

WHO ICD-10 MULTIAXIAL FIELD TRIAL---EXPERIENCE IN HONG KONG

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SUMMARY

The World Health Organization's (WHO) Division of Mental Health has organised an international Multicenter Field Trial to evaluate the proposed multiaxial schema for its ICD-10 Chapter V. Six clinicians assessed case vignettes and live patients before independently assigning multiaxial diagnostic formulation. Good concordance was found along Axis I (Clinical Diagnosis) but not for Axis II (Disability Ratings), and Axis III (Environmental /Circumstantial and Personal Life-style/Life Management Factors).

Keywords: ICD-10, WHO, multiaxial field trial

INTRODUCTION

The World Health Organisation (WHO) published Chapter V (Mental and Behavioural Disorders) of its 10th version of International Classification of Diseases (ICD-10) in 1992. Effective from 1995 in most countries, it is expected to serve as the official nomenclature and classificatory system for all psychiatric conditions in the next 15-20 years. Produced by WHO's Division of Mental Health in collaboration with a worldwide network of experts, Chapter V represents a complete departure from previous WHO classifications (ICD-9, ICD-8, etc.) in both content and format (Sartorius et al. 1988). It has several versions to serve multiple purposes (WHO, 1992). The "Clinical Descriptions and Diagnostic Guidelines" will be mostly used in clinical setting, public health statistics and education, while the "Diagnostic Criteria for Research" has been devised as a research instrument. Others to come include a multiaxial classification, a simplified version for use by general health care workers, and a separate volume to provide "crosswalks", i.e. allowing cross-reference among corresponding terms in ICD-10, ICD-9 and ICD-8. Although these versions differ in the degree of detail and specificity for each of the categories, they are all compatible with one another.

One of the major changes from previous ICD classifications is the adoption of explicitly defined, i.e. "operationalized", definitions and a multiaxial schema. These innovations will bridge the gap between ICD-10 and the other major classification system currently in use

in psychiatry in the world, the Diagnostic and Statistical Manual of Mental Disorders; (DSM-IV) (American Psychiatric Association, 1994). In preparation for the ICD-10 multiaxial schema, an International Field Trial has been organised by the WHO's Division of Mental Health. This aimed to collect data which helped in assessing whether the classification will be acceptable by different schools representing different traditions and socio-cultural backgrounds. The Field Trial also attempted to evaluate the "user-friendliness" of the system.

The Department of Psychiatry, Chinese University of Hong Kong has been chosen as one of the Multiaxial Field Trial Centres (WHO Code was 15.07). Here we give a brief account of the local trial and discuss our results.

METHOD

6 clinicians including 3 senior and 3 trainee psychiatrists were involved in the diagnostic exercise. There were 12 case vignettes, sent by the WHO, to be scrutinised. For each case, a multiaxial diagnostic formulation with 3 independent ratings on 3 different dimensions, was assigned. In Axis I, a clinical diagnosis with all possible differentials were chosen from the ICD-10 Chapter V "Classification of Mental and Behavioural Disorders". In Axis II, disabilities were rated according to the "WHO Disability Diagnostic Scale (WHO-DDS)". This comprised of a "Global Rating" (indicating the main reasons for dysfunction - psychiatric or somatic) and "Ratings of Specific Areas of Functioning" (see Appendix I). In Axis III, the "Environmental/Circumstantial and

Personal Lifestyle/ Life Management Factors" were selected from a pre-prepared list. This consisted of 11 categories with a total of 85 items related to childhood and upbringing, education, family support, social and economic circumstances, lifestyles, life management difficulties, and physical disabilities (see Appendix II). At the end of the assessment, participating psychiatrists were asked to fill in a questionnaire concerning the applicability of the Multi-axial Schema and problems experienced with it.

The whole process was repeated with 10 randomly selected live patients. The same 6 clinicians, forming 3 teams with a senior and a junior psychiatrist in each, conducted joint interviews before independently assigning the multiaxial formulation with the same instruments.

RESULTS

The arrangement of ICD-10 is such that clinically diagnoses are, firstly, grouped into a "two-digit" category (e.g. Mood [Affective] Disorders under F3). They are then subdivided into "three-digit" categories (e.g. Manic Episode under F30), which are then subdivided into "four-digit" categories (e.g. Hypomania under F30.0). Further subdivisions, mostly by course, are provided on the "five-digit" level.

