EVALUATION OF AN INPATIENT PROGRAMME AIMED AT PREPARING "HARD-TO-PLACE" CHRONICALLY MENTALLY ILL FOR THE COMMUNITY.

A thesis presented in partial
fulfilment of the requirements
for the degree of Master of Arts
in Psychology at Massey University.

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1995

ABSTRACT

With the continued policy of deinstitutionalising psychiatric inpatients, Lake Alice Hospital developed the Intensive Learning Centre (ILC) in an attempt to prepare their "hard-to-place" clients for successful community placement. The present research evaluated the ILC programme's ability to meet its' stated objectives, and compared the 15 ILC clients to a group of 26 clients who had been transferred to community placements 18 months earlier. Informant driven measures of adaptive and maladaptive behaviours were used to evaluate the effectiveness of the ILC programme, and to compare both subject groups on levels of functioning. The findings indicated a short-term (5 month) improvement in the general functioning levels of the ILC clients, but this improvement was not sustained at the 10 month follow-up. The ILC and community groups displayed similar levels in areas such as independent functioning, economic and domestic activity, violence, self-injury and verbal aggression. The community group demonstrated higher levels of functioning in areas such as social activity, self-care, community skills, antisocial behaviour, withdrawal and inappropriate behaviours. The implications and recommendations of these findings for the staff, clients and treatment programme are discussed.

Dedicated to the memory of Lindsay Williamson,
Michelle Batt, and Linda Butt.

ACKNOWLEDGEMENTS

I would like to express my deepest gratitude and respect to Dr. Frank Deane for his guidance, considerable knowledge and his endless patience all of which have been greatly appreciated.

Many thanks also to Dr. Graeme Beaumont for the kind assistance and valued contributions that he provided throughout the duration of this thesis.

I also wish to share my deepest appreciation to my family for their ongoing encouragement and interest in my studies.

Finally, special thanks to my partner Corey for his enduring support, his tolerance and his ever-present sense of humour which he has still managed to provide over the distance that separated us.

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CHAPTER 1 - INTRODUCTION

THE POLICY OF DEINSTITUTIONALISATION

Deinstitutionalisation is a policy that has been implemented in New Zealand's mental health system since the 1950's (Haines & Abbott, 1986), with community care coming into prominence in the 1970's (Mason, Ryan, & Bennett, 1988). Deinstitutionalisation refers to the transfer of the care of mentally disordered people from psychiatric hospitals to the community. The removal of psychiatrically disturbed people from the community to hospital settings was welcomed in the 1800's. However, several factors have contributed to put current pressure on health providers resulting in the deinstitutionalisation policy.

Several authors report factors contributing to the implementation of deinstitutionalisation in New Zealand (Haines & Abbott, 1986; Mason, Ryan, & Bennett, 1988).

(1) Institutionalisation tended to result in the stigmatisation of the mentally disordered person, and it promoted symptoms and interactions based on the sick role. It was theorised that incorporating these people into the community would help to decrease this stigmatisation.

(2) The patients did not always want or in some cases need to be in an institution.

(3) There were growing reports of the detrimental effects of mental hospitals.

(4) There was the advent of antipsychotic drugs which helped control the symptoms of some psychiatric conditions.

(5) There was a growing need for community facilities.

(6) The civil rights movement began to dispute whether it was ethically appropriate to incarcerate people for the rest of their lives.

(7) There was an international trend away from hospitalisation towards deinstitutionalisation.

(8) The government favoured the idea as it was reported to be less costly to have community mental health facilities than inpatient hospital care.

The deinstitutionalisation movement attempts to avoid or minimise the conditions that have been associated with institutionalised mental health care (Brunton 1986). Principally, institutionalisation is reported to create dependency in those under its charge (Lamb, 1993). Hospitals have tended to remove the stressors and responsibilities of daily life from patients. Over time this creates the progressive loss of social and vocational capabilities, which in turn impairs the ability of the person to adapt and function outside of a hospital setting (Kiesler, 1982).

Kiesler (1982) reviewed 10 studies which had randomly assigned seriously disordered psychiatric patients to either inpatient care or to some form of outpatient care. Kiesler reported that none of the studies found hospitalisation to produce a more positive outcome than outpatient care. In fact, outpatient care tended to result in a more favourable outcome as far as psychiatric evaluations, the likelihood of employment, independent living arrangements, staying in school and it was also reported to be more cost effective.

Controlled trials comparing alternatives to hospital admission, standard hospital care, and continued long term hospitalisation of chronically ill individuals found that most people did no worse in outpatient care, and in some cases the outcome was superior to that of the hospitalised group. However this finding was dependent on the presence of continuing care in the community (Braun, Koshansky, Sharpiro, Grennberg, Gudeman, Johnson, and Shore, 1981).

A carefully controlled Australian study by Hoult, Reynolds, Charbonneau-Powis, Weekes, and Briggs (1983) has also shown that hospitalisation can be avoided with some success. Their study involved 120 people who presented for admission to a psychiatric hospital. These people were then randomly allocated to two

groups. The controls received standard hospitalisation and after care treatment and the experimental group received community based treatment with an effort being made not to hospitalise this group unless absolutely necessary. After 12 months it was found that 96% of the control group were admitted and 51% were admitted more than once. In addition, they spent an average of 53.5 days in hospital. In the experimental group 60% were never admitted and only 8% were admitted more than once. This group spent an average of 8.4 days in hospital. The community treatment was considered by the clients and their relatives to be; more satisfactory and helpful, to produce a superior clinical outcome, and to be more cost effective.

In summary research suggests that the outcome of community based treatment is often beneficial both for the clients and their families. The favourable outcome of community placement has been recognised in New Zealand which has also begun the process of transferring its' psychiatric inpatients into the community.

COMMUNITY PLACEMENTS IN NEW ZEALAND

In New Zealand the Ministry of Health has issued its guidelines for the discharge of hospitalised psychiatric patients (Ministry of Health, 1993). Discharge plans are comprised of four components; client's details, needs assessments, service arrangements, and the necessary patient related administrative actions.

Patients are categorised as requiring one of 3 different levels of care, though these criteria may have sub-categories within them. A Level One home indicates that a partially staffed house is needed, with the availability of 'on call' staff if required. A Level Two home is sub-categorised into 2A and 2B levels. A 2A house indicates that its' residents can perform minimal self-care functions, and that staff need to be available at all times, including for sleepovers. A 2B house is one where the residents are usually able to function successfully but may suffer

from symptom reoccurrences so that 24 hour staff supervision needs to be available.

A Level Three home must provide 24 hour care, with professional staff who may provide care, rehabilitation, day programmes, and leisure activities (HOMES Advisory and Assessment Team, 1993). It is therefore assumed that those clients who are in higher levels of community care will have lower levels of functioning. There is however some doubt as to whether this is indeed the case in practise.

Deane, Huzziff and Beaumont (in press) studied 30 patients who had been transferred from Lake Alice Hospital, a large psychiatric inpatient facility, into the community. It was found that patients who had been assigned to higher levels of care did not show significantly lower levels of functioning on the REHAB, a standardised measure of deviant and independent functioning, when compared to patients assigned to lower levels of care. A long-term follow-up is currently being carried out on these patients and this will provide more information which clarifies whether level of care reflects the level of functioning.

For a variety of reasons not all Lake Alice Hospital inpatients have been able to be transferred into community placements. Rather, there are a group of people who still remain institutionalised in the hospital.

LAKE ALICE HOSPITAL

Lake Alice Psychiatric Hospital located in Marton, New Zealand began operating in August of 1950 and was intended to cater for long stay middle aged patients with chronic psychiatric illnesses (Baird, 1991). The catchment area of the hospital was Hawkes Bay, Manawatu, Taranaki, and Wanganui. As was the case throughout New Zealand in recent years, Lake Alice had been transferring its patients into the community in accordance with the Health Ministry's deinstitutionalisation policy.

In 1981 Lake Alice had 365 patients with 34% of these people having been in the hospital for less than one year, and 42% for five or more years. Thirty-four percent were first admissions (Department of Health, 1983). By the end of 1986 272 people were residents in the hospital compared with 186 by 1989 (Baird, 1991).

In April 1992 there were 75 long-stay patients who were to be placed into supported community homes. Forty-three were elderly patients who were to be transferred to general hospitals or to the private and voluntary sector. Twenty-two patients were classified as people capable of self-care who would be placed in acute care community inpatient facilities. thirteen patients were in the maximum secure unit who were to be placed in a medium secure unit at Wanganui Hospital. Only those patients in the National Security Unit were to remain on the Lake Alice hospital grounds (Manawatu Wanganui Area Health Board, 1992). _

"HARD-TO-PLACE" PATIENTS

As the process of transfer continued it had become apparent to Lake Alice Hospital staff that there were a number of people who required "intensive and specialised input" to make successful community placement possible (ILC Project Team, 1993). Similarly, American psychiatric hospitals found that several years after they began transferring their patients to the community they also became aware that some clients benefited from deinstitutionalisation more than others. Specifically, it was found that the chronically mentally ill person did not fare as well as the acutely ill person who was able to respond quickly to antipsychotic medication and who could return to their families, jobs, and homes (Shadish, Lurigio, & Lewis, 1989).

Bigelow, Cutler, Moore, McComb and Leung (1988) ascertained the characteristics, severity, and frequency of problems faced by 81 "hard-to-place" patients. It was found that a typical "hard-to-place" patient was : "a schizophrenic

male in his 30's with either a medical or a drug abuse problem. He has lost most social and self-care skills, is assaultive, behaves unacceptably, and is not cooperative with treatment" (Bigelow et al, 1988 p.184).

The following behaviours were found to be particularly incompatible with community placement (the percentage of patients exhibiting each behaviour is provided in brackets): poor compliance with structure, (12%); assaultive behaviour, (62%); starting fires, (32 %); and little or no self-care skills, (80 %). It was suggested that one reason for the difficulty in placement was that the existing services were underfunded and thus the difficult behaviours of this group provided too much strain for already stretched service providers.

Other studies have also found that an absence of self-management and social skills, and especially an absence of basic living skills were correlated with an incompatibility for successful community placement (Anthony, Cohen & Vitalo, 1978; Presly, Grubb & Semple, 1982).

Lake Alice Hospital staff also recognised the additional needs of a group of hard-to-place patients in the hospital. As with the USA sample identified by Bigelow et al (1988) these patients also appeared to lack social and self-care skills and exhibited a wide range of inappropriate problematic behaviours which excluded them from existing community placements. With the impending closure of Lake Alice Hospital drawing ever nearer there was a realisation that something would have to be done to improve these patients functioning so they could be managed in existing community placements.

THE INTENSIVE LEARNING CENTRE (ILC) - DEVELOPMENT AND AIMS

In response to the need to provide specialised services to the "hard-to-place" patients a Project Team was established at the hospital. This was an

interdisciplinary team comprised of a Senior Clinical Psychologist, a Clinical Nurse Specialist, a Psychiatric Nurse who was the Unit Manager of Lake Alice Hospital, a Community Psychiatric Nurse, and a Community Consultant Psychiatrist.

The objective of the Project Team was to develop an ongoing Intensive Learning Service for current and potential clients with long-standing psychiatric disorders and associated behavioural difficulties. The service was to be operated by the Mental Health Services of the Central Regional Health Authority. The service was to function at the Intensive Learning Centre (ILC), originally based at Lake Alice Hospital.

There were two primary aims of the Intensive Learning Centre (a) the provision of long term intensive therapy which focused on the development of the clients potential and level of independence. (b) the use of treatment to work towards placing the client for short or long periods of time in community accommodation that had a suitable level of care (ILC Project Team, 1993).

Clients were selected for the ILC programme based on the clinical judgement of the Lake Alice Hospital staff. The clients targeted were those with a chronic psychiatric isability accompanied by behaviours that were incompatible with community placement. These behaviours included shouting, yelling, and screaming, violence towards others, eating difficulties, a lack of basic living skills such as dressing and washing, communication difficulties, and amotivational behaviour. In addition some clients were often actively psychotic which made community placement unsuitable.

While the medical, physical, and living needs of the clients was being met by Lake Alice Hospital, the Project Team considered the therapeutic needs of the clients to have been inadequately met. The Intensive Learning Service was

therefore designed to take this need into account. The treatment would be based on the therapeutic community model which encompassed behavioural therapy, an emphasis on productive work and activity, and the use of individual treatment programmes which targeted the individual needs of each client. As such, medical, nursing and psychological fields were to be provided using a multidisciplinary approach (ILC Project Team, 1993).

Specifically all staff members who worked on the unit were renamed "DOERS", so called because they were to Deliver, Organise and Enable a Realistic Service. It was hoped that giving a generic name to the units staff would foster the attitude that all staff should be considered equal. As such all staff were invited to contribute to the care plans for the ILC patients, and they were expected to assist with a variety of tasks which may not have been typical of their particular jobs. For example, nurses were expected to assist with activities usually engaged in by the recreation officers. While staff members areas of expertise were acknowledged and utilised the commonalties of the staff were highlighted, and staff were encouraged to work together more.

The ILC differed from the usual method of treating The psychiatric inpatients at Lake Alice Hospital in that previously there was an emphasis on patient management. This involved reacting to patients problems and needs when they arose. In contrast, the active style of treatment espoused by the ILC management involved identifying areas of need for each client and then targeting that need with appropriate treatment to prevent further problems arising. As such it was aimed at having a more preventative emphasis.

In addition, staff tried to individualise the therapeutic interventions rather than provide general treatment programmes as tended to occur previously. The specific areas targeted for therapeutic interventions were identified during the assessment phase of the ILC's operation. Both clinical judgement and behaviour

rating scales were used to determine the behavioural excesses or deficits of each client. These behaviours were then incorporated into the Client Lifestyle Implementation Plan (CLIP) which stated the rationale for selecting the specific behaviour/s, the behaviour/s that would be targeted for therapeutic interventions, the objectives of the interventions, the intervention strategies that would be used, and the evaluation of the success of the interventions. The CLIP's provided the guidelines for the staff to follow for each client, and amendments or modifications could be added to update the CLIP's as required.

The use of individual treatment plans meant that the staff were able to develop creative and innovative ways to bring a therapeutic change about where necessary. For example, amotivational behaviour was tackled in one resident by providing the chance for the client to build a chicken coup and feed and look after several chickens as the client had a great deal of knowledge and interest in animals.

For clients with a deficiency in independent functioning behaviours such as cooking, cleaning or bathing procedures were set up to deal with each individuals deficit. For example, historically, when clients were not able to bathe adequately the nursing staff would usually bathe them. However, in the ILC, staff would give the clients continuous verbal prompting to assist them to bathe themselves. The bathing process was broken down into small steps which the client was then instructed to attempt. Positive verbal reinforcement was given every time the client attempted each instruction. Verbal reinforcement was a central component of many of the individual treatment programmes.

The problem of a client who regularly regurgitated food and then ate the regurgitated food was tackled at several levels. The client was provided with their own eating area, and meals were supervised by a staff member who; controlled the amount and type of food available, gave encouragement to eat more slowly, and provided reinforcement when food was eaten more slowly. Other

inappropriate food sources e.g. rubbish bins, were restricted. The client was required to clean up if food was regurgitated, and was encouraged to vomit in the toilet. Biologically based causes of the behaviour were also ruled out.

Another divergence from the traditional hospital practice was that the ILC tried to become more flexible than the traditional institutional structure which imposed times for getting out of bed, bathing, eating and the like. Treatment was also arranged around these times irrespective of the desires of the residents. In the ILC the residents were given more personal freedom in deciding when they would get up or go to bed, and they were given an opportunity to decide what recreational and therapeutic activities they would like to engage in. Because of the constraints of an institutional setting certain daily activities such as medication and meal times still tended to be imposed on the patients and worked around staff shift changes.

STAFFING

The Project Team envisaged that the staff at the Intensive Learning Centre would be selected based on their knowledge and skills which related to knowledge of behaviour modification, group therapy, chemotherapy, structured group work such as communication skills, the development of skills for daily living, a commitment to the principles of a therapeutic community model, and experience in the care of clients with a psychiatric disorder. Ideally, the service had been planned with staff selection based on these criteria however, certain restrictions meant that not all staff were able to be selected on this basis. Some of the staff made requests to join the ILC, while others did not volunteer and were required to work in the ILC due to the closure of other wards in the hospital due to the transfer of patients to the community.

The job uncertainties at Lake Alice Hospital meant that a number of the ILC staff found alternative employment, while others who were not felt to be performing

up to the required standards were either moved to other areas of the hospital or they did not have their contracts renewed. It was estimated by supervisory treatment staff that there was an approximately 70% turn-over among staff from the time the ILC programme was implemented to the completion of the present research. This turn-over meant that new staff members had to be retrained before they could begin to work in a manner consistent with the therapeutic model of the ILC.

Training and education for the ILC staff was carried out during a four day orientation programme which all staff attended. Areas covered included the therapeutic community, principles of assessment, principles of behavioural programmes, observation skills, the intended structure of the ILC, as well as group and team building exercises. Ongoing training was carried out in workshops dealing with specific topics such as calming and restraint courses for handling dangerous patients.

Another component of the ILC's programme was the implementation of supervision meetings for the staff, something not previously carried out at Lake Alice Hospital. All staff members were required to participate in individual supervision sessions for one hour a fortnight. The supervision was carried out by the Clinical Nurse Specialist and the Senior Psychologist. The supervision sessions were intended to be a time to discuss any factors which were felt to be causing concern for either the staff member, patients or others in the ILC team, and it included both positive and negative feedback where necessary.

