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The WHO Psychological Impairments Rating Schedule (WHO/PIRS)

I. Introducing a New Instrument for Rating Observed Behaviour* and the Rationale of the Psychological Impairment Concept

Prepared on behalf of the collaborating investigators by
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Based on the experience with the International Pilot Study on Schizophrenia (IPSS) (WHO 1973, 1979), the WHO Division of Mental Health and Centres in Sofia, Groningen and Mannheim, joined by expertise from Nottingham and Zurich, conceived a prospective study to assess the 'natural history' (Ciompi, 1980*a, b*; Watt *et al*, 1983; Biehl, 1987) of psychological impairments and social disabilities in patients with functional psychosis in different socio-cultural environments (Jablensky *et al* 1980).

This paper presents one of the principal instruments of the collaborative study, the WHO Psychological Impairments Rating Schedule (WHO/PIRS). With some modifications the instrument has also been used in other studies, both within and outside (e.g. Johnstone *et al*, 1986) the framework of the WHO Mental Health Programme, in some 15 countries and in several languages.

Underlying concepts: symptoms, signs (psychological) impairments and (social) disabilities

The distinction between reported symptoms of illness (Foulds, 1976; Palmer *et al*, 1981), observable signs (Carpenter *et al*, 1976) and impairments (Wing, 1976), and disabilities in social performance has been fundamental to the design of this WHO study. Although the boundaries between these concepts are not sharply delineated, the differentiation of three groups of phenomena has been shown to be useful in both physical rehabilitation (Wood & Badley, 1978) and social psychiatric work (Wing, 1976), and should be instrumental in an aetiological and classification research (Häfner *et al*, 1987).

The concept of (psychiatric) illness refers generally to reported mental states or experiences which are perceived as deviations from the normal state of health and can be described by more or less specific symptoms.

According to the International Classification of Impairments, Disabilities and Handicaps (ICIDH, WHO 1980), an impairment is 'any loss or abnormality of psychological, physiological or anatomical structure or function'. A particular impairment can also be a sign of an illness, but it always points to a function which is disturbed rather than to a specific nosological diagnosis. For example, cognitive deficit is clearly an impairment, but as such it is not disease-specific (cf. critical review of the impairment, disability and handicap concepts by Wiersma (1986)).

Disability is defined as 'any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being'. In the context of the WHO study, disability was defined as a loss or restriction of the capacity to perform particular social roles, normally expected of the individual in his habitual environment (De Jong *et al*, 1986). Figure 1 illustrates the postulated relationships between these concepts, where signs and impairments occupy an intermediate position between the more specific and presumably intrinsic symptoms and the rather unspecific disabilities, developing as 'consequences of disease' (WHO, 1980) under the influence of extrinsic factors.

These three different concepts lead to the following questions and assessment procedures in our longitudinal study:

> What inner experiences does the patient report? Symptoms, assessed by the PSE.
> What behaviour does the trained interviewer observe? Impairments, assessed by the PIRS after a semi-structured clinical interview.
> What are the patient's deficits in social settings? Disabilities, assessed by the DAS after an interview with a key informant.

This paper deals mainly with the assessment of observed behaviour, impairments in our nomenclature.

* The PIRS is not reproduced in this volume, as a revised edition of it (the BOS) which is similar in both form and content is reproduced on pp. 81–88. The PIRS is available from the WHO, Geneva, and has been reproduced in incomplete form in *European Archives of Psychiatry and Neurological Sciences* (1986) **236**. 139–147.

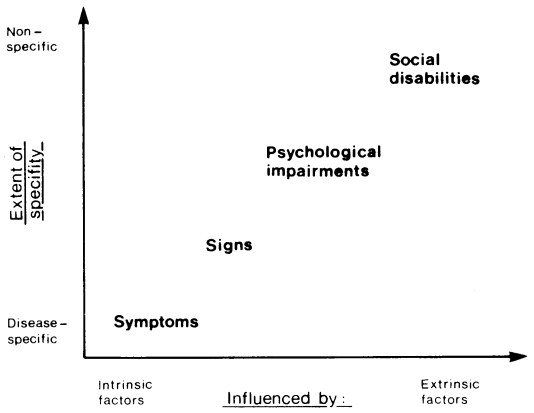

FIG. 1 Postulated relationship between symptoms, impairments and disabilities in WHO disability study.

The structure of PIRS

This instrument was designed originally to serve as a supplement to the Present State Examination (PSE) that would allow a more detailed recording of the patient's observed behaviour during the interview. Its content is an expansion and elaboration of the sections 18–20 (behaviour, affect and speech) of the ninth edition of the PSE. The concept of impairment which underlies the selection of PIRS items focusses on the interaction skills of the individual which are essential for day-to-day social behaviour and may be present and observable in most cultures. The actual selection of items was done after screening some of the literature on interactive and communicative behaviour (e.g. Ekman & Oster, 1979; Trower *et al*, 1978).

The schedule contains 97 items distributed over the 10 sections listed in Table I. A brief descriptive note is provided with each item, and a rating key allows the recording of the absence, presence, presence in a severe degree or lack of certainty about the items of behaviour. In addition, an 'overall impression' 6-point scale permits the investigator to make a more global judgment about the degree of disturbance in each of the ten sections (see full instrument in the Appendix).

How to use the PIRS

In the 10 years since it has been conceived, the PIRS has been used in a multitude of in-patient, out-patient and field settings with mental patients and former patients. Up to now, it has always been used in combination with a semi-structured clinical style interview, such as the PSE. It takes some 5 to 10 minutes extra time afterwards for the interviewer, but no additional time on part of the patient/proband is needed.

TABLE I
Structure of the psychological impairments rating schedule (PIRS)

PIRS Sections
1. Activity/Withdrawal
1.1 Slowness/psychic tempo
1.2 Attention withdrawal
1.3 Fatiguability
1.4 Initiative (over-resp. under-)
2. Social skills
2.1 Communication by facial expression
2.2 Communication by body language
2.3 Affect display
2.4 Conversation skills
2.5 Self-presentation
2.6 Co-operation
3. Global impression of patient's personality (subjective)

The time frame normally is the 1 hour of face-to-face contact between interviewer and patient, but some centres also experimented with extended time frames up to the 4-week period covered by the PSE. This, however, led to questions such as stability of certain behaviours/affects and to problems with retrospective reports of disturbed behaviour, not to mention issues of reliability. Therefore, we prefer a narrow time sampling approach (about 1 hour of direct interaction/interview) with most optimal time-points early in an episode (e.g. at hospital admission, even if a full PSE Interview cannot be obtained) and then again around the time of discharge into the community. Before starting to use the PIRS in research, we found — similar to experience of PSE users — an extensive training was necessary, with at least 15 video and live interviews, to achieve an adequate level of inter-rater reliability (both intra- and inter-centre).

Experience in Mannheim, where an independent series of 30 patients had been assessed in 14-day intervals during their time in hospital and at least three times after discharge yielded a kappa of 0.79 and a pairwise agreement rate of 89.4%, based on 5510 single ratings in 58 reliability interviews (out of a series of 257 interviews; see following paper).

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References to Part I and Part II are listed at the end of Part II.