AXIS I

In both case vignettes and life interviews, there were reasonable agreement achieved on Axis I (clinical diagnosis) among the 6 assessors, up to the "four-digit" level. However, the concordance lessened at the "five-digit" level. From a total of 30 live interviews (10 for each team), agreement was achieved for 13 at 5 digit level, 9 at 3 digit level, 5 at 2 digit level, while no agreement was found in 4 cases. In the case vignettes, most raters (5 or 6) agreed at 2 and 3 digit level. Even up to 4 and 5 digit level, agreements were found by the majority of the raters (4 to 6) with the exception of one case vignettes for which only 3 out of 6 raters reached diagnostic agreement.

AXIS II AND AXIS III

No significant concordance was found among local raters in both Axis II (Disability Rating) and Axis III (Environmental/Circumstantial and Personal Lifestyle/Life Management Factors). Out of the 30 assessments, only in 10 (33%) were agreement reached in the Disability Rating. Also there were wide discrepancies in both the range of number of factors chosen and the number of agreed factors chosen among the 6 clinicians in the assessment of the Environmental/ Circumstantial and Personal Life-style/Life Management Factors. This dis-

agreement occurred in both the case vignettes and live interviews. Again, there was lack of agreement among the raters of all 3 teams. In all the cases, only 3 had 2 agreed factors and 9 cases had 1 agreed factors.

For the "Applicability" questionnaire, all six participants reported that the Multiaxial Schema was easy to use, although some expressed doubts over the clinical validity of the system.

Our results will be combined with those from other trial centres and statistical analysis will be carried out on the total world sample at the WHO Headquarters in Geneva.

DISCUSSION

Looking at our results, Axis I provided the best agreement. The concordance persisted right up to "five-digit" level, particularly in the case vignettes. This echoed the results published from the Field Trial of the Clinical Guidelines accompanying the WHO's ICD-10 Classification of Mental and Behavioural Disorders (Sartorius et al. 1993, Burke, 1988). They collected results from 112 clinical centres in 39 countries by 711 clinicians who conducted 15302 individual assessments. The format was similar with live patients and case history exercises. Satisfactory interrater reliability was found in most of the categories. Most clinicians reported that the then draft classification was easy to use, and it fitted in well with most of the clinical conditions encountered. Our ratings in Axis II (Disabilities Ratings) and Axis III (Environmental/Circumstantial and Personal Lifestyle/Life Management Factors) showed a different picture. There was little, if any, agreement found among local assessors on both case vignettes or live interviews. It was particularly disappointing since these two axes attempted to measure socio-environmental effects, which would have more cultural influence. Although most of our raters were locally born and trained; their judgement on the importance of socio-environmental factors in the pathogenesis of psychiatric disorders may also be related to factors other than their psychiatric training. For instance, personal life experiences, ideological approaches in psychiatry (dynamic or biological) could all affect the outcome of their choices. Moreover, the individual items under Axis III often overlap in their meaning making it difficult to distinguish among themselves. In fact, similar difficulties were encountered in the combined Australian and New Zealand field trials (Ellis et al. 1994).

There has been greatly expanding worldwide interests in psychiatric diagnosis and classification over the recent decades. Development of techniques permitting greater precision in the identification and delineation of various syndromes, the availability of more specific treatments

and increased demand on scientific rigor by the psychiatric community are some of the reasons to account for this expansion. With increased international exchanges highlighting not only differences among nations, but also recognizing culturally invariant features of psychiatric disorders, a common system of description of clinical conditions has become indispensable. To achieve this primary aim, the new classification system must have a high level of interrater reliability (Grove et al. 1981, Ungvari et al. 1991), understandability, and suitability for practical use in a wide variety of clinical settings across cultures. The ICD-10 Chapter V and its Multiaxial Schema is the WHO's latest effort to foster communication among mental health professionals with different orientations and backgrounds. The clinical field trial reported here represents the Hong Kong arm of the WHO's attempt to achieve a common world language in psychiatry.

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APPENDIX I

WHO Disability Diagnostic Scale (WHO-DDS) (AXIS II)

Please use all available information (case notes, reports from relatives or staff, observation and interview of patient) in making global and specific ratings of dysfunction.