Because the ILC had relatively new ideas and principles in the context of Lake Alice Hospital it took some time for the staff to make the transition from their usual way of carrying out their work. Members of the Project Team reported that the staffing changes and resistance to change meant that this transition was often difficult for some staff transferred to the ILC.

PROGRAMME IMPLEMENTATION

As a result of the work of the Project Team the Intensive Learning Centre (ILC) was opened at Lake Alice Hospital on the 4th of October 1993. The ILC endeavoured to include the residents in planning the structure of the day. Staff were encouraged to leave residents to organise daily events for themselves. The philosophy was not to care for the clients but rather to help the clients care for themselves.

The structure of the day was guided by the residents planning time (RPT) which involved a resident meeting at 9.00am every morning. All residents were encouraged to take part though not everyone would decide to do so. The RPT began with a short group activity then residents decided which activities might be able to be arranged for the day. Possibilities included trips to town, arts and crafts, and cooking. RPT was followed by talk-time where everyone could bring up something of interest to them. Lastly, residents were given the opportunity to bring up any matters of concern or problems with other residents, the staff and the like.

Upon entry to the ILC staff completed an Adaptive Behaviour Scale (ABS) and Rehabilitation Evaluation of Hall and Baker (REHAB) for each patient which was used to determine levels of functioning and to highlight areas of need for each patient. Based on the ABS, REHAB and clinical judgement a suitable treatment plan was devised and all staff members made aware of how to implement it during staff meetings. The progress and necessary modifications were monitored and the treatment plan was updated every 2-3 days, or more frequently if necessary.

SUCCESSFUL MODEL PROGRAMMES

Bachrach has determined that successful model programmes for chronic mental patients (1980) and schizophrenic patients (1987) have a tendency to share

common structural elements, whether they are in-patient or out-patient programmes:

(a) They give top priority to the most seriously mentally ill client. As such they target people who are chronically and persistently impaired.

(b) They are realistically linked to other resources in the community.

(c) They attempt to provide a full range of functions associated with institutional care.

(d) They tend to provide individually tailored treatment regimes using a combination of treatment modalities.

(e) They conform to the realities of the local communities that they serve.

(f) They employ specially trained staff who are aware of the particular problems faced by chronically mentally ill clients in the community.

(g) They realise that for some clients periods of hospital care will continue to be necessary.

(h) They provide an ongoing internal assessment mechanism that allows for continuous self monitoring.

These elements will be considered in the evaluation of the ILC's programme.

EVALUATION OF INPATIENT PROGRAMMES

Since the Intensive Learning Centre was a new programme with specific goals, there was a strong desire to evaluate its effectiveness. Consequently the Project Team approached the Department of Psychology at Massey University for assistance and a more independent evaluation.

Bachrach (1980; 1987) reports that there are a variety of ways that one can evaluate the effectiveness of individual programmes such as the ILC. The approach taken is said to vary according to the information being sought. Commonly, evaluation is based upon externally determined criteria to establish programme effectiveness, alternatively it may seek to determine whether the

programme's stated objectives have been met, or it may seek to determine whether there have been measurable changes in the clinical status or level of functioning in the clients. It is the latter two methods that were used to evaluate the effectiveness of the ILC programme.

The objectives of the ILC had been clearly stated by the programme's developers. Specifically it was stated that the two primary aims of the ILC were to (a) provide long term intensive therapy which focused on the development of the clients potential and level of independence, and (b) to use therapy to work towards placing the client for short or long periods of time in community accommodation that has a suitable level of care (Manawatu-Wanganui Area Health Board, 1992).

Determining whether measurable changes occurred in the functioning and clinical status of the ILC clients was able to be established through the use of pre-post measures that were collected as a part of routine assessment and treatment practice in the ILC. These measures provided the basis for the evaluation of the ILC's programme.

A number of previous studies in the outcome evaluation field have suffered from methodological weaknesses. In response to this Pfeiffer (1990) developed the following recommendations for outcome evaluations of adult inpatient psychiatric treatment:

(1) A detailed description of the patient population. This should include reports on the patients history, demographic characteristics, the type and severity of the problems that led to hospitalisation, the level of intrapsychic and psychosocial functioning at admission, and other relevant patient characteristics.

(2) A detailed description of treatment which not only examines the general efficacy of psychiatric hospitalisation but which also focuses on more refined, specific, and focused investigations.

(3) Use of state-of-the-art published instruments in the measurement of outcome.

(4) The use of quasi-experimental research designs.

(5) The use of a wide range of predictor and outcome measures, including specific and global measures, self report and clinician rated scales.

(6) The use of data collection in multiple stages.

(7) Using appropriate statistical analyses and reasonable sample sizes.

While the present study was able to incorporate many of these recommendations, as with many other evaluations constraints imposed by working in an applied setting placed some restrictions on the design.

RESEARCH AIMS

1. To evaluate the effectiveness of the ILC in producing a change in general functioning and maladaptive behaviour in the "hard to place" ILC clients. There will be an emphasis on the goal of successfully preparing them for appropriate community placements.

2. To compare the general functioning and maladaptive behaviours of the ILC group with a community sample.

3. To make recommendations about the continuance of the ILC's programme.

CHAPTER TWO - METHOD

SUBJECTS

The subjects were 15 psychiatric inpatients at Lake Alice Hospital, all of whom were placed in the Intensive Learning Centre due to their lack of social and self-care skills, and their inappropriate behaviours which were considered to be incompatible with community placement. The ages ranged from 30 to 55, the mean age was 47.7 years. Twelve subjects were male and 3 were female. Two were Maori and 13 were European.

The psychiatric history of the ILC clients was sometimes difficult to gauge. The number of admissions and length of time spent in other psychiatric facilities outside of Lake Alice Hospital was not available. This meant that the main indication of the "chronicity" for the ILC clients psychiatric condition came from their length of stay at Lake Alice Hospital. The year of admission to Lake Alice Hospital ranged from 1958 to 1992 with the average length of stay at Lake Alice being 17.1 years (SD = 9.89, n = 15). The median length of stay was 17 years. Treatment staff indicated that all of the more recently admitted clients had been hospitalised at other psychiatric facilities, as such the number of years hospitalised is thought to be a conservative measure of "chronicity" in the ILC group.

One subject was a voluntary admission while the other 14 were admitted under a compulsory inpatient treatment order (Section 30, Mental Health Compulsory Assessment and Treatment Act, 1992). Diagnoses were obtained from medical files by staff in the unit. Nine subjects were diagnosed as having chronic schizophrenia, 2 had a dual diagnosis of chronic schizophrenia with mental retardation, the diagnosis of one subject was not on file.

A criterion related comparison group was chosen on the basis that they had

achieved a level of functioning that the ILC group was trying to attain. The comparison group consisted of 26 former Lake Alice Hospital patients who had been in the initial group of patients transferred into community residential placements (Deane, Huzziff, & Beaumont, in press; Manawatu-Wanganui Area Health Board, 1992).

Ages ranged from 29 to 76 years with a mean of 51.9 years. Six of the sample were female and 20 were males, 5 gave their race as Maori and 21 stated they were European. The mean length of stay in Lake Alice Hospital prior to transfer was 7.4 years with the median length of stay being 10 years. Twenty-two of the comparison group were diagnosed with schizophrenia, 2 were diagnosed with mild mental retardation, and 2 with major affective disorders. Fifteen of the Community group had a voluntary legal status and 11 had a committed status.

The comparison group were transferred to a variety of community placements including living with family members, in sheltered housing trusts, private boarding homes, and private flats or houses. At the time of transfer 15 clients required Level Three care and 11 required Level Two care (Deane et al, in press).

INSTRUMENTS

Two measures were used. These were the Rehabilitation Evaluation of Hall and Baker (REHAB) by Baker & Hall (Appendix 1) and the Adaptive Behavior Scale (ABS) by Nihira, Foster, Shellhaas, & Leland (Appendix 2). These measures were selected because Lake Alice Hospital had already implemented both instruments to assess the level of independent functioning and maladaptive behaviour of the ILC clients. This provided data on ILC clients from the time they first entered the ILC programme.

Rehabilitation Evaluation of Hall and Baker (REHAB)

The REHAB is a 23-item scale which was designed to assess deviant and general behaviours. The REHAB was designed to be used with people who have a chronic or disabling psychiatric disorder and who are attending a residential or day-care institutional setting (Baker & Hall, 1988a).

The REHAB consists of a 7-item Deviant Behaviour subscale and a 16-item General Behaviour subscale. Each of the deviant behaviour items is rated on a three-point scale according to whether the behaviour occurred more than once a week (2), once a day (1), or not at all (0). The scores on the deviant behaviour scale range from 0 -21, with lower scores indicating less maladaptive behaviour.

The 16-item General Behaviour scale is divided into 5 subscales: "social activity", "speech skills", "disturbed speech", "self-care" and "community skills". Each item is rated on a visual analogue with the item scores ranging from 0 to 9. Scores on the total general behaviour scale can range between 0 to 144, with lower scores indicating higher functioning.

The standardised rater training procedure was used with all raters in the present research. Specifically two trial clients were identified and rated by two trainee raters, the ratings were then discussed item by item focusing on the agreements and discrepancies. This process was designed to ensure that the raters understood the scale and identified and corrected any rating errors. Each rater was then instructed to observe one of the subjects for one week and then to complete the REHAB measure. Where possible a second rater then repeated this procedure on the same subject. This produced two REHAB measures per subject. The subjects final REHAB scores were gained by averaging each item score across the two raters thereby minimising rater biases. Seven of the 26 community subjects were only able to be rated by one rater due to only one

care-giver being available in these placements. All remaining community and ILC subjects were rated by two raters.

The REHAB has acceptable reliability and validity, and it is sensitive to change (Hall & Baker, 1988b; Foreman & Baker, 1986; Carson, Coupar, Gill & Titman, 1988). The content validity and criterion-related validity of the REHAB are acceptable in that the General Behaviour scores were able to correctly classify 75% of patients into those who attended psychiatric day hospitals or long-stay psychiatric wards. In addition, inter-rater reliability has been found to range from 0.61 to 0.92 on the general and deviant behaviour scales, all of which were significant at the 0.001 level (Baker & Hall, 1988b).

The REHAB is completed by direct care staff who receive the standardised training programme prior to completing the measure. The REHAB provides standardised norms for chronic psychiatric populations, and it has been shown to be particularly sensitive to behavioural change in the measurement of general behaviour (Baker & Hall, 1988a). Carson and associates (Carson et al, 1988) stated that the REHAB was a suitable instrument for assessing long-stay patients. In addition, Wyke's (1992) described the REHAB as one of the best scales for informant driven assessment of schizophrenics and he espoused the value of the REHAB in the rating of instrumental behaviours.

AAMD Adaptive Behaviour Scale (ABS) (Nihira, Foster, Shellhaas, & Leland, 1975-Revision)

The ABS is a 110 item behaviour rating scale designed for use with mentally retarded, emotionally maladjusted, and developmentally disordered individuals. It was designed to assess the ability of an individual to cope with the natural and social demands of the environment.

Items in the ABS were selected because of their reliability and their

effectiveness in discriminating adaptive behaviour levels. The ABS provides ratings in 21 or 24 areas, and it is comprised of two parts. Part 1 assesses skills and behaviours which are associated with personal independence in daily living. Specifically it assesses "independent functioning", "physical development, "economic activity", "language development", "numbers and time", "domestic and vocational activity", "self direction", responsibility", and "socialisation".

Part 2 provides measures of maladaptive behaviour related to personality and behaviour disorders. Specifically it assesses "violent and destructive behaviour", "antisocial behaviour", "rebellious behaviour", "untrustworthy behaviour", "withdrawal", "stereotyped behaviour and odd mannerisms", "inappropriate interpersonal manners", "unacceptable vocal habits", "unacceptable or eccentric habits", "self abusive behaviour", "hyperactive tendencies", "sexually aberrant behaviour", "psychological disturbances", and "use of medications".

The ABS has extensive norms with ages ranging from 3 to 69 years. The scores obtained from the ABS ratings can be used to construct an individual profile which can be compared to the appropriate reference group.

The ABS has inter-rater reliabilities ranging from 0.71 to 0.93 for Part 1 with a median reliability of 0.86, and 0.37 to 0.77 for Part 2 with a median reliability of 0.57 (Bortner, 1978). The two types of validity demonstrated were factorial and practical validity. From these it was established that there were meaningful factors or aspects of adjustment, and that different parts of the ABS scale could be successfully used to discriminate between impairment groups.

The ABS can be used to serve a number of purposes. In the present research

it was used to compare and evaluate the ILC individuals adaptive behaviour ratings over time. Nihira et al (1975) state that the ABS can be used in programme evaluations as the effectiveness of a programme can be measured by pre-post score changes.

In recent years the ABS has been used widely in the areas of Down's syndrome and mental retardation (Collacott, 1993; Cooper & Collacott, 1993; Sandford, Elzinga, & Grainger, 1987; Hemming, 1986). Use of the ABS with psychiatric patients is less often reported, however, Donat and McKeegan (1990) studied the psychometric properties of the scale with 117 chronic psychiatric inpatients. Reliability coefficients ranged from 0.99 to 0.89 for Part 1, with a mean reliability of 0.98. For Part 2 coefficients ranged from 1.0 to 0.55, with a mean of 0.77. The researchers reported that the ABS was effective in the assessment of daily living skills and problem behaviours in the psychiatrically impaired population. Indeed the ABS was seen as a suitable measure for assessing areas that would be used in planning an intervention and to match a clients functioning level to community placements.

In a second assessment of the use of the ABS with psychiatric patients, Clinger, Fine, Johnson and Schwartzman (1988) also report that the ABS is an appropriate measure for use with psychiatric patients. Specifically they state that the ABS provides a measure of intervention outcome that is more relevant to treatment than other more commonly used measures. They also reported the ABS to be useful in matching clients to suitable community placements.

To reduce confusion the general behaviour scale of the REHAB and Part 1 of the ABS will both be referred to as the General Functioning scales, while the deviant behaviour scale of the REHAB and Part 2 of the ABS will both be referred to as the Maladaptive Behaviour scales.

DESIGN

Definition of "chronicity"

In keeping with the recommendations suggested by Pfeiffer (1990), the present research aimed to be as methodologically sound as was possible given the difficulties associated with assessing outcome in schizophrenia, and the limitations of the legal and ethical constraints.

Specifically, multiple outcome measures were employed, data was collected in multiple stages, appropriate measurement techniques and statistical analyses were used, a comparison group was included, and a detailed description of the patient population and the treatment programme was provided.

Unfortunately research into treatment outcome with psychiatric inpatients has not always been clear about the criteria used to identify the sample as chronically mentally ill. Bachrach (1988) reported three primary criteria used to define chronic mental illness in the United States. These were diagnosis, duration, and disability. The psychotic disorders are commonly accepted as satisfying the diagnostic criteria for chronicity. The duration criteria reflects the requirement of "chronicity" to be a persistent or recurring condition. The disability criteria indicates that the condition must result in a limitation of functional capacities. Unfortunately the precise dimensions of these criteria are difficult to operationalise.

An examination of several studies that have included information about how "chronic" was defined have primarily used the length of hospitalisation as an indicator of duration of the mental illness and hence of chronicity. Most of the chronically mentally ill patients in Peniston's (1988) sample had been hospitalised for a minimum 5 year duration. The mean length of stay in hospital was 4.8 years in Bootzin and associates sample (Bootzin, Shadish, & McSweeney 1989). In Jone's (1991) research the average length of hospital

stay was 17 years, with a range of 2 to 51 years. While there appears little concensus concerning the actual length of stay as a criteria for chronicity, it is still a primary indicator researchers report when studying those with a chronic psychiatric illness. In the present research the average length of stay in Lake Alice Hospital for the ILC group was 15.6 years.

There is considerable debate over the levels and kinds of impairment in functioning required to be considered chronic in nature. However, the ILC group were selected because they were considered to have long-standing deficits in independent functioning skills frequently coupled with inappropriate or maladaptive behaviours. The ILC group were therefore likely to meet the disability criteria for chronicity.

When considering the most appropriate design for the present research the approach of previous programme evaluations with similar subjects were considered.

Previous Programme Evaluations

Peniston (1988) used behavioural modification principles as the basis of a treatment programme for 15 male chronic psychiatric inpatients who had displayed socially inappropriate behaviours. These behaviours included verbal abusiveness, poor grooming skills, alcohol problems, and failure to complete assigned tasks or requirements. Baseline measures were gathered and target behaviours defined, then positive-reinforcement and response cost contingencies were implemented. Follow-up studies were then completed after 6 and 12 month periods. Excluding drinking behaviour, it was found that all patients were able to significantly reduce their inappropriate behaviour, and these reductions were maintained at the follow-up periods.

Nottingham and Neimeyer (1992) were involved in the development of a

treatment programme using rational emotive therapy (RET) methods in the treatment of 372 mentally disordered people. The subjects were predominantly hospitalised for mood and personality disorders. The clients were given an extensive battery of psychological tests including 6 clinical measures and 6 cognitive behavioural measures. These were completed within seven days of admission and then again just prior to discharge. The post- treatment scores indicated significant changes on all measures. Clients psychopathology had decreased and relapse prevention skills had increased.

McClary and associates (1989) evaluated an intensive case management programme for young adult chronic schizophrenics in the community. Measures of quality of life and hospital re-admissions, hospital stay rates and the percentage of medical appointments kept were gathered three times at two month intervals. These pre-post treatment comparisons were the basis of the programme evaluation, which indicated a significant decrease in hospital admissions and stays, and the tendency, though not significantly so, for the quality of life measures to improve.

