Proof of Concept – Field Testing ICD-11 in Mental Health Care

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Abstract **A Norwegian Proof of Concept study explored the use of ICD-11 for personality disorders in specialist health care. The small study assessed translation workflow, technical implementation, coding practice and clinical use. Findings indicate that ICD-11 aligns better with clinical understanding and enables more precise diagnoses, while requiring proper training and system support for effective implementation, particularly regarding postcoordination.**

Introduction

The transition from ICD-10 to ICD-11 represents a major change in how diagnoses are structured and applied in clinical practice. WHO recommends small-scale field testing to gain early experience before full implementation.

In Norway, a Proof of Concept (PoC) study within the area of personality disorders was conducted. Personality disorders were chosen due to the major conceptual and clinical changes from ICD-10 to ICD-11 in this area, in addition to concurrent development of a national clinical guideline for the assessment and treatment of personality disorders at the Norwegian Directorate of Health.

The aim of the study was to explore four main domains: translation of ICD-11, technical implementation using WHO tools, and coding practice and clinical use.

Methods

The PoC was conducted as a collaborative initiative between the Norwegian Directorate of Health and two Norwegian District Psychiatric Centres (DPC). It was carried out as a small-scale field test in a specialist adult mental health care setting, focusing on personality disorders. The study initially involved two outpatient clinics; however, only one completed the full testing due to technical constraints.

Data were collected through a combination of workshops, group interviews with clinicians before and after the testing period, and analysis of coded diagnosis data. In total, 215 ICD-11 coding instances were analyzed.



The team at Østre Agder DPC

Results

Translation
A translation workflow was developed based on previous projects. AI was used for the initial translation, followed by quality assurance by clinical reviewers trained in ICD-11 and WHO's translation platform. The PoC provided valuable learning on the use of the WHO translation platform within the existing workflow.

Technical implementation
Due to time constraints, integration of WHO's Coding Tool into the clinic's electronic health record (EHR) system could not be tested. Instead, a standalone web application was developed, enabling clinicians to test ICD-11 in practice and demonstrating that WHO tools can be implemented relatively easily.

Clinical use and coding practice
Clinicians found assigning the main ICD-11 personality disorder diagnosis and severity level intuitive and more consistent with clinical practice.

Coding data showed a gradual shift from main-diagnosis coding to more advanced coding, with about half of all registrations including multiple codes, indicating increasing use of postcoordination. While assigning the main diagnosis was straightforward, postcoordinating specific personality traits was perceived as more challenging, requiring additional assessment and time, largely due to unfamiliarity with the clinical approach.

Clinicians were able to use ICD-11 with limited training, particularly for main diagnoses. More advanced use, including postcoordination and application of the new diagnostic criteria, required some additional training and guidance.

Discussion

The findings suggest that ICD-11 offers a more clinically meaningful framework for personality disorder diagnosis than ICD-10, particularly through its alignment with clinical reasoning and its severity-based classification. The main diagnostic categories were perceived as intuitive and consistent with everyday clinical practice, supporting the potential benefits of ICD-11.

At the same time, the transition is complex. While the main diagnoses were easy to apply, postcoordination and the use of trait qualifiers required additional assessment, training, and experience. The findings also indicate that there is no simple one-to-one mapping between ICD-10 and ICD-11 for this domain, meaning that coding often requires clinical judgement rather than automatic conversion. This underlines the need for structured implementation, adequate training, and appropriate support mechanisms.

The pilot further demonstrated that both translation and technical implementation are feasible, providing a useful foundation for broader ICD-11 adoption.

Future perspectives

The findings support further field testing of ICD-11 in routine clinical practice, in line with WHO recommendations. Future work should focus on testing ICD-11 with coding tools integrated into EHR systems, evaluating implementation across a wider range of clinical settings, and developing effective training and support for postcoordination. Broader field testing could provide valuable insights to support the implementation of ICD-11.

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