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CONTENTS

Although widely used clinically, the validity of the Thematic Apperception Test (TAT) as a clinical tool, has not been demonstrated. This instrument has seen application outside the clinic, however, as a measure of achievement need. This concept cannot be easily applied to psychotherapeutic concerns. It can, however, be modified so as to relate to more widely used clinical concepts, such as motivation, psychological mindedness and defensiveness, and expectations for therapy. Analyzing TAT content in this way would permit its use in the prediction of behavior in therapy, specifically predicting patients who will drop out of treatment.

The question of the validity of projective techniques such as the Thematic Apperception Test (TAT) has not been satisfactority researched. The TAT was developed in 1940 (Murray, 1940). It has seen widespread use, both in clinical and research roles. In recent years, however, the clinical value of this and other projective techniques has been questioned. (Blatt, 1975).

Many observers feel that these instruments lack objectivity, and that the hypotheses used by clinicians in evaluating test responses lack research validation. The attempt to evaluate the global clinical use of the TAT would be both difficult and unwieldy. It is, however, possible to investigate aspects of this use. To do this, it is necessary to limit the focus of the investigation, both in terms of the TAT variables to be considered and the dependent variable. At the same time, both of these variables must be clinically useful, ensuring that the results of the research can be applied by the practitioner.

The TAT requires the subject to construct a story in response to a picture stimulus (Kerlinger, 1964). In responding, the subject is asked to describe what led up to the events shown in the picture, what is presently happening, what the characters are feeling and thinking, and

what the outcome of the story will be (Murray, 1940). The demands on the subject are to respond to emotions, fantasies and imagination. At the same time, these responses must be organized into a recognizable story that will meet the inspection of others. The task is, thus, to respond to both individual and social demands. The response is outside the apparent limits of logic and common experience, but it is still ordered by these bounds. Proponents of the TAT, claim the clinician is given an idea of the subject's private thoughts, motives, and biases derived both from past experiences and public, social pressures (Henry, 1956).

In typical clinical use, a subject is asked to respond to ten to twelve TAT pictures. These either have a general resemblance to various common interpersonal situations, or are clearly fantastic representations. There are no fixed rules determining which pictures a subject receives. Typically, men and women are shown different cards, having a male or female respectively as the central figure. The subject's responses are then examined by the clinician looking for unusual characteristics of style and manner, and clues to problems the subject may have in various sorts of interpersonal relations. While several global scoring systems have been proposed for use with this technique, none have been widely accepted (Bellak, 1971, Murray, 1940).

This lack of an accepted method of scoring TAT material has hampered research aimed at validating its clinical use. Researchers have either proceeded by obtaining gross, undifferentiated global judgements, or by focusing on a single type of response or scoring category (Blatt, 1975). In the first type of research, little is shown beyond whether or not a number of judges could agree about certain distinctions under certain conditions. For example, studies which ask for a diagnostic decision based on a projective protocol have shown the wide variation of interpretation possible from this sort of material. They have been, however,

unable to highlight the factors needed for successful judgements (Blatt, 1975).

At the other extreme is research investigating single signs in test material. This research relates the presence or absence of a particular scoring category to the chosen criterion. By focusing in on a small part of the test protocol, this research often tends to obscure the context in which a response occurs. It thus loses the subtle distinctions and qualifications made by a good clinician. Often, research impirically directed towards obtaining signs which differentiate two groups has produced a combination of signs which, taken together were theoretically uninterpretable, and unable to be crossvalidated (Klopfer, 1968). Too often, "researchers used test scores in an undifferentiated way without understanding the basic assumptions and interpretive rational of the procedure... Effective utilization...in research requires that judgements reflect the distinctions made in clinical practise" (Blatt, 1975, p. 40).

Lacking an accepted scoring system for the TAT, many researchers have created their own, used only in their individual research. As a result,

> there are almost as many scoring systems as there are TAT studies: stimulus materials and the system for quantifying the crucial variable are often custom made ... It is almost as if each worker, starting from scratch, were forced to devise his own instrument and to be concerned all over again with problems of objectivity, reliability, and validity, having to accumulate norms, train scorers, and develop standardized conditions for the administration of his instrument (Zubin, Eron, and Schumer, 1965, p. 443).

As might be expected, much of the resulting research has been

> vague, holistic scoring of content [that] does not distinguish various diagnostic groups very effectively or relate particularly well to other ratings and measures... The behavioral validation studies do not attest to the validity of the instrument as a whole, but only to the use of the particular purpose described in the specific report (Zubin et al, p. 439).

Despite these problems, validation of the usefulness of the TAT for clinical problems would necessitate examining the content of the test material. The task of standardizing what content is focused on requires the use of some sort of scoring system. At the risk of adding to the existing confusion in this area, a scoring system specifically designed to reflect these clinical concerns might be less apt to suffer from the artificiality that has plagued many previous studies. A useful scoring system would need to demonstrate reliability, replicability, quantifiability, application to diverse populations, and validity as a predictor of overt behavior (Nawas, 1965). Ease of scoring would be a valuable asset.

Another common fault of research in this area has been an inadequate analysis of the criterion: what is to be predicted. Unless the validity, reliability, and objectivity of the criterion are known, it is difficult to ascribe variance in predictions to the failings in the material used, the judges, or the criterion itself (Holt, 1970). Research predicting psychiatric diagnostic categories from projective material, for example, compounds the uncertain validity of the test results with the varied approaches of the judges and the problem in reliability of the diagnostic criteria.

Research predicting overt behavior from TAT material has produced inconsistent results. One mistake often made in this research has been to treat all TAT cards as identical stimuli. The use of different TAT stimulus cards has made it difficult to generalize across studies. Aggressive behavior and fantasies were found to correlate by Feshbach

(1953), but not by Gluck (1955). James and Mosher (1967) suggested a complex relationship: only TAT cards for which stories with aggressive content are often produced are likely to be useful in the prediction of aggressive behavior.

Similar inconsistencies occurred relating patient behavior in therapy to TAT material. Ullmann (1957) and Kirtner and Cartwright (1958) found TAT protocols useful in this context, while Brady, Reznikoff, and Zeller (1960) could not relate fantasy material to therapist ratings of outcome. With tuberculosis patients, Fisher and Morton (1964) described a complex relationship where TAT stories proved more useful in predicting overt behaviors such as premature termination of treatment than in predicting covert feelings such as attitudes to hospitalization.

Thus clinical research has surveyed varying populations using different sets of TAT stimuli scored in diverse ways. The data have been applied to differing criteria. It is not surprising that there are many problems in generalizing across studies. Experimental use of the TAT has, however, resulted in one well standardized, widely accepted scoring system with nearly 30 years of research (Atkinson and Raynor, 1974).

Fantasy stories have been used as a measure of motivation and 'needs'. In this way, TAT material has been related to various sorts of behaviors (Atkinson, ed., 1958, Atkinson and Raynor, eds. 1974, McClelland, Atkinson, Clark, and Lowell, 1953, etc.). While widely accepted by social psychologists, this research has had little influence on the clinical use of the TAT. The method of content analysis used, with eleven scoring categories for achievement-need, while teachable, is cumbersome (Smith and Feld, 1958). As well, it has not seemed directly related to clinical concerns.

It is, nevertheless, conceivable that the need-achievement methodology

could be applied to clinical problems. At the heart of the McClelland and Atkinson measure is the "Achievement thema", stories with a central theme of striving to succeed in a competitive situation. This has proven most useful in academic and vocational settings where fantasy stories about striving for success can be related to actual achievement-oriented behavior (Atkinson, 1959a). If this approach is to prove applicable to the clinical use of the TAT, it may be necessary to examine whether psychotherapy can be viewed as an achievement task for the client.

Research looking at therapy has not often taken this point of view. Techniques utilized by the therapist, patient personality traits, and demographic variables have all been related to psychotherapy outcome more often than the behavior of the client in therapy (Strupp and Bergin, 1969). Nevertheless, the client in treatment is responsible for a continuing series of activities.

Actions by the client include initiation of contact, continuation through an often tedious period of assessment and waiting for assignment, and attempts to apply the lessons of therapy to everyday life. Often, homework assignments are given to the client to work on outside the therapy hour. Perseverance is required to continue coming to sessions at times when little progress is apparent. As with need achievement-striving behavior, a future-orientation, and a standard of excellence are implied by these behaviors.

The act of coming for therapy reflects a dissatisfaction with a present life situation. This may stem from family or couple problems, fears or anxieties, a lack of interpersonal skills, or a feeling of generalized unhappiness. This dissatisfaction is coupled with a hope for future change --- an individually-held model of a healthy, well-functioning person. This implied standard of excellence is often vague and poorly-

articulated. The desire for change is, nevertheless, at the base of a decision to seek therapy (Perley, 1971). In this case, TAT fantasy stories may provide information relevant to the client's future behavior in psychotherapy.

The TAT was used by McClelland and Atkinson to provide a measure of 'drive' to fulfill one of a variety of 'needs'. The stronger the level of drive, the more this need would be reflected in response to a properly chosen TAT stimulus, and the higher the resulting need-achievement score (McClelland et al, 1953).

This theoretical model has been criticized (Entwhistle, 1972) and has been restated in increasingly complex ways (Atkinson, 1958b, Atkinson and Feather, 1966, Atkinson and Raynor, 1974). Acceptance or rejection of this particular theoretical base does not negate that the need achievement research suggests relationships between TAT fantasy behavior and observed behavior that may be of use predicting behavior in the therapy setting.

On a series of experimental tasks, a group of subjects defined as strongly success-oriented by their TAT content chose tasks of an intermediate level of difficulty, worked longer, and were more successful than other groups. Subjects with fantasy stories in which avoidance of failure was the characteristic content tended to choose tasks with either a very high or very low probabioity of success (Atkinson and Litwin, 1960). This latter group, faced with vocational choices, similarly reported levels of aspiration that were either too high or too low in comparison with their abilities, both when perceived by the subjects themselves, or rated by others (Mahone, 1960). A measure that could distinguish clients with unrealistically high or low aspirations and expectations from therapy might provide useful information about client behavior.

When performance tasks were related to future goals, the TAT measure

differentiated the best and worst performers (Raynor, 1970). Groups of students rated as strongly motivated to succeed by their TAT scores received high grades in future-related courses. Students whose TATs suggested a stronger motivation to avoid failure did poorly in these courses. These group differences disappeared when similar tasks were not tied to future aspirations (Taynor and Rubin, 1971). Similarly, the tying of therapy tasks to the aspirations of change may result in differences in behavior that might be predictable from TAT material.

The need-achievement research suggests a relation between TAT stories, expectations of success, and performance on a number of tasks. According to Atkinson, "when the situation seems to arouse in a person a cognitive expectancy that performance of the act will produce an effect he is generally interested in bringing about, his motive is aroused and manifested in overt performance of the act" (Atkinson, 1958a, p.599). Thus, observed behavior is related to both the strength of the motive to succeed and the expectancy of success (Atkinson and Reitman, 1956).

This relation is strongest when the tasks being performed are perceived as being instrumental in the attainment of a future goal. In the therapeutic situation, a similar relation might be expected between clients' TAT stories, their expectations of therapeutic success, and actual performance in therapy. The relation would be strongest when the tasks required are perceived as related to the goal of personal change.

It is a common belief that patient expectations affect therapy outcome. Research investigating this belief, however, has been plagued with problems of definition and faulty methodology (Wilkins, 1973). Recent studies, however, have tended to support the idea that an individual carries a set of beliefs in his own abilities and in the efficacy of treatment, and that these beliefs interact with the treatment procedure. (Bloch,

Bond, Qualls, Yalom, and Zimmerman, 1976, Horenstein and Houston, 1976, Martin and Sterne, 1975, Martin, Sterne, Moore, and Linsey, 1977). These expectations may be related to TAT stories in a manner similar to that found in the achievement-need research.

