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Assessment of Mentally III Patients' Adjustment Behaviour Both in Hospital and Community

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ABSTRACT

The developmental process of a new assessment tool in the field of mental health is described. This new instrument was called Behavioural Adjustment Inventory (BA 130). Its aim is to provide realistic assessment of patients adjusting behaviour both in hospital and community. The new tool combines both quantitative and qualitative techniques in measurement. Standardisation process of the BAI 30 achieve 100% validity for all its 30 items with 75% inter-rater reliability.

INTRODUCTION

The need to develop a tool for patients' mental health assessment has been recognised for many years. Systematic rating by nurses of disturbed and psychotic behaviour has been under development for whole century. At the end of the 19th century ward behaviour charts were started at Phippis Clinic in Baltimore; in 1922, Plant published his "Rating scheme for Conduct"; in 1944 Cohen, Malmo and Thale introduced "Norwich Rating Scale" "The Hospital Adjustment Scale" by McReynolds, Ballachey and Ferguson in 1952, and many others (Downing and Brockington, 1978)

Whilst the number of observational charts and assessment instruments have been growing fast in the last decade, yet many of these attempts were constrained by many problems like internal-validity, inter-rater reliability, context of implementation and scoring scales.

For these reasons a new attempt to develop a new instrument that would meet identified needs of assessment and could deal with the constraints exhibited through the development of other tools. This new instrument is called Behavioural Adjustment Inventory, BAI30. Description of its conceptual Frame work, developmental process and implementation will follow.

Review of Literature

Countless number of assessment tools of mentally ill patients has been developed to solve a specific problem, i. e. evaluation of patients' condition; adjustment/ maladjustment, care, and progress in quantifiable terms that would produce objective outcomes.

With objectivity being the ruling, many of these developed assessment tools focussed on the clinical and psychopathological aspects of patients 'behaviour while others focussed on itemising normal/ abnormal behaviour.

Downing and Brockington criticised the fragmented perception of patients' problems by these tools. Their research which compared six nursing-rating schedules to evaluate their suitability for a British psychiatric unit showed that most of these scales content corresponded to a wide range of psychopathology, impractical for large number of patients and did not provide a full mental state assess-

ment. They recommended in-depth psychiatric interviews, identified criterion for both psychiatric and nurse-rating plus a multidisciplinary approach.

Carstairs (1968)recognised the difficulties encountered by researchers in the field of community mental health. He pointed out that to understand the nature of these methodological difficulties, the researcher has to be quite clear "objective evaluations"and their reality. He argued that innovations and persuasion force were the agents of psychiatric progress rather than the advocated therapies of insulin coma, leucotomy or psychotropic drugs.

He criticised Lembau and Pascemcenick's suggestion in 1957 "to focus on particular elements in this complex field, to identify specific activities and then to seek measurable indicators of their effectiveness"

He did not agree either with MacMahon, Pugh and Hutchinson's attempt in 1961 to separate "Evaluation of accomplishment" and"Evaluation of technique"For Carstairs one is the logical sequence of the other.

He summarised point of view in the following: -

"Theses authors are clearly dismayed to find that many allegedly evaluative studies in psychiatry have taken the premise that the activity in question is therapeutic as self-evident and have concentrated on demonstrating how energetically it has been deployed. Their paper also illustrates another major problem. To meet the requirements of a tidy research design, they would like to be able to examine the effects of one variable at a time, or if several variables are necessarily involved, they would like to be able to assign numerical values to each variable. In practice, however, they find that any mental health programme involves a multiplicity of interacting variables, and its outcome may also be manifested in several different ways"

The importance of subjectivity in our lives could deny objectivity even in hard sciences; as certain elements of subjectivity, e. g. the researcher's experience, perception, point of investigation, specific interest and expectation are always included without questioning. However, researchers in both fields hard and human sciences continue to quantify their finding according to fixed measures.

Brooker's(1983) evaluative study of community psychiatric nurse intervention is a very good example of such limitations mentioned by Carstairs. Brooker tried to evaluate the CPN's service in Bloomsbury Health District in terms of patient's outcomes, i. e. to examine whether CPN intervention related to significant reduction in the outcome measures scores. He used semi-structured interview schedule which included 12 various outcome measures reflected various areas of psychopathology, social background and CPN activities.

Brooker acknowledged the major problem in his research design, i. e. lack of control group and the dismissal of other variables that influence patients' response to therapy.

Similar attempts to produce a rating scale that could be used in the community for patients in the out-patients' clinics was conducted by Clare and Cairns(1978) Their structured interview schedule identified and examined three main areas of social maladjustment and dysfunction. These were material conditions, social management and satisfaction.

