This study investigates the relationship between client motivation or lack of motivation for vocational rehabilitation services, and rehabilitation outcome. Clients who had received services at a rehabilitation center during a two year period were rated on their level of motivation for rehabilitation services using the contents of diagnostic reference reports. A "motivated" group and an "unmotivated" group were thus identified. Using the Minnesota Division of Vocational Rehabilitation case closure, the results indicated that motivated clients were more frequently "closed employed" than unmotivated clients. Several demographic variables did not differentiate the two motivation groups, but the group judged unmotivated had a higher mean score on the Psychopathic deviate scale of the Minnesota Multiphasic Personality Inventory than did the motivated group. Discussion includes an examination of the case closure systems of private and public rehabilitation agencies and some consideration of agency administrative barriers which may promote client lack of motivation for rehabilitation services. (Author)
Client Motivation and Rehabilitation Counseling Outcome

Paul R. Salomone

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Client Motivation and Rehabilitation Counseling Outcome

One of the working hypotheses which many experienced rehabilitation counselors have found useful is: "clients who are motivated for rehabilitation services are more likely to be successfully rehabilitated than unmotivated clients." This maxim, like many concepts in counseling and guidance, has received uncritical acceptance and seems to be treated as a "sacred cow" (Rothney, 1970). Although recent literature reviews concerning client motivation have revealed a substantial number of speculative papers and research articles (Barry and Malinovsky, 1965; Lane and Barry, 1970), there have been no published reports of research which investigated the relationship between client motivation for rehabilitation services and vocational rehabilitation outcome. Scott and Werthesiner (1962) suggest that the research attitude of a practitioner should require him to assess the truth or falsity of every important principle he uses.

Client motivation for rehabilitation has been a growing area of interest to the professional rehabilitation community in the last several years. However, the focus of numerous articles and studies has been on factors affecting client motivation for rehabilitation (Barry, Dunteman & Webb, 1968; Benney, 1964; Fantz, 1965; Rabinowitz, 1961; Schlesinger, 1963), client characteristics associated with successful rehabilitation (Berkowitz, 1963; Berry & Miskimins, 1969; Blane & Meyers, 1963; Goldin & Perry, 1967; McPhee & Magley, 1960; Schletzer, Dawis, England & Lofquist, 1959; Weiner, 1964) and prediction of rehabilitation success
using personality inventories and/or demographic variables (Ayer, Thoreson & Butler, 1966; DeMann, 1963; Ehrle, 1964; Goss & Pate, 1967; Goss, 1969). There has also been much discussion of the "unmotivated" client (Brophy, 1961; Goldin & Margolin, 1966; Patterson, 1964; Phillips, 1957; Pine & Boy, 1965; Ryan, 1969; Sinick, 1961), although Lane and Barry (1970) believe that no individual can be categorically described as "unmotivated" since different people are motivated for different goals. The client who is labeled "unmotivated" may have goals and aspirations which are quite different from his counselor.

The primary purpose of the present study was to determine whether clients who are judged motivated for a vocational rehabilitation program are more likely to become successfully rehabilitated (employed) than those who are judged unmotivated. A related purpose was to ascertain whether certain personality or demographic variables differentiated the judged motivated from the unmotivated groups. Finally, since each client's case was closed by two agencies, the Minneapolis Rehabilitation Center (MRC) and the Minnesota Division of Vocational Rehabilitation (DVR), a critical comparison of their closure systems was possible.

METHOD

Subjects and Setting The first step in the sampling procedure was to identify the case files of clients who had attended the Minneapolis Rehabilitation Center during a two-year period and whose cases had been
closed by MRC at least one year. From this initial pool, cases were selected if the client had been referred by a DVR counselor and if the client had remained in the MRC program for at least one week. These procedures resulted in a preliminary sample of 149 clients. DVR case closure information which was subsequently gathered revealed that 14 cases were in current or "open" DVR status, and 21 closed cases were in status 20; rejected for rehabilitation services after the provision of diagnostic services. In addition, procedures used to classify cases into "motivated" and "unmotivated" categories resulted in the elimination of 17 clients whose motivation level could not be classified by the judges. Thus, there were 118 cases which had been closed by both agencies and for which level of motivation for rehabilitation services had been assessed. Of these cases, 97 had been closed by DVR as either employed or unemployed.

