

DEVELOPMENT OF THE MODELS OF DISABILITY AND THE IMPORTANCE OF THE ICF FOR SOCIAL WORK IN KAZAKHSTAN

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Abstract

The last years in Kazakhstan are distinguished by important steps in the area rights of people with disabilities. Kazakhstan officially confirmed its commitment to international standards by the ratification of Convention on the Rights of Persons with Disabilities and the Optional Protocol to the Convention. Starting July 2023, the Social Code came into force, which is also regulating the questions of the support of people with disabilities. Moreover, the Concept of Inclusive Policy in the Republic of Kazakhstan for the period of 2025 – 2030 was adopted in December 2024, there is ongoing process of digitalization of the medical and social examination procedures, pilot projects on Community-based Rehabilitation. This review is devoted to the analysis of the application of the International Classification of Functioning, Disability and Health (ICF) in social work in the context of different models of disability. VOSviewer tool was used for the systematization of the literature sources published in the Scopus Database. The number of collected scientific publications totaled 334 for the period of ten years from 2015 to 2025. After preliminary selection based on the criteria of thematic relevance and scientific reliability, forty peer-reviewed articles were chosen for the in-depth analysis as the final sample. The results of the analysis demonstrate that despite the active use of the ICF in health and rehabilitation its use in social work is still fragmented. The review detected the scientific gap around theoretical and applied integration of the ICF in professional practice of social work and underlines the necessity of further research in this direction.

Keywords

Social work, biopsychosocial model, models of disability, human rights, institutionalization, Kazakhstan, ICF.

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1. Introduction

Based on the data of the World Health Organization (WHO) (2022) there are 1.3 billion people in the worlds having significant health disorders, which makes 16% of the total population in the worlds. Such scale of the problem underlines the necessity to revise the existing approaches to the understanding of disability.

If earlier the charity model of the disability expressed by feeling pity for the person with disability and the traditional medical model considered disability phenomenon as a defect or disease, which needed healing, the social model instead focused not on the person but on environmental barriers, which made the person disabled (Saleeby, 2016). So, the approach of the World Health Organization (WHO) and that of the Convention on the Rights of Persons with Disabilities (CRPD) consider disability as an interaction of the individual and the environmental factors (World Bank Group, 2023).

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Exactly these factors have served as a basis of the development of the biopsychosocial approach, which combines the medical and social models, considering the disability as “the dynamical interaction between a person’s health condition and environmental factors” (WHO, 2002). The human rights-based approach in its turn considers disability as a question of equality and respect for rights, focusing on principles of non-discrimination and full participation.

WHO introduced the International Classification of Functioning, Disability and Health (ICF) in 2001 as a common language for the description of health and limitations of life activities reflecting the biopsychosocial approach (Degener, 2016). The ICF connects health, body functions, activity and participation of a person with surrounding barriers and environmental factors opening broad possibilities for planning a complex support (WHO, 2002). The aim of the research is to provide analysis of the evolution of disability models mentioned above and the special role of the ICF for the practice of social work and the assessment of their application in Kazakhstan.

Despite the growing number of international literature devoted to the transformation of models of disability and the implementation of the International Classification of Functioning similar research is still limited in the Kazakhstani context. Especially there poor presence of research of specific changes in social work based on the ICF or human-rights based model. Besides disunity of approached is observed in literature. So the research often concentrates either on general international context or rights aspects, but not on practical application of new models in the social sphere in Kazakhstan. Hence there is a need in systematization of knowledge and identification of current trends as well as existing controversies in academic and applied environment.

The goal of the research is to analyze the development of models of disability and define the impact of ICF for social work in Kazakhstan.

Following tasks are set withing the goal:

- To provide systematization of modern theoretical approaches to the understanding of disability;
- To identify how the ICF is being used and can be applied in practice of social work;
- To define existing research gaps and possible directions for future research.

In this article first key theoretical models of disability are being analyzed and then the impact of the ICF in the global practice of social work. Further analysis of current situation in Kazakhstan and the comparison to other Central Asian countries is provided. The closing part contains overall conclusions and recommendations for further research and social policy.