Each interview took approximately 45 minutes to administer, and covered housing, finance, occupation, social and leisure activities and relationships with significant individuals in the subjects' life. The schedule was 4 point scale, negative scoring 0-3, with 0= satisfactory and 3= severe difficulties, severe dissatisfaction.

They found problems regarding the inter-rater reliability of different items; decisions about the severity of the problem were very difficult to standardise and the use of principal component analysis

meant that many items were discarded.

Nevertheless, they considered their tool to be comprehensive instrument and recommended its use for assessment of social maladjustment in general and selected population.

The above review demonstrates clearly the difficulties encountered by many researcher to produce accurate instruments for assessment of patients' difficulties and to evaluate its effectiveness. In order to understand why many of these attempts were not truly successful one should look at their approach of defining a situation, a problem and goal or aim. In each of the above studies there was the inherent artifact which is their tendency to defend"objectivity" and hope for generalisation. Research in hard science had forced researcher in the field of human sciences to believe in such things as"objectivity" reliability" and statistical analysis to be premise of their study and interpretation of results. The study of certain phenomena should be as reflective as possible, i. e. accuracy is the ability to indicate the real dimensions as multiple and complex as possible.

Therefore a phenomenological approach is necessary to adopt when examining and conducting evaluative studies in the field of mental health combined with the positivist procedures. This trend is not new or unscientific, on the contrary it is a way to examine the controversy in results about human behaviour.

The use both quantitative and qualitative methods of research was recommended by a number of writers such as Lam and Orr(1979) and Reichardt and Cook (1979). Kirk and Miller (1986) went further, defending on the importance of qualitative methods, validity and regarded reliability as of little importance. They identified three kinds of reliability; quixotic reliability diachronic reliability and synchronic reliability.

"Quixotic reliability" refers to circumstances in which a single method of observation continually yields an unvarying measurement "Diachronic reliability" refers to the stability of an observation through time and"Synchronic" refers to the similarity of observations within the same time period.

Kirk and Miller argued that the first kind of reliability is trivial and misleading, the second kind as inapplicable in a changing world and the third kind as only useful when it fails to occur so that the researcher will be forced to study the multiple and different stimulus.

One might agree with Kirk and Miller that reliability is not a true criteria of the efficiency of certain technique or experiment, specially in the field of human science, but the following example may explain the reason behind obtaining inconsistent results.

From a personal point of view consistency is not impossible task and it could be achieved during the assessment of patients' behaviour. A 21 year old female patient was admitted for hospital care for treatment of Anorexia Nervosa. The therapeutic programme drawn for her by the consultant was based on the behavioural model of psychotherapy. It used the token theory technique. The patient was confined to complete bed rest and was deprived of all her usual personal freedom like seeing her family or using the phone or even having her own bath. In addition a high calorie diet was prescribed for her. Target weight increase every week was rewarded giving back some of her personal freedom. During the course of therapy this patient presented a big problem for the nursing staff. She was not cooperative most of the time, but at the same time but at the same time she was very keen to receive the rewards offered by her programme. She would eat the food provided one day and refuse it the other, giving different excuses, e. g. it is not nicely cooked, cold, too much fat, does not like this and that etc. She would put weight on one week, feel happy for that progress, get her reward

and then regress the week after and lose the weight gained. Assessment of this patients condition using only the positivist approach will show inconsistent results which were difficult to explain according to rational measures.

However, the inclusion of in-depth interviewing produced qualitative data, that was clearly rational and consistent.

During a series of in-depth interviews this patient acknowledged the problems she is causing and leading to the failure of her therapeutic programme.

She explained that the therapeutic programme dealt with only one aspect of her problem, i. e eating disorder; the programme ignored why this problem started in the first place and what she needs as a person. She admitted that she suffered from a conflict between two desires, one to grow up and the other to remain a child. Her eating problem served that purpose, i. e. power and control over her body and attracted her family's fiance's and hospital staff's care and attention.

The therapeutic programme ignored the importance of that secondary regain, so she had to fight losing control.

At the same time the programme reinforced the conflict by treating her as a child who receives rewards for"good" behaviour and as an adult whose weight increase improves a feminine figure. She saw the physical improvement as separate from the psychological, as she couldn't accept her new image, all what she could see was"protruded tummy".

Deep understanding of patients' adjustment strategies was very helpful to find the consistency in her behaviour and produce a good rationale for changing the programme. The new programme was designed to help her (child) to control motives, acknowledge their presence, and deal with them, receive attention as a recognition of her abilities and personal qualities, and her time to accept her new image as a grown up woman

As mentioned earlier the use of quantitative and qualitative methods was employed in this study.