TAT protocols in the need-achievement research have been shown to be affected by such seemingly minor factors as task instructions. In fact, responses to TAT stimuli are easily affected by variables extraneous to the testing situation. While this has been seen by some critics as a weakness in the technique (Carney, 1966, Entwhistle, 1972), the reflection of the TAT to instructions and external conditions formed part of the rationale for the construction of the achievement-need measure. Content categories were included only if they were produced in greater measure under so-called achievement-arousing instructions than under neutral conditions (McClelland, Clark, Roby and Atkinson, 1949). The amount of useful information can be increased by demanding achievement related task performance prior to testing (Smith, 1966) and varies according to the picture cues used (Haber and Alpert, 1958).

The most useful fantasy measure, then, is obtained when the subject is highly aroused with regard to the set being measured, where performance eliciting that set has been demanded prior to testing, and where the stimulus cards are closely related to the behaviors in question. The use of the TAT in a psychiatric clinic as a measure of therapeutic expectations and desires fulfills these conditions. The diagnostic testing is carried out in an atmosphere that is highly aroused with regard to these feelings. The patient has performed other tasks demanding a desire to succeed in this situation: registration, preliminary questioning, often other psychological tests. Standard clinical TAT material,

could be used in a manner analogous to the achievement need measure. It is, however, necessary to relate the McClelland-Atkinson scoring system to behavior in the psychotherapy setting. This would involve changes in the definition of achievement imagery central to the measure. It would require changes in other scorable categories, and a change in the set of TAT stimuli used. This would resemble changes that have been made to produce measures of affiliation and power-seeking (Atkinson, ed., 1958).

By defining "achievement goal" as seeking success in competition with a standard of excellence, McClelland, Atkinson, Clark, and Lowell (1953) could include in their measure only stories with a theme of competitive or creative performance. This definition is not equally useful with all people or in all situations. It has been shown to be inapropriate, for example, when used with women who can be characterised as often being more oriented to success along interpersonal dimensions (Baruch, 1967, Horner, 1972, Horner, 1974, Lesser Krawitz, and Packard, 1963). Similarly, the strivings of patients in therapy are rarely directly related to academic or vocational success of the sort measured in the need achievement measure. Changes in this measure must reflect these differences.

Entwhistle (1972) suggests that the mere presence or absence of achievement imagery is all that is really needed for a valid measure of this need. The McClelland scoring system, however, includes a number of other content categories that differentiated between neutral and aroused instruction conditions. (McClelland et al, 1949). These include a stated need in the story for success (N), activity instrumental towards problem resolution (I), a stated anticipation of goal achievement (Ga), blocks or obstacles within the individual (Bp), or the environment (Bw), personal forces aiding the hero (Nup), affective states associated

with goal attainment or frustration (g), and "achievement thema" (AchTh) where the achievement imagery is the central theme of the story.

Other sorts of content, including "hostile press" (forces that opposed the protagonist), outcome, and substitution of other activities for achievement were tested but failed to differentiate between the two instruction conditions and were not included in the measure. A score is obtained for each story, with one point being given for each image present. It is assumed that the stronger the drive being measured, the more relevant content categories will be included in the resulting TAT story (McClelland et al, 1953).

Many of these categories appeart to have some relevance to the therapeutic situation. The expression in story form of personal problems, a stated need for help, a desire for aid from others and similar statements might suggest a realization of personal problems and inadequacies, a minimal defensiveness, and a search for help from the therapeutic relationship. Statements like these in fantasy stories, scorable by this system, may provide useful information to the therapist if they can be shown to relate to behavior in psychotherapy.

Before TAT story-telling behavior can be related to behavior in psychotherapy, the kinds of behaviors to be predicted must be clearly defined. Research in psychotherapy has often been faulted for a lack of clear definitions of many of the crucial veriables (Strupp and Bergin, 1969).

Outcome measures in traditional psychotherapy have tended to lack reliability and objectivity. They have often been based on therapist or patient global ratings of improvement. By contrast, measures of duration and course of therapy are objective and basically reliable.

These include measures of the number of sessions, the length of time treatment continues, termination of treatment, and relapse rate (Faulkerson and Barry, 1961).

There is some intercorrelation between various measures, but they are by no means interchangeable. Cartwright (1955), for example, compares outcome as rated by the therapist with the number of sessions in client-centered therapy. The relationship is vaguely linear, with, however, an apparent 'failure zone' between the 13th and 21st sessions. No patient terminating treatment within this period was rated a sucoessful outcome.

Although course criteria such as termination and relapse measures, can be objectively measured, there has been a lack of agreement in the dependent variables used and in the nature of the treatments involved. This has made it difficult to generalize across studies. Premature termination of treatment in outpatient settings is defined in a variety of ways; as a failure to appear for any sessions at all, as dropping out before some stipulated cut-off point, or as leaving therapy at any point against the wishes of the therapist (Faulkerson and Barry, 1961).

Studies of premature termination relate it to a wide variety of therapist, patient, and situational variables. These include a number of factors that might be found using a TAT measure.

Brandt (1965) reviews 25 studies aimed at the identification of drop-outs from outpatient mental health clinics. He reports more discrepancies between studies than agreements, with 29 criteria used by various researchers to differentiate continuers and drop-outs. Of these, only age, sex, and marital status never differentiate between groups. 'Personality characteristics' are found in all studies to

differentiate, but there is no agreement on what characteristics should be investigated, or on how they can be measured.

Twenty-four variables are listed by Strupp and Bergin (1969) in their review, as being related to patient 'stayability'. Baekland and Lundwall (1975) report an equally long list in their review of dropping out from psychiatric and medical settings. They generalized these as

> a) social isolation and/or unaffiliation, therapist attitudes and behavior, discrepancies between patient and therapist treatment expectations; b) passive-aggressive behavior, family attitudes and behavior, motivation, behavioral and/or perceptual dependence, psychological mindedness and/or denial, symptom levels and symptom relief, socioeconomic status, sociopathic features, alcoholism and/or drug dependence; c) age, sex, and social stability (p. 737).

This latter review contradicts Brandt's report that age and sex never differentiate continuers and drop-outs. Baekland and Lundwall conducted the more comprehensive survey. Of the 62 studies involving adult outpatient individual psychotherapy that they reviewed, age was found to discriminate in three studies, but not in one other. Four studies reported female patients as more likely to drop out. Social class was predictive of dropping out in 16 of 18 studies in settings where psychoanalytic techniques were employed. This relationship was not found in the three studies conducted in settings employing other therapy techniques.

Although few studies agree on relevant variables, all agree that premature termination of treatment affects a significant proportion of the patient population. Rosenthal and Franks (1958), working in a veteran's clinic, report that 35% of their patients failed to appear for the first sessions, with fully half having dropped out by the sixth session. They relate social class and source of referral to termination,

with lower class patients referred by a social agency the most likely to drop out, while patients referred by psychiatrist or self-referred are least likely to do so.

Between 20 and 57% of patients in general psychiatric outpatients clinics fail to return after a preliminary visit in these studies, while 31 to 56% attend no more than four sessions (Baekland and Lundwall, op. cit.). Gould (1970) suggests that drop-outs may have vaguer, less clearly defined problems than other patients, but may, in fact, have more need of help. Phillips (1967) notes that much dropping out occurs during the waiting period between initial contact and initiation of treatment. He suggests, therefore, that this period should be shortened, and that means and goals of treatment should be better delineated. Robin (1976), on the other hand, defends the waiting list as a valid screen, limiting out-patient referrals by eliminating the least motivated.

Researchers have attempted to identify drop-outs using standard psychological tests with mixed results. Sullivan, Miller, and Smelser (1958) report significant MMPI differences while Borghi (1968) does not. Inconsistent results are reported using the Rorschach by Kotov and Meadow (1953), Auld and Eron (1953), Gibby, Stotsky, Hiler, and Miller (1954), Taulbee (1958), and Affleck and Mednick (1959). This last study concludes that both psychotherapy and projective testing demand an ability to verbalize and to express ideas of human activity. Patients deficient in these skills tend to drop out.

Hiler (1959) reports differences between a group of patients who dropped out before five sessions and a group which continued past twenty in response to a sentence completion test. He suggests that the continuers were more revealing of feelings and better able to admit inadequacies.

Reviewing these findings, Strickland and Crowne (1963) suggest that premature terminators are characterized by defensiveness, which they hypothesize results in a high need for approval. This produces an approach-avoidance conflict when the patient is faced with the necessity to reveal secrets to gain the approval of the therapist. This conflict is resolved when the patient drops out, leaving the field.

Psychological variables have been summarized by Baekland and Lundwall (1975). The drop-out is characterized as poorly motivated and as less psychologically minded -- less able to recognize and admit psychological problems or causes for behavior. Conversely, the drop-out often depicts himself favorably, denying problems. These patients are less suggestible, and less able to express dependency needs in many cases. High dependence on the therapist, an impossible expectation that the therapist can solve everything has also been found to characterize drop-out patients.

There are no studies reported that relate TAT protocols to termination in psychotherapy. It is conceivable, however, that TAT stories would reflect the psychological variables mentioned above.

The categories of motivation and expectations, and the expression or denial of a problem situation are reminiscent of content categories used in the need achievement measure. These achievement-need TAT stories can be related to intervening variables of motivation and expectation of success, and to behavior in a number of experimental situations. In a similar fashion, it is possible that clinical TAT content on some cards may be shown to be related to intervening variables of motivation, defensiveness, and expectations, and to the particular behavior in psychotherapy defined as dropping out of treatment.

Premature termination of psychotherapy is a reliable, objective measure of therapy behavior. It involes a relatively large percentage

of patients and is seen as a major problem resulting in the misuse of scarce and expensive manpower and resources.

It is thus hypothesized that a measure can be constructed, using TAT content analysis, that can be used to differentiate psychotherapy terminators and continuers, using well-defined criteria. Such a measure could be validated by measuring the strength of predictions made with this technique, using a second group of patients. The construction of a reliable system using TAT content to predict objective behavior in therapy would be a step towards resolving the conflicting claims regarding the use of this projective measure.

General Considerations of Methods and Analyses

While discussing the question of 'Clinical versus Statistical Prediction', Holt (1975) suggested a model for research in psychotherapy that is applicable to the study at hand. He proposed a five-phase program, in which the first step consists of an analysis of the criterion: what is to be predicted. A prediction can be no more valid or reliable than what is being predicted. This criterion needs to be examined and explicitly defined.

The researcher should next investigate situational and interpersonal intervening variables: the factors needed to predict the criterion. Pilot work should give an idea of the extensiveness and applicability of possibly predictive variables.

Next, a discussion of the appropriateness of the proposed measuring instruments is needed. Some idea of the reliability and validity of these measures in this context is needed.

The fourth step consists of an empirical trial on a group of patients in psychotherapy, testing the ability of the proposed measure to differentiate between two known groups.

Finally, a validation test of these measures on a new sample is required; using them to predict the criterion on a group for whom this is initially unknown. From this test, an estimate of the power of prediction can be obtained.

In the study at hand, this model was applied in three stages; first, the course of treatment of patients selected retrospectively from hospital files was examined. In this way, a definition of 'premature termination' or 'dropping out' was determined, which was used as the criterion to be predicted. Using this criterion, the members of this

retrospective sample were examined along several demographic variables and along the dimensions of several psychological tests, paying special attention to their TAT responses.

This group's TAT protocols were then examined in order to obtain an initial idea of the validity and reliability of the proposed content analysis as it related to the criterion of dropping out of treatment. Working with this retrospective sample, criteria for defining a patient's course of treatment were established, a scoring system for examining TAT content was devised, and its applicability was tested in a preliminary manner.

In the second stage, this scoring system was applied to a new sample; one in which the initial testing and the course of treatment were more closely followed by the examiner. The TAT material was again examined to see if it continued to distinguish between therapy drop-outs and continuers. As well, several simple questions were asked of patients and therapists. These responses were similarly analysed to see if they could distinguish between the two groups.