1) Global rating

This rating should represent the best estimate of the degree of dysfunction - in relation to the maximum level of expected functioning in the socio-cultural context of the patient. The rating should be made regardless of whether the dysfunction is due to somatic or psychiatric conditions, but the main reason for dysfunction should also be indicated, i.e. mainly psychiatric, mainly somatic, both somatic and psychiatric.

2) Ratings of specific areas of functioning

- A. Personal care and survival.
- B. Occupational functioning: performance of expected role as remunerated worker, student or homemaker.
- C. Functioning with family: interaction with spouse, parents, children and other relatives.
- D. Broader social behavior (functioning in other roles and activities): interaction with other individuals and the community-at-large, leisure activities.

Rating Scale

Rate global and specific areas of functioning (A-D) using any of the values from 00-99, including intermediate values. The following anchor values and definitions are provided to facilitate rating:

- 00 *No dysfunction*: The patient's functioning conforms to the norms of his/her reference group or sociocultural context.
- 20 *Minimum dysfunction*: Deviation from the norm in one or more activities/roles is present. The disturbances are minor but persist over the greater part of the time period. More conspicuous dysfunctions may appear for very short periods. e.g. one or two days.
- 40 *Obvious dysfunction*: The deviation from the norm is conspicuous and dysfunctions interfere with social adjustment. Dysfunction in at least one activity/role persists nearly all the time. More severe dysfunction may appear only for a few days.
- 60 *Serious dysfunction*: Deviations from the norm are marked in most activities/roles and persist more than half of the time.
- 80 *Very serious dysfunction*: Deviation in all areas are very severe and persist nearly all the time. Action by others to remedy or control the dysfunction might be required (according to the rater's judgment), but it does not need to have taken place in order to make this rating.
- 99 *Maximum dysfunction*: Deviation from the norm has reached a crisis point. A clear element of danger to the patient's own existence or social life and/or to the lives of others may be present. Some form of action or social intervention is necessary.

XX *Not applicable* (please state reason on coding sheet).

APPENDIX II**

Environmental/circumstantial and personal life-style/Life-management factors (Axis III)

This axis allows the coding environmental/ circumstantial and personal life-style/life-management factors of relevance for the psychiatric condition. A positive rating should be made for all factors which in your opinion have influenced the presentation, course, outcome or treatment of the disease, as well as those that have probably caused or precipitated the condition. The codes are divided into:

- a. Environmental/circumstantial factors (categories 1-9)
These include all events of a psycho-social nature and may be subdivided into recent life events dating back less than 12 months and chronic - still existing - difficulties.
- b. Life-style/life management problems (categories 10-11)
These include problems that are related to the personality and life-style of the individual as well as life-management difficulties.

In all cases, a codification shall only take place when the problem is assessed to be of a duration or severity that influences or is of significance for the present psychiatric condition.

In the codification, the socio-cultural context should always be considered when assessing the significance of a given stressor.

Please examine the axis thoroughly before beginning to code. If another, not listed, environmental/ circumstantial or life-style/life management factor is of relevant for the psychiatric condition, it should also be recorded and specified.

** Please contact authors for details of selected items

Selected Codes for Axis III

- 00 No significant environmental factor
1. Problems related to negative life events in childhood and upbringing
(Z61.0-1, Z61.3, Z61.6-9, Z62.0-2, Z62.4-5, Z62.8-9)
 2. Problems related to education and literacy
(Z55.0-4, Z255.8-9)
 3. Problems related to primary support group, including family circumstances
(Z63.0-9, Z60.1)
 4. Problems related to the social environment
(Z60.2-5, Z60.8-9)
 5. Problems related to housing or economic circumstances
(Z59.0-3, Z59.5-7, Z59.9)
 6. Problems related to (un)employment
(Z56.0-7)
 7. Problems related to physical environment
(Z57-8)
 8. Problems related to psychosocial or legal circumstances
(Z64.0-1, Z64.4, Z65.0-1, Z65.3-5, Z65.8-9)
 9. Problems related to family history of diseases or disabilities
(Z81, Z82)
 10. Problems related to lifestyle (in the absence of a respective Axis I disorder)
(Z72.0-5, Z72.8-9)
 11. Problems related to life-management difficulty
(Z73.0-5, Z73.8-9)

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