Abbasi (1984) evaluated the effectiveness of a treatment unit for schizophrenic outpatients. The experimental group were 22 residents of a half-way house which had implemented a wide range of therapeutic mediums including religious, occupational, recreational, vocational and psychiatric services. How these people came to be at the half way house was unclear. This group was compared to a comparison group consisting of people discharged from the Government Mental Hospital at the same time as the experimental group. Interviews were conducted with both groups after approximately one and a half years of community living. While hospitalisation rates did not vary, the employment rates and the mental state of the experimental group were better than those of the comparison group.

Research Constraints

Ideally the design of the present research would have been prospective in nature in that the subjects would have been randomly distributed into either the ILC group or to a matched control group who received the usual care and treatment offered at Lake Alice Hospital. However the ILC was already open when evaluation was requested which limited the design options. The relatively small numbers of patients and ethical considerations made random allocation unfeasible.

In view of the inability to use a control group it was decided to use a comparative design instead. Basham (1986) outlined a number of scientific and practical advantages of using this type of design, particularly in evaluative research. Specifically, comparative designs were reported to pose less threat to research validity, and to provide an efficient way of controlling demand artifacts and placebo effects. Comparative designs were also reported to be preferable in circumstances where there are small subject groups, such as that of the ILC.

A further constraint on the present research stemmed from the fact that pre-post data had already been collected by Lake Alice staff. It was therefore decided to rely on this data, though it was acknowledged that there were other areas that may have been useful to evaluate. Examples of these areas include measures of client symptomology, satisfaction with life, and the level of satisfaction with the care received in the ILC.

Other constraints on the present research design related to characteristics of the ILC sample. Bellack (1989) states that schizophrenic patients are notoriously inaccurate reporters of information about themselves. In addition to the usual biases encountered with self-report, schizophrenics also tend to have information processing difficulties and thought disorders which interfere with their responses. In addition reading, comprehension, communication and concentration difficulties also limited the usefulness and quality of self-report

data. As such, it was decided to focus on measures completed by staff members and caregivers.

ETHICAL ISSUES

The present research was reviewed and approved by the Massey University Human Ethics Committee (see Appendix 4) and the Manawatu-Wanganui Area Health Board Ethics Committee (see Appendix 5). The ethical issues that are relevant to the present research are outlined below.

The present research did not require any data which was not part of the routine assessment and treatment programme at the ILC. Given this, all ILC patients were able to remain anonymous to the researcher. Data from the ILC was provided in coded form with all identifying information removed.

Data for the Community group was collected by the primary researcher (MH). Informed consent was obtained in the following manner: initial contact was made with the management of the organisations that housed the community residents. Once the management approved the research then the key case workers for each potential subject were contacted. The key case workers made the initial approach to the clients to ask them if they would agree to meet with the researcher who wished to explain the research in full. If the client agreed to a meeting with the researcher a meeting time was made at which time full informed consent was obtained. A client advocate, usually a familiar staff member was with the client while informed consent was being obtained to ensure that the rights of the clients were being protected. The following areas were covered in gaining informed consent: who the researcher was, where the researcher could be contacted, the purpose of the research, what the subject was required to do, the amount of time that would be involved, what could be expected from the researcher, the subjects right to withdraw from the study, the right to ask questions and refuse to answer questions, the right to receive a

summary of the results, and the right to confidentiality. Subjects were also asked to consent to their care workers completing the REHAB and ABS measures.

PROCEDURE

ILC Programme Evaluation

The present research compared adaptive functioning levels of the ILC clients at three time periods. The level of adaptive functioning was determined by the REHAB and ABS measures. The REHAB measure was administered to the ILC clients at three different times. Time 1 was in October 1993 when the ILC clients had been in the programme for one month. During this time the clients were observed and no specific treatment interventions had been put in place. Time 1 therefore served as baseline data. Time 2 was in February 1994, 5 months into the programme and Time 3 was in August 1994, 10 months after the baseline data was collected. The ABS measure was also administered at Time 1 and Time 3 but not at Time 2 (see Table 1).

Of the 15 initial subjects, three entered the ILC at later stages and so they did not have full data. In addition, one subject was able to be transferred into a community placement and did not have the Time 3 ABS completed before leaving. This left 11 subjects with full data and 4 subjects with incomplete data.

Comparison Community group

REHAB and ABS measures were completed for the Community group by their respective care workers. The care workers selected were preferably those who spent the most time with the subject, though when this was not convenient other care workers with adequate contact were used. Both measures were administered in August of 1994 to correspond with the Time 3 data collection at the ILC. The comparison group was selected because they had already met

one of the primary aims of the ILC - to be able to be transferred into community placements, and most had been in community placements for approximately 18 months.

ADMINISTRATION OF THE MEASURES

Table 1 shows the administration schedule of the REHAB and ABS measures for both the ILC and Community group. The REHAB and ABS measures were administered to the ILC group by Lake Alice Hospital staff as part of routine assessment procedures in the ILC. All informants received the standardised training in both measures which was provided by the Clinical Nurse Specialist, the Unit Manager, a senior nurse, and the Resource Manager. Because of staff changes the same staff members were not able to complete the measures on the same clients each time.

Eleven caregivers for the comparison group received the appropriate training in administration of the ABS. Twenty caregivers were trained to administer the REHAB measure. Wherever possible two caregivers were required to complete the REHAB measures, however, in 3 cases ratings were only able to be obtained from one caregiver. All training for the comparison group was provided by the researcher (MH).

Table 1

Administration Schedule of the Measures

	Time 1 Oct '93	Time 2 Feb '94	Time 3 Aug '94
ILC	REHAB	REHAB	REHAB
Group	ABS	-	ABS
Community	-	-	REHAB
Group	-	-	ABS

CHAPTER 3 - RESULTS

ILC EVALUATION: WITHIN-GROUP ANALYSIS

While there were up to 15 residents at the ILC, not all had complete data because they entered the ILC unit at different times. Specifically, 3 residents were not able to be included in the pre-post analysis because initial pre-programme measures were not completed since they arrived after initial assessment had been completed. This reduced the number of subjects for the with-in group/repeated measures analysis to 12.

Of this 12 one subject had left the unit because a suitable community placement was found in August 1994. Staff completed the Time 3 ABS measure for this subject, however the client left the unit before the Time 3 REHAB measure could be completed. This subject consistently scored in the middle of the general functioning range on the REHAB and ABS when compared to the other ILC subjects. However, the subject consistently exhibited low levels of maladaptive behaviour on these measures. Because the subject had complete data up until community transfer, where possible, the client's data was included in the analysis. This left 12 ILC subjects with pre-post ABS measures and 11 subjects with pre- post REHAB measures.

All data analysis was carried out on SPSS-PC+ (Norusis, 1988). Due to the multivariate nature of the present research a multivariate analysis of variance (MANOVA) was initially selected as the analysis of choice. However, the data was not able to meet the assumptions of this test.

Plots suggested that several of the variables on both maladaptive behaviour measures appeared to violate the normality assumption and there were several outliers. Given the relatively small sizes for some of the analyses, exclusion of outliers in order to conduct parametric analysis was not viewed as appropriate. Consequently nonparametric analyses were used for the

maladaptive behaviour measures on the ABS and REHAB.

In contrast, the scores on the general functioning subscales of the ABS and REHAB did not have outliers and were more normally distributed. Consequently, parametric statistical methods were used for this data.

All analyses used two-tailed levels of significance. While it was expected that the ILC subjects would show an improvement in functioning it was decided that a more conservative approach would be taken because of the uncertainty about the direction any change may take.

Although, multiple statistical tests were completed with the concomitant risk of Type-I error the alpha level was kept at 0.05 for several reasons. Firstly, the relatively small sample size means lowering the alpha level would reduce the ability to detect any change. Secondly, two-tailed tests were used throughout the analysis. Thirdly, there were only 16 a priori tests conducted, the remaining analyses were post-hoc and were conducted to help explain the findings. A Bon ferroni adjustment was therefore considered too conservative.

Tables 2 and 3 show the mean scores that each subject had on both the General Functioning and Maladaptive Behaviour scales of the REHAB and ABS. For general functioning, lower scores on the REHAB measure correspond to higher general functioning, while lower scores on the ABS measure correspond to lower general functioning skills. For maladaptive behaviour, lower scores on both the REHAB and ABS indicate less maladaptive behaviour.

Table 2

Mean Scores for Individual ILC Subjects on the General Functioning Measures Across Time.

	REHAB			ABS	
Subject	Time 1	Time 2	Time 3	Time 1	Time 3
01	57.6	41.5	56.5	219	228
02	66.5	59.5	58.0	223	183
03	71.0	25.5	51.0	245	239
04	71.5	30.5	48.5	218	202
05	87.5	83.0	100.0	184	145
06	96.0	62.0	*	186	220
07	97.5	56.5	64.5	182	186
08	111.5	108.5	110.5	116	111
09	113.0	86.5	93.5	207	202
10	130.0	121.0	119.5	105	88
11	135.5	111.5	131.5	121	100
12	141.5	128.0	57.0	226	201

* = missing, transferred to the community

Table 3 Mean Scores for Individual ILC Subjects on the Maladaptive Behaviour Measures Across Time.

	REHAB			ABS	
Subject	Time 1	Time 2	Time 3	Time 1	Time 3
01	3.5	0.0	2.5	78	42
02	3.5	5.5	3.0	77	71
03	4.5	2.5	3.5	43	26
04	2.5	0.5	1.5	83	57
05	0.5	0.0	1.5	58	44
06	1.5	5.5	*	26	17
07	1.5	1.5	0.5	22	24
08	4.0	6.5	0.5	65	30
09	3.0	2.0	3.5	28	30
10	2.5	5.5	1.5	38	41
11	8.0	10.5	6.0	89	74
12	2.5	2.5	3.5	128	122

* = missing, transferred to the community

GENERAL FUNCTIONING

A repeated measures analysis of variance (ANOVA) was conducted using the General Behaviour subscale of the REHAB as the dependent variable over the three time periods. The ANOVA revealed a significant change over time, $F(2,20) = 5.28$, $p < 0.01$.

Paired t-tests were used to determine between which time periods these changes occured. There was a significant difference in the General Functioning scales of the REHAB between Time 1 and Time 2 [$t(11) = 4.97$, $p < 0.001$, $n = 12$] and between Time 1 and Time 3, though only marginally so [$t(10) = 2.28$, $p = 0.046$, $n = 11$]. There was not a significant change

between Time 2 and Time 3 [t (10) = 1.58, $p > 0.05$, n = 11]. There was a non-significant level of change on the General Functioning scale of the ABS measure between Time 1 and Time 3, [t (11) = 1.58, $p > 0.05$, n = 12].

The ABS and REHAB general functioning scales were correlated using Kendall's Coefficient of Concordance. The measures were significantly correlated at Time 1 (r = -0.58, p = 0.03, n = 11) and at Time 3 (r = -0.92, p = .001, n = 11).

MALADAPTIVE BEHAVIOUR

The Friedman Two-way Analysis of Variance by Ranks was used to determine whether the scores obtained varied over time (Sprent, 1993). There was no significant difference on the Maladaptive Behaviour scale of the REHAB over the three times (Chi square = 1.2727, $p > 0.05$, n = 11).

In contrast a Wilcoxon Matched-pairs Signed-ranks Test indicated that there was a significant difference between Time 1 and Time 3 on the Maladaptive Behaviour scale of the ABS (z =-2.59, $p < 0.01$, n = 12). Kendall's Coefficient of Concordance indicated that the Maladaptive Behaviour scales were not significantly correlated at Time 1 (r = 0.4377 $p > 0.05$, n = 11) or Time 3 (r = .5136, $p > 0.05$, n = 11).

The inconsistent results, especially between the maladaptive scales of the REHAB and ABS prompted further analysis of the data. The ABS measure (110 items) is considerably longer and more detailed than the REHAB (23 items) (see Appendices 1 and 2). Consequently the ABS assesses areas of both general and maladaptive functioning not covered by the REHAB measure. It was therefore hypothesised that this may be contributing to the inconsistent results. Post-hoc analyses were conducted to confirm this suspicion.

Because of the relatively small number of items in the REHAB measure it was decided to select out items or scales from the Maladaptive Behaviour scales of the ABS with content areas that corresponded to those of the REHAB. From this, a new ABS variable was computed which consisted only of the items which matched the REHAB measure of maladaptive behaviour. Six of the seven items on the REHAB Maladaptive Behaviour scale had a corresponding item on the ABS Maladaptive Behaviour scale. The exception was the REHAB incontinence item (item 1) which was located on the General Functioning scale of the ABS, and thus not incorporated in the matched ABS scale.

Table 4 shows each REHAB item which comprises the REHAB Maladaptive Behaviour scale, these are matched with the comparitable ABS subscales. Item 5 of the REHAB was matched with only 1 item of the "Rebellious behaviour" sub- scale of the ABS. These matched ABS scales or items will be referred to as the "matched ABS variable".

ABS subscales not included in the REHAB were: "antisocial behaviour", "untrustworthy behaviour", "withdrawal", "stereotyped behaviour and odd mannerisms", "inappropriate interpersonal manners", "unacceptable vocal habits", "hyperactive tendencies", "psychological disturbances", and the "use of medications".

Table 4

Maladaptive behaviour items/subscales of the REHAB and ABS measure.

REHAB ITEMS	ABS SUBSCALES
Violence	Violent and destructive behaviour
Self-mutilation	Self-abusive behaviour
Sexually offensive	Sexually aberrant behaviour
Leave without arrangement	Rebellious behaviour (1 item in matched variable "Is absent from or late for, the proper assignments or places")
Shouting/swearing	Unacceptable vocal habits
Talking/laughing to self	

The new matched ABS maladaptive behaviour variable was analysed. A Wilcoxon Matched-pairs Signed-ranks Test found no significant difference between Time 1 and Time 3 on the matched ABS variable for the Maladaptive Behaviour scale ($z = -1.1722$, $p > 0.05$). This finding was consistent with the pre-post analysis of the Maladaptive Behaviour scale of the REHAB which also provided non-significant change between Time 1 and Time 3. This suggests that the maladaptive behaviour areas assessed by the REHAB measure showed no significant change over time in the ILC group. The ABS maladaptive behaviour items and subscales with content areas that did not match items on the REHAB measure were then analysed using a Wilcoxon Matched-pairs Signed- ranks Test. There was a significant change in maladaptive behaviour between Time 1 and Time 3 on the areas covered by the remaining ABS items ($z = -2.5103$, $p = 0.012$). This suggests that the initial finding suggesting significant change on the ABS measure of maladaptive

behaviour stems from those areas NOT covered by the REHAB measure.

In summary, there was a significant change in general functioning from Time 1 to Time 2 on the REHAB measure. However, between Time 1 and Time 3 there was only a marginally significant level of change on the REHAB measure, and a non-significant level of change on the ABS measure.

For maladaptive behaviour there was no significant change between Time 1, Time 2, and Time 3 on the REHAB measure. In contrast there was a significant change between Time 1 and Time 3 on the ABS measure but only for those content areas NOT measured by the REHAB Maladaptive Behaviour scale.

SUBSCALE LEVEL ANALYSIS

There were two primary areas considered important for analysis at an individual subscale level. Firstly, it was considered important to assess whether change had occurred in the areas which research has found predictive of unsuccessful community placement. These areas were primarily assaultive behaviour and a lack of self-care skills (Bigelow et al, 1988).

Secondly, the treatment programme of the ILC had an emphasis on individual treatment plans for each client. As such it was considered appropriate to analyse the data according to the areas specifically targeted for treatment in the ILC programme.

Information from each subjects Client Lifestyle Implementation Plan (CLIPS) was gathered. At the time that they came to be analysed CLIPS were only available for 9 subjects. Two subjects had been transferred to community placements and the data from one subject was not available. The CLIPS contain the behaviours targeted for treatment, the rationale of selecting those

behaviours and, the recommended treatment plan (see Appendix 3).

An example target behaviour was "standover tactics". The individual treatment plan for the behaviour involved encouraging the client to step back to arms length distance away, if this failed the staff were to walk away, if the client followed then the client was asked to talk quietly. Positive reinforcement was to be used for appropriate behaviours.

Every target behaviour was coded by the researcher (MH) under the appropriate subscale on both the REHAB and ABS. This included the four subscales of the REHAB General Behaviour scale, the 10 subscales of the ABS General Behaviour scale, 14 subscales of the Maladaptive Behaviour scale of the ABS, and the 7 subscales of the REHAB Maladaptive Behaviour scale. The number of target behaviours in each subscale was then totalled to find the areas that were most often targeted for treatment.

The most frequently targeted behaviours in the general functioning areas were: "social activity" (4 times) and "self-care" (6 times) using the REHAB categories and; socialisation" (4 times) and "independent functioning" (5 times) using the ABS categories. Areas of maladaptive behaviour most often targeted included: "violence" (7 times) and "shouting or swearing" (5 times) using the REHAB categories and; "violent and destructive behaviour" (7 times) and "antisocial behaviour" (5 times) using ABS categories.

The most frequent category content areas were similar for the REHAB and ABS. In addition these areas (i.e. social activity and socialisation) most often targeted for treatment in the ILC were consistent with the areas considered important for a successful community placement. Specifically, the areas considered predictive of successful community placement were assaultive

behaviour, self-care and social activity (Bigelow et al, 1988; Presely et al, 1982). Assaultive behaviour was assessed on the "violent and destructive behaviour" and the "antisocial behaviour" subscales of the ABS, and the "violent" and "shouting or swearing" subscales on the REHAB. Self-care skills were assessed by the "self-care" and "independent functioning" subscales of the REHAB and ABS respectively. Social activity was assessed on the "social activity" subscale of the REHAB and the "socialisation" subscale of the ABS.