Finally, the TAT content of a third group, similar to the second was analyzed, using those items of content that had proven useful in the previous two samples. In this case, these items were used to predict the course of treatment of these patients. Comparing these predictions to the actual outcomes permitted an estimate of the power of prediction. A number of secondary questions concerning the possibility of gender-related differences and differences related to administration were answered through analyses of combined second and third groups.

The Retrospective Sample

Method

Design and Subjects

In order to get a sense of the material and to answer preliminary questions including criteria to define 'dropping-out' and the identification of important TAT variables, a sample of patients was obtained from the out-patient psychology and psychiatry files of the Queen Elizabeth Hospital in Montreal. Here, during the period of 1967-71, all prospective patients were given a battery of psychological tests prior to their first visit. In order to standardize the TAT cards used, only male patients were included in the sample.

During this period, 151 men were tested. The duration and course of therapy for all these men were examined to determine criteria for identifying premature terminators and continuers in treatment. Using these criteria (see Results section), it was determined the 39 patients could be defined as drop-outs, of whom 30 had been presented with the TAT. For purposes of comparison, a group of 30 patients were randomly selected from the 112 defined as continuers. The TAT protocols of these 60 patients were analyzed along with several demographic and psychological test variables. Finally, an inter-scorer reliability estimate was obtained using the protocols of 31 of these 60 subjects.

Procedure

The first requirement was to establish clear and meaningful criteria to differentiate premature terminators from patients who continued

in psychotherapy. Various criteria have been used for this purpose in previous studies. These ranged from defining patients as drop-outs only if they failed to come to the first therapy session to including patients who attended as many as 17 sessions before failing to return. At the same time, many studies failed to differentiate between termination guided by the therapist and that decided upon by the patient alone, against the wishes of the therapist (Brandt, 1965).

It seemed inappropriate to expect a TAT protocol taken at the time of initiation of treatment to predict the behavior of patients after 15 sessions, even though several patients examined were said by their therapist to have 'dropped out' at this time. Patients who dropped out within the first month or two after testing might be expected to have a more homogeneous set of TAT protocols. As research had suggested, the majority of terminations occur within the first few sessions, this sort of criterion might be the most useful for this research.

Examination of the sample enabled criteria differentiating drop-outs and continuers to be established. In order to be considered a 'drop-out' for the purposes of this research, a patient could attend no more than five therapy sessions and needed to terminate therapy against the wishes of the therapist. A 'continuer' was defined as any patient not meeting both of these criteria. Use of these criteria permitted comparisons of groups of drop-outs and continuers along a number of demographic and psychological test variables. A sample of 60 patients was obtained, including 30 drop-outs and 30 continuers. They were compared along the dimensions of age, years of schooling, IPAT anxiety test scores, MMPI Depression scale scores (D-scale), and Wechsler Adult Intelligence Scale (WAIS) Vocabulary scores. T-tests were

carried out comparing these variables.

The TAT protocols of these 60 patients were examined to determine what sorts of imagery were characteristic of these two groups, and which TAT cards were the most useful in eliciting these responses. The full McClelland-Atkinson scoring system is rather awkward. Critics have suggested that equivalent information can be obtained in simpler ways (Bowen, 1973, Entwhistle, 1972). It thus seemed feasible to try to modify McClelland's system to produce fewer categories, with content more closely approximating clinical concerns.

In the need-achievement system, stories are examined for themes related to success of a competitive or crative nature. In this case, in order to examine performance in therapy, TAT protocols were examined for

> stories which include a theme related to a therapeutic concern or problem; interpersonal anxieties or conflict, depression or confusion, leaving home, etc., whether explicitly stated, or inferred from the affect or actions of the protagonist (Appendix A: scoring instructions).

As the choice of the stimulus-picture affects the usefulness of the fantasy response, research has been done to identify the sorts of pictures that could most effectively produce the desired imagery. While it is often suggested that the ambiguity of a projective stimulus is what permits 'projection', Murstein (1965) has demonstrated that the most useful clinical stories are produced in response to pictures that are most highly structured, and contain more than one person.

Atkinson (in Zubin et al, 1965, p. 403) agrees that the stimulus and the test situation must be structured in terms of what is to be studied. It is the highly structured cards, "pictures of situations which normally arouse expectancies of satisfying that particular motive through some kind of action," which produce "the greatest amount of

imagery symptomatic of a particular motive" (Atkinson, 1958, p. 607).

To measure attitudes and expectations of success in therapy, cards used should bear some relation to the therapeutic situation. As well, they should be chosen from cards most often used clinically. Clinicians tend to choose pictures which are relatively unambiguous, with several people shown. It is felt that these cards relate best to basic life situations (Bellak, 1972). Thus, the cards shown by Murstein to produce the most imagery are also the cards most often used clinically. Among these relatively few pictures, several may be found of use in predicting therapeutic behavior.

The protocols of the 60 patients chosen were examined to determine the frequency of these themes. Cards 6BM, 7BM, 3BM and 4 produced these themes most frequently, followed by cards 13MF, 10 and 17GF, while cards 1, 5, 9BM, 12M, 17BM and 18GF rarely produced such stories. 7BM seemed to be useful under both the need-achievement and the revised criteria, while 8BM, which produced a great deal of need-achievement imagery, produced little imagery of therapeutic problems. From this, it was concluded that a set consisting of TAT cards 6BM, 7BM, 3BM and 4 would produce the most scorable themes (see Appendix B).

With the revised definition of achievement imagery in mind, it become possible to examine the eleven scoring categories considered by McClelland and Atkinson (1953). When examined in the light of their relation to therapeutic concerns, these categories can be considered to fall into several broad categories with some overlap, but generally different content. One group, including McClelland's categories of Need, Goal-Related Affective State, and Achievement Thema all seem to describe the intensity of the desire to overcome the stated problem. When the problem is of a personal or interpersonal nature, this content

cluster could be described as relating to the intensity of expressed need for problem solution, sometimes described as motivation for therapy. Motivation has been often related to dropping out of psychotherapy (Baekland and Lundwall, 1975).

Other content categories used in the need achievement measure include the statement of a problem, the admission of 'Personal Blocks', and the discussion of 'Nurturance Press', a sort of cry for help. These seem to relate to what Strickland and Crowne (1963) discuss as a 'lack of defensiveness', an ability to admit to personal problems and shortcomings, and to be open to helpful discussion of them. This faction which might be considered a learned ability of great importance in verbally oriented psychotherapy, has, described as 'psychological mindedness', also been related to dropping out (Baekland and Lundwall, 1975).

The categories of Goal Anticipation, Instrumental Activity, Personal and Environmental Blocks frustrating goal achievement, Substitution of another activity for the desired goal, and Outcome are all in some sense future related. These define a happy or unhappy ending, and as well, a dimension of reality or unreality of outcome. Whether successful or not, an outcome can be presented as the result of realistic steps taken by the protagonist to achieve his desires, with realistic blocks in his path. On the other hand, the outcome can be presented as a fait accompli, independent of the protagonist's actions or shortcomings. Patient expectancies have often been related to therapy outcome (Wilkins, 1973).

Using these categories, a relatively simple scoring system was devised (Appendix A). This scoring system differed in several important respects from the original McClelland and Atkinson model. It proposed

scores in three content categories rather than one score obtained by adding 11 different kinds of content. These three categories, motivation, defensiveness, and expectations were constructed to relate to concepts most often demonstrated to be predictive of dropping out of treatment.

The need achievement scoring system is quantitative; one point in the final score is added for each content category found, with scores for the various pictures used added together. Entwhistle (1972) suggested that the presence or absence of achievement imagery is all that is really necessary. As well, in adding together various sorts of content, this system loses the information of what the actual content of the story is. This information, however, may prove of interest clinically.

The revised scoring system was set up to describe the quality of content of the TAT stories. Unlike the achievement imagery scores, these revised scores indicate what type of imagery was used that related to motivation, defensiveness, or expectations.

Although numbers were assigned to the various sorts of imagery, these scores are ordinal variables only. They permit easy distinction of the varieties of content, and some distinction of its intensity. These scores are not, however, additive. It is inappropriate, for example, to consider a subject with a score of '2' in motivation as "twice" as well-motivated as a subject scoring '1' (Ferguson, 1972, p.13).

The number zero was used in all cases to describe stories that lacked the content being considered. The category of motivation required three scores (0, 1, 2) to describe the sorts of stories found in this sample. Defensiveness and expectations required four and five scores respectively to describe the range of stories presented (Appendix A).

As well, these latter two categories extended in both 'positive' and 'negative' directions about the score of zero. In the case of defensiveness, a positive score indicated an admission of problems, while a negative score was given to an explicit denial of problems. This denial of problems, and the other extreme of dwelling on the stated problems (scored -1 and 2) were considered unusual scores for this category.

Positive scores for the category of expectations implied optimistic outcomes, while negative scores implied pessimistic outcomes for fantasy stories. For this category, extreme positive and negative scores implied an 'unrealistic' outcome; success or failure independent of the actions of the protagonist. Negative scores and unrealistic positive scores (-2, -1, 2) were considered unrealistic for this category.

Two tests were carried out using this scoring system. In order to determine if the scoring system could be easily taught with reliable results, the TAT protocols of 31 subjects, selected at random with 15 drop-outs and 16 continuers were scored by the researcher, and a second scorer, naive to the purpose of the research. This second scorer was trained by reading the scoring instructions and by scoring six TAT stories along with the researcher.

Finally, a test of this proposed scoring system was carried out on the TAT protocols of the initial 60 subjects, using cards 6BM, 7BM, 4 and 3BM. As not all subjects had been tested with all these cards, the numbers compared varied from card to card. It was, however, possible to perform chi square tests, testing the hypotheses that scores on the factors labeled motivation, defensiveness, and expectations were independent of course of therapy for each TAT card used.

It was necessary to collapse these contingency tables in most

cases to obtain meaningful data. Contingency tables with numerous cells smaller than five, as were often the case, inflate the alpha error. When this happens, an incorrect rejection of the null hypothesis becomes more likely.

Chi square tests were, for this reason, carried out on tables which had been collapsed to minimize this problem (see Appendix C). In these cases, the data were combined in a way that also simplified the task of interpretation of results. The categories of motivation and defensiveness were collapsed into 2x2 tables which divided the content into usual and unusual responses, with both extreme low and extreme high scores being considered unusual. Thus, production of unusual TAT content for these categories was compared between drop-outs and continuers. Whenever it was necessary to collapse data in this research, it was collapsed in this way. The size of the sample permitted the expectation scores to be examined without collapsing at this stage of the research. Later, it proved necessary to collapse data in this category as well. In this case as well, unusual content was compared to usual content.

The purpose of these contingency tables was to identify promising content categories that could be taken together to produce a statistically significant predictive measure. In this way, it somewhat resembled a differential analysis problem where a number of linear factors are added together to produce a statistically significant predictive equation. Because of the nonparametric nature of the data, such a discriminant function analysis could not be carried out. The chi square contingency tables, however, similarly fulfilled the requirement of pointing out factors that, individually, could contribute most to the final prediction.

In this stage of the research, it was deemed inappropriate to use a strict level of significance for individual factors. It was not expected

of individual content factors, any more than it would be of individual factors in a discriminant function, that each be able to distinguish between groups at a given probability level. It seemed, instead, more important to select those factors with the most to contribute to a cumulative prediction. These could be then used to make predictions which would be tested at a given level of significance.

This stage of the research can best be characterized as 'exploratory', probing the nature of the variables in question. When hypotheses are being developed that will later be tested more rigorously, often a level of significance as high as 0.20 may be sufficient (Labovitch, 1967). At this stage, it seemed more important to minimize so-called Type II error, the failure to reject a false null hypothesis. It was considered more important to pick out all promising discriminatory factors even at the risk of including factors which later prove to be of little use (i.e. Type I errors). Since Type I and Type II errors vary inversely, a lenient significance level at this stage of the research, along with more stringent levels of significance later on would both include the most promising factors, and later weed out those which proved to have little real value (Skipper, Guenther, and Nass, 1967).

