BEHAVIOURAL PROFILING OF SOCIAL SKILLS: ANATOMY OF A EUROPEAN RESEARCH PROJECT.

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SUMMARY: This is a four-country study of the impact of social skills profiling on individual care planning and on staff insight into patient needs. A central element of the research is the Behavioural Status Index (BEST-Index), previously the focus of validation studies at Rampton and Ashworth Special Hospitals in the UK. This is currently being cross-validated on a European basis, employing a battery of well-tested instruments (the PCL-R; HCR-20; SCL-90-R; and BDHI-D).

Early History (1982-1989):
The Behavioural Status Index (**BEST-Index, Reed, Woods, 2000**) - the main battery of instruments used in the present cross-validational study - was initially developed in 1982 in response to clinical and educational needs in 'mainstream' psychiatry. A shortage of well-validated behavioural instruments charting a patient's 'social skills' performance *before*, *during* and *after* therapy emphasised the need for such an instrument - for example, in monitoring patients' response to therapy in a two-centre PhD study of patients' return from hospital to community-based care (**Mahgoub, 1989**).

Rampton and Ashworth Developmental Studies (1994-1995):
The utility of the instrument was recognised, and a 'social risk' sub-scale added for forensic use. A major study of three of the sub-scales (*Social Risk; Insight; Communication and Social Skills*) (**N=503**) was carried out and demonstrated high levels of internal consistency, test-retest reliability and potential for excellent inter-rater reliability (**Woods, 2000**). A preliminary comparative analysis involving violent incidents at Rampton Hospital also showed good potential for predictive validity (**Hollin and Holmes, 1999**).

European Study:
Dialogue on cross-border use of the BEST-Index began in 1995, involving initially Prof Alfred Lange (University of Amsterdam) and psychologists and psychotherapists of the GGzE (Geestelijke Gezondheidszorg Eindhoven en De Kampen) Forensic Psychiatric Circuit. Dutch colleagues developed a sixth sub-scale to assess empathy, which was added to the second edition (Van Erven and Dijkstra, 2002). Subsequently the research consortium was extended to include colleagues from Germany (Forensic Psychotherapy Section, University of Ulm Medical Faculty; Ministry of Health, North-Rhein Westphalia) and Norway (Brøset Forensic Institute, University of Trondheim Medical Faculty). Funding was obtained from the EC in 2002 to carry out a three-year European networking study of the BEST-Index against cross-validators The European Commission (Fifth Framework) Quality of Life Research Programme (Action Line 11: "Actions relating to persons with disabilities"). Currently the BEST-Index research consortium (known as COMSKILLS) includes nine members:

1. **University of Ulm, Germany** (Prof Friedemann Pfäfflin, Dr Thomas Ross);
2. **Brøset Institute, Trondheim, Norway** (Dr Kirsten Rasmussen, Roger Almvik);
3. **Ministry of Health, Düsseldorf, North-Rhein Westphalia** (Dr Uwe Dönisch-Seidel, M. Arts)
4. **GGzE Forensic Psychiatric Circuit, Eindhoven** (Dr A.C.J.M. Van Erven, Paul ter Horst);
5. **Sheffield Hallam University, UK** (Prof Val Reed, Anne Dean, Andrew Garth, Richard Mather);
6. **Rampton Hospital** (Mick Collins, Ian Brown);
7. **Blair Unit, Royal Cornhill Hospital, Aberdeen** (Alyson Kettles, Jean Woodally);
8. **The State Hospital, Carstairs, Lanark** (Dave Langton, Helen Watson, Sandra Steel);
9. **King's College, University of London** (Dr Phil Woods[1], Susan Sookoo).

- with additional advice and collaboration involving the University of Amsterdam (Prof Alfred Lange, Tim Van Erven); the Technical University of Eindhoven (Dr Jan Dijkstra); and De Rooyse Wissel Instituut, Venray, Netherlands (Ed Hilterman, F Chakhssi).

Nature of the Study:
Aims:
The study continues the extensive validation of an innovative behavioural assessment - the ***Behavioural Status Index (BEST-Index)*** - and its impacts on carers' perceptions of their patients' needs. It includes procedures to

> **1** *validate* the instrument cross-culturally in the UK, Germany, the Netherlands and Norway;

> **2** *examine effects* of the resultant change process on attitudes and perceptions of care staff concerning patients' problems and ways of working with them.

These aims entail (1) cross-validation with standard psychometric instruments; and (2) a brief staff attitude survey. They are objectivized as follows:

In the case of (1) above by

> **1.1** *obtaining psychometric data* from parallel cohorts of patients in the various European settings;

> **1.2** *undertaking correlational studies* testing the congruence of scores obtained on well-validated clinical instruments (see **Annexe H**) with those obtained in cognate sub-scales of the BEST-Index.

In the case of (2) above by

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[1] Relocated to University of Hertfordshire in 2004.