2. Methods

2.1. Search strategies

For the purposes of the current literature review the author conducted systemic search of scientific publications in English in the Scopus database for the period from 2015 to 2025. The keywords used were: “social work” AND “ICF” OR “International Classification of Functioning” AND “Kazakhstan” AND “biopsychosocial model” AND “models of disability”, “human rights”. The search included peer-reviewed articles and contributions in compliance with the subject matter of the research.

Downloaded publication were imported into the VOSviewer application for the purposes of bibliometric analysis. Using this tool a map of keywords was built

demonstrating frequency and relationship of terms, which are used in analyzed papers. It enabled building of main research clusters and determine dominant directions of discussion. In total 334 publications were collected but after the preliminary selection based on criteria of thematic relevance and scientific reliability forty peer-reviewed articles were chosen for the in-depth analysis as the final sample.

The literature review includes theoretical as well as empirical research. Data about the aim of research, applied methods, main results and conclusions of the authors were collected. This information has been systematized and analyzed in thematical comparison.

2.2. Inclusion and exclusion criteria

In the selection process the author applied criteria like theoretical focus, conceptual relevance, geographical/contextual focus, publication date restriction, paper type, language, content focus and inclusion of Kazakhstani context.

Relevant articles had to discuss models of disability (medical, social, biopsychosocial, rights-based) and the International Classification of Functioning (ICF) as a basis to interpret disability phenomenon. Additionally papers describing transition and development of disability models were considered including their influence on social work, rehabilitation of people with disabilities as well as social policy impact.

The author considered peer-reviewed articles, conceptual papers and national policy documents in English or Russian language that refer to disability models and /or the ICF.

As for exclusion criteria, publications focused only in clinical without reference to social models were excluded, as well as studies about specific health disorders not connected to disability models, research not related to social work, social policy, studies before year 2000, documents without reliable translation, those limited exclusively to medical assessments.

3. Results

As a result of systematic selection and analysis of literature sources forty most relevant scientific publications were taken, which considered questions of models of disability, application of the International Classification of Functioning and their connection to social work. The articles comprise the period from 2015 to 2025 and introduce theoretical concepts as well as practical cases from different countries.

For the additional visual interpretation the mapping of keywords, produced with VOSviewer application for selected publication (n=334), has been used. It allowed us to identify main research clusters and logical connections between the topics.

The network analysis allowed us to identify following clusters:

Cluster 1. Biopsychosocial approach and diagnoses. Keywords “icf”, “disability”, “biopsychosocial model”, “assessment”, “chronic pain”, “women”. The given terms reflect the transition to the assessment not only the diagnosis but also the participation, environment, barriers and the capability.

Cluster 2. Mental health, children and consequences of COVID-19. Keywords: “child”, “therapy”, “covid-19”, “schizophrenia”, “icf-cy”. This cluster reflects the growing interest in the social support of vulnerable groups and the need for adapted models of support.

Cluster 3. Daily activity and rehabilitation. Keywords: “stroke”, “mobility”, “activities of daily living”, “aphasia”. It confirms the key tasks to be the restoration of autonomy and self-care ability.

Cluster 4. Social participation and occupation. Keywords are “employment”, “social participation”, “qualitative research”, “work disability”. These topics are directly connected with social work especially in the aspects of return to work, support and motivation.

Cluster 5. Reliability of tools and standardization. Keywords: “validity”, “reliability”, “classification”. It points to the necessity of quality measurement and codification of social information.