In examining the TAT data at this stage in the research, then, no formal significance level was used. Those content categories that seemed most likely to be useful were selected for further investigation. In the latter stages of research, more rigorous levels of significance were used.

Results

The duration and course of treatment indicated by the therapist was examined for the 151 male patients seen at Montreal's Queen

Elizabeth Hospital between 1967 and 1971 (figure 1). From this data, it seemed that a useful cutoff point to distinguish drop-outs and continuers for the purpose of this research would be after the fifth session. 46 patients were characterised as terminating treatment against the wishes of their therapist within 25 therapy sessions. Of these, 39 had dropped out by the fifth session. 33 patients concluded treatment within five sessions without an indication that they had dropped out. While some of the patients may have left treatment against the advice of their therapist, this cannot be positively established, and they cannot be considered premature terminators for the purpose of this research.

Out of this sample, then, 39 or 151 or 27% were defined as drop-outs by meeting the following two criteria:

1) the patient remained in treatment for no more than five sessions, and

2) the file included an indication that an attempt was made by the therapist, unsuccessfully, to keep the patient in treatment.

The remaining 112 patients were defined as continuers. This group included seven patients who left therapy against their therapist's wishes after five sessions. It also included the 33 patients who concluded treatment within five sessions with the approval of the therapist.

Establishment of these criteria permitted examination of various characteristics that could differentiate continuers and drop-outs. 30 drop-outs were compared to a similar number of continuing patients on several demographic and psychological test variables. The results of these t-tests are summarized in Table 1. No significant differences were found between the means of these groups on these variables. The WAIS Vocabulary test, while not significant in differentiating the

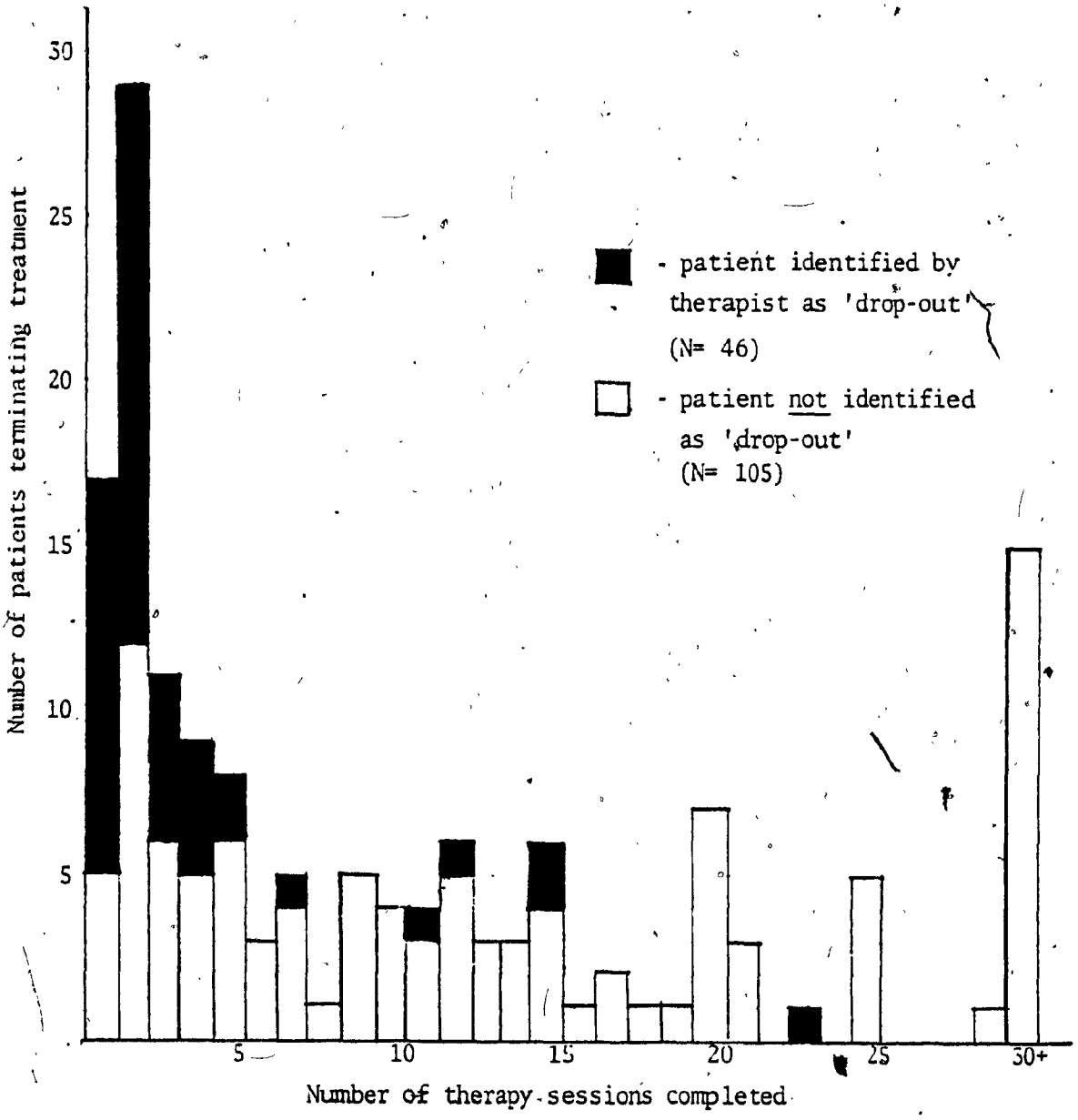

Figure 1: Course of treatment of 151 male psychotherapy patients seen at the Queen Elizabeth Hospital 1967-71

Table 1

Student's t-scores Comparing Drop-outs and Continuers

Variable	df	t	Approx. Probability
Age	58	0.499	0.60
Education	58	0.836	0.40
IPAT Anxiety	58	0.698	0.50
D-scale	58	0.370	0.70
WAIS Vocabulary	58	1.447	0.15

small samples used, did provide results in the same direction as found by Hiler (1959); drop-outs tended to do less well than continuers.

The results of the interjudge reliability trial are summarized in Table 2. Here it can be seen that a reliability of above 80% was obtained on all content categoreis of each of the four cards used.

Motivation was measured with the most agreement, expectations with the least. Even in this last case, however, the overall agreement of 86.7% was sufficiently high to suggest that the measure can be reliably rated, especially in light of the minimum of training given the second scorer. By comparison, the need achievement research has developed complex teaching tools, permitting self-instruction in their content analysis method with an average 90% inter-scorer agreement (Feld and Smith, 1958, Smith and Feld, 1958).

The results of the chi square tests examining the hypothesis that these TAT content categorized did not differentiate between drop-out and continuing patients are summarized in Table 3. The actual contingency tables used are included in Appendix C.

Table 2

Interjudge Reliability of Proposed TAT Scoring System

	TAT Card				
	6BM	7BM	4	3BM	total
	Motivation				
% Agreement	93.1	93.1	89.3	88.9	91.1
# of Items	29	29	28	27	113
# of Differences	2	2	3	3	10
	Defensiveness				
% Agreement	93.1	86.6	85.7	88.9	89.4
# of Items	29	29	28	27	113
# of Differences	2	4	4	3	13
	Expectations				
% Agreement	86.6	86.6	89.3	81.4	86.7
# of Items	29	29	28	27	113
# of Differences	4	4	3	5	16

Table 3

Comparisons of TAT Content Between Drop-Outs and Continuing Patients in a Retrospective Sample

Content Category	Chi Square	df	N[a]	Approx. Probability
	Card 3BM			
Motivation	0.055	1	56	0.80
Defensiveness	2.25	1	56	0.15
Expectations	2.083	4	56	0.75
	Card 4			
Motivation	0.269	1	56	0.60
Defensiveness	0.16	1	56	0.70
Expectations	8.734	4	56	$0.1 \leq p \leq .05$
	Card 6BM			
Motivation	0.000	1	58	0.99
Defensiveness	0.017	1	58	0.90
Expectations	3.163	4	58	0.55
	Card 7BM			
Motivation	0.256	1	60	0.65
Defensiveness	2.70	1	60	0.10
Expectations	16.147	4	60	0.01

[a] Not every subject had been given each TAT card; of 60 subjects, 56 were tested with card 3BM and 4, while 58 received card 6BM. All 60 were given card 7BM.

These results suggest that content on two of the TAT cards examined varied with course of therapy. The content category of expectations on card 4, and the categories of defensiveness and expectations on card 7BM seemed to be distributed differently between the two groups.

Replication

Method

Subjects

45 patients were tested between February and December, 1976, at two Montreal settings: the Queen Elizabeth Hospital and the Montreal General Hospital. This sample, including 17 males and 28 females, had applied for out-patient psychotherapy, and voluntarily participated in this survey.

Both males and females were included in this and the following sample so that a more inclusive population could be referred to. Only males were included in the previous sample in order to provide a more standard set of TAT cards used. In the new samples, all subjects were given the same (male) TAT material. Gender-related differences in drop-out rate and TAT responses were later investigated.

Because treatment in these settings was free, the sample covered a wide range of ages, socioeconomic classes, and problem types. The treatment offered was predominantly verbally-oriented, although some patients were treated with chemo-therapy or behavioral approaches.

Each subject was individually tested after registration, and just prior to their intake interview. At this time, their impressions of the therapeutic process were still relatively naive. A therapist questionnaire was filled out by the intake-interviewer immediately upon completion of that session.

From this group, 42 self-report questionnaires were returned, 30 from patients who continued in treatment, 12 from patients who later dropped out. 37 TAT protocols were obtained, from 29 continuers and

eight drop-outs. Only 28 therapist questionnaires were returned, reporting on 19 patients who continued in treatment and on 9 who dropped out. Of the 37 patients providing TAT material, 14 were male and 23 were female.

Criteria established with the previous sample were used to differentiate drop-outs from continuers. Patients who left treatment against their therapist's wishes, having completed no more than five sessions were said to have dropped out. All other patients were defined to be continuing.

Procedure

The three TAT content categories which appeared to have been produced in varying extent by drop-out and continuing patients in the retrospective sample were examined with this new, independent sample. At the same time, it was decided to ask these subjects and their intake-interviewers a number of simple questions. Both parties were asked to rate the patient on factors of motivation, defensiveness, and expectations about treatment. Brief, straightforward questionnaires were drawn up to obtain this information from the patient (Appendix D) and the intake-interviewer (Appendix E).

It was hoped that this information would provide a comparison of the efficiency of the TAT material. If predictions, made on the basis of TAT content, could be matched by those obtained from these simpler measures, the TAT would be of little practical utility. As well, the relatively undemanding material of the patient questionnaire served the additional function of helping to put the patient at ease in the actual testing situation. At the same time, by requiring the patient to consider the reasons for coming to therapy, a mental set was established from which the most useful TAT stories could be obtained. In a similar vein, the

achievement-need researchers have reported the best results when subjects are given achievement tasks just prior to testing (Smith, 1966).

In order to standardize presentation of test materials, a booklet was put together permitting the questionnaire and TAT material to be self-administered (Appendix F). In this way, a number of patients were tested without the physical presence of the researcher.

Null hypotheses were examined that there were no differences between continuers and drop-outs on the items of the patient and therapist questionnaires. These were tested by comparing the number of low (1-2) and high (3-5) responses produced by drop-outs and continuers on each item of these questionnaires (Appendixes G and H). These 2x2 contingency tables were analyzed using the Fisher Exact Probability Test (Bradley, 1968).

TAT material was tested in accord with the results of the retrospective sample. Null hypotheses compared stories from continuers and drop-outs for the content category of expectations for TAT card 4 and defensiveness and expectations for TAT card 7BM.