These subscales were analysed to determine if behaviour changes had occurred over time in these targeted areas. Unfortunately, the maladaptive scale of the REHAB was not able to be analysed at the individual scale level because scores were not provided separately. Instead, one maladaptive behaviour score had been entered for each subject.

However, a paired samples t-test was conducted on the "social activity" and "self-care" subscales of the REHAB and, "independent functioning" and "socialisation" subscales of the ABS. The results on the REHAB measure indicate that social activity skills significantly improved from T1 to T2 [$t(11) = 3.23$, $p = 0.008$], but from T1 to T3 they were marginally non-significant [$t(10) = 2.17$, $p = 0.055$]. Self- care also improved significantly from T1 to T2 [$t(11) = 3.56$, $p = 0.005$], however between T1 and T3 the changes in self-care were non-significant [$t(10) = 1.18$, $p > 0.05$].

There was a non-significant level of change between T1 and T3 on the "independent functioning" subscale [$t(11) = 1.56$, $p > 0.05$] and the "socialisation" subscale [$t(11) = .89$, $p > 0.05$] of the ABS.

Wilcoxon Matched-pairs Signed-ranks Tests was conducted on the "violent and destructive behaviour" and "antisocial behaviour" Maladaptive Behaviour subscales of the ABS. There was no significant change in "violent and

destructive behaviour" between T1 and T3 ($z = -0.0592$, $p > 0.05$), or in "antisocial behaviour" between T1 and T3 ($z = -1.2159$, $p > 0.05$).

COMMUNITY AND ILC COMPARISON

Table 5 shows the mean score and standard deviation of each scale for both the ILC and community groups at Time 3.

Table 5

Mean and standard deviation scores of the Maladaptive and General Behaviour scales for the ILC and Community groups at Time 3.

	Maladaptive Behaviour		General Behaviour	
	REHAB	ABS	REHAB	ABS
		ILC (n = 12)		
M	2.14	36.53	60.18	187.43
SD	1.82	27.09	31.67	45.99
		Community group (n = 26)		
M	2.12	28.65	51.64	193.00
SD	2.00	25.71	29.13	45.20

An independent t-test was used to compare the ILC subjects and community comparison group in general functioning behaviours. A one-tailed test was selected because the primary reason that the ILC subjects were selected for the ILC programme stemmed from their presumed inability to successfully adapt to community placements. As such it was expected that the Community group would have higher general functioning skills and less maladaptive behaviours.

There was a significant difference in general functioning between the ILC and community subjects at T3 on the REHAB measure [t (18.34) = -2.68, p = 0.008]. The ABS measure produced a non-significant finding for general functioning at T3 [t (20.91) = 0.88, p > 0.05].

A Mann-Whitney U-Wilcoxon Rank Sum Test was used to determine whether the ILC and community subjects differed on the Maladaptive Behaviour scales. The was no significant difference between the two groups at T3 on the REHAB measure (z = -1.1177, p > 0.05). In contrast the ABS indicated a significant difference between the two groups (z = -2.1388, p = 0.016). When the matched ABS variable was compared there was a non-significant difference between the two groups (z = -.8695, p > 0.05).

The areas of "self-care", "violent and destructive behaviour" and "antisocial behaviour" which were considered to be important for successful community placement were compared between groups at Time 3. There was no significant difference between the groups on self-care on the REHAB (t = -1.17, p > 0.05) or on the comparable "independent functioning" subscale of the ABS (t = 0.88, p > 0.05). A Mann-Whitney U-Wilcoxon Rank Sum Test established that there was a significant difference between the ILC and Community group in "violent and destructive behaviour" (z = - 2.7399, p = 0.003) and "antisocial behaviour" (z = -2.8750, p = 0.002) at Time 3 of the ABS. As noted previously the "violence" and "shouting or swearing" subscales of the REHAB were not able to be analysed separately.

Given findings indicating no difference between the ILC and Community groups in some areas it was considered necessary to take a more descriptive look at the two groups. As a result, the ILC and Community subjects mean Maladaptive Behaviour and General Functioning scores were ranked together to establish any overlap between all subjects in these areas.

There was considerable overlap between individual subject's maladaptive behaviour scores on the REHAB measure. The range of scores was 5 to 60 for the ILC group, with a median of 3.0, and a range of 0 to 80 for the Community group, with a median score of 1.0. Interestingly, one subject from the Community group had a REHAB maladaptive behaviour score which indicated lower functioning than any subject in the ILC group.

In contrast, there was considerable divergence between the groups on the ABS measure of maladaptive behaviour. The ILC group scored between 17 and 122, with a median score of 41.5. The Community group scored from 2 to 79, with a median score of 21. Surprisingly, 3 out of the 4 lowest functioning subjects on the ABS Maladaptive Behaviour scale were community subjects.

The General Behaviour scale of the REHAB measure also suggested considerable divergence between the two groups. The ILC group scored from 48.5 to 131.5 with a median score of 64. The Community group scored from 9.5 to 72, with a median score of 48.5. The score of the highest functioning subject in the ILC group was equivalent to the 13th highest functioning subject in the Community group. In addition, 5 of the 11 ILC subjects scored lower than the lowest functioning community subject.

The ABS measure of general functioning indicated a significant overlap between the ILC and Community group. ILC scores ranged from 88 to 239 with a median score of 191, while the community subjects scores ranged from 77 to 240, with a median score of 210. One community subject again was functioning at a lower level than the worst functioning ILC client as measured by the ABS. It was this subject that also scored the lowest on both the General Behavior scales and on the Maladaptive Behaviour scale of the ABS.

To clarify the overlap between the ILC and Community group it initially

seemed appropriate to use clinical significance levels to determine if the range of scores for the ILC and Community groups fell within two standard deviations of each other (Jacobson, Follette & Revenstorf, 1984; Jacobson & Traux, 1991). However, the standard deviations for the two groups were so large that there was a lack of distinction between the groups. As a result, this violated the assumptions of a clinical significance test (Jacobsen et al, 1991). It was therefore decided to use a median split to clarify the overlap. Scores above the median indicated higher functioning and scores below the median indicated lower levels of functioning.

The median split established that 3 ILC subjects scored above the median on the maladaptive behaviour scale of the REHAB, while 2 were above the median on the ABS. One of these was the same subject who also scored above the split on the REHAB. Twelve of the community subjects scored below the median on the REHAB and ABS measure. Two of the ILC subjects were above the median of the General Functioning scale of the REHAB and 6 were above the median on the ABS. In contrast 9 of the Community group were below the median on the REHAB while 12 were below the median on the General Functioning scale of the ABS.

The ILC subjects who scored above the median are shown in Table 6. Subjects are ranked in order of their levels of functioning from highest to lowest.

Table 6

ILC Subjects who Scored Above the Median Score on the REHAB and ABS.

	General Functioning		Maladaptive Behaviour	
Subject	REHAB	ABS	REHAB	ABS
01	-	A	-	A
02	A	A	A	B
03	A	A	B	B
04	B	B	A	B
05	B	A	B	B
06	B	B	A	B

A = scored above the median B = scored below the median

- = transferred to the community

In summary, the ILC and Community groups produced a similar range of maladaptive behaviour scores on the REHAB, while the Community group displayed less maladaptive behaviour on the ABS. The two groups were similar in their range of general functioning scores on the ABS, but not on the REHAB. On the REHAB measure the Community group demonstrated a higher level of functioning.

CHAPTER 4 - DISCUSSION

PROGRAMME EVALUATION

Lake Alice Hospital designed and implemented the Intensive Learning Centre in response to the needs of a group of so called "hard-to-place" psychiatric inpatients. One of the aims of the present research was to evaluate the effectiveness of the ILC programme with an emphasis on determining whether their objectives had been met. One aspect of this evaluation involved assessing change in the clinical status and level of functioning of the clients.

Data that was collected at baseline, 5 months and then at a 10 month interval was used to determine whether there had been a measurable change in the level of functioning of the ILC clients during their time in the programme. The findings suggested that there was a short-term (5 month) improvement in the general functioning skills of the ILC clients. However in the long-term (10 months) the gains made had diminished to the point where the subjects general functioning level was not measurably different from when they entered the unit.

In addition, there was no significant change over time in the maladaptive behaviour areas covered by the REHAB measure (refer Table 4). This finding was replicated with equivalent ABS items which matched those of the REHAB and also indicated no significant change over time. In contrast the remaining ABS items which measured maladaptive behaviours not tapped by the REHAB, showed significant reductions from Time 1 and Time 3.

As such, sustained improvement in the ILC clients was only achieved in a limited number of maladaptive behaviour areas including "antisocial behaviour", "untrustworthy behaviour", "self-abusive behaviour", "sexually aberrant behaviours", "withdrawal", "stereotyped behaviour or odd

mannerisms", "inappropriate interpersonal manners", "unacceptable or eccentric habits", "hyperactive tendencies", "psychological disturbances", and "use of medications". Initial improvements in other areas of maladaptive behaviour and general functioning were not maintained over time.

One of the criteria for being selected for the ILC programme was that the client was unsuitable for existing community placements. The second objective of the ILC programme was to help the clients develop the skills which would enable them to be placed for short or long periods of time in suitable community accommodation. Research has indicated that the skills and behaviours considered predictive of an inability to live successfully in the community were a lack of self-care and social skills and the presence of assaultive behaviour (Bigelow et al, 1988; Anthony et al, 1978; Presley et al, 1982).

When these areas were analysed the ILC programme did produce an improvement in self-care and socialisation skills in the short-term, but this improvement was not maintained in the long-term. In addition there was no significant change in assaultive behaviour over time, as measured by the ABS. Assaultive behaviour included threatening or carrying out physical violence, damaging property, using angry language, and being inconsiderate, disrespectful, or disruptive towards other people.

It would seem that the areas of functioning which research suggested as important for the ILC group have partially been affected by the ILC programme, in the short-term at least.

An encouraging finding was that the same areas that research suggests were predictive of successful community placement were also the areas that were most often targeted for treatment in the ILC. The findings suggest that the

REHAB subscales of "social activity", "self-care", "violent behaviour" and "antisocial behaviour", improved in the short- term but the improvement was not maintained.

Although it seems contradictory, findings imply that the maladaptive behaviours of "antisocial behaviour", "untrustworthy behaviour", "withdrawal" and the like decreased over time in the ILC subjects, however the maladaptive behaviours most frequently targeted for treatment ("violent and destructive behaviour" and "antisocial behaviour") did not change significantly over time. Why this was the case was unclear, however it is possible that the therapeutic environment may generate non-specific change on some behaviours, or that change on adaptive behaviours has peripheral effects on some maladaptive behaviours. For example, short-term improvements in socialisation skills may have had an indirect effect on maladaptive behaviours such as antisocial behaviour.

As the long-term change seemed to have predominantly occured in maladaptive behaviour rather than general functioning, it may be that staff focused on these more disruptive behaviours in the day to day running of the ILC. Barker and Fraser (1985) note that "nurses tend to ignore patients who showed acceptable or 'non-problematic' behaviour. Instead, they gave most of their attention to patients who were manifestly 'sick' or showing unacceptable patterns of behaviour" (p.36). If this is the case then it may also impact on the ratings of both measures, in that, the raters attention would have been drawn to these maladaptive behaviours causing an over estimation of the frequency and severity of these behaviours over time (Martin & Pear, 1992).

Another possible explanation of the finding that the targeted behaviours, particularly the maladaptive behaviours, did not change significantly is that the behaviours targeted may have been long-standing problematic behaviours

which were more resistant to change. Alternatively it may be that these aggressive and assaultive type behaviours are somewhat unstable in nature. It was not possible to gain access to data concerning the frequency of these behaviours to ascertain whether low base rates were contributing to the inconsistent nature of the results. The researcher understands however, that this information was kept at Lake Alice Hospital. Future evaluations may benefit from obtaining this data.

Lastly, it is possible that confounding variables were affecting the initial results obtained in the ILC. In particular staff and even client expectations may have led to possible demand characteristics. Huesmann (1982) states that for hospitalised subjects attention can be particularly rewarding, thus subjects may initially be more compliant to maintain that attention. In the case of the ILC, the staff are likely to have been aware of the preferred outcome when completing the various measures, and this may have produced some demand characteristics which clouded the results.

Other factors which may have affected the success of the programme, including the success of individual treatment interventions, will be discussed in the programme recommendations section.

COMPARING THE ILC AND COMMUNITY GROUPS

The second aim of the present research was to compare the ILC group to a group of people already transferred from Lake Alice Hospital to the community. A number of similarities and differences between the two groups became evident. The Community group had a higher level of general functioning as measured by the REHAB, which included more adaptive social activity, self-care, community skills and less speech disturbance. In contrast there was considerable overlap between the two groups in that the ILC group did not differ from the Community group on the General Behaviour scale of

the ABS. The ABS general functioning subscales included: "independent functioning", "physical development", "economic activity", "numbers and time", "domestic activity", "self- direction", "responsibility", "vocational activity", and "socialisation".

Similarly, there was no difference between the groups on the maladaptive behaviours of the REHAB or on the matched ABS items, that is the ABS subscales which assessed the same areas as the REHAB. These areas were "incontinence", "violence", "self-injury", "sexual acts", "absconding", "verbal aggression", and "talking to oneself". In contrast, there was a significant difference on the areas measured solely by the ABS, that is, the non-matched ABS items. These were "antisocial behaviour", "untrustworthy behaviour", "withdrawal", "inappropriate interpersonal manners", "stereotyped and odd behaviours", "unacceptable or eccentric habits", "hyperactive tendencies", "psychological disturbances" and the "use of medications".

This suggested that the ILC clients were not uniformly poorer in functioning than those in the community. Rather, the ILC group seems to be deficient in relatively specific areas as shown by the inconsistent findings on the general functioning and maladaptive behaviour scales of the REHAB and ABS. Where differences were found the ILC group consistently functioned poorer than the Community group.

When the two groups were compared on the skills and behaviours considered predictive of successful community placement there were no demonstrable differences between them on the self-care skills of both the REHAB and the ABS measures. However, the ILC group was lower in functioning on both measures of social skills. In addition, on the maladaptive behaviour subscales the ILC group scored significantly higher on the "violent and destructive behaviour" and "antisocial behaviour" subscales than the Community group (see Appendix two).

The results suggested that while some areas of maladaptive behaviour have improved in the ILC group, they are still below the level of functioning displayed by the Community group in an area that research has found impacts on successful community placement.

The ILC and Community groups did display some similarities in overall functioning levels. Specifically there was considerable overlap in both the general functioning skills and maladaptive behaviours of the ABS and REHAB as shown by the large standard deviations across these measures.

Scores above and below the median for all subjects were examined. Table 5 shows that 4 of the 12 ILC clients consistently scored above the median on any of the scales. One of these 4 clients scored above the median on both scales and was the subject transferred to a community placement where the client continues to live successfully. The remaining three clients appeared to be functioning well on one scale, but not consistently so on the other scale. This indicates that while the ILC clients may function in one area at a level equivalent to those in the community, they tend to function at a lower level in other areas. There did not appear to be any specific area that these ILC subjects consistently functioned highly in.

It also needs to be remembered that the total score only indicates the overall level of functioning on the General Functioning and Maladaptive Behaviour scales. However, the quality of the behaviours is also of relevance. Though an individual may have gained a score which indicates high functioning, certain behaviours may be more important for community placement than others (Bigelow et al, 1988), and poor functioning in these critical areas maybe what is preventing transfer to the community.

In order to clarify these areas a more descriptive and qualitative analysis was

conducted. This showed that in six of the seven cases where an ILC subject scored above the median score in either general functioning or maladaptive behaviour the subject's highest Maladaptive Behaviour subscale score was for "violent and destructive behaviour", and "antisocial behaviour". In particular, scores were high on the "threatens or does violent behaviour" item and the "uses angry language" item on the ABS. The one subject who had minimal maladaptive behaviour scores was the person who was transferred to the community. These findings confirmed that while some in the Community group also displayed these violent behaviours, the nature and specifics of the behaviours may vary qualitatively.

In summary, there do appear to be anomalies in the make-up of the ILC and Community groups. One of the community subjects consistently scored below all ILC subjects on both measures of general functioning and on maladaptive behaviour measured by the REHAB. The subject had the fourth lowest score on the ABS maladaptive behaviour measure. From the data available it is not possible to determine why this client was placed in the community when others who appear to be higher functioning are maintained in hospital.

PROGRAMME RECOMMENDATIONS

The recommendations for the ILC programme will centre around the ILC staff, the ILC clients, and the ILC treatment programme.

Staffing Recommendations

As noted previously approximately 70% of the ILC staff left part way through the programme. They were replaced by staff who needed to be taught the approach taken at the ILC, including: the behavioural techniques which were to be used in the programme, the new roles of the staff or "DOERS", the preventative rather than patient management style of treatment, the use of individual treatment interventions, and the placement of less emphasis on

traditional institutional structure. In addition, staff from the ILC were not always able to be selected with a view to adhering to the ILC structure and philosophy. Members of the treatment team stated that some of the staff were not very willing to comply with the ILC programme which meant both inconsistencies in the staffing practices and an increased risk of a gradual return to the traditional method of hospitalised care. Indeed research suggests that it is not uncommon for nurses to resist behavioural treatment programmes, and attempts to move from the traditional role of nurses (Baker & Fraser, 1985).