A tool of assessment that assesses observable behaviour within its context with specified criteria was developed and introduced. This tool is called the Behavioural Adjustment Inventory(BAI 30) . It is a positive 5 point scale 1-5; that range from the worst possible situation up to the most appropriate situation. No numerical values were designated for the movement up or down the scale. Scores recorded on this scale represented the level of progress in relation to the specified criteria and the attribution process. In social psychology the process of judging individuals' intentions and dispositions from their actions is called the"Attribution Process", a theory that was initiated by Fritz Heider in 1958 (Gahagan, 1975).

In that respect the BAI 30 was concerned with assessing patients' behaviour within its context whether it was physical, environmental or social.

Development of the BAI30

A library search in 1983 revealed the lack of a nursing assessment instrument that measures patients' adjusting behaviour in both hospital and community.

The above review showed the great need for such assessment tool that could serve as a guide line for assessing patients' conditions, progress or regress. It was also very important to produce a comprehensive tool that would include many of the general areas of dysfunction, and yet simple to administer and score.

The process of developing the BAI30 was completed in two years and it involved two stages:

The Initial Phase

The initial version of the BAL was 100 items, two point scale (Yes/No).

Four sections composed the BAI100, these were as follows:

Section A Communication and social Skills 30 items

Section B Insight 20 items

Section C Self and Family Care 30 items

Section D Work and Recreational Activity 20 items

Items of each section were selected from a pool of items. Section was based on two important factors validity and item election.

Fifteen community psychiatric nurses with working experience of 4-15 years(mean 9. 25 years) participated in the process of identifying and selecting the 100 items.

The theoretical basis of the BAI100 was found in Argyle's (1975) work on communication, verbal and language and use of certain signals.

Further work by Tower, Bryant and Argyle(1978) provided an outline for assessment and improvement of social skills.

Pilot Work

The 15 experienced CPNs were requested to use the instrument for assessing one of their patients in the community. A procedure manual explaining each item, its situational assessment and criteria was developed to be combined with the BAI100. Both the BAI100 and its manual were mailed to the CPNs two weeks in advance, to allow time for comprehending the problems and to answer any of their queries. They were also asked to write their comments, time spent completing the forms, and any suggestion for improvement. The same procedure was repeated for inpatient assessment by ten nurses in a psychiatric unit(Nothern General Hospital, Sheffield).

The outcome of the pilot work were generally positive and encouraging. They found the BAI100 and its manual helpful. However some criticism was directed towards the following:

(a) Section D only observable clearly in the actual work situation.

(b) The need to avoid referring to the manual during assessment and the need for the assessment to be discret and the difficulty of its continuity.

(c) Certain items were inappropriate or difficult to assess.

(d) length of time taken on the assessment (ranged form 45 minutes to 480 minutes, mean 144. 6 minutes).

Modification to some items were added to eliminate ambiguity and improve its efficiency.

Testing the modified BAI100 took place by the researcher. Assessment of a sample of patients(n=22) on admission to hospital, discharge, and three months post discharge was conducted.

Development of the Recovery Index

Implementation of the BAI100 as assessment instrument proved the fallacy of using a two point scale for measurement.

Decisions about the absolute presence or absence of the observable items were often difficult and unrealistic. Intermediate levels of function were recognised as being essential so that any progress or regress could be recorded. There fore a Recovery Index of a 5 point scale(1-5) was developed and introduced to be used in conjunction with the BAI100.

The Recovery Index(RI) consisted of descriptive statements covering the three intermediate levels of functioning; thus each item of the BAI100 items was detailed to fine subdivisions, amounting to 500 functioning levels. Although the RI facilitated the screening of patients' areas of difficulty or dysfunction and funding basis for therapeutic intervention yet a number of problems were identified during implementation:

(a) BAI100 was too long to score in the one initial interview.

(b) Avoidance of on- the- spot scoring presented great difficulty in remembering the appropriate score for each item afterwards.

(c) Genuine spontaneous conversations with the patients were usually constrained by the process of monitoring the

presence or absence of items.

(d) Many of the items had a very subjective of normality and ignored different factors such as culture, race, social class, and individual capacities.

(e) Other items were very elementary and superficial.

(f) Although the RI helped in identifying specific areas of difficulties yet patients' behaviour does not always fit a precategorised behavioural statement.

Therefore the need for major changes in the BAI100 and its RI to produce a practical workable tool become greatly evidenced.