This material was scored in the nammer described in Appendix A. In all cases, chi square analysis required collapsing the data into 2x2 contingency tables. This was done in the same manner as with the retrospective sample, permitting comparison of unusual (extreme high and low) scores against usual (0,1) responses. The Fisher Exact Probability Test (Bradley, 1968) was used to analyze the resulting 2x2 tables.

Results

Table 4 reports the results of the analysis, by chi square, of the items of the patient self-report questionnaire (Appendix G). The null hypotheses, that the responses on each item were independent of the

Table 4

Analysis of Self-report Questionnaire Items in Discrimination Between Drop-out and Continuing Psychotherapy Patients

Factor	Chi Square	df	N	Approx. Probability
Motivation	0.003	1	42	0.95
Defensiveness	0.044	1	42	0.85
Expectations	0.210	1	42	0.65

subject's course of therapy, were tested with a level of significance of 0.05.

These results suggest that in all cases it is inappropriate to reject the null hypotheses; the items of this questionnaire do not distinguish between drop-outs and continuers in therapy.

Table 5 reports the results of similar hypotheses, in this case using the items of the intake interviewers' questionnaire (Appendix H). In this case as well, none of the null hypotheses could be rejected. The items of this questionnaire were not useful in distinguishing the two groups of patients.

The 37 TAT protocols obtained from this group were similarly analyzed to see whether the three factors that had shown promise with the previous sample would be able to distinguish the patient groups in this new sample. Because of the relatively small sample size, the Fisher Exact Probability Test was used to test the null hypothesis of independence of course of therapy and TAT content scores (Appendix J).

With this sample, extreme scores for defensiveness and expectations, both in response to card 7BM continued to differentiate between patient groups. The factor of expectations, in stories given for card 4, however, failed to distinguish between the groups (Table 6).

Table 5

Analysis of Intake Interview Questionnaire Items in Discrimination Between Drop-out and Continuing Psychotherapy Patients

Factor	Chi Square	df	N	Approx. Probability
Motivation	0.318	1	28	0.280
Defensiveness	0.116	1	28	0.704
Expectations	0.188	1	27	0.339

Table 6

Analysis of TAT Variables Used to Discriminate Between Drop-out and Continuing Psychotherapy Patients

Card #	Content	Chi Square	df	N	Approx. Probability
4	Expectations	0.597	1	37	0.945
7BM	Defensiveness	9.273	1	37	0.002
	Expectations	2.949	1	37	0.048

Prediction

Method

Subjects

44 subjects, 14 males and 30 females, from the same treatment population used for the previous sample were included in this procedure. Of the 44, 36 provided TAT stories for 7BM. These 36 included 11 males and 25 females. The other eight patients provided only questionnaire material. 21 of these 36 remained in treatment while 15 dropped out.

This group was obtained at the same time and in the same manner as the previous sample; patients were randomly assigned to one group or the other. In the replication sample, subjects were divided into a drop-out or continuing group on the basis of their behavior in therapy. Test results of these two groups were then compared. In the prediction sample, by contrast, predictions were made about the behavior of individual subjects without foreknowledge of their actual behavior. These predictions were then compared to the actual behavior in treatment.

Procedure

Two TAT factors, defensiveness and expectations, both in response to TAT card 7BM, had demonstrated their usefulness in distinguishing continuers and drop-outs in the previous sections. These two factors were used to predict the course of treatment of patients in this final group. In the two previous sections, test scores of unknown utility were compared between two groups of subjects partitioned according to performance in therapy. In this case, predictions were made about subjects' performance in therapy on the basis of their test scores. The power of

these predictions is the relation between predicted and actual outcome.

Content in the defensiveness category considered indicative of premature termination of psychotherapy included either an explicit denial that there was a problem situation (scored -1 for this factor) or the inclusion of an unusually rich amount of detail about the stated problem (scored 2).

Content considered indicative of 'unrealistic expectations' and hence of dropping out included a successful resolution of the story independent of any action of the protagonist (scored 2 for this factor), or stories ending in suicide, withdrawal, or similar 'escapist' means of problem resolution (scored -2).

The presence of either of these content factors was considered predictive of premature termination; that these patients would complete no more than five therapy sessions, withdrawing from treatment against the wishes of the therapist. Patients lacking of any of these signs were predicted to remain in treatment.

Results

A 2 x 2 contingency table (Table 7) compared the predicted course of treatment with the actual behavior.

The kappa statistic (Feiss, 1973) was applied to this table, comparing the predicted behavior in therapy to the observed behavior. Kappa is superior to chi square or the Fisher Exact Probability for this purpose. Chi square measures association of any kind, whereas kappa is specifically a measure of agreement; in this case agreement between the predictions and the actual behavior observed in therapy.

Table 7

Comparison of Predicted and Actual Course of Treatment

	Predicted Results		
	Continuers	Drop-Outs	% Correctly Predicted
Actual Results			
Continuers	17	4	81%
Drop-Outs	7	8	53%

$P_o = 0.691$ $P_o = 0.472$

$K = 0.415$

Standard $Error_K = 0.15$

$Z = 2.77$ probability = 0.005

The probability of agreement attained, less than 0.005, suggests a significant degree of prediction was obtained through use of the content categories described above. With 25 or 36 subjects correctly placed in this manner, the 69.44% rate of successful prediction obtained is thus significantly better than what could be obtained by chance.

Secondary Questions

Method

Three secondary questions were examined using material gathered from all patients tested at the Queen Elizabeth and Montreal General Hospitals between February and December, 1976. While these 89 patients, 31 males and 58 females, had been divided into two samples in the previous section, in this case, the entire sample was examined to investigate possible gender-related differences and differences due to the mode of administration of test materials, and whether continuers and drop-outs could be differentiated by their verbal productivity at the TAT task.

A consideration of gender-related differences was necessary because the TAT stimulus card used, 7BM, is traditionally administered only to males. The two figures shown in the card are both male. As well, there have been problems in generalizing achievement-need results across gender. Relations between fantasy response and task behavior found with male samples have not been generalizable to female subjects (Horner 1972, Horner 1974). It was necessary to investigate whether there were similar problems with this research, carried out with a mixed sample.

Two questions were investigated. First, the question of possible gender-related differences in drop-out rates was examined. Second, the production of useful TAT content was compared across genders. Chi square tests were used in both of these investigations. TAT content was collapsed in the same way as in previous investigations, with content compared as usual (0,1) scores versus unusual scores.

Other possible differences between subjects was in the way the

test material was presented and responded to. The test booklet was prepared so that it could either be self-administered, or filled out in the presence of the researcher. These groups were not representative of the patient population to the same degree. While approximately 85% of the patients approached by the researcher in person agreed to cooperate with the study, only approximately 50% of the patients were willing to cooperate when approached with the self-administered from.

It was first necessary to check whether the patients refusing the self-administered form had a different drop-out rate than those who cooperated with the study. If this was the case, the cooperating patients would represent a biased sample. To check this, the outcomes of all patients demanding treatment at the Queen Elizabeth Hospital between February and April 1976 were determined. All testing done during this period was self-administered by the patients. This permitted comparison of the outcomes of participants and refusers using a chi square technique.

Finally, TAT content was compared between self-administered and researcher-interviewed groups for the significant content categories. Again, contingency tables were collapsed into usual vs. unusual scores.

The length of TAT stories produced by continuing and drop-out patients was compared. Verbal productivity has been thought to confound the relation between Rorschach scores and length of treatment (Auld and Eron, 1953).

As well, any of the demographic factors related to dropping out, including education, income, and socioeconomic status (Baekland and Lundwall, 1975) might be related to verbal productivity on the TAT task.

The number of words used in response to TAT card 7BM was counted for each continuing and drop-out patient in the combined replication and prediction samples. A t-test for independent samples was carried out to

compare the mean number of words produced by each group.

Results

Combining the two replication samples, with a total of 89 subjects, the drop-out rates of males and females were compared, testing the hypothesis of no gender-related differences in this variable. A chi square value of 1.853, df=1, p= 0.18, was obtained, and this null hypothesis could not be rejected (Appendix J). As there seemed to be little difference in drop-out rates between genders, it was possible to compare the TAT scores of men and women in this sample to determine whether there were significant differences in their responses to the male-oriented material (Appendix K). No significant differences were found between men and women in their TAT content predictive of course of treatment (Table 8).

The 59 patients who demanded treatment at the Queen Elizabeth Hospital between February and April 1976 were divided between cooperators with the study, all of whom received the self-administered test format, and non-cooperators. With 30 patients cooperating and 29 refusing, a chi square test compared their courses of treatment. A chi square value of 0.071, df=1, was obtained, with an approximate probability of 0.40 (Table 9). In this case, the null hypothesis of no difference in drop-out rate between cooperators and refusers could not be rejected. This suggests that the self-administered sample can be considered representative of the overall clinical population on this criterion.

The TAT responses of the self-administered subjects were compared to those of the researcher-interviewed subjects, combining all patients in the Replication and Prediction groups (N=73, see Appendix L).

Table 8

Comparison of Male and Female Responses to TAT card 7BM

(N= 73, 25 males and 48 females)

Content	Chi Square	df	Approx. Probability
Defensiveness	0.015	1	0.90
Expectations	0.051	1	0.80

Table 9

Comparison of Course of Treatment of Cooperators and Non-cooperators

	Continuers	Drop-outs	Totals
Cooperators	21	9	30
Non-cooperators	24	5	29
Totals	45	14	59

Chi square = 0.71

df = 1

probability ≐ 0.40

No significant differences were found between the self-administered and researcher-interviewed groups in the amount of useful TAT content ($p. \leq 0.05$, see Table 10).

The mean number of words used in response to TAT card 7BM was compared between continuers and drop-outs, a measure of verbal productivity (Table 11). No significant difference was found in the number of words used by the two groups.

None of the results in this section invalidate the research that was previously done. It appears that TAT card 7BM could be used with both female and amle patients. As well, both the self-administered and researcher-interview modes of administration provided usable results for this research. Finally, the differences in content predictive of dropping out cannot be ascribed to differences in the verbal productivity of the two groups.

Table 10

Effect of Mode of Administration on TAT content

Content	Chi Square	df	Approx. Probability
Defensiveness	0.033	1	0.85
Expectations	1.09	1	0.30

Table 11

Differences in Verbal Productivity Between Continuers and Drop-outs on TAT Card 7BM

$\bar{X}_{Continuer}$ = 29.3 words $N_{Continuer}$ = 48

$\bar{X}_{Drop\text{-}out}$ = 35.6 words $N_{Drop\text{-}out}$ = 23

$S_{\bar{X}_C - \bar{X}_D} \doteq 140$

t = 0.041 df = 69

(critical value for prob. = 0.05 is 1.99)

Discussion

In this evaluation of factors differentiating patients who continue in therapy from those who terminate prematurely, both the patient self-rating and therapist rating scales failed to show any predictive power. The questionnaires were short, simple, and strightforward; their lack of sophistication may account for the negative results. Patients were free to try and project whatever image they thought was in their best interest.

While the two questionnaires did not prove useful, two content categories given in response to TAT card 7BM could be taken together to make statistically significant predictions. Stories for this card which included a denial of personal problems or an unusual emphasis on problems, or which ended in an escapist or unrealistic manner could be used to identify many of the potential drop-outs.

The research design required that these content categories be validated through three separate tests. The probability that these particular results could happen by chance alone ($p \leq 0.05$) are approximately 1.2 out of 10,000 (Appendix M).

Predictions made in this manner correctly described the behavior of 69.4% of the patients. This is a statistically significant prediction with a probability of occuring by chance of approximately 0.0005.

Although nearly 70% of the sample's behavior was correctly predicted, the TAT results of 30.6% of the sample did not permit correct predictions to be made in this way. Four patients (11%) continued in therapy although their TAT stories suggested that they would drop out. Seven subjects (20%) dropped out even though their TAT stories did not contain any content predictive of this behavior.