Staff are an integral factor in the success of programmes such as that of the ILC (LeBow, 1976). Berryman, Evans and Kalbag (1994) found that direct care staff can provide valuable contributions to behaviourally based treatment plans and the implementation of these plans. The contributions of staff were found to be particularly effective when training was accompanied by biweekly supervision meetings. These supervision sessions were used to clarify and emphasise the behavioural principles used in treatment. While the ILC staff did receive fortnightly supervision, the research of Berryman and associates (Berryman et al, 1994) may indicate the need for more frequent supervisory sessions.

Behavioural principles can be hard to grasp for staff who have not encountered the philosophies and techniques before. Staff may therefore require more training in the implementation of the principles, and regular refresher courses may be of some use. This is especially likely to be the case with the high turnover of staff experienced by the ILC programme.

In any case it is recommended that staffing inconsistencies be monitored and modified where possible. In addition those who are involved in the selection of the ILC staff may need to be made more aware of the effects that poorly

trained or motivated staff may have on the success of the programme. While it is acknowledged that it may not always be possible to select staff entirely on their suitability for the position, where staff are resistant to change it may be necessary to implement more intensive training and supervision so that the success of the ILC is not compromised by individual staff members.

Client Recommendations

One of the most obvious findings of the present research is that the ILC clients vary widely in their functioning abilities, behavioural excesses and deficits. One staff member acknowledged that the disruptive behaviour of one ILC resident in particular impacted on the resources available to the other residents. Specifically, the disruptive resident would steal the belongings of other clients requiring personal possessions of other clients be locked away or monitored carefully. Attempts by the staff to provide artistic and other recreational materials for the residents to use whenever they wanted did not succeed because a problematic resident would throw the materials around.

It may therefore be that while the ILC group as a whole were the most chronic of the long-stay residents at Lake Alice Hospital they may not all have been suitable for the same programme. The impact of one or two residents may be limiting the progress of other ILC clients by way of the living circumstances and the amount of time available for other residents. Unfortunately, funding resources may not be available to provide a more specialised service for the extremely problematic ILC clients, however the diverse nature of the ILC group as a whole may warrant further attention.

The overlap between some of the people transferred to the community and those placed in the ILC also warrants further investigation. As noted previously, one of the Community group was consistently lower in functioning than all of the ILC group on 3 of the 4 subscales. Establishing whether this

person actually lived successfully in the community may be indicative of the ability of several of the ILC clients to live in community placements. If this patient was adjusted to community living then what specifically were the qualitative characteristics of the patient or placement which allowed successful adjustment?

When considering the outcome of the ILC programme it is important to be reminded that for a group of people who have been institutionalised for such lengthy periods of time, and who were selected for the programme because they were considered "the chronic of the chronic" it may be unreasonable to expect a great deal of change in their functioning levels in only a few months. The fact that one ILC resident has been moved into the community and was still living there successfully after two months indicated that the ILC was beginning to fulfil its stated objectives. Whether it is reasonable to expect this level of improvement in a large number of the ILC residents after just 10 months of treatment is debatable.

Overall, the research suggested that the ILC programme did produce some changes in the residents, though it was restricted to a limited range of maladaptive behaviours in the long-term.

Treatment Recommendations

It is commendable that the ILC developers incorporated an evaluative component into the programme by way of the ABS and REHAB measures. The nature of the clients' problems mean that change may be a slow process for the ILC group, consequently it is essential that the ILC programme continues to evaluate the progress of its clients regularly using psychometrically valid measures. There are however a number of factors which may serve to make the evaluation process more accurate and useful for both staff and clients.

As the number of ILC clients is small it is paramount that missing data be minimised. It is recommended that all residents who leave the ILC programme have the evaluation measures completed just prior to their transfer. In this way the evaluation procedure can examine the functioning of all clients who have entered the programme including those who have been transferred out for some reason. The use of regular evaluation may also serve to assist the decision making process prior to transfer (Deane et al, in press).

There were some problems with the REHAB and ABS measures themselves. It is advantageous that two measures were used in the evaluation of the ILC programme. If only the REHAB was used one would have assumed that general functioning had improved while maladaptive behaviour had not. If only the ABS was administered the opposite findings would have been seen in that general behaviour did not improve over time while maladaptive behaviour did. By using both measures it was apparent that improvements in functioning was not as clear cut as each individual measure would suggest. Rather, it would seem that the ILC programme affected change in a more complex manner.

The REHAB and ABS were both designed to provide an overall picture of an individual's level of functioning. While this is valuable, the complexity of the results gained from these measures suggested that it would have been helpful to have a more detailed picture of some of the specific behaviours that are the focus of treatment.

Two behavioural measures that maybe useful to adapt and use in the ILC setting are the Target Complaints measure and Goal Attainment Scaling (GAS). Both of these measures provide individualised criteria for assessing client progress on specific target behaviours or goals. As such these measures are able to tap the dimensions which are most relevant to the individual, something which the standardised group measures fail to do (Mintz & Kiesler, 1982).

Both of these approaches have methodological difficulties associated with their use, however with appropriate administration the advantages of the measures are reported to be considerable (Mintz & Kiesler, 1982). In addition both have been used productively with psychiatric clients (Bradshaw, 1993; Badger & Adaskin, 1989; Howell, 1986; Hansson, Bergland, & Ohman, 1987).

There are a variety of ways to administer the target complaints measure, however it generally involves the client and/or therapist writing down the problem requiring treatment and the severity of that problem. This problem statement is then translated into a follow-up questionnaire which is re-rated by the client and/or therapist and used to evaluate whether improvement has occurred (Mintz & Kiesler, 1982; Deane & Spicer, 1994)

With global attainment scaling (GAS) each area highlighted for treatment is then broken down into 5 discrete points on a scale. The scale is a hierarchy of possible results which range from the "most unfavourable treatment outcome thought likely" to the "most favourable treatment outcome thought likely", in the middle is the "expected level of success". At the follow-up time the rater determines what level of functioning the client is at and this score is then translated into the GAS score which shows the attainment of therapeutic goals (Mintz & Kiesler, 1982). Either of these individualised measures could be adapted for use in the ILC, and they may be able to clarify some of the inconsistent results found in the present study.

The variation in functioning of the ILC group meant that the use of individual treatment interventions was appropriate. However, the treatment plans may benefit from more behaviourally specific interventions. Some of the treatment plans outlined on the CLIPS were broad and non-specific.

Examples of the behaviours that were to be targeted for treatment included

"regressive type behaviour", "manipulation, money, cigarettes, thieving, lying", and "is aggressive under pressure". In these examples no attempt was made to detail what exact behaviours were problematic. It was unclear if the client was regressing in language skills, domestic activities, personal hygiene or some other area of functioning.

Examples of individualised treatments cited included "emphasise names of people and encourage", though what is to be encouraged was not specified. One CLIPS plan stated: "only provide a fully set table if has been eating good for a set period of time", the requirements of "eating good" were not specified and the period of time that the client was required to "eat good" was also not stated. Again, these are examples of the non-specific nature of some of the treatment plans, though this was not the case with every intervention.

While individual staff members may be aware of the dimensions of the problematic behaviour, it is preferable to clearly and precisely specify both the components of the behaviours to be changed and the components of the treatment plan (Martin & Pear, 1992). In this way variable personal interpretations of what is required can be reduced and consistency improved.

While the present research evaluated the ILC programme by way of the REHAB, ABS and CLIPS measures, it should be acknowledged that the programme has a number of components that were not evaluated.

As has been noted staff attitudes have been found to impact on the success of the therapeutic environment (Berryman et al, 1994). Though this was not assessed in the present research Barker and Fraser (1985) outline a number of areas that need to be evaluated to determine whether the staff are aiding or undermining the effectiveness of any treatment programme. Specifically, staff need to be clear about the function of the ward, the nature of the ward routine,

the allocation of staff duties including the ways that these are monitored and assessed, and finally the nature of the relationship between the staff and patients and the between the staff themselves.

A new component of the ILC programme was the inception of staff supervision. The impact of the supervision process needs to be evaluated to determine if it affected factors such as staff cohesion, feelings of support, the level of morale, and the level of work satisfaction. All of these actors have been found to be important in the level of stress suffered by the staff and in the ability of the staff to provide effective care to their clients (Baker & Fraser, 1985; Lakin & Larson, 1992).

Despite concerns regarding the validity of self-report in people with schizophrenic disorders (Bellack, 1989), for those capable their opinions or evaluations should be sought. In addition, Hagerty (1984) states that psychiatric mental health assessment is most objective and reliable when specific diagnostic tools are employed. As such, a thorough and reliable structured diagnostic interview may have provided a useful adjunct to the measures currently employed.

Future research should pay particular attention to establishing the reason that some ILC clients are still hospitalised when there was a considerable amount of overlap between them and those already transferred to the community. It is suggested that there maybe a qualitative difference between the two groups which needs to be investigated further.

To conclude, the ongoing evaluation of the ILC programme is recommended and where possible the problems highlighted in the present research should be eliminated or minimised. These include problems with the measures selected, and the breadth of areas included in the evaluation procedure. Any attempt to

create a programme that has the potential to improve the lives of these chronically mentally ill is worthy of investing further resources and time. The initial findings of the ILC programme were favourable but further investigations are required to clarify the findings and to identify areas that maybe worthy of further attention. The results of the present study suggest small but encouraging indications for the effectiveness of the ILC programme. However, further development and evaluation is required before more consistent change in patient functioning is likely.

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APPENDIX ONE: Rehabiliation Evaluation of Hall Baker (REHAB) measure.

Rehabilitation
Evaluation
Hall
And
Baker

Patient/client/resident's name .....
Patient/client/resident's number .....
Date of birth ..... Sex .....
Ward/Unit .....
Rater's name .....
Date of rating .....

This form is in two parts :

Part 1. is concerned with the patient/client/resident's difficult or embarrassing behaviour.

Part 2. (overleaf) is concerned with the patient/ client/resident's general social and everyday behaviour.

You will indicate your answers to the questions in different ways in the two sections.

Please read the instructions for answering each part.

ASSESSMENT FORM

Part 1. Deviant Behaviour

Instructions

These seven questions are all concerned with particular types of deviant, or embarrassing behaviour. Each question is followed by three possible answers. The answers show how often a type of behaviour happened. You answer each question by ticking the ONE box which best describes the patient's behaviour last week. Take account of any reports of incontinence, etc., which happened when you were not with the patient during the week.

Before you begin remember to :

1. Only consider the patient's behaviour over the LAST WEEK.
2. Tick only ONE box for each question.

1. Was the patient incontinent?

Incontinent of urine or faeces and urine more than once in the week ☐ | Incontinent once in the week ☐ | No incontinence ☐

2. Was the patient physically violent?

Violent, (for example, hit someone, broke something) more than once in the week ☐ | Violent once in the week ☐ | No violence ☐

3. Did the patient hurt or mutilate him/herself?

Hurt self (for example, hit own face, cut self) more than once in the week. ☐ | Hurt self once in the week ☐ | No self injury ☐

4. Was the patient sexually offensive in any way?

(Judge offensiveness as a stranger would)

Offensive more than once in a week ☐ | Offensive once in the week ☐ | No offensive behaviour ☐

5. Did the patient leave the ward or hospital without arrangement?

Patient left without arrangement for long period, or returned an hour or more late, more than once in the week ☐ | Left without arrangement once in the week ☐ | Present when wanted, returned as arranged ☐

Note that the next two questions are about behaviour that occurred [illegible]

6. Did the patient shout or swear at others?

Shouted or swore at others (for example, used aggressive tone of voice) more than once every day in the week ☐ | Shouted or swore on average once a day, or on only some days in the week. ☐ | No shouting or swearing ☐

7. Did the patient talk or laugh to himself/herself?

Episodes of talking to self, or outbursts of laughing/giggling more than once every day in the week ☐ | Talked or laughed to self on average once a day, or on only some days in the week ☐ | Did not talk to self ☐

Apart from the deviant behaviour that occurred last week, what else has occurred during the Last Year? Tick the box concerned and write alongside approximately when the behaviour occurred.

When did the behaviour last happen?

1. Incontinence ☐ .....
2. Violence ☐ .....
3. Self mutilation ☐ .....
4. Sexual offensiveness ☐ .....
5. Absent without arrangement ☐ .....
6. Shouting at others ☐ .....
7. Talking to self ☐ .....

Part 2. General Behaviour

Instructions

These sixteen questions are all concerned with the social and everyday behaviour of the patient. Each question is followed by a line. Next to each line are three statements. The statements range from the worst possible standard of behaviour at the left, to the standard of behaviour expected from 'normal' people at the right. You answer each question by putting a mark through the line at the point which best shows how the patient has been during the last week. YOU MAY MAKE YOUR MARK AT ANY POINT ON THE LINE.

Before you begin remember to:

1. Use the standard of ordinary life outside the hospital.
2. Only consider the patient's behaviour over the LAST WEEK.
3. Make your rating by putting a mark THROUGH the line.

8. How well did the patient get on with others On the ward or unit?

Very poor relationship with other patients. Solitary and withdrawn.	Got on with some patients part of the time.	Got on well with other patients.

9. How much did the patient mix with others Off the ward or unit.

Did not mix socially outside the ward.	Went to hospital socials and mixed, or went to see patients on other wards.	Mixed socially outside hospital.

10. What did the patient do with his/her spare time?

Ignored all activities around him/her. Showed no interest in anything.	Occasionally joined in games and activities. Occasional interest in news and events.	Joined in activities willingly. Had definite interests. Read papers and magazines.

11. How active was the patient?

Sat or lay most of the time in one place, without moving.	Periods of inactivity, but otherwise moved reasonably normally.	Normal amount and speed of activity.

12. How many words did the patient use when he/she spoke?

Mute, or occasional sounds.	Spoke in short sentences only.	Talked for a normal length of time.

13. How much did the patient initiate conversation?

If mute, tick this box. ☐

Patient never started off a conversation him/herself.	Occasionally started a conversation.	Started conversations with staff and patients.

14. How sensible was the patient's speech?

If mute, tick this box ☐

Bizarre, delusional or jumbled speech. Impossible to make sense of what was said.	Talked some nonsense and some sense.	Spoke sensibly and to the point.

15. How clearly did the patient speak?

If mute, tick this box ☐

Speech unclear, impossible to make out what was being said.	Speech partly unclear, but could be mainly understood.	Speech was easily heard and understood.

16. How good were the patient's table manners?

Bad table manners. Spilt food all over front, used fingers, scoffed food. (If staff fed patient rate here.)	A bit messy. Spilt some food on self.	Ate normally. Did not spill food. Would not have stood out in a cafe.

17. How well did the patient wash and care for him/herself?

Did not wash (or shave). Face, hands and hair were dirty and untidy. (If staff washed or shaved patient rate here.)	Attempts to wash (or shave) were not very regular or of good quality. A bit dirty.	Patient kept face, hands and hair clean and tidy throughout the day.

18. How well did the patient dress him/herself?

If not known tick box. ☐

Made a mess of dressing. Buttons undone, clothes disarranged, items of clothing missing. (If staff dressed patient rate here).	Dressed self, but usually poor in one or two ways.	Neatly dressed self. Fit to be seen in public.

19. How well did the patient look after his/her own things?

If not known, tick box ☐

Bed unmade, clothes anyhow, rubbish around bed area/bedroom. (If staff made patient's bed rate here).	Made bed untidily. Clothes not put away properly. Bedroom/bed area looked a bit untidy.	Bed made reasonably well. Clothes folded away neatly. Bedroom/bed area kept neat.

20. How much prompting or help did the patient need to do things for him/herself?

Cared for self and did things only if constantly supervised, or tasks had to be done by staff.	Patient did things with some prompting.	Did things without being told.

21. How well did the patient manage money?

Poor use of money. Failed to use it, lost it, spent it all as soon as he/she got it. (If patient had no money, or if it was looked after by staff, rate here).	Spent some money on simple purchases.	Used money correctly for various goods or services. Budgeted money over the week.

22. Did the patient use public facilities outside hospital?

Never left hospital.	Visited local shops or park outside hospital.	Used several facilities, for example, buses, cafes, library.

Overall Rating

23. How good was the patient's general everyday behaviour last week?

Taking everything into account, very poor socially and at doing things for self.	Several problems were present which would affect the patient's ability to live outside hospital.	Taking everything into account, as good socially and at looking after self, as needed to live outside hospital.

In answering the questions so far you have considered the patient's behaviour during the last week. On the whole, was the patient's behaviour during the week:

better than usual ☐
about the same as usual ☐
worse than usual ☐

Please add any comments that you wish to make about the patient's behaviour:

Published by VNF Publishing Ltd., 24 Eden Place, Aberdeen, Scotland
Printed in Great Britain for VNF by Aberdeen University Press, Farmers Hall, Aberdeen, Scotland

APPENDIX TWO: Adaptive Behaviour Scale (ABS) measure.

A A M D
ADAPTIVE BEHAVIOR SCALE
For Children and Adults
1974 Revision

Name _____ Special Identification _____
(last) (first)

Date _____ Sex: M F Date of Birth _____
(mo) (day) (year) (mo) (day) (year)

Name of person filling out Scale _____

Source of information and relationship to person being evaluated (such as "John Doe - Parent," or "Self - Physician") _____

Additional Information: _____

_____

This Scale consists of a number of statements which describe some of the ways people act in different situations. There are several ways of administering the Scale; these, and detailed scoring instructions, appear in the accompanying *Manual.*

Instructions for the second part of the Scale immediately precede the second half of this booklet.