2.1 *using qualitative-descriptive data* derived from interviews to expand and clarify the clinical "meaning" of quantitative measurements;

2.2 *determining the congruence* between quantitative and qualitative assessment in key categories, thereby contributing to validation of the BEST-Index and sophisticated use of the cross-validating instruments;

2.3 *assessing the degree* to which staff perceptions of care needs are sharpened and modified by an intensive assessment regime;

2.4 *observing any changes* in sensitivity and appropriateness of resultant care plans.

Scientific Background:

The research addresses thematic priorities identified by the European Commission in its Fifth Framework research programme for persons with psychological impairments and/or disabilities (**QOL-2000-11**). Following well-known psychometric and clinical studies (e.g., **Webster and Eaves, 1995; Hare, 1991; Derogatis, 1994; Lange** *et al*, **1995**)[2] the work continues intensive development and testing of the BEST-Index undertaken during the last decade, particularly with regard to item analysis, stability, predictive and inter-rater reliability and factorial structure (**Robinson, Reed and Lange, 1996; Woods and Reed, 1998**; **Reed** *et al,* **2000**). As its name implies, this instrument allows detailed behavioural profiling of offenders' social skills (*socially 'risky' behaviour; communication; insight; work and recreation; self and family care; empathy*), all critically important to effective rehabilitation. Resultant profiles allow precise interventions to help the patient improve his/her social skills so as to "succeed" better in a social context and reduce the risk of re-offending.

The empirical logic underlying studies of this type is that, where innovative descriptors are sufficiently sensitive, this may be determined by demonstrating robust and consistently significant positive correlations with cognate items in previously-existing, well-validated clinical instruments. The cross-validators (i.e., instruments selected for validation of the BEST-Index sub-scales) comprise both *descriptive-observational* types (the *PCL-R,* the *HCR-20*) and *self-report* types (the *SCL-90-R*, the *BDHI-D*) (for further details see **Annexe H**). These cross-validators contain many items which are descriptively cognate with (i.e., occupy the same descriptive domains as) items in the various sub-scales of the BEST-Index (also outlined in **Annexe H**). The critical question is: Are such relationships both robust and consistent? If so, then this is an empirically sound basis for pursuing further clinically-based studies of the BEST-Index, and for advocating its use in routine psychometric assessment of offenders. This would be clinically advantageous, since the BEST-Index possesses practical properties which would make it very useful to practitioners. For example:

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[2] For full references see protocol entitled *Developing Community Living Skills in Offender Groups*. Brussels: October 11, 2000.

- it is normatively rather than pathologically-based (i.e., it describes a range of normative social behaviours, showing recovery from 'worst-case' to 'best-case');

- it offers detailed descriptors of each 'level' of recovery;

- recovery levels on each scalar item are described in ordinal sequence;

- these sequences have clear implications for offender profiling, risk prediction and therapeutic interventions to improve the patient's status.

These are features not found together in existing assessment instruments; and could represent a material advance in treatment profiling. The issues of *robustness* and *consistency* of the BEST-Index sub-scales *vis-à-vis* cross-validators requires a **cohort validation study** to obtain comparable, time-related, repeated-measure scores on the various cross-validators and on related parameters of the BEST-Index, in a longitudinal study involving typical end-users drawn from forensic psychiatric populations.

The cohort study implies change to an "assessment-intensive" ward culture. An integral requirement is therefore a parallel **staff attitudinal study**, in the form of an ongoing dialogue with care staff, and structured monitoring of the acceptability of the regime; its impacts on their reflections on, and decisions regarding, current care practices and treatment priorities; its likely outcomes in altered care planning; and clinical-qualitative insights into the pragmatic "meaning" of psychometric assessment data (**Burns and Bulman, 2000**)[3]. This model involves continued dialogue between researcher and care staff; keeping of field notes by the former; and recording of a brief, ten-minute interview with each keyworker at the beginning, middle and end-points of clinical data collection. These data serve as qualitative guidelines on the impact and utility of the project as a whole, and serve as clinical-qualitative guidelines for further studies.

Outline of Study:
1. Cohort Validation Study: It is emphasised that this study does not set out to compare specific treatments; but uses nonparametric correlational techniques[4] to examine in detail the clinical validity, robustness and reliability of the BEST-Index, drawing on comparative data from clinical notes and observations; cross-validation with instruments of known validity; and content-analytic studies of staff interviews. Detailed behavioural profiles of patient cohorts (each **n=30**)[5] will be obtained in seven clinical locations (total **N=210**). Clinical locations include: (1) University Clinic, Ulm, Germany; (2) Landeskliniken, North-Rhein Westphalia, Germany; (3) Brøset Clinic, Trondheim, Norway, and associated clinics; (4) Forensic Circuit, Eindhoven, The Netherlands; (5) Rampton Hospital, Retford, Notts; (6) The State Hospital, Carstairs; (7) The Blair Unit, Aberdeen. There will be concurrent

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[3] **Burns, S., Bulman, C. (2000):** Reflective Practice in Nursing (Second Edition): pp 52-78, *The Assessment and Evaluation of Reflection*.
[4] **Siegel, S., Castellan, N.J. (1988):** Nonparametric Statistics for the Behavioral Sciences (Second Edition), pp 224-312, *Measures of Association and their Tests of Significance*.
[5] But see comment in paragraph 1.2[14(i)(a)], below, regarding "over-recruitment".

studies of the impact on staff attitudes to, and ways of working with, patients, involving brief staff interviews. The time schedule is as follows:

Weeks 1-52: Initial and intermediate assessments, interviews and interventions[6]; software development completed; first-phase interventions; first interim report prepared.