The Second and Final Phase

The BAI100 was considered as a pool of items from which unnecessary and elementary items were removed. Items representing symptomatology were removed. Decision-making about theses items was based on advice given by a behavioural therapist and a psychiatric consultant. The items were reduced to 65, with addition of another two items lacked in the initial BAI100. Thus in total there were 67 items for the new validation process. Ten raters were asked to evaluate the 67 items in relation to patients' complaints and according to a prescribed measurement. The raters involved in this evaluation were: one psychiatric consultant, psychiatric senior lecturer, a behavioural therapist, one CPN, two social workers and two staff nurses working in the psychiatric unit.

The inter- rater reliability was tested by producing a video tape of 40 minutes about these patients from the unit and the outpatient clinic. Raters viewed the tape at 10 minute intervals during which completion of the assessment forms took place.

Results indicated the redundancy of many of the 67 items. The new BAI was shortened to 30 items with 5 point scale(1-5) with specified criteria. Further validation achieved 100% consistency for all the 30 items.

Inter- rater reliability for the new BAI30 was also realised

On this occasion four raters assessed four identified patients on four successive days according to the following schedule:

	P1	P2	P3	P4
D1	R1	R3	R2	R4
D2	R2	R4	R1	R3
D3	R4	R1	R3	R2
D4	R3	R2	R4	R1

P= Patient
R= Rater
D= Day

The Optimal objective was to reach 100% inter-rater reliability. This proved very difficult to achieve for all items; on average the inter-reliability was 75% .

Section A Communication and Social Skills 9 Items.

Section B Insight 9 Items.

Section C Self and Family Care 12 Items.

The BAI 30 was implemented to assess adjustment / maladjustment for 18 patients on admission to a psychiatric hospital discharge and 3 months post discharge.

The final testing of the BAI30 indicated the successful development of new tool for patients' assessment that reflects realistic outcomes and produces comprehensive outlook of areas of patients' difficulties, and implement both qualitative and quantitative procedures for data analysis.

Summary and Conclusions

Evaluative studies and development of standardised tools of assessment in the field of mental health have been criticised for not being reliable or comprehensive.

Most of the developed tools focussed

on the psychopathological aspects of patients behavioural disorders and their clinical progress.

The current study presented a new attempt in that field. The new tool is called BAI30, composed of 30 items covering three areas of observable behaviour; namely communication and social skills; insight and personal and family care. Scoring is made on a five-point scale which ranges from the worst possible situation to the most appropriate situation. Descriptive assessment criteria is included for each item.

In-depth interviews with patient should take place prior to the employment of the tool.

The context of patients' behaviour is examined and elements of inconsistency should be explored before assessment.

The implementation of this phenomenological outlook did not devalue the use of positivist techniques.

Data analysis using both qualitative and quantitative measures proved to be more reflective of real performance.

Such approach emphasised the value of accepting subjective measures and questioned the reality of"objectivity" in research.

Finally one should not deny the fact that subjective measures could be misleading as well, and it is the duty of the researchers to find means by which reflective measures would be as near as possible to reality.

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ABSTRAIT

L'Evaluation des Malades Mentaux: Le Comportement à l' hôpital et dans la société

Ce papier explique l'étude et le développement d'un nouveau instrument pour évaluer le comportement d'adjustement des malades mentaux à l'hôpital et dans la société. Cet instrument a été donc nommé" Behavioural Adjustment Inventory " ou BAI. La méthode de son développement a eu lieu a Sheffield Northen General Hospital, U.K, entre 1982 et 1984. La cross-culturelle validation de cet instrument pour la population Égyptienne a été conduite pendant l'année 1985.

Les résultats de cette étude resident dans l'emploi des mesures quantitatives et qualitatives, dans le but de produire un nouveau instrument qualitatif sensible et valide , pour évaluer le comportement des malades.

الموجز

قياس السلوك السكينى لدى المرضى العقليين فى كل من المستشفى والمجتمع

تناقش هذه الدراسة تقديم وسيلة جديدة لتقييم السلوك السكينى أو الغير سكينى للمرضى العقليين فى كل من المستشفى والمجتمع وسميت هذه الوسيلة ببيان التكيف السلوكى وتمت عملية تطوير هذه الوسيلة فى مستشفى شيفيلد نورثرن العام بالمملكة المتحدة بين عامى ١٩٨٢-١٩٨٤ وقد أجرى إختبار مدى الصلاحية البيئية على الأفراد المصريين فى عام ١٩٨٥ ومن نتائج هذا البحث تطبيق مقاييس كمية وكيفية تطوير أدوات علاجية لقياس سلوك المرضى .