INSTRUCTIONS FOR PART ONE

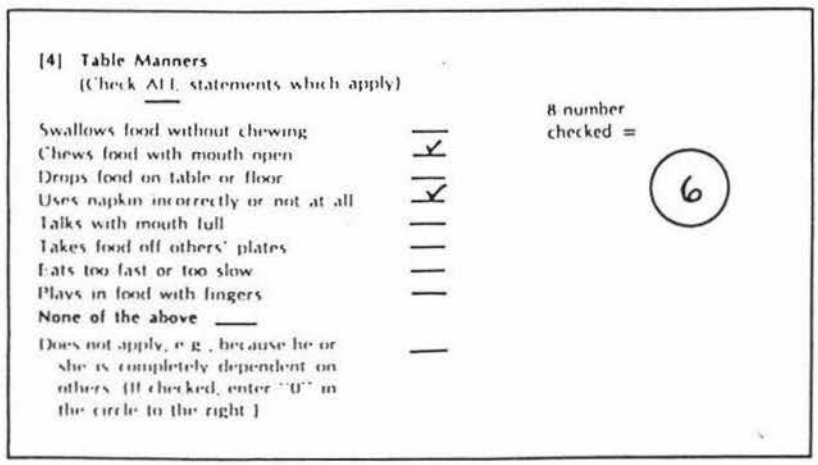
There are two kinds of items in the first part of the Scale. The first requires that you select only ONE of the several possible responses. For example:

[2] Eating in Public (Circle only ONE)

Orders complete meals in restuarants	3	
Orders simple meals like hamburgers or hot dogs	(2)	2
Orders soft drinks at soda fountain or canteen	1	
Does not order at public eating places	0	

Notice that the statements are arranged in order of difficulty: 3,2,1,0. Circle the one statement which best describes the *most difficult* task the person can usually manage. In this example, the individual being observed can order simple meals like hamburgers or hot dogs (2), but cannot order a complete dinner (3). Therefore, (2) is circled in the example above. In scoring, 2 is entered in the circle to the right.

The second type of item asks you to check ALL statements which apply to the person. For example:



[4] Table Manners
(Check ALL statements which apply)

8 number checked = 6

Swallows food without chewing	—
Chews food with mouth open	✓
Drops food on table or floor	—
Uses napkin incorrectly or not at all	✓
Talks with mouth full	—
Takes food off others' plates	—
Eats too fast or too slow	—
Plays in food with fingers	—
None of the above	—
Does not apply, e.g., because he or she is completely dependent on others. (If checked, enter "0" in the circle to the right.)	—

In the example above, the second and fourth items are checked to indicate that the person "chews food with mouth open" and "uses napkin incorrectly." In scoring, the number of items checked, 2, is subtracted from 8, and the item score, 6, is entered in the circle to the right. Most items do not, however, require this subtraction; instead, the number checked can be directly entered as the score. The statement "None of the above," which is included for administrative purposes only, is not to be counted in scoring here.

Some items may deal with behaviors that are clearly against local regulations, (e.g., use of the telephone), or behaviors that are not possible for a person to perform because the opportunity does not exist, (e.g., eating in restaurants is not possible for someone who is bedridden). In these instances, you must still complete your rating. Give the person credit for the item if you feel absolutely certain that he or she can and would perform the behavior without additional training had he or she the opportunity to do so. Write "AR" for "Against Regulations" or "HNO" for "Has No Opportunity" next to the rating made in these cases. These notations will not affect the eventual scoring of that item, but will contribute to the understanding and interpretation of the person's adaptive behavior and environment.

Please observe the following general rules in completing the Scale:

1. In items which specify "with help" or "with assistance" for completion of task, these mean with *direct physical assistance.*

2. Give the person credit for an item even if he or she needs verbal prompting or reminding to complete the task unless the item definitely states *"without prompting"* or *"without reminder."*

This Scale is prepared for general use. Therefore, some of the items may not be appropriate for your specific setting, but please do try to complete all of them.

PART ONE

I. INDEPENDENT FUNCTIONING

A. Eating

[1] Use of Table Utensils (Circle only ONE)

Uses knife and fork correctly and neatly	6
Uses table knife for cutting or spreading	5
Feeds self with spoon and fork - neatly	4
Feeds self with spoon and fork - considerable spilling	3
Feeds self with spoon - neatly	2
Feeds self with spoon - considerable spilling	1
Feeds self with fingers or must be fed	0

[2] Eating in Public (Circle only ONE)

Orders complete meals in restaurants	3
Orders simple meals like hamburgers or hot dogs	2
Orders soft drinks at soda fountain or canteen	1
Does not order at public eating places	0

[3] Drinking (Circle only ONE)

Drinks without spilling, holding glass in one hand	3
Drinks from cup or glass unassisted - neatly	2
Drinks from cup or glass unassisted considerable spilling	1
Does not drink from cup or glass unassisted	0

[4] Table Manners (Check ALL statements which apply)

Swallows food without chewing	___
Chews food with mouth open	___
Drops food on table or floor	___
Uses napkin incorrectly or not at all	___
Talks with mouth full	___
Takes food off others' plates	___
Eats too fast or too slow	___
Plays in food with fingers	___
None of the above	___
Does not apply, e.g., because he or she is bedfast, and/or has liquid food only (If checked, enter "0" in the circle to the right.)	___

# of number checked =

A. Eating → ADD 1-4

B. Toilet Use

[5] Toilet Training (Circle only ONE)

Never has toilet accidents	4
Never has toilet accidents during the day	3
Occasionally has toilet accidents during the day	2
Frequently has toilet accidents during the day	1
Is not toilet trained at all	0

[6] Self-Care at Toilet
(Check ALL statements which apply)

Lowers pants at the toilet without help	___
Sits on toilet seat without help	___
Uses toilet tissue appropriately	___
Flushes toilet after use	___
Puts on clothes without help	___
Washes hands without help	___
None of the above	___

B. Toilet Use → ADD 5-6

C. Cleanliness

[7] Washing Hands and Face
(Check ALL statements which apply)

Washes hands with soap	___
Washes face with soap	___
Washes hands and face with water	___
Dries hands and face	___
None of the above	___

[8] Bathing (Circle only ONE)

Prepares and completes bathing unaided	6
Washes and dries self completely without prompting or helping	5
Washes and dries self reasonably well with prompting	4
Washes and dries self with help	3
Attempts to wash and wash self	2
Cooperates when being washed and dried by others	1
Makes no attempt to wash or dry self	0

[9] Personal Hygiene
(Check ALL statements which apply)

Has strong underarm odor	___
Does not change underwear regularly by self	___
Skin is often dirty if not assisted	___
Does not keep nails clean by self	___
None of the above	___
Does not apply, e.g., because he or she is completely dependent on others (If checked, enter "0" in the circle to the right.)	___

# of number checked =

[10] Tooth Brushing (Circle only ONE)

Applies toothpaste and brushes teeth with up and down motion	5
Applies toothpaste and brushes teeth	4
Brushes teeth without help, but cannot apply toothpaste	3
Brushes teeth with supervision	2
Cooperates in having teeth brushed	1
Makes no attempt to brush teeth	0

[11] Menstruation (Circle only ONE)
(For males, Circle "no menstruation")

No menstruation	5
Cares for self completely for menstruation without assistance or reminder	5
Cares for self reasonably well during menstruation	4
Helps in changing pads during menstruation	3
Indicates pad needs changing during menstruation	2
Indicates that menstruation had begun	1
Will not care for self or seek help during menstruation	0

C. Cleanliness → ADD 7-11

D. Appearance

[12] Posture (Check ALL statements which apply)

Mouth hangs open	___
Head hangs down	___
Stomach sticks out because of posture	___
Shoulders slumped forward and back bent	___
Walks with toes out or toes in	___
Walks with feet far apart	___
Shuffles, drags, or stamps feet when walking	___
Walks on tiptoes	___
None of the above	___
Does not apply, e.g., because he or she is bedfast or non-ambulatory (If checked, enter "0" in the circle to the right.)	___

8-number checked =

[13] Clothing (Check ALL statements which apply)

Clothes do not fit properly if not assisted	___
Wears torn or unpressed clothing if not prompted	___
Rewears dirty or soiled clothing if not prompted	___
Wears clashing color combinations if not prompted	___
Does not know the difference between work shoes and dress shoes	___
Does not choose different clothing for formal and informal occasions	___
Does not wear special clothing for different weather conditions (raincoat, overshoes, etc.)	___
None of the above	___
Does not apply, e.g., because he or she is completely dependent on others (If checked, enter "0" in the circle to the right.)	___

7-number checked =

D. Appearance → ADD 12-13

E. Care of Clothing

[14] Care of Clothing
(Check ALL statements which apply)

Wipes and polishes shoes when needed	___
Puts clothes in drawer or chest neatly	___
Sends clothes to laundry without being reminded	___
Hangs up clothes without being reminded	___
None of the above	___

E. Care of Clothing → ENTER 14

F. Dressing and Undressing

[15] Dressing (Circle only ONE)

Completely dresses self	5
Completely dresses self with verbal prompting only	4
Dresses self by pulling or putting on all clothes with verbal prompting and by fastening (zipping, buttoning, snapping) them with help	3
Dresses self with help in pulling or putting on most clothes and fastening them	2
Cooperates when dressed by extending arms or legs	1
Must be dressed completely	0

[16] Undressing at Appropriate Times
(Circle only ONE)

Completely undresses self	5
Completely undresses self with verbal prompting only	4
Undresses self by unfastening (unzipping, unbuttoning, unsnapping) clothes with help and pulling or taking them off with verbal prompting	3
Undresses self with help in unfastening and pulling or taking off most clothes	2
Cooperates when undressed by extending arms or legs	1
Must be completely undressed	0

[17] Shoes (Check ALL statements with apply)

Puts on shoes correctly without assistance	___
Ties shoe laces without assistance	___
Unties shoe laces without assistance	___
Removes shoes without assistance	___
None of the above	___

F. Dressing and Undressing → ADD 15-17

G. Travel

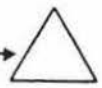
[18] Sense of Direction (Circle only ONE)

Goes a few blocks from hospital or school ground, or several blocks from home without getting lost	3
Goes around hospital ground or a few blocks from home without getting lost	2
Goes around cottage, ward, or home alone	1
Gets lost whenever leaving own living area	0

[19] Public Transportation
(Check ALL statements which apply)

Rides on train, long-distance bus or plane independently ___
Rides in taxi independently ___
Rides subway or city bus for unfamiliar journeys independently ___
Rides subway or city bus for familiar journeys independently ___
None of the above ___

G. Travel → ADD 18-19



H. Other Independent Functioning

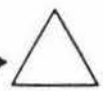
[20] Telephone (Check ALL statements which apply)

Uses telephone directory ___
Uses pay telephone ___
Makes telephone calls from private telephone ___
Answers telephone appropriately ___
Takes telephone messages ___
None of the above ___

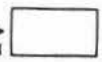
[21] Miscellaneous Independent Functioning
(Check ALL statements which apply)

Prepares own bed at night ___
Goes to bed unassisted, e.g., getting in bed, covering with blanket, etc ___
Has ordinary control of appetite, eats moderately ___
Knows postage rates, buys stamps from Post Office ___
Looks after personal health, e.g., changes wet clothing ___
Deals with simple injuries, e.g., cuts, burns ___
Knows how and where to obtain a doctor's or dentist's help ___
Knows about welfare facilities in the community ___
None of the above ___

H. Other Independent Functioning → ADD 20-21



I. INDEPENDENT FUNCTIONING → ADD TRIANGLES A-H



II. PHYSICAL DEVELOPMENT

A. Sensory Development
(*Observable* functioning ability)

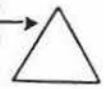
[22] Vision (With glasses, if used)
(Circle only ONE)

No difficulty in seeing 3
Some difficulty in seeing 2
Great difficulty in seeing 1
No vision at all 0

[23] Hearing (With hearing aid, if used)
(Circle only ONE)

No difficulty in hearing 3
Some difficulty in hearing 2
Great difficulty in hearing 1
No hearing at all 0

A. Sensory Development → ADD 22-23



B. Motor Development

[24] Body Balance (Circle only ONE)

Stands on "tiptoe" for ten seconds if asked 5
Stands on one foot for two seconds if asked 4
Stands without support 3
Stands with support 2
Sits without support 1
Can do none of the above 0

[25] Walking and Running
(Check ALL statements which apply)

Walks alone ___
Walks up and down stairs alone ___
Walks down stairs by alternating feet ___
Runs without falling often ___
Hops, skips or jumps ___
None of the above ___

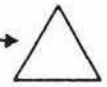
[26] Control of Hands
(Check ALL statements which apply)

Catches a ball ___
Throws a ball overhand ___
Lifts cup or glass ___
Grasps with thumb and finger ___
None of the above ___

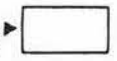
[27] **Limb Function**
(Check ALL statements which apply)

Has effective use of right arm ___
Has effective use of left arm ___
Has effective use of right leg ___
Has effective use of left leg ___
None of the above ___

B. Motor Development → ADD 24-27

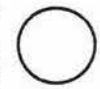


II. PHYSICAL DEVELOPMENT → ADD TRIANGLES A-B

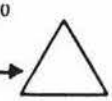


[31] **Purchasing** (Circle only ONE)

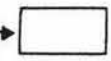
Buys all own clothing	5
Buys own clothing accessories	4
Makes minor purchases without help (candy, soft drinks, etc.)	3
Does shopping with slight supervision	2
Does shopping with close supervision	1
Does no shopping	0



B. Shopping Skills → ADD 30-31



III. ECONOMIC ACTIVITY → ADD TRIANGLES A-B



III. ECONOMIC ACTIVITY

A. Money Handling and Budgeting

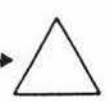
[28] **Money Handling** (Circle only ONE)

Uses banking facilities independently	4
Makes change correctly but does not use banking facilities	3
Adds coins of various denominations, up to one dollar	2
Uses money, but does not make change correctly	1
Does not use money	0

[29] **Budgeting**
(Check ALL statements which apply)

Saves money or tokens for a particular purpose ___
Budgets fares, meals, etc ___
Spends money with some planning ___
Controls own major expenditures ___
None of the above ___

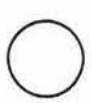
A. Money Handling and Budgeting → ADD 28-29



B. Shopping Skills

[30] **Errands** (Circle only ONE)

Goes to several shops and specifies different items	4
Goes to one shop and specifies one item	3
Goes on errands for simple purchasing without a note	2
Goes on errands for simple purchasing with a note	1
Cannot be sent on errands	0

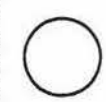


IV. LANGUAGE DEVELOPMENT

A. Expression

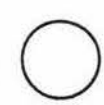
[32] **Writing** (Circle only ONE)

Writes sensible and understandable letters	5
Writes short notes and memos	4
Writes or prints forty words	3
Writes or prints ten words	2
Writes or prints own name	1
Cannot write or print any words	0



[33] **Preverbal Expression**
(Check ALL statements which apply)

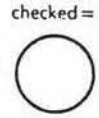
Nods head or smiles to express happiness ___
Indicates hunger ___
Indicates wants by pointing or vocal noises ___
Chuckles or laughs when happy ___
Expresses pleasure or anger by vocal noises ___
Is able to say at least a few words (Enter "6" if checked, regardless of other items.) ___
None of the above ___



[34] **Articulation** (Check ALL statements which apply--if no speech, check "None" and enter "0" in the circle)

Speech is low, weak, whispered or difficult to hear ___
Speech is slowed, deliberate, or labored ___
Speech is hurried, accelerated, or pushed ___
Speaks with blocking, halting, or other irregular interruptions ___
None of the above ___

4-number checked =



[35] **Sentences** (Circle only ONE)

Sometimes uses complex sentences containing "because," "but," etc	4
Asks questions using words such as "why," "how," "what," etc	3
Speaks in simple sentences	2
Speaks in primitive phrases only, or is non-verbal	1
	0

[36] **Word Usage** (Circle only ONE)

Talks about action when describing pictures	4
Names people or objects when describing pictures	3
Names familiar objects	2
Asks for things by their appropriate names	1
Is non-verbal or nearly non-verbal	0

A. Expression → ADD 32-36

B. Comprehension

[37] **Reading** (Circle only ONE)

Reads books suitable for children nine years or older	5
Reads books suitable for children seven years old	4
Reads simple stories or comics	3
Reads various signs, e.g., "NO PARKING," "ONE WAY," "MEN," WOMEN," etc	2
Recognizes ten or more words by sight	1
Recognizes fewer than ten words or none at all	0

[38] **Complex Instructions**
(Check ALL statements which apply)

Understands instructions containing prepositions, e.g., "on," "in," "behind," "under," etc	___
Understands instructions referring to the order in which things must be done, e.g., "first do- then do-"	___
Understands instructions requiring a decision "If –, do this, but if not, do--"	___
None of the above	___

B. Comprehension → ADD 37-38

C. Social Language Development

[39] **Conversation**
(Check ALL statements which apply)

Uses phrases such as "please," and "thank you"	___
Is sociable and talks during meals	___
Talks to others about sports, family, group activities, etc	___
None of the above	___

[40] **Miscellaneous Language Development**
(Check ALL statements which apply)

Can be reasoned with	___
Obviously responds when talked to	___
Talks sensibly	___
Reads books, newspapers, magazines for enjoyment	___
Repeats a story with little or no difficulty	___
Fills in the main items on application form reasonably well	___
None of the above	___

C. Social Language Development → ADD 39-40

IV. LANGUAGE DEVELOPMENT → ADD TRIANGLES A-C

V. NUMBERS AND TIME

[41] **Numbers** (Circle only ONE)

Does simple addition and subtraction	5
Counts ten or more objects	4
Mechanically counts to ten	3
Counts two objects by saying "one two"	2
Discriminates between "one" and "many" or "a lot"	1
Has no understanding of numbers	0