The strength of predictions made with this measure is similar to predictions made using other methods (Table 12). This table summarizes the results of other studies that attempted to predict dropping out of psychotherapy. While a large number of studies have investigated this behavior, very few have attempted to make predictions (Baekland and Lundwall, op. cit.). Most studies have been content to report differences on demographic, socioeconomic, or psychological variables between groups without making predictions. This makes direct comparison difficult.

An examination of Table 12 suggests that in all cases, despite differences in measuring instruments, there is a remarkable similarity in the overall rates of prediction, all of which range close to 70%. It would be appealing to hypothesize that this represents the proportion to terminators who drop out due to 'interpersonal factors'.

It is not so easy to generalize across these studies, however. Their means of identifying premature terminating patients varied greatly from the 20-interview cut-off used by Gibby, et al (1954). While most of these studies did not break down their overall prediction, those that did showed wide divergences. Kotkov and Meadow (1953), using a composite Rorschach score had more success in predicting drop-outs that continuers. The opposite was the case for Gibby, et al (1954), also using the Rorscharch.

This is similar to Bakan's (1965) report. His review stated that while 'personality characteristics' were consistently found to be related to course of therapy, there was no agreement about what 'personality characteristics' were the most useful.

Table 12

Results of Predictive Studies of Premature Termination

Author and Date	Technique	% Correct Continuers	% Correct Drop-Outs	% Correct Overall
Affleck and Garfield (1961)	Clinical Judgement	N.A.	N.A.	N.A.
Affleck and Meadow (1959)	Rorschach	N.A.	44%	71%
Gibby, Stotsky, Hiler, and Meadow (1954)	Rorschach	87%	37%	68%
Hiler (1958)	Wechsler-Bellvue	N.A.	N.A.	65%
Hiler (1959)	Sentence Completion	N.A.	N.A.	71%
	Clinical Judgement	N.A.	N.A.	68%
Kotkov and Meadow	Rorschach	58%	81%	N.A.
Lorr, Katz, and Rubenstein (1958)	Various Pencil and Paper Tests	71%	71%	71%

Similarly, demographic and situational factors can be related to dropping out of psychotherapy. Research has, however, most often found a simple statistical relation rather than using these relations to make accurate predictions.

In assessing an individual patient's risk of dropping out, however, these demographic variables can be summarized. A lower socioeconomic status female without affiliation to any group or organization is most at risk of dropping out of individual psychotherapy. It is often difficult, however, to separate these, and many of the psychological test results from a statement that patients deficient in the level of verbal skills required for most psychotherapy often drop out (Baekland and Lundwall, 1975).

It does not appear, however, that differences in gender or in verbal productivity can be made to account for the TAT differences found to be predictive in the present study.

It is unlikely that any psychological measure could be completely successful in predicting this behavior. People drop out of psychotherapy for a variety of reasons, not always relatable to psychological variables. Borghi (1968) suggested that many premature terminators left for reasons that include dissatisfaction with services provided, or for reasons independent of the therapy, including finding a new job or getting a divorce.

Because of the variety of reasons people leave psychotherapy, it is conceivable that no psychological measure will be able to significantly improve on the approximately 70% rate of correct predictions reported in this study and the others reported in Table 12. It is, however, possible that a more reliable measure could be constructed building on the techniques of this study.

It is necessary to examine why only one of the TAT cards used proved applicable to the problem. All four cards were selected because they elicited a great number of stories having themes of personal or interpersonal problems. All such stories, however, are not identical, and are not equally useful in predicting behavior in therapy.

Similarly, in the need achievement measure, results across cards are not very consistent. With four to six cards typically used, all of which have been selected to maximize production of meaningful content, the correlations of scores between pictures is close to zero (Entwhisle, 1972).

An examination of the cards used in this research (Appendix 5) and a description of their content permits an understanding of the differences between them. Each card was designed to suggest one of a variety of human situations (Murray, 1940). Card 3BM pictures a solitary figure who is often descirbed as crying or suicidal. Card 4 pictures a woman clutching at a man who is turned away from her. In card 6BM, an elderly woman has her back to a younger man. In card 7BM, an older man is looking at a younger man who is "sullenly" staring away (Ibid).

All these cards are relatively well-structured, depicting one or more people with strong emotional content. Stories for these cards are usually closely related to the manifest content of the picture. Those given in response to card 3BM tend to describe a depressed or remorseful person, while those given to card 4 often describe problems in a romance. Card 6BM is usually described as a mother an son having some sort of disagreement (Henry, 1956, p. 246).

The older man in card 7BM is most often described as a father, boss, doctor, etc., almost always as some person in a position of authority. Henry (1956, p. 247) suggests that this card deals with "hierarchal

personal relations" and is "particularly stimulating of attitudes toward authority". When stories concern getting help or critism with job related problems, they can be related to achievement motivation (McClelland et al, 1953).

The therapy situation is a dyadic encounter in which one person, the therapist, is in a position of authority and experience, and is expected to aid the other person in the solution of problems (Strupp, 1973). This situation is reflected most strongly in TAT card 7BM, and it is not surprising that stories produced in response to this card are more closely related to behavior in therapy than stories for cards showing other situations.

Further research extending upon these results could attempt to refine the measure. Other picture stimuli could be identified with similar utility in eliciting information about the patient's behavior in therapy. Within the TAT deck, other cards such as card 12M could be examined. This card is described by Murray (1943) as "a young man lying on a couch with his eyes closed. Leaning over him is the gaunt form of an elderly man..."

Other stimuli could be sought outside the standard TAT set. While the need-achievement researchers include two standard TAT cards, they also use several cards developed especially for their use. The use of several cards tends to increase the amount of usuable data, and increases the reliability of the scoring (Feld and Smith, 1958).

Card 7BM seems to picture a quasi-therapy situation. As well, the content of the stories given in response to this card by patients awaiting psychotherapy seems to mirror their behavior in therapy. One sort of content that differentiated therapy continuers and drop-outs was

"the explicit denial that there was any personal problems affecting the characters in the story" (Appendix 1). This content, scored as -1 for defensiveness, is contrasted with stories which simply lacked a theme of personal problems. This latter content, scored as '0', failed to differentiate patient behavior.

The premature terminator has often been characterized as 'less psychologically minded'. This implies a disinclination to use psychological terms and constructs, and a resistance to attributing psychological cuases for symptoms and behavior (Baekland and Lundwall, 1975). The attribution of problems in a 'psychological' manner may be a learned ability, as psychological explanations have achieved faddishness in our society. Research with various psychological tests, ranging from sentence completion tasks (Hiler, 1959), Rorschach protocols (Kotkov and Meadow, 1953), and the MMPI (Taulbee, 1958), to an analysis of verbal output in intake interviews (White, Fitchtenbaum, and Dolard, 1964) have consistently characterized the drop-out as less willing to reveal himself, or to deny the existence of problems (Baekland and Lundwall, 1975).

It is not surprising that patients who in this study produced TAT stories for card 7BM that explicity stated that there were no problems for their story's characters tended to drop out. This extreme and explicity denial of problems in stories describing encounters with authority figures resembles the behavior in treatment described by Strickland and Crowne (1963). They describe an approach-avoidance conflict between the demands of the therapist and the desire of the patient to deny the existence of problems. This tension is resolved by dropping out of therapy.

At the other extreme were stories scored '2' in the defensiveness category. These stories, far more descriptive of problem situations than

the norm, were also produced by some future drop-outs. This may be another sort of defense -- an admission of the existence of problems while overemphasizing them, making them seem insoluble by the patient's actions. The problems and their solutions are attributable to outside sources. These patients refuse to acknowledge that their problems are a result of their own behavior. A similar phenomenon has been observed in the need-achievement research. Here, fear of success is related to attribution of failure and success to outside factors (Feather and Simon, 1973). Like the denial of problems, this mode of behavior hinders the establishment of a working therapist-patient relationship.

The outcome of stories for card 7BM were also predictive of behavior in therapy. Some stories produced by patients who later dropped out ended in escapist behaviors (scored -2 for expectation) or in unrealistic negative outcomes (scored -1). Others concluded with an unrealistic, almost magical happy ending (scored as 2 in this category). These sorts of outcomes of stories describing interactions with father-like authority figures may relate to patient attitudes and expectations of the outcome of their interaction with the therapist.

In stories characterized as withdrawal, the protagonist runs away from the problem situation, or as an extreme escape, commits suicide. Here, help from the older man is either rejected or is unsuccessful. These fantasized outcomes resemble the actual behavior of these patients, who either refuse the therapist's assistance or believe it ineffective, and quickly leave therapy.

An alternate sort of story outcome were those in which everything ends happily, the problems resolved, all without active efforts of the protagonist. Success is either attributed to the older man, or else is simply stated: everything turns out all right in the end. These

stories often had an almost magical quality, with success being beyond human intervention. Such stories were also predictive of dropping out.

All of these kinds of outcomes seem to reflect a sort of powerlessness on the part of the story's protagonist to control his own destiny, to work towards the solution of his own problems. Whether ending happily or unhappily, these future drop-outs' stories featured protagonists unable to control their own fate.

These fantasy stories are reminiscent of anecdotes given by Seligman (1975) which he related to depression. He theorizes that depression results from a learning situation, most often in the family, where an individual could not control his own experience. In this model, punishment and praise occur randomly, unaffected by the child's behavior. The result is a feeling of helplessness, an inability to affect the environment. Seligman suggests that the ability to control success and failure may be a key factor in how an individual learns to relate to the world.

The TAT stories of these premature terminators describe this sort of "learned helplessness". It is possible to speculate that these patients have the same magical expectations of authority described in their stories. When the therapist fails to fulfill these demands for instant problem resolution, the patient leaves therapy. Similarly, the patient who enters treatment with a deeply ingrained belief that his problems are beyond solution will take an initial lack of success as confirmation of this belief. This patient, too, will leave treatment.

Another model that describes similar behavior is the construct of internal versus external control of reinforcement, or locus of control (Lefcourt, 1966, Rotter, 1975). Here "the perception of positive and/or negative events as being a consequence of one's own actions and thereby

under personal control" characterizes an internal locus of control. An external locus of control involves the perception of "events as being unrelated to one's own behaviors" (Rotter, 1975, p. 207).

The responses to TAT stimuli scored along the dimension of expectations might be thought to provide a measure of this construct. The outcome of a fantasy story may be stated to be a result of actions by the protagonist, suggesting an internal locus of control. It may, alternatively, whether positive or negative, appear to be unrelated to the protagonist's actions, suggesting an external locus of control.

In the present research, TAT stories of the latter sort, in response to Card 6BM, were shown to characterize drop-outs from psychotherapy. From this, one might like to suggest that persons characterized as having an external locus of control are likely to drop out of therapy.

This construct, however, lacks specificity. Some individuals may consistently exhibit an internal (or external) locus of control across a wide range of situations. Many people, however perceive a different locus of control for different situations, or even for the same situation over time (Mischel, Zeiss, and Zeiss, 1974).

Use of this construct, then, adds little to the understanding and prediction of premature termiantion. In characterizing TAT protocols predictive of dropping out, little is achieved by replacing the phrase "unrealistic expectations" with the phrase "external locus of control".

In the present study, none of the variables labeled 'motivation' were predictive of behavior in therapy. This may be related to a lack of clarity in this measure compared to other variables used. In the TAT measure, there was considerable overlap between the definitions of 'motivation' and the other two categories. At the same time, there was little possibility for variance on this category. While 'defensiveness'

ratings could fall in one of four scores, 'expectations' had five possibilities, and scores for 'motivation' could only range from 'zero' to 'two', or three possible scores. The great majority of stories were scored '1' on this category, producing little variance of any kind.

In the need-achievement TAT content measure, 11 kinds of content were defined as related to motivation to achieve success. When these content categories were applied to problems in psychotherapy, most seemed to relate more strongly to categories of psychological-mindedness or defensiveness, and expectations of outcome. What remained, content directly relating to a need to resolve therapeutic problems, did not aid in predicting continuation in therapy.

