=0.411$	
Middle			$\chi^2=1.476$ P= 0.196 $T^b=0.162$	
High			$\chi^2=2.586$ P= 0.128 $T^b=0.284$	
Intermediate and above			$\chi^2=0.202$ P= 0.500 $T^b=0.101$	

Conclusion

The overall findings reveal that educational attainment significantly shapes the nature of correlations between institutional dynamics and social exclusion among women with disabilities, with lower levels of education producing robust and non-spurious associations, while higher educational categories demonstrate predominantly spurious or insignificant relationships. These results affirm that institutional disadvantages are more deeply entrenched among women with limited educational exposure, making them structurally vulnerable to exclusionary practices across employment, healthcare, and mobility systems. Conversely, as educational capital increases, women gain social competence, agency, and improved institutional navigation, thereby mitigating exclusionary outcomes. The overarching conclusion underscores that education acts not merely as a background variable but as a critical moderator that mediates institutional inequalities and determines the intensity of social exclusion within disability contexts.

Recommendations

1. Policymakers should expand accessible and disability-sensitive educational opportunities, ensuring that women with disabilities reach higher levels of education that serve as protective factors against institutional marginalisation.
2. Institutions must design targeted interventions such as tailored support services, priority access, and awareness programs for women with minimal education who remain most vulnerable to non-spurious exclusion.
3. Public institutions should adopt uniform disability-responsive standards in recruitment, healthcare access, and social services to ensure that exclusion is not reproduced through structural practices.

4. Governmental and non-governmental bodies should implement evidence-based monitoring systems to identify, track, and rectify exclusionary institutional behaviors, particularly those affecting women with lower educational backgrounds.

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