[42] Time (Check ALL statements which apply)

Tells time by clock or watch correctly to the minute ___
Understands time intervals, e.g., between "1:30" and "4:40" ___
Understands time equivalents, e.g., "9:15" is the same as "quarter past nine" ___
Associates time on clock with various actions and events ___
None of the above ___

[43] Time Concept
(Check ALL statements which apply)

Names the days of the week ___
Refers correctly to "morning" and "afternoon" ___
Understands difference between day-week, minute-hour, month-year, etc ___
None of the above ___

V. NUMBERS AND TIME → ADD 41-43

VI. DOMESTIC ACTIVITY

A. Cleaning

[44] Room Cleaning (Circle only ONE)

Cleans room well, e.g., sweeping, dusting and tidying 2
Cleans room but not thoroughly 1
Does not clean room at all 0

[45] Laundry (Check ALL statements which apply)

Washes clothing ___
Dries clothing ___
Folds clothing ___
Irons clothing when appropriate ___
None of the above ___

A. Cleaning → ADD 44-45

B. Kitchen

[46] Table Setting (Circle only ONE)

Places all eating utensils, as well as napkins, salt, pepper, sugar, etc., in positions learned 3
Places plates, glasses, and utensils in positions learned 2
Places silver, plates, cups, etc., on the table 1
Does not set table at all 0

[47] Food Preparation (Circle only ONE)

Prepares an adequate complete meal (may use canned or frozen food) 3
Mixes and cooks simple food, e.g., fries eggs, makes pancakes, cooks TV dinners, etc 2
Prepares simple foods requiring no mixing or cooking, e.g., sandwiches, cold cereal, etc. 1
Does not prepare food at all 0

[48] Table Clearing (Circle only ONE)

Clears table of breakable dishes and glassware 2
Clears table of unbreakable dishes and silverware 1
Does not clear table at all 0

B. Kitchen → ADD 46-48

C. Other Domestic Activities

[49] General Domestic Activity
(Check ALL statements which apply)

Washes dishes well ___
Makes bed neatly ___
Helps with household chores when asked ___
Does household tasks routinely ___
None of the above ___

C. Other Domestic Activities → ENTER 49

VI. DOMESTIC ACTIVITY → ADD TRIANGLES A-C

VII. VOCATIONAL ACTIVITY

[50] Job Complexity (Circle only ONE)

Performs a job requiring use of tools or machinery, e.g., shop work, sewing, etc. 2
Performs simple work, e.g., simple gardening, mopping floors, emptying trash, etc. 1
Performs no work at all 0

[51] Job Performance
(Check ALL statements which apply)
(If "0" is circled in item 50, check "None of the above" and enter "0" in the circle)

4-number checked =

Endangers others because of carelessness ___
Does not take care of tools ___
Is a very slow worker ___
Does sloppy, inaccurate work ___
None of the above ___

[52] Work Habits
(Check ALL statements which apply)
(If "0" is circled in item 50, check "None of the above" and enter "0" in the circle)

5-number checked =

Is late from work without good reason ___
Is often absent from work ___
Does not complete jobs without constant encouragement ___
Leaves work station without permission ___
Grumbles or gripes about work ___
None of the above ___

VII. VOCATIONAL ACTIVITY → ADD 50-52

VIII. SELF-DIRECTION

A. Initiative

[53] Initiative (Circle only ONE)

Initiates most of own activities, e g , tasks, games, etc 3
Asks if there is something to do, or explores surroundings, e g , home, yard, etc 2
Will engage in activities only if assigned or directed 1
Will not engage in assigned activities, e g , putting away toys, etc 0

[54] Passivity
(Check ALL statements which apply)

6-number checked =

Has to be made to do things ___
Has no ambition ___
Seems to have no interest in things ___
Finishes task last because of wasted time ___
Is unnecessarily dependent on others for help ___
Movement is slow and sluggish ___
None of the above ___
Does not apply, e g , because he or she is totally dependent on others (If checked, enter "0" in the circle to the right) ___

A. Initiative → ADD 53-54

B. Perseverance

[55] Attention (Circle only ONE)

Will pay attention to purposeful activities for more than fifteen minutes, e g , playing games, reading, cleaning up 4
Will pay attention to purposeful activities for at least fifteen minutes 3
Will pay attention to purposeful activities for at least ten minutes 2
Will pay attention to purposeful activities for at least five minutes 1
Will not pay attention to purposeful activities for as long as five minutes 0

[56] Persistence
(Check ALL statements which apply)

4-number checked =

Becomes easily discouraged ___
Fails to carry out tasks ___
Jumps from one activity to another ___
Needs constant encouragement to complete task ___
None of the above ___
Does not apply, e g , because he or she is totally incapable of any organized activities (If checked, enter "0" in the circle to the right) ___

B. Perseverance → ADD 55-56

C. Leisure Time

[57] Leisure Time Activity
(Check ALL statements which apply)

Organizes leisure time on a fairly complex level, e g , plays billiards, fishes, etc ___
Has hobby, e g , painting, embroidery, collecting stamps or coins ___
Organizes leisure time adequately on a simple level, e g , watching television, listening to phonograph, radio, etc ___
None of the above ___

C. Leisure Time → ENTER 57

VIII. SELF-DIRECTION → ADD TRIANGLES A-C

IX. RESPONSIBILITY

[58] Personal Belongings (Circle only ONE)

Very dependable--always takes care of personal belongings 3
Usually dependable--usually takes care of personal belongings 2
Unreliable--seldom takes care of personal belongings 1
Not responsible at all--does not take care of personal belongings 0

[59] General Responsibility (Circle only ONE)

Very conscientious and assumes much responsibility--makes a special effort, the assigned activities are always performed — 3
Usually dependable--makes an effort to carry out responsibility, one can be reasonably certain that the assigned activity will be performed — 2
Unreliable--makes little effort to carry out responsibility, one is uncertain that the assigned activity will be performed — 1
Not given responsibility, is unable to carry out responsibility at all — 0

IX. RESPONSIBILITY — ADD 58-59 →

X. SOCIALIZATION

[60] Cooperation (Circle only ONE)

Offers assistance to others — 2
Is willing to help if asked — 1
Never helps others — 0

[61] Consideration for Others
(Check ALL statements which apply)

Shows interest in the affairs of others ___
Takes care of others' belongings ___
Directs or manages the affairs of others when needed ___
Shows consideration for others' feelings ___
None of the above ___

[62] Awareness of Others
(Check ALL statements which apply)

Recognizes own family ___
Recognizes people other than family ___
Has information about others, e g , job, address, relation to self ___
Knows the names of people close to him, e g , classmates, neighbors ___
Knows the names of people not regularly encountered ___
None of the above ___

[63] Interaction With Others (Circle only ONE)

Interacts with others in group games or activity — 3
Interacts with others for at least a short period of time, e g , showing or offering toys, clothing or objects — 2
Interacts with others imitatively with little interaction — 1
Does not respond to others in a socially acceptable manner — 0

[64] Participation in Group Activities
(Circle only ONE)

Initiates group activities (leader and organizer) — 3
Participates in group activities spontaneously and eagerly (active participant) — 2
Participates in group activities if encouraged to do so (passive participant) — 1
Does not participate in group activities — 0

[65] Selfishness
(Check ALL statements which apply)

Refuses to take turns ___
Does not share with others ___
Gets mad if he does not get his way ___
Interrupts aide or teacher who is helping another person ___
None of the above ___
Does not apply, e g , because he or she has no social interaction or is profoundly withdrawn. (If checked, enter "0" in the circle to the right) ___

4-number checked =

[66] Social Maturity
(Check ALL statements which apply)

Is too familiar with strangers ___
Is afraid of strangers ___
Does anything to make friends ___
Likes to hold hands with everyone ___
Is at someone's elbow constantly ___
None of the above ___
Does not apply, e g , because he or she has no social interaction or is profoundly withdrawn. (If checked, enter "0" in the circle to the right.) ___

5-number checked =

X. SOCIALIZATION — ADD 60-66 →

INSTRUCTIONS FOR PART TWO

Part Two contains only one type of item. The following is an example.

[2] Damages Personal Property	Occasionally	Frequently	
Rips, tears, or chews own clothing	(1)	2	
Soils own property	1	(2)	(5)
Tears up own magazines, books, or other possessions	1	(2)	
Other (specify _____)	1	2	
_____ None of the above	Total 1	4	

Select those of the statements which are true of the individual being evaluated, and circle (1) if the behavior occurs occasionally, or (2) if it occurs frequently. Check "None of the Above" where appropriate. In scoring, total each column on the bottom (Total) line, and enter the sum of these totals in the circle to the right. When "None of the above" is checked, enter 0 in the circle to the right. In the above example, the first statement is true occasionally, and the last two statements are true frequently; therefore, a score of 5 has been entered.

"Occasionally" signifies that the behavior occurs once in a while, or now and then, and "Frequently" signifies that the behavior occurs quite often, or habitually.

Use the space for "Other" when:

1. The person has related behavior problems *in addition* to those circled.
2. The person has behavior problems that are *not covered* by any of the examples listed.

The behavior listed under "Other" must be a specific example of the behavior problem stated in the item.

Some of the items in Part Two describe behaviors which need not be considered maladaptive for very young children (for example, pushing others). The question of whether a given behavior is adaptive or maladaptive depends on the way that particular behavior is viewed by people in our society. Nonetheless, in completing this Scale you are asked to record a person's behavior as accurately as possible, ignoring, for the moment, your personal biases; then, when you later interpret the impact of the reported behaviors, you should take into consideration societal attitudes.

PART TWO

I. VIOLENT AND DESTRUCTIVE BEHAVIOR

[1] Threatens or Does Physical Violence

	Occasionally	Frequently
Uses threatening gestures	1	2
Indirectly causes injury to others	1	2
Spits on others	1	2
Pushes, scratches or pinches others	1	2
Pulls others' hair, ears, etc	1	2
Bites others	1	2
Kicks, strikes or slaps others	1	2
Throws objects at others	1	2
Chokes others	1	2
Uses objects as weapons against others	1	2
Hurts animals	1	2
Other (specify _____)	1	2
——— None of the above	Total	

[2] Damages Personal Property

Rips, tears or chews own clothing	1	2
Soils own property	1	2
Tears up own magazines, books, or other possessions	1	2
Other (specify: _____)	1	2
——— None of the above	Total	

[3] Damages Others' Property

Rips, tears, or chews others' clothing	1	2
Soils others' property	1	2
Tears up others' magazines, books, or personal possessions	1	2
Other (specify: _____)	1	2
——— None of the above	Total	

[4] Damages Public Property

Tears up magazines, books or other public property	1	2
Is overly rough with furniture (kicks, mutilates, knocks it down)	1	2
Breaks windows	1	2
Stuffs toilet with paper, towels or other solid objects that cause an overflow	1	2
Attempts to set fires	1	2
Other (specify: _____)	1	2
——— None of the above	Total	

[5] Has Violent Temper, or Temper Tantrums

	Occasionally	Frequently
Cries and screams	1	2
Stamps feet while banging objects or slamming doors, etc.	1	2
Stamps feet, screaming and yelling	1	2
Throws self on floor, screaming and yelling	1	2
Other (specify _____)	1	2
——— None of the above	Total	

I. VIOLENT AND DESTRUCTIVE BEHAVIOR — ADD 1-5 →

II. ANTISOCIAL BEHAVIOR

[6] Teases or Gossips About Others

Gossips about others	1	2
Tells untrue or exaggerated stories about others	1	2
Teases others	1	2
Picks on others	1	2
Makes fun of others	1	2
Other (specify: _____)	1	2
——— None of the above	Total	

[7] Bosses and Manipulates Others

Tries to tell others what to do	1	2
Demands services from others	1	2
Pushes others around	1	2
Causes fights among other people	1	2
Manipulates others to get them in trouble	1	2
Other (specify _____)	1	2
——— None of the above	Total	

[8] Disrupts Others' Activities

Is always in the way	1	2
Interferes with others' activities, e.g., by blocking passage, upsetting wheelchairs, etc	1	2
Upsets others' work	1	2
Knocks around articles that others are working with, e.g., puzzles, card games, etc.	1	2
Snatches things out of others' hands	1	2
Other (specify: _____)	1	2
——— None of the above	Total	

Occasionally Frequently

[9] Is Inconsiderate of Others

Keeps temperature in public areas uncomfortable for others, e.g., opens or closes window, changes thermostat	1	2
Turns TV, radio or phonograph on too loudly	1	2
Makes loud noises while others are reading	1	2
Talks too loudly	1	2
Sprawls over furniture or space needed by others	1	2
Other (specify:_____)	1	2
——None of the above Total		

[10] Shows Disrespect for Others' Property

Does not return things that were borrowed	1	2
Uses others' property without permission	1	2
Loses others' belongings	1	2
Damages others' property	1	2
Does not recognize the difference between own and others' property	1	2
Other (specify:_____)	1	2
——None of the above Total		

[11] Uses Angry Language

Uses hostile language, e.g., "stupid jerk," "dirty pig," etc	1	2
Swears, curses, or uses obscene language	1	2
Yells or screams threats of violence	1	2
Verbally threatens others, suggesting physical violence	1	2
Other (specify:_____)	1	2
——None of the above Total		

II. ANTISOCIAL BEHAVIOR ADD 6-11 →

III. REBELLIOUS BEHAVIOR

Occasionally Frequently

[12] Ignores Regulations or Regular Routines

Has negative attitude toward rules but usually conforms	1	2
Has to be forced to go through waiting lines, e.g., lunch lines, ticket lines, etc.	1	2
Violates rules or regulations, e.g., eats in restricted areas, disobeys traffic signals, etc.	1	2
Refuses to participate in required activities, e.g., work, school, etc.	1	2
Other (specify_____)	1	2
——None of the above Total		

[13] Resists Following Instructions, Requests or Orders

Gets upset if given a direct order	1	2
Plays deaf and does not follow instructions	1	2
Does not pay attention to instructions	1	2
Refuses to work on assigned subject	1	2
Hesitates for long periods before doing assigned tasks	1	2
Does the opposite of what was requested	1	2
Other (specify_____)	1	2
——None of the above Total		

[14] Has Impudent or Rebellious Attitude Toward Authority

Resents persons in authority, e.g., teachers, group leaders, ward personnel, etc	1	2
Is hostile toward people in authority	1	2
Mocks people in authority	1	2
Says that he can fire people in authority	1	2
Says relative will come to kill or harm persons in authority	1	2
Other (specify_____)	1	2
——None of the above Total		

[15] Is Absent From, or Late For, the Proper Assignments or Places

Is late to required places or activities	1	2
Fails to return to places where he is supposed to be after leaving, e.g., going to toilet, running an errand, etc.	1	2
Leaves place of required activity without permission, e.g., work, class, etc.	1	2
Is absent from routine activities, e.g., work, class, etc	1	2
Stays out late at night from home, hospital ward, dormitory, etc.	1	2
Other (specify_____)	1	2
——None of the above Total		

Occasionally Frequently

[16] Runs Away or Attempts to Run Away

Attempts to run away from hospital, home, or school ground	1	2
Runs away from group activities, e.g., picnics, school buses, etc	1	2
Runs away from hospital, home, or school ground	1	2
Other (specify _____)	1	2
_____None of the above	Total	

[17] Misbehaves in Group Settings

Interrupts group discussion by talking about unrelated topics	1	2
Disrupts games by refusing to follow rules	1	2
Disrupts group activities by making loud noises or by acting up	1	2
Does not stay in seat during lesson period, lunch period, or other group sessions	1	2
Other (specify _____)	1	2
_____None of the above	Total	

III. REBELLIOUS BEHAVIOR ADD 12-17 →

IV. UNTRUSTWORTHY BEHAVIOR

[18] Takes Others' Property Without Permission

Has been suspected of stealing	1	2
Takes others' belongings if not kept in place or locked	1	2
Takes others' belongings from pockets, purses, drawers, etc	1	2
Takes others' belongings by opening or breaking locks	1	2
Other (specify _____)	1	2
_____None of the above	Total	

[19] Lies or Cheats

Twists the truth to own advantage	1	2
Cheats in games, tests, assignments, etc	1	2
Lies about situations	1	2
Lies about self	1	2
Lies about others	1	2
Other (specify _____)	1	2
_____None of the above	Total	

IV. UNTRUSTWORTHY BEHAVIOR ADD 18-19 →

V. WITHDRAWAL

[20] Is Inactive Occasionally Frequently

Sits or stands in one position for a long period of time	1	2
Does nothing but sit and watch others	1	2
Falls asleep in a chair	1	2
Lies on the floor all day	1	2
Does not seem to react to anything	1	2
Other (specify _____)	1	2
_____None of the above	Total	

[21] Is Withdrawn

Seems unaware of surroundings	1	2
Is difficult to reach or contact	1	2
Is apathetic and unresponsive in feeling	1	2
Has a blank stare	1	2
Has a fixed expression	1	2
Other (specify _____)	1	2
_____None of the above	Total	

[22] Is Shy

Is timid and shy in social situations	1	2
Hides face in group situations, e.g., parties, informal gatherings, etc	1	2
Does not mix well with others	1	2
Prefers to be alone	1	2
Other (specify _____)	1	2
_____None of the above	Total	

V. WITHDRAWAL ADD 20-22 →

VI. STEREOTYPED BEHAVIOR AND ODD MANNERISMS

[23] Has Stereotyped Behaviors

Drums fingers	1	2
Taps feet continually	1	2
Has hands constantly in motion	1	2
Slaps, scratches, or rubs self continually	1	2
Waves or shakes parts of the body repeatedly	1	2
Moves or rolls head back and forth	1	2
Rocks body back and forth	1	2
Paces the floor	1	2
Other (specify _____)	1	2
_____None of the above	Total	