The concept of motivation, independent of task and setting has been criticized in experimental research (Entwhistle, 1972). While widely used by clinical researchers, there is a similar lack of clarity and agreement about what is meant by 'motivation' (Baekland and Lundwall, 1975). Despite this problem, motivation was one of the variables most often related to dropping-out, with 34 out of 41 studies reviewed finding it significant (Ibid).

In addition to motivation, Baekland and Lundwall reviewed 26 studies relating psychological mindedness or denial to dropping out, with 24 showing a significant relationship. These included several in which the therapy was not insight-oriented. In the present study, a denial of problems in stories for TAT card 7BM was predictive of dropping out of verbally oriented psychotherapy.

A third category of psychological variable cited by Baekland and Lundwall (Op. Cit.) was behavioral and/or perceptual dependence, which was predictive of termination in 12 out of 14 studies using it. In the

present study, TAT stories in which the protagonist was powerless and totally dependent upon the authority-figure for help were useful in predicting dropping out of treatment.

Despite differences, there remain similarities between the measure used in this study and the McClelland-Atkinson scoring system. Both relate fantasy content describing problem resolution to behavior directed towards problem resolution. Both measures note the importance of the stimulus picture in eliciting fantasies that are related to the behavior in question. In both cases, the setting in which testing takes place, and previous tasks given the subject play an important role.

The research in this study has demonstrated a relationship between the behavior of producing fantasy stories for TAT card 7BM and the observable behavior of dropping-out of therapy, as defined in a particular manner, and with a particular population. This does not prove the existence of, for example, either a 'need to succeed' or a 'need to drop out of therapy' as a reified psychological explanatory principle.

The results may alternatively be discussed from the viewpoint of cognitive set, in this case, the set of ideas, attitudes, and expectations that a person holds about himself, about psychotherapy, and about his problems at the time he enters therapy. These beliefs are the result of learning, both vicarious modeling and direct experience. Experiences with problem solving in general, and with psychotherapy in particular will affect the way in which the patient will experience the therapeutic relationship, and how he will behave in it.

This set of attitudes is in evidence when an individual has decided to begin psychotherapy, and has arrived for an initial interivew. If, in this situation, the potential patient is presented with a stimulus bearing a strong resemblance to the therapy situation, such as TAT card

7BM, the response emitted will be affected by this set of attitudes and beliefs.

In this situation, where there is a strong relation between the TAT stimulus and the testing setting to the setting for the eventual behavior, the TAT story content may have a close relation to actual behavior in therapy. An examination of story content, then, may provide clues of problems the patient may have in therapy. TAT content in which the patient denies problems or presents outcomes of withdrawal or unreal expectations of problem solution may help to delineate problem areas that must be tackled immediately in order to engage the patient in therapy. In highlighting the relationship between expectancy of success, TAT response, and problem-solving behavior, this study supports the importance given this concept in the achievement need literature (Atkinson, 1958a, Atkinson, 1974).

The present study has shown that in response to a card bearing a strong resemblance to the patient-therapist relationship, future therapy drop-outs produce stories that have many similarities to their future behavior in therapy. Analysis of stories of this type, given in response to TAT card 7BM and other similar pictures may be useful in the prediction of patients with a high risk of dropping out of treatment.

These stories, as well, contain information suggestive of ways that these patients could be kept engaged in therapy. An emphasis by the therapist on the patient's expectations or denial of problems could help prevent unnecessary termination of treatment.

While this TAT measure was no more predictive of dropping out than measures used in other research (Table 12), it possesses a number of advantages. It is less time consuming to administer and score than the Rorschach, Wechsler-Bellevue, or sentence completion tasks. Evaluation of

the material presented by the patient is less likely to be confounded by questions of verbal productivity. The information cannot be gathered by simply asking the patient or therapist. As well, the information in the TAT stories seems to bear a direct relation to patient attitudes and behaviors in therapy that lead to dropping out.

The research supports the suggestion that the TAT does not function as a 'tabula rasa' for the subject's projections, rather that it should be highly structured to be suggestive of the desired behavior (Murstein, 1965). To relate fantasy stories to over behavior, account must be taken of the stimulus given, the setting in which it is administered, and the behavior in question. Need-achievement stories taken in a classroom have been shown to relate to academic performance. In the present study, TAT material gathered while waiting for psychotherapy has been shown to relate to behavior in therapy.

An insight into both the behavior in therapy and the TAT storytelling behavior exhibited in the present study may be provided by social learning theory.

> In the social learning view, people are neither driven by inner forces nor buffeted by environmental stimuli. Rather, psychological functioning is explained in terms of a continuous reciprocal interaction of personal and environmental determinants. Within this approach, symbolic, vicarious, and self-regulatory processes assume a prominent role (Bandura, 1977, p. 11).

In this model, expectations are viewed as both interacting with behavior and being affected by behavior. Expectations are seen as a function of the individual's direct past reinforcement. Specific expectancies are easily modifiable by even seemingly minor alterations in situation. Generalized expectancies are more consistent and stable across situations (Rotter, 1972).

In the absence of other information, expectancies may be shown to strongly influence behavior in a new situation. Performance may be

significantly altered, however, with the addition of new information about probable outcomes (Mischel and Staub, 1965).

Bandura (1977) differentiates between 'efficacy expectations' and 'outcome expectations'. Efficacy expectations are an individual's belief in the possibility of producing a particular behavior. Outcome expectations are the belief that this behavior, if performed, will lead to the desired outcomes. Pessimistic efficacy expectations are related to avoidance behavior and anxiety, according to Bandura. They are, however, more easily modifiable by performance accomplishments or through vicarious experience than outcome expectations.

For patients about to be interviewed for psychotherapy, the subjects of the present research, both varieties of expectations would affect their behavior. A range of expectations might be exhibited, from general expectations about how personal problems can be solved to more specific expectations relating to the possibility of solving the particular problems that led to the seeking of help at this time.

An example of an efficacy expectation, in this case, might be a patient's belief that he/she can behave in the way it is imagined the therapist will demand. The belief that performance of this behavior will lead to relief of the patient's problems is an example of an outcome expectation.

The patients were asked, in the patient questionnaire used in the present research, whether therapy would be able to solve their problems. The responses to this item, questioning this outcomes expectation, were not related to the behavior of continuing in therapy. By contrast, responses to TAT card 7BM were related to this behavior.

Social learning theory suggests the importance of symbolic and vicarious experience in how an individual learns about the world.

> Coping with the demands of everyday life would be exceedingly trying if one could arrive at solutions to problems only by actually performing possible options and suffering the consequences. Fortunately, higher cognitive capacities enable people to conduct most problem solving in thought rather than in action (Bandura, p. 171).

The TAT serves to permit vicarious performance. Subjects are able to tell stories reflecting their beliefs, desires, and expectations about a variety of situations. In this case, the problem is of interpretation. To the extent that the stimuli are vague, and the effect of the testing situation on the subject is unknown, it may not be easy to recognize any relationship between the imagined behavior of the TAT story and the subject's actual behavior.

In the present study, one TAT stimulus evoked responses that were predictive of behavior in therapy. Other cards were investigated that, like card 7BM, were well-defined and evoked stories about interpersonal problems. Card 7BM, however, depicts a situation which bore a close resemblance to a patient and a therapist. It was only in response to this picture that stories were found to be predictive of behavior in therapy.

If the stimulus picture resembled the psychotherapy setting, so did the setting in which testing took place. Experiments in vicarious learning through modeling have shown that this technique is most effective when there is a close resemblance between the model and the model's behavior, and the subject and his/her behavior.

In a similar manner, the present research suggests that the TAT responses may be thought of as vicarious performance. In the present case, there was shown to be a significant relationship between this vicarious performance and the observable behavior of continuation in psychotherapy. It is suggested that this relationship was strong because there was a close resemblance between the vicarious stimulus, in this case TAT card

TBM and the actual situation, and between the settings in which the vicarious and actual behaviors took place.

This social learning model may prove equally applicable to the body of research produced by the McClelland and Atkinson team, explaining the relation between thematic fantasy stories and behavior without recourse to increasingly complex drive theories.

Eron (1955) pointed out that research with the TAT needed to be able to relate fantasy to behavior. At that time, he felt a lack of ability in making broad generalizations of that relationship. This remains the case, and in fact, the TAT may never be conducive to such a broad generalization. The most that can be hoped for is a series of more limited relationships, of the sort that has been demonstrated in this research. This kind of information, however, can be of considerable usefulness, particularly when the behavior in question is as widespread and as vexing a problem as premature termination of therapy.

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Appendix A

TAT Scoring Instructions for Content Analysis Method

Motivation

a) Stories that are simple descriptions of the stimulus properties of the card ("This is a husband and his wife. That's all I see") or stories in which none of the characters are described as having a personal problem ("These two people seem like they have been in love for a long time. They will probably get married") are scored 0 for this factor.

b) Stories that include a theme related to a therapeutic concern or problem: interpersonal anxieties or conflicts, depression or confusion, leaving home, etc., whether explicitly stated or infereed from the affect or actions of the protagonist ("This man has gone to his father for advice") are scored 1.

c) Stories that additionally include any or all of the following explicit statements are scored 2:

1) the protagonist 'needs' or 'wants' to resolve the problem.

2) an affective state is given as connected with goal attainment or frustration ("He will be very sad if the arguement is not settled").

3) activity by the protagonist aimed at problem resolution is stated in the story. This would include acceptance of help offered by others.

Defensiveness

a) Stories that explicitly deny that there is a problem situation, or deny that a given situation is, in fact, a problem for the protagonist or for the author of the story are scored -1 for this factor.

b) Stories that are simple descriptions or do not include themes of personal problems are scored 0 for this factor.

c) Stories that include a theme related to a therapeutic concern or personal problem are scored 1 for this factor.

d) Stories that in addition, contain statements revealing further details of the problem: intensity, content, background, etc. are scored 2 for this factor. ("This man is having an arguement with his wife. He thought that she has been seeing another man. He is very angry and is yelling at her". In this case, the first sentence justified a score of 1. Any of the additional phrases would be sufficient to justify a score of 2).

Expectations

a) Stories in which the protagonist resolves a personal problem by withdrawal: getting drunk, running away, leaving home, successful suicide, etc. are scored -2 for this factor. It is important to differentiate acts which are problems from acts which are responses to other stated problems. Thus, "This is a man who is telling his mother that he is going to leave home. She is sad, but he will leave anyway." is not scored -2, while the story "This is a man who has just had a big fight with his mother. He has his hat in his hand because he is going to leave home and never come back." would be given this score.

b) Stories in which the stated outcome is negative without realistic cause for failure being stated are scored -1 .

c) Stories lacking either a personal-problem theme, or having such a theme but lacking any outcome or future-oriented statement are scored 0.

d) Stories are scored 1 if either

1) activity undertaken by the protagonist towards resolution of the problem or the acceptance of help or advice is stated to produce a successful outcome, or

2) the lack of activity, a refusal to accept help, etc. is stated to be the cause of an unsuccessful outcome.

e) If the outcome is positive without the protagonist having made any efforts to solve the problem or to accept help, the story is scored 2.

