



The Global Challenge of Work Disability Prevention Research

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Work disability is a global challenge. While many factors influencing work disability are similar across countries and available solutions are broadly applicable, substantial differences arise across nations due to macroeconomic influences. Challenges experienced by workers in Kinshasa are clearly different from those in Kyoto. Across global socioeconomic strata, the success of various work disability prevention strategies may vary by historical, economic and social context, governmental and benefit systems, and labour conditions. Bangladesh illustrates a context where work disability prevention extends far beyond employer-based return-to-work programs. Approximately 85% of the Bangladeshi labour force is employed in the informal economy, where workers generally lack formal employment contracts, disability insurance, occupational health services, or structured return-to-work arrangements [1]. Consequently, in Bangladesh and other similar countries, preventing work disability requires community-based, public health, and social protection approaches rather than relying solely on employer-led occupational rehabilitation.

The World Bank categorizes national economies into four income groups: low income, lower-middle income, upper-middle income, and high income [2, 3]. Thresholds differ

each fiscal year, but these categories have proven useful for tracking economic changes and guiding international development research. Work disability challenges differ across these income groups, with low- and middle-income countries (LMIC) sometimes having fewer financial resources and regulatory policies that support workplace safety and return-to-work programs than high-income countries (HIC). Healthcare and disability insurance systems also differ substantially across income groups, with a lack of studies comparing conditions from countries classified in those categories. Less has been published comparing conditions and factors that contribute to work disability by socioeconomic strata.

Disparities between LMIC and HIC related to research development and knowledge dissemination have been explained by inadequate and/or lack of resources for research, lack of capacity and supportive teams to assist researchers, poor research structure or academic career paths, gender disparities, language barriers, low interaction between researchers from different institutions, and other factors [4, 5]. There is a growing perception that researchers and scientific inquiry more generally must assume responsibility for solving societal problems.

The societal importance of addressing work disability to achieve economic growth is recognized for countries at all economic levels. One of the United Nation's 17 Sustainable Development Goals (SDG) is SDG 8 *Decent Work and Economic Growth*. [6] However, in LMICs, work disability frequently arises from intersecting social determinants, including chronic disease, poverty, malnutrition, climate-related hazards, gender inequality, informal employment, and limited access to healthcare. These interconnected factors suggest that work disability prevention should be conceptualized as both a labour issue and a broader public health challenge. This links occupational rehabilitation with SDG 3 *Good Health and Well-Being* as well as broader social determinants of health.

These SDGs will only be met through decisions based on quality information, data, and research results highlighting

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key issues and best frameworks for optimizing work ability. One major challenge among English-language journals focussing on work disability is a relative dearth of information and data from LMIC. Most available research in these journals originates from HIC, but continuing development and capacity building efforts are aimed at increasing research conducted and reported within LMIC to shed better light on their unique challenges and solutions. As seen in Table 1, based on data extracted from Clarivate's Journal Citation Reports available since 2017, the majority of publications in the Journal of Occupational Rehabilitation (JOOR) have corresponding authors based in HIC.

This situation appears to be changing. Data from 2024 and 2025 indicate increasing contributions from LMICs, with 2025 having the lowest percentage of authors from high-income countries (91.5%). For the first time, 2025 also featured two papers from authors in low-income countries (Ethiopia and Uganda) [7, 8]. While this trend towards increasing contributions from authors in LMIC will need to be monitored over the coming years, the change is promising and very welcome. LMICs offer unique opportunities to advance work disability prevention research because of rapidly changing, dynamic labour markets, expanding digital economies, large informal workforces, demographic transitions, and increasing exposure to climate-related occupational risks. Furthermore, research conducted in these settings can contribute new perspectives and contextually grounded solutions that may enrich work disability prevention frameworks globally.

The trend is consistent with efforts by the JOOR editorial team to diversify the editorial board and invite contributions from researchers in LMICs. It is also consistent with efforts of the work disability prevention research community to be more inclusive of LMIC in conferences and publications. In 2023, the international conferences of ICOH's *Work Disability Prevention and Integration (WDPI)* and *Prevention of Work-Related Musculoskeletal Disorders (PREMUS)* subcommittees were held jointly for the first time within a LMIC (Bengaluru, India). This provided an opportunity to extend the WDPI and PREMUS communities outside the

typical HICs that have traditionally supported the scientific conferences. In 2029, with the intention of overcoming barriers, the 8th *International Work Disability Prevention and Integration (WDPI)* Conference will be held in Brazil. This will be the first in the South Hemisphere. Hosting the conference in Brazil may further broaden participation from researchers across Latin America and other underrepresented regions, strengthening international collaboration and knowledge exchange. The publishing trends may also reflect broader changes to the publishing landscape and technology that assists new authors to locate suitable journals for their work. The Springer Nature Article Processing Platform (SNAPP), which was rolled out broadly in 2023, is one such example.

Ideally, increased contributions from LMIC represent an opportunity for understanding how work disability varies across socioeconomic conditions and whether disability prevention models and interventions in HICs are equally relevant or require modification. In many countries, there is a growing focus on disability as a health outcome in public health research, and this topic has grown with the maturation of research and academic productivity in the social sciences. Research is needed to explore how work disability research can continue to be promoted in academia, government, and research publishing, especially in LMIC. Many LMICs have experienced rapid expansion of digital platform work in ridesharing, food delivery, freelancing, and e-commerce logistics. While these forms of work increase labour market participation, they also introduce new occupational risks including algorithmic work intensification, extended working hours, road traffic injuries, psychosocial stress, and limited access to workers' compensation or rehabilitation services. Understanding work disability within platform-based employment represents an important emerging research priority for LMICs.

Climate change also presents an emerging occupational rehabilitation challenge in many LMICs through increasing exposure to extreme heat, flooding, cyclones, and climate-sensitive diseases affecting agricultural, construction, transport, and outdoor workers [9–11]. Future work disability

Table 1 Percentages of articles published annually since 2017 within the journal of occupational rehabilitation based on country of corresponding author

	2017	2018	2019	2020	2021	2022	2023	2024	2025
High	275 (96.5%)	266 (96.0%)	294 (94.8%)	341 (95.8%)	344 (96.7%)	347 (97.5%)	297 (97.4%)	354 (93.7%)	357 (91.5%)
Upper-middle	10 (3.5%)	8 (2.9%)	13 (4.2%)	12 (3.4%)	12 (3.4%)	9 (2.5%)	8 (2.6%)	20 (5.3%)	23 (5.9%)
Lower-middle	0	3 (1.1%)	3 (1.0%)	3 (0.8%)	0	0	0	4 (1.1%)	9 (2.3%)
Low	0	0	0	0	0	0	0	0	2 (0.5%)
Total Publications	285	277	310	356	356	356	305	378	391

Classifications are based on World Bank economic classifications for the year of publication

prevention frameworks should incorporate climate resilience alongside traditional workplace injury prevention. Although rehabilitation services have expanded in LMICs over recent decades, access remains concentrated in urban centres and is often unaffordable for many workers. Occupational rehabilitation is not yet systematically integrated into primary healthcare or national labour protection systems, leaving many injured workers without coordinated pathways back to productive employment.

We call upon all researchers in the fields of work disability prevention and occupational rehabilitation to think globally. Research from LMICs should move beyond testing whether existing high-income models are transferable. Instead, studies conducted in LMICs offer opportunities to generate contextually grounded theories of work disability that incorporate informal labour markets, family caregiving, social protection gaps, digital platform work, and environmental vulnerabilities. Such evidence has the potential not only to improve local practice but also to enrich global occupational rehabilitation science.

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