Occasionally Frequently

[24] Has Peculiar Posture or Odd Mannerisms

Holds head tilted	1	2
Sits with knees under chin	1	2
Walks on tiptoes	1	2
Lies on floor with feet up in the air	1	2
Walks with fingers in ears or with hands on head	1	2
Other (specify _____)	1	2
_____ None of the above	Total	

VI. STEREOTYPED BEHAVIOR AND ODD MANNERISMS

ADD 23-24 → [ ]

VII. INAPPROPRIATE INTERPERSONAL MANNERS

[25] Has Inappropriate Interpersonal Manners

Talks too close to others' faces	1	2
Blows on others' faces	1	2
Burps at others	1	2
Kisses or licks others	1	2
Hugs or squeezes others	1	2
Touches others inappropriately	1	2
Hangs on to others and does not let go	1	2
Other (specify _____)	1	2
_____ None of the above	Total	

VII. INAPPROPRIATE INTERPERSONAL MANNERS

ENTER 25 → [ ]

VIII. UNACCEPTABLE VOCAL HABITS

[26] Has Disturbing Vocal or Speech Habits

Giggles hysterically	1	2
Talks loudly or yells at others	1	2
Talks to self loudly	1	2
Laughs inappropriately	1	2
Makes growling, humming, or other unpleasant noises	1	2
Repeats a word or phrase over and over	1	2
Mimics others' speech	1	2
Other (specify _____)	1	2
_____ None of the above	Total	

VIII. UNACCEPTABLE VOCAL HABITS

ENTER 26 → [ ]

IX. UNACCEPTABLE OR ECCENTRIC HABITS

Occasionally Frequently

[27] Has Strange And Unacceptable Habits

Smells everything	1	2
Inappropriately stuffs things in pockets shirts, dresses or shoes	1	2
Pulls threads out of own clothing	1	2
Plays with things he is wearing, e.g., shoe string, buttons, etc.	1	2
Saves and wears unusual articles, e.g., safety pins, bottle caps, etc	1	2
Hoards things, including foods	1	2
Plays with spit	1	2
Plays with feces or urine	1	2
Other (specify _____)	1	2
_____ None of the above	Total	

[28] Has Unacceptable Oral Habits

Drools	1	2
Grinds teeth audibly	1	2
Spits on the floor	1	2
Bites fingernails	1	2
Chews or sucks fingers or other parts of the body	1	2
Chews or sucks clothing or other inedibles	1	2
Eats inedibles	1	2
Drinks from toilet stool	1	2
Puts everything in mouth	1	2
Other (specify _____)	1	2
_____ None of the above	Total	

[29] Removes or Tears Off Own Clothing

Tears off buttons or zippers	1	2
Inappropriately removes shoes or socks	1	2
Undresses at the wrong times	1	2
Takes off all clothing while on the toilet	1	2
Tears off own clothing	1	2
Refuses to wear clothing	1	2
Other (specify _____)	1	2
_____ None of the above	Total	

[30] Has Other Eccentric Habits and Tendencies

	Occasionally	Frequently
Is overly particular about places to sit or sleep	1	2
Stands in a favorite spot, e g , by window, by door, etc	1	2
Sits by anything that vibrates	1	2
Is afraid to climb stairs or to go down stairs	1	2
Does not want to be touched	1	2
Screams if touched	1	2
Other (specify _____)	1	2
_____ None of the above		

Total

IX. UNACCEPTABLE OR ECCENTRIC HABITS — ADD 27-30 → ☐

X. SELF-ABUSIVE BEHAVIOR

[31] Does Physical Violence to Self

Bites or cuts self	1	2
Slaps or strikes self	1	2
Bangs head or other parts of the body against objects	1	2
Pulls own hair, ears, etc	1	2
Scratches or picks self causing injury	1	2
Soils and smears self	1	2
Purposely provokes abuse from others	1	2
Picks at any sores he might have	1	2
Pokes objects in own ears, eyes, nose, or mouth	1	2
Other (specify _____)	1	2
_____ None of the above		

Total

X. SELF-ABUSIVE BEHAVIOR — ENTER 31 → ☐

XI. HYPERACTIVE TENDENCIES

[32] Has Hyperactive Tendencies

Talks excessively	1	2
Will not sit still for any length of time	1	2
Constantly runs or jumps around the room or hall	1	2
Moves or fidgets constantly	1	2
Other (specify _____)	1	2
_____ None of the above		

Total

XI. HYPERACTIVE TENDENCIES — ENTER 32 → ☐

XII. SEXUALLY ABERRANT BEHAVIOR

[33] Engages in Inappropriate Masturbation

	Occasionally	Frequently
Has attempted to masturbate openly	1	2
Masturbates in front of others	1	2
Masturbates in group	1	2
Other (specify _____)	1	2
_____ None of the above		

Total

[34] Exposes Body Improperly

Exposes body unnecessarily after using toilet	1	2
Stands in public places with pants down or with dress up	1	2
Exposes body excessively during activities, e g , playing, dancing, sitting, etc.	1	2
Undresses in public places, or in front of lighted windows	1	2
Other (specify _____)	1	2
_____ None of the above		

Total

[35] Has Homosexual Tendencies

Is sexually attracted to members of the same sex	1	2
Has approached others and attempted homosexual acts	1	2
Has engaged in homosexual activity	1	2
Other (specify _____)	1	2
_____ None of the above		

Total

[36] Sexual Behavior That Is Socially Unacceptable

Is overly seductive in appearance or actions	1	2
Hugs or caresses too intensely in public	1	2
Needs watching with regard to sexual behavior	1	2
Lifts or unbuttons others' clothing to touch intimately	1	2
Has sexual relations in public places	1	2
Is overly aggressive sexually	1	2
Has raped others	1	2
Is easily taken advantage of sexually	1	2
Other (specify _____)	1	2
_____ None of the above		

Total

XII. SEXUALLY ABERRANT BEHAVIOR — ADD 33-36 → ☐

XIII. PSYCHOLOGICAL DISTURBANCES

	Occasionally	Frequently
[37] Tends to Overestimate Own Abilities		
Does not recognize own limitations	1	2
Has too high an opinion of self	1	2
Talks about future plans that are unrealistic	1	2
Other (specify _____)	1	2
_____ None of the above	Total	
[38] Reacts Poorly to Criticism		
Does not talk when corrected	1	2
Withdraws or pouts when criticized	1	2
Becomes upset when criticized	1	2
Screams and cries when corrected	1	2
Other (specify _____)	1	2
_____ None of the above	Total	
[39] Reacts Poorly to Frustration		
Blames own mistakes on others	1	2
Withdraws or pouts when thwarted	1	2
Becomes upset when thwarted	1	2
Throws temper tantrums when does not get own way	1	2
Other (specify _____)	1	2
_____ None of the above	Total	
[40] Demands Excessive Attention or Praise		
Wants excessive praise	1	2
Is jealous of attention given to others	1	2
Demands excessive reassurance	1	2
Acts silly to gain attention	1	2
Other (specify _____)	1	2
_____ None of the above	Total	
[41] Seems To Feel Persecuted		
Complains of unfairness, even when equal shares or privileges have been given	1	2
Complains, "Nobody loves me"	1	2
Says, "Everybody picks on me"	1	2
Says, "People talk about me"	1	2
Says, "People are against me"	1	2
Acts suspicious of people	1	2
Other (specify _____)	1	2
_____ None of the above	Total	

	Occasionally	Frequently
[42] Has Hypochondriacal Tendencies		
Complains about imaginary physical ailments	1	2
Pretends to be ill	1	2
Acts sick after illness is over	1	2
Other (specify _____)	1	2
_____ None of the above	Total	
[43] Has Other Signs of Emotional Instabilities		
Changes mood without apparent reason	1	2
Complains of bad dreams	1	2
Cries out while asleep	1	2
Cries for no apparent reason	1	2
Seems to have no emotional control	1	2
Vomits when upset	1	2
Appears insecure or frightened in daily activities	1	2
Talks about people or things that cause unrealistic fears	1	2
Talks about suicide	1	2
Has made an attempt at suicide	1	2
Other (specify _____)	1	2
_____ None of the above	Total	

XIII. PSYCHOLOGICAL DISTURBANCES → ADD 37-43 [ ]

XIV. USE OF MEDICATIONS

[44] Use of Prescribed Medication		
Uses tranquilizers	1	2
Uses sedatives	1	2
Uses anticonvulsant drugs	1	2
Uses stimulants	1	2
Other (specify _____)	1	2
_____ None of the above	Total	

XIV. USE OF MEDICATIONS → ENTER 44 [ ]

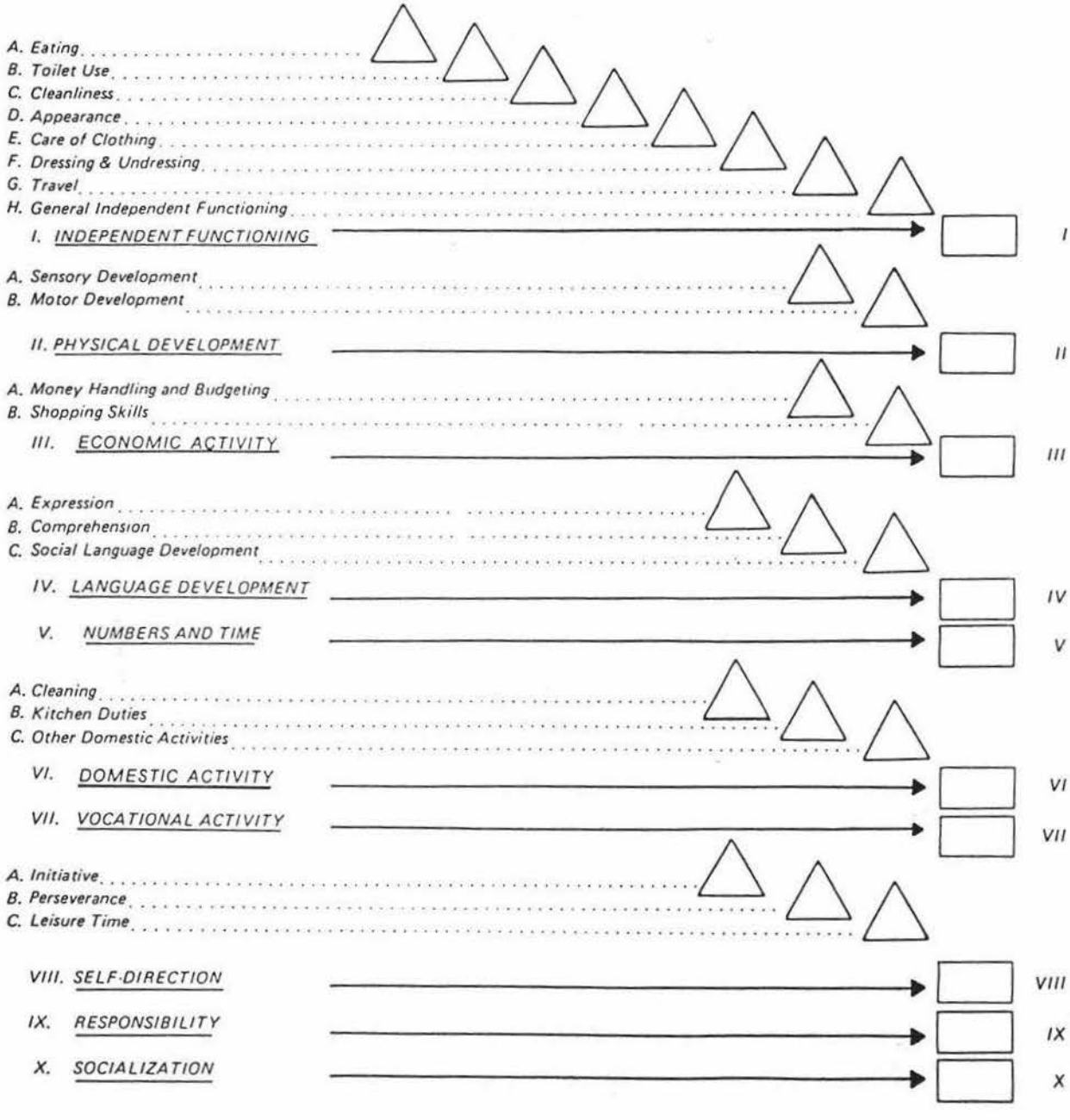
Identification _____

Age _____

Sex _____

Date of Administration _____

DATA SUMMARY SHEET - AAMD ADAPTIVE BEHAVIOR SCALE
PART ONE



DATA SUMMARY SHEET

PART TWO

I. VIOLENT AND DESTRUCTIVE BEHAVIOR	☐	I
II. ANTISOCIAL BEHAVIOR	☐	II
III. REBELLIOUS BEHAVIOR	☐	III
IV. UNTRUSTWORTHY BEHAVIOR	☐	IV
V. WITHDRAWAL	☐	V
VI. STEREOTYPED BEHAVIOR AND ODD MANNERISMS	☐	VI
VII. INAPPROPRIATE INTERPERSONAL MANNERS	☐	VII
VIII. UNACCEPTABLE VOCAL HABITS	☐	VIII
IX. UNACCEPTABLE OR ECCENTRIC HABITS	☐	IX
X. SELF-ABUSIVE BEHAVIOR	☐	X
XI. HYPERACTIVE TENDENCIES	☐	XI
XII. SEXUALLY ABERRANT BEHAVIOR	☐	XII
XIII. PSYCHOLOGICAL DISTURBANCES	☐	XIII
XIV. USE OF MEDICATIONS	☐	XIV

APPENDIX THREE: Client Lifestyle Implementation Plan (CLIPS) measure.

INTENSIVE LEARNING CENTRE

CLIP

Bradma

Rationale

Target Behaviours

INTENSIVE LEARNING CENTRE

Date	Target Behaviours	Client Centred Objectives	Intervention Strategy

APPENDIX FOUR: Massey University Ethics Committee Letter of Acceptance.

MASSEY
UNIVERSITY

Private Bag 11222
Palmerston North
New Zealand
Telephone 64-6-356 9099
Facsimile 64-6-350 5603

RESEARCH
SERVICES

8 March 1994

Ms M Hall
PSYCHOLOGY

Dear Ms Hall

re: HEC Application "Evaluation of a behavioural inpatient programme for chronically mentally ill and the potential for cognitive therapy" (HEC 94/13)

Thank you for attending the Human Ethics Committee meeting on Friday 4 March 1994 with Dr F Deane and for your full explanation of the procedure involved. The committee appreciated the difficulties for the participants in understanding informed consent. The committee accepts your assurances that in obtaining informed consent you will be sensitive to the needs of the participants.

During discussion with you the following points were made:

(i) The Information Sheet should be printed on Massey University letterhead.

(ii) It should be made clear on the Information Sheet that you will have full access to all medical details and may well use such details in explaining your research findings.

(iii) The identity of the patients must be protected at all times.

(iv) The right to decline should be made clear as should be the right to decline to answer any question.

(v) We suggested the last sentence on the Information Sheet be deleted. Participants should be given time to consider whether they wish to take part.

(vi) Subject to the above amendments, this study may proceed when you have approval from the Manawatu Wanganui Area Health Board Ethics Committee.

Yours sincerely

PROFESSOR PHILIP DEWE
Chairperson
HUMAN ETHICS COMMITTEE

c.c. Dr F Deane

APPENDIX FIVE: Manawatu-Wanganui Area Health Board Ethics Committee Letter of Acceptance.

MANAWATU WANGANUI ETHICS COMMITTEE

P O Box 2056
Palmerston North
Chairperson: Bibby Plummer

Phone: (06) 350-8943
Fax: (06) 351-6669
Secretary: Deborah Bell

CENTRAL REGIONAL HEALTH AUTHORITY

DB1111

3 May 1994

Ms Marie Hall
Department of Psychology
Massey University
Private Bag 11222
PALMERSTON NORTH

Dear Ms Hall

ETHICS REGISTER 07/94 - EVALUATION OF A BEHAVIOURAL INPATIENT PROGRAMME FOR CHRONICALLY ILL AND THE POTENTIAL FOR COGNITIVE THERAPY

Thank you for your letter of 14 April 1994, and copy of the questionnaires and revised information sheet for the above study. These were received and discussed at the Manawatu & Wanganui Ethics Committee meeting held on 18 April 1994.

Members of the Committee commended your close attention to the Committee's concerns. I am pleased to inform you that full Ethics Committee approval has been granted for your study to commence.

I would advise that the Ethics Committee makes decisions on ethical issues only. We note your study is to be carried out in the Wanganui area. You are therefore required to obtain written approval from the Chief Executive Officer, Good Health Wanganui for your study to commence. If you wish your study to be extended to the Manawatu area you should forward a copy of your proposal, along with a copy of this letter to the Chief Executive Officer, MidCentral Health Limited. If you require any finances and/or resources for this proposal you are required to inform the Chief Executive Officer accordingly.

Please note, this study is approved for a two year period in the Manawatu & Wanganui area only, and re-approval is required after that time.

Finally, the Ethics Committee requires you to submit a progress report on the study within twelve months, and at the completion of the study a copy of any report and/or publication for its records. Please notify the Committee if your study is abandoned or the protocol changed in any way.

We wish you every success with your proposal.

Yours sincerely

Bibby Plummer
ETHICS COMMITTEE CHAIRPERSON