Appendix B

TAT Cards Used

"Card 1" is TAT Card 6BM

"Card 2" is TAT Card 7BM

"Card 3" is TAT Card 4

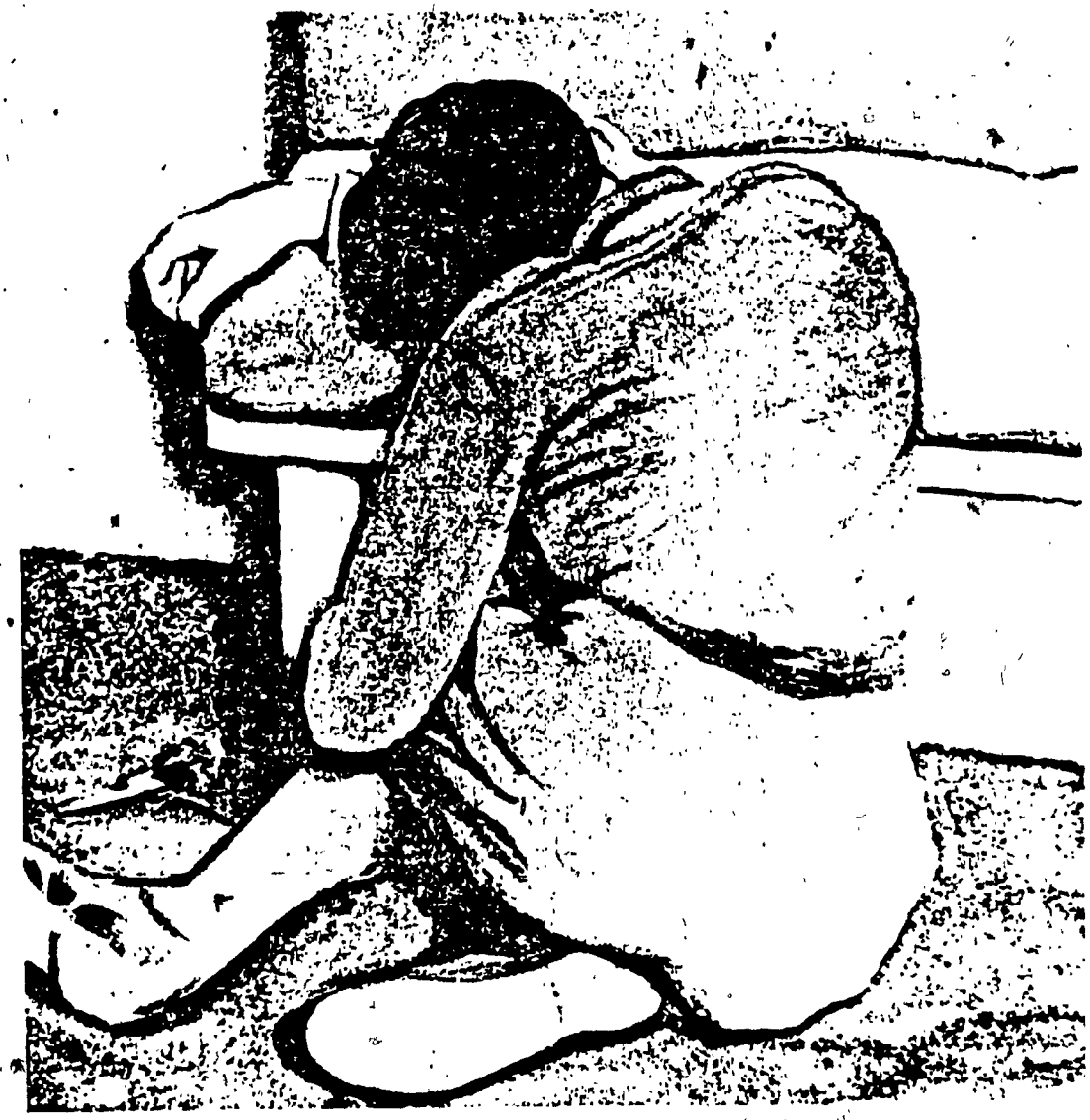
"Card 4" is TAT Card 3BM

Card 1 / Carte No. 1

Card 2 / Carte no. 2

Card 3 / Carte no. 3

Card 4 / Carte No. 4



Appendix C

TAT Contingency Tables for Retrospective Sample

TAT Card 3BM

Motivation

Uncollapsed

Score	0	1	2	Totals
Continuers	2	22	2	26
Drop-outs	1	25	4	30
Totals	3	47	6	56

Collapsed

Score	0,2	1	Totals
Continuers	4	22	26
Drop-outs	5	25	30
Totals	9	47	56

Chi square = 0.055 prob. = 0.80 df = 1

Defensiveness

Uncollapsed

Score	-1	0	1	2	Totals
Continuers	0	2	22	2	26
Drop-outs	0	1	21	8	30
Totals	0	3	45	10	56

Collapsed

Score	-1,2	0,1	Totals
Continuers	2	22	26
Drop-outs	8	22	30
Totals	10	46	56

chi square = 2.25 prob. = 0.15 df = 1

Expectations

Uncollapsed

Score	-2	-1	0	1	2	Totals
Continuers	2	4	14	4	2	26
Drop-outs	3	6	11	5	5	30
Totals	5	10	25	9	7	56

chi square= 2.083 prob.= 0.75 df= 4

TAT Card 4

Motivation

Uncollapsed

Score	0	1	2	Totals
Continuers	1	25	3	29
Drop-outs	0	27	1	28
Totals	1	52	4	57

Collapsed

Score	0,2	1	Totals
Continuers	4	25	29
Drop-outs	1	27	28
Totals	5	52	57

chi square= 0.269 prob.= 0.60 df= 1

Defensiveness

Uncollapsed

Score	-1	0	1	2	Totals
Continuers	0	1	24	4	29
Drop-outs	0	0	22	6	28
Totals	0	1	46	10	57

Collapsed

Score	-1,2	0,1	Totals
Continuers	4	25	29
Drop-outs	6	22	28
Totals	10	47	57

chi square = 0.16 prob. = 0.70 df = 1

Expectations

Uncollapsed

Score	-2	-1	0	1	2	Totals
Continuers	5	7	5	6	6	29
Drop-outs	0	8	12	4	4	28
Totals	5	15	17	10	10	57

chi square = 8.734 prob. $0.1 \leq p \leq .05$ df = 4

TAT Card 6BM

Motivation

Uncollapsed

Score	0	1	2	Totals
Continuers	0	23	5	28
Drop-outs	2	24	4	30
Totals	2	47	9	58

Appendix F

Instructions for Self-administered TAT Protocol

Your cooperation is requested in filling out these forms. Everyone coming to this and other hospitals throughout Montreal for psychotherapy is being asked to assist a research project of Concordia University's Department of Psychology. The results of this research will be useful in enabling the hospitals to match their resources to the needs of the community. Participation in this study is voluntary and should take no more than 15 minutes of your time. Your responses will be kept strictly confidential. If you decide not to participate in this study, simply return these forms to the receptionist.

Thank you.

Alan Zisman
Department of Psychology
Concordia University

Inside the enclosed envelope, you will find four pictures. On the following pages, please write down a story about each picture. In each story, tell what is going on now-what led up to that situation-and what the outcome is going to be. Do not take more than five minutes for each picture.

Write the story for card 1 here.

Write the story for card 2 here.

Write the story for card 3 here.

Write the story for card 4 here.

Appendix G

Patient Self-report Questionnaire and Course of Treatment

(Fisher Exact Probability Test used with 2x2 tables)

Motivation

Uncollapsed

Score	1	2	3	4	5	Totals
Continuers	9	3	4	5	9	30
Drop-outs	2	2	3	2	3	12
Totals	11	5	7	7	12	42

Collapsed

Score	1,2	3,4,5	Totals
Continuers	12	18	30
Drop-outs	4	8	12
Totals	16	26	42

chi square= 0.003 prob.= 0.95 df= 1

Defensiveness

Uncollapsed

Score	1	2	3	4	5	Totals
Continuers	1	3	13	4	9	30
Drop-outs	0	2	7	2	1	12
Totals	1	5	20	6	10	42

Collapsed

Score	1,2	3,4,5	Totals
Continuers	4	26	30
Drop-outs	2	10	12
Totals	6	36	42

chi square= 0.044 prob.= 0.85 df= 1

Expectations

Uncollapsed

Score	1	2	3	4	5	Totals
Continuers	3	2	2	6	17	30
Drop-outs	1	1	2	2	6	12
Totals	4	3	5	8	23	42

Collapsed

Score	1,2	3,4,5	Totals
Continuers	5	25	30
Drop-outs	2	10	12
Totals	7	35	42

chi square= 0.210 prob.= 0.65 df= 1

Appendix H

Therapist Intake-interview Questionnaire and Course of Treatment

(Fisher Exact Probability Test used with 2x2 tables)

Motivation

Uncollapsed

Score	1	2	3	4	5	Totals
Continuers	0	3	10	3	3	19
Drop-outs	2	1	4	1	1	9
Totals	2	4	14	4	4	28

Collapsed

Score	1,2	3,4,5	Totals
Continuers	3	16	19
Drop-outs	3	6	9
Totals	6	22	28

chi square= 0.318 prob.= 0.280 df= 1

Defensiveness

Uncollapsed

Score	1	2	3	4	5	Totals
Continuers	1	5	7	4	2	19
Drop-outs	0	3	4	2	0	9
Totals	1	8	11	6	2	28

Collapsed

Score	1,2	3,4,5	Totals
Continuers	6	13	19
Drop-outs	3	6	9
Totals	9	19	28

chi square = 0.116 prob.= 0.704 df= 1

Expectations

Uncollapsed

Score	1	2	3	4	5	Totals
Continuers	0	7	3	7	1	18
Drop-outs	0	2	6	0	1	9
Totals	0	9	9	7	2	27

Collapsed

Score	1,2	3,4,5	Totals
Continuers	7	11	18
Drop-outs	2	7	9
Totals	9	18	27

chi square= 0.188 prob.= 0.339 df= 1

Appendix I

TAT Content and Course of Therapy in the Replication Sample

(Fisher Exact Probability Test used with 2x2 tables)

Card 4-Expectations

Uncollapsed

Score	-2	-1	0	1	2	Totals
Continuers	1	6	13	8	1	29
Drop-outs	0	2	2	2	2	8
Totals	1	8	15	10	3	37

Collapsed

Score	-2,-1, 2	0, 1	Totals
Continuers	8	21	29
Drop-outs	4	4	8
Totals	12	25	37

chi square= 0.597 prob.= 0.945 df= 1

Card 7BM- Defensiveness

Uncollapsed

Score	-1	0	1	2	Totals
Continuers	1	10	17	1	29
Drop-outs	2	2	1	3	8
Totals	3	12	18	4	37

Collapsed

Score	-1, 2	0, 1	Totals
Continuers	2	27	29
Drop-outs	5	3	8
Totals	7	30	37

chi square= 9.273 prob.= 0.002 df= 1

Appendix J

Gender-related Differences in Drop-out Rate

Gender	Drop-outs	Continuers	Totals
male	14	17	31
female	20	38	58
Totals	34	55	99

chi square= 1.853 prob.= 0.20 df= 1

Appendix K

Male and Female Content on TAT Card 7BM

Defensiveness

Uncollapsed

Score	-1	0	1	2	Totals
Male	0	11	11	4	26
Female	3	13	24	6	46
Totals	3	24	35	10	72

Collapsed

Score	-1,2	0,1	Totals
Male	4	22	26
Female	9	37	46
Totals	13	59	72

chi swuare = 0.015 prob. - 0.90 df = 1

Expectations

Uncollapsed

Score	-2	-1	0	1	2	Totals
Male	0	4	10	10	1	25
Female	0	5	23	15	4	47
Totals	0	9	33	25	5	72

Collapsed

Score	-2,-1, 2	0,1	Totals
Male	5	20	25
Female	9	38	47
Totals	14	58	72

chi square = 0.051 prob. = 0.80 df = 1

Appendix L

Mode of Administration and TAT Content

Card 7BM -- Defensiveness

Score	-1,2	0,1	Totals
Self-administered	7	30	37
Interview	7	28	35
Totals	14	58	72

chi square = 0.033 prob. = 0.85 df = 1

Card 7BM -- Expectations

Score	-2,-1, 2	0,1	Totals
Self-administered	10	27	37
Interview	5	30	35
Totals	15	57	72

chi square = 1.09 prob. = 0.30 df = 1

Appendix M

Probability of Results