Weeks 53-104: Second-phase interventions, re-assessments and clinical adjustments followed by third (final) re-assessments; second interim report prepared.

Weeks 105-156: Comparative cross-cultural analyses and presentation of predictive profiles and treatment indicators for the European sub-samples completed; and final report prepared.

2. Staff Attitudinal Study: Brief discussions with staff regarding patients' progress and constraints on their care form an integral part of the study. They are the qualitative analogue of psychometric assessments, and serve to cross-validate the psychometric findings. Their purposes are: (i) to expand and clarify the clinical "meaning" of quantitative measurements; (ii) to determine the congruence between quantitative and qualitative assessment in key categories, thereby contributing to validation of the BEST-Index; (iii) to assess the degree to which staff perceptions of care needs are sharpened and modified by an intensive assessment regime; and (iv) to observe any changes in the sensitivity and appropriateness of resultant care plans.

Data-collection for this part of the study is by means of ongoing carer-researcher dialogue, researcher field notes and a simple and brief (ten-minute) discussion involving the researcher and each keyworker, based on the patient's progress and recovery status, employing the categories of the guided interview schedule. This interview is really a carefully-structured version of the "standard" clinical discussion which forms part of the daily exchange of views between care staff regarding patient progress and needs, systematised for subsequent content-analysis. Each discussion is either audiotaped or detailed notes are taken by the researcher. Subsequently, these data are content-analysed using Ethnograph qualitative analytic software[7]. Content categories will organise verbal data obtained in field notes and interviews into descriptive accounts of staff reflections on patient care, qualitative interpretations of psychometric results and responses to the assessment-intensive approach. Interviews are repeated in parallel-form on two further occasions, providing a conspectus of staff perceptions and attitude changes towards patient care and treatment at beginning, intermediate and

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[6] No *specific* intervention is being examined. By *intervention* here is meant inevitable adjustments to standard
  care occurring in response to assessment data.

[7] **Seidel, J. (1998):** Ethnograph Version 5.0: A User's Guide. London and California: Sage Publications.

end-stages of the data-collection phase. This aspect of the study provides an invaluable insight into the potential effects on carer attitudes and perceptions of working with patients in such a detailed and systematic way; and forms an integral part of the clinical validation of the method. It also serves as an essential "normative-reeducative" change strategy for introduction and evaluation of the associated "assessment-intensive" ward culture. Patients are made aware of the staff attitudes study through comments in paragraph 4 of the Patient Information Sheet.

HoNOS and the BEST-Index: Why use one rather than the other?
The answer is that *both* may be effectively used. The two systems are complementary, but they tackle treatment problems from different theoretical and practical standpoints. HoNOS monitors clinical signs in a rather *global* way, and looks for *global* increases and decreases in twelve key parameters. It thus doesn't lend itself readily to individual monitoring of *specific* treatment outcomes in *specific* behaviours - its categories are too inclusive and its scaling too open to subjective interpretation for this to be possible. This would make its use in clinical trials as an outcome measure problematic - and its authors admit this. It is, however, extremely useful as a general monitoring instrument of clinical status.

By contrast, the BEST-Index concentrates not on *clinical* signs *per se*, but on the individual's repertoire of *normal* social behaviours, and how these may be improved. It is behaviourally based, and its criteria analyse a repertoire of "survival" skills which we all need in order to succeed in a social context - communication, social skills, insight, work and recreation, empathy. It does this in a very fine-grained way, so that objective criteria can be applied to shifts in an individual's social performance, and the results used as precise outcomes measures at various stages in treatment. It is therefore particularly useful as an outcome measure in focused treatment programmes and in clinical trials.

Characteristics of the Current Study:
To summarise, the present study is:

1. A multi-centre, multi-lingual, European study;
2. Offers cross-cultural validation and clinical use;
3. Operates through locally-managed cohort studies;
4. Includes development of CD-ROM-based software
   which will:
• *teach* the use of the instrument;
• *collate and analyse* data, generate reports;
• *suggest* appropriate interventions;
• *maintain* long-term progress profiles.

Plans for a Future (Phase 2) European Study:
The objectives will include;

- Increase the membership of the consortium (include Mediterranean countries, other European centres, newly independent and developing countries);

- Develop therapeutic uses (e.g., concentrate on translations, individual therapies, advisory texts, profiling, predictive validity and normative studies);

- Complete software development to commercial level;

- Extend study to develop community norms for each sub-scale.

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