For the sample of 118 clients, 66 were male and 52 were female. At the time of referral to MRC the age range for these clients was 16-59; mean age was 32.4 and 28.1 for men and women, respectively. Approximately 82% of these clients had physical disabilities and/or learning disorders; 18% were diagnosed as having emotional or mental problems. About half of the clients lived in the Twin City area and half came from smaller Minnesota communities.

The MRC is a comprehensive psycho-social-vocational rehabilitation facility which received a substantial percentage of its clients from DVR. Following a program of assessment, work evaluation and adjustment, and counseling those clients who were considered to have potential for
remunerative employment entered MRC's placement program or went on to formal training programs. Except for persons who entered long-term training programs or were re-institutionalized, all cases were closed employed (competitive or sheltered work) or closed unemployed. Generally, only clients who were multi-disabled or who required extensive rehabilitation services were referred to MRC. Thus, the sample used in this study was not representative of the general DVR caseload.

Procedure for Rating Client Motivation. As part of the typical MRC program, a diagnostic conference was held at the end of each client's first week in the program. The team discussion resulted in a diagnostic conference report which generally included a consensual statement concerning the client's motivation for the rehabilitation program and for work. These team reports were viewed as preliminary statements about the client and were sent to the referring DVR counselor. The MRC team included a vocational counselor, workshop evaluator, social worker, psychologist and conference coordinator.

In the present post hoc study, the reports were used by three former counselors of the MRC Vocational Services Department to judge the extent of each subject's motivation for rehabilitation services and for work. The judges were selected because of their experience with Center clients and with the diagnostic conference reports. Each report was coded and all identifying information was removed. The reports were then individually sorted by each judge, using standard instructions, into five categories:
definitely motivated, probably motivated, unclassifiable, probably unmotivated, definitely unmotivated. Because of the disparate size of the two groups designated as "motivated" and the two "unmotivated" groups, it was decided to combine the "definitely unmotivated" and "probably unmotivated" groups and to do the same with the groups of motivated clients. Thus, two research groups were formed: motivated for rehabilitation services and unmotivated for such services.

Typically, those persons found to be motivated for rehabilitation services were described in the following manner: physical appearance and self-care are good; handles interviews well; highly motivated to work; considering realistic kinds of work; average intelligence. Those clients not motivated for rehabilitation services typically were viewed as: unemployed because of a desire not to work; feeling ready to retire and be content with puttering around the house; having no financial pressures to work; participating in the program so as not to jeopardize Workmen's Compensation status; many physical complaints involving headaches; irregular attendance at the MRC.

A technique suggested by Ebel (1951) to estimate the reliability of ratings was used. The "unclassifiable" ratings were not included in determining the inter-judge reliability of the ratings of level of client motivation. Using Ebel's method, an $r$ of .72 was obtained indicating substantial inter-judge agreement concerning individual client motivation and lack of motivation for rehabilitation services.

In addition to rehabilitation closure information and ratings of
client motivation, some demographic information was collected for each subject and personality characteristics were assessed using the Minnesota Multiphasic Personality Inventory (MMPI).

**Research Design.** One of the limitations of the current study was that statements made by individual workers in the diagnostic conference could be viewed as self-fulfilling predictions. It could be suggested that making a diagnostic statement in a case conference may affect the clinical treatment received by the client and, therefore, the rehabilitation outcome. One possible indicator of differential treatment received by clients is the length of stay in the MRC program. That is, it could be inferred that clients who are perceived as not being motivated for rehabilitation services would be encouraged, subtly or overtly, to leave the MRC program. A preliminary analysis of the data was performed to clarify this issue.

The total client sample was divided into two groups: persons who remained in the MRC program for more than three weeks, and clients who remained for three weeks or less. It was hypothesized that clients with high or low levels of motivation for rehabilitation services did not receive differential staff treatment (as measured by length of stay in the MRC program). The relationship between client motivation for rehabilitation services and length of time in the MRC program was examined using a Chi-square test of independence. The results were not significant, at the .01 level, indicating that length of stay in the MRC program (one indication of differential clinical treatment) was not related to client motivation level.
RESULTS

A Chi-square test of independence was performed to examine the relationship between client motivation for rehabilitation services and rehabilitation outcome. In accordance with a suggestion by Maxwell (1961), the Yates correction (a mathematical correction used with small samples) was applied to all Chi-square computations.

The results shown in Table 1 indicate that the significance of the relationship between client motivation for rehabilitation services and rehabilitation outcome depends upon the case closure criteria used either by the Minneapolis Rehabilitation Center or the Minnesota Division of Vocational Rehabilitation. That is, using MRC outcome data the proportions of employed/unemployed clients who were classified as motivated is not significantly different from those who were judged unmotivated. However, a significant difference was found between the employed/unemployed proportions when comparing motivated and unmotivated clients using DVR outcome data. Other results in Table 1 show no significant differences, between the motivated and unmotivated client groups, over several demographic variables.
Table 1

Comparison of Judged Motivated and Unmotivated Groups in Terms of Rehabilitation Outcome and Several Demographic Variables

<table>
<thead>
<tr>
<th></th>
<th>Motivated</th>
<th>Unmotivated</th>
<th>X²</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MRC Outcome (N = 118)</strong></td>
<td>Employed</td>
<td>50</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Unemployed</td>
<td>43</td>
<td>16</td>
</tr>
<tr>
<td><strong>MRC Outcome (N = 97)</strong></td>
<td>Employed</td>
<td>46</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Unemployed</td>
<td>32</td>
<td>12</td>
</tr>
<tr>
<td><strong>DVR Outcome (N = 97)</strong></td>
<td>Employed</td>
<td>58</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Unemployed</td>
<td>20</td>
<td>14</td>
</tr>
<tr>
<td><strong>DVR Outcome</strong></td>
<td>Employed</td>
<td>58</td>
<td>5</td>
</tr>
<tr>
<td><strong>(N = 118)</strong></td>
<td>Unemployed</td>
<td>35</td>
<td>20</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td>49</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>44</td>
<td>7</td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td>Single</td>
<td>65</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Married,</td>
<td>28</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Divorced, etc.</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td>29 years or less</td>
<td>52</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>More than 29 years</td>
<td>41</td>
<td>12</td>
</tr>
<tr>
<td><strong>Source of Income</strong></td>
<td>Family</td>
<td>57</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>ADC, Welfare,</td>
<td>36</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>V.A., Work. Comp.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant at or beyond the .001 level

**Case closed by DVR counselors in status 20 (rejected for services) are included in the unemployed category.
In order to assess the similarity of the MMPI profiles (Figure 1) of the motivated and unmotivated groups a multiple discriminant analysis was performed which yielded a generalized Mahalanobis $D^2$ (Rao, 1948) of 26.11. Since the $D^2$ statistic has a known distribution function it is possible to test the significance of the difference between the group profiles. The $D^2$ of 26.11 was converted (Rao, 1953) to an $F$ of 19.61 which is significant at or beyond the .001 level. In addition, the discriminant analysis procedure provided a classification of subjects into the two groups based upon the generated discriminant functions. A Chi-square test of independence between the actual and the assigned classification of subjects yielded a $X^2$ of 0.14; not statistically significant. That is, the discrimination of subjects using MMPI scale scores in the multivariate analysis resulted in essentially the same classification of subjects which was made using judged motivation as the criterion.

The Mahalanobis generalized $D^2$ is designed to measure distance between groups and allows