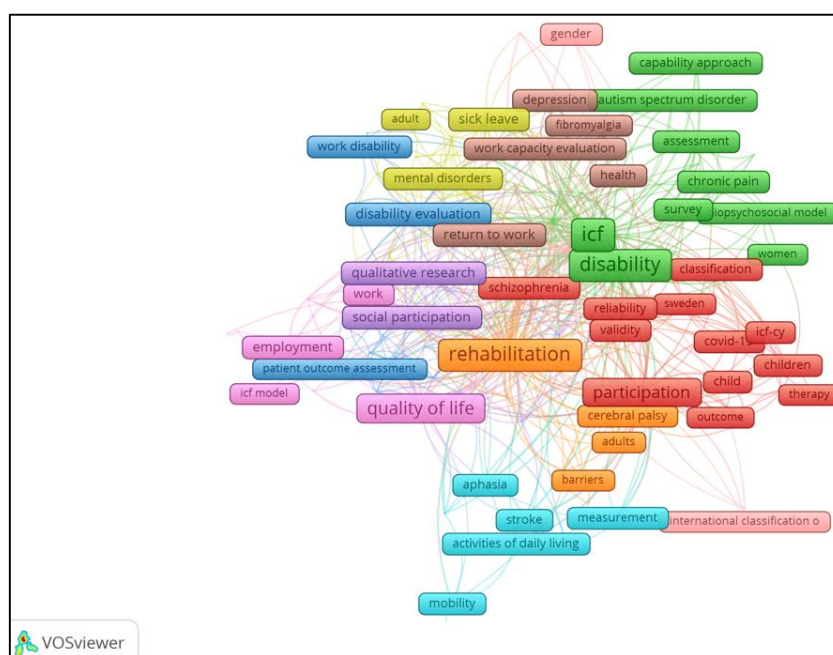


Figure 1. Network analysis of the thematic literature

Source: The picture was generated by the author based on articles published in Scopus database

Network analysis of the literature confirms that the modern scientific literature base is oriented to complex, functional and contextual assessment of disability, which is fully compliant with the tasks of social work. However, the scientific gap exists in the fact that the literature directly linking social work and the use of ICF remains limited. Despite the growing interest in the biopsychosocial model, most research focuses on medical and rehabilitation aspects, while the role of social workers, methods of assessing functioning, as well as the practical use of ICF in social support and social protection policy are not fully described. This makes it difficult to form a systematic approach to the implementation of the ICF in professional standards and training of social workers.

Let us examine key recent studies demonstrating how ICF is used in various social and clinical contexts and what role it plays in social work.

Booij et al. (2025) presents in his article an oncological program where the ICF is used to assess functional limitations in patients after treatment. Special emphasis is placed on an interdisciplinary approach, where social workers help to form sustainable strategies for returning to an active life. Here, the ICF acts as a tool for understanding the impact of

physical condition on social participation and psychological adaptation, facilitating communication between specialists.

Similar interdisciplinary approach is revealed in the work by Sharma (2016), where the ICF is integrated into audiological practice. The author emphasizes the importance of a comprehensive assessment of the impact of hearing disorders on human participation in society, which is directly related to the tasks of social work on rehabilitation and inclusion. This work confirms the importance of an approach that focuses not on disorder, but on opportunities and limitations in the social sphere.

The publication Uchino et al. (2024) the author analyzes the clinical subtypes of schizophrenia focusing on the assessment of functioning. Here, the ICF allows us to move from a narrow medical diagnosis to a more accurate description of life and participation in society. This is especially important for social work in the psychiatric field, where a support plan requires an assessment not only of symptoms, but also of the environment, motivation and resources.

This idea is further developed by Dan (2024), who is arguing that the traditional ICF remains too “biomedical” and proposes the concept of a socio-psycho-biological model. The approach in which society and culture are considered as determining variables is especially relevant for social work based on an assessment of the environment and social connections.

Similar approach is practiced in the Swedish model called IBIC, referred in the article (Andersson & Engwall, 2025). This system adapts the ICF to the practices of social documentation creating common language between social services, medical organizations and the clients. Such instrument allows to assess but also to plan support measures establishing transparent and consistent processes.

The research by Karsberg et al. (2024) demonstrates the importance of comprehensive assessment for people with PTSD² and addictions. Here, the ICF is used to analyze not only psychopathology, but also participation, self-service and social connections of precisely those aspects that make up the subject of social work. Recovery, according to the authors, is impossible without taking into account the environment and social support.

An important theoretical contribution to rethinking approaches to disability is provided in the work (Wade & Halligan, 2017), which criticizes the traditional biomedical model. The authors emphasize that it ignores psychological and social factors, while the biopsychosocial model underlying the ICF offers a more comprehensive understanding of human functioning. The article demonstrates how a biopsychosocial approach makes it possible to take into account not only symptoms, but also participation in social life, environmental influences and quality of life. This is especially true for social work, which requires consideration of family and work roles and barriers to access to services. The model proposed by the authors emphasizes the need for interdisciplinary collaboration and can be used to form individualized social support programs.

An interesting view on the topic is suggested by Marfeo et al. (2025). The authors discuss the automation of patient data analysis using NLP (Natural Language Processing), where data is classified according to the ICF. This opens up opportunities for digitalization of social documentation, improving data compatibility between healthcare and social protection systems. For social workers, this means reaching a new level in planning assistance and monitoring results.

²PTSD - Post-Traumatic Stress Disorder

In addition, a systematic review by Kang et al. (2025) shows how the ICF is applied in inclusive education. This includes an assessment of the educational environment, individual needs, barriers and conditions, which is also included in the field of social work with children with disabilities.

The review by Petasis (2019) offers a systematic comparison of medical, social and biopsychosocial models. The author emphasizes that the medical model, which focuses on deficits, no longer meets the demands of an inclusive policy. The social model, in contrast, focuses on environmental barriers and human rights. The biopsychosocial model underlying the ICF is considered to be the most comprehensive and applicable in social work.

4. Discussion

The opinions demonstrated in reviewed articles clearly show the trend to consider disability through the lens of biopsychosocial model with focus on functioning, participation, environmental factors, which conforms with the principles of the ICF. This trend supports the importance of social work and insists on holistic assessment of disability. The papers emphasize the importance of interdisciplinary approaches providing references of ICF application in education, medicine, psychology, mental health as disability is not a matter of one discipline any more. Social work gains more value but still needs more emphasis on it.

The ICF provides clear view on how social work can eliminate barriers, improve participation contributing to active life position of a person with disability.

In the course of the review remarkable scientific gap was identified, that ICF application in social work is less present in social work literature. The reviewed cases often refer to medical and rehabilitation areas while not applied to social work practice. The author observes the need for study how ICF based assessment tools can be effectively used in social work practice, particularly in Kazakhstan.

The authors also warn about possible medicalization of the ICF implementation and connected bureaucracy burden. This insight is relevant for Kazakhstan as there are protocols for rehabilitation developed in 2023 which remain more medical and documentation focused.

The review draws attention to environmental factors which impact the results of the interventions in supporting people with disabilities. The scientists position the ICF not only as classification system but also as methodological framework to study dependance of individual functioning from the contextual conditions. Such view opens the possibility to empower people with disability not only by individual rehabilitation of the impairment but by applying universal design elimination barriers for active participation.

During review relation to Kazakhstan was one of the inclusion criteria. The reviewed article clearly state the need for unified approaches to functional assessment, interdisciplinary work and communication. Addressing this gap would contribute to the growing role of social workers, who are able to provide holistic assessment and prepare individualized support plans.

In summary, the discussion of results shows that international researcher support the ICF as a framework for holistic, interdisciplinary and context-related model of disability assessment. The identified gap related to social work needs further research in this area. A possible intervention could include capacity building, a pilot case

management project using ICF based assessment forms and building individual support plans.

5. Conclusion

The literature review confirmed that ICF is gradually moving beyond exclusively medical applications and is becoming increasingly important in social work.

The ICF allows social workers not only to describe the client's condition, but also to systematically take into account environmental factors, the level of participation, individual resources and barriers, thus forming more accurate and personalized support and support strategies. This is especially important in the context of the transition from medical to biopsychosocial and human rights models of disability, which reflects the modern philosophy of social work.

The scientific novelty of the review is that for the first time, within the framework of the Kazakh research context, a systematic integration of English-language sources for 2015-2025 was carried out with an emphasis on the use of the ICF specifically in social work. The work covers various fields, in particular mental health, rehabilitation, inclusive education and support for cancer patients, which revealed the universality and adaptability of the classification.

The review highlights the need to introduce classification in the training of social workers, in the development of social protection policies and in the practice of interagency cooperation. In addition, the ICF can become a mainstay in evaluating the effectiveness of programs and drawing up individual support plans.

Future research may focus on the local application of ICF in Kazakhstan, including legislative, institutional and methodological barriers. In addition, one of their key studies may be a comparative analysis of the integration of the ICF into the social work system in Central Asian countries.

Overall, this review demonstrates that the ICF has a high potential for developing professional social work practices. However, its full implementation requires further research, institutional implementation and the development of professional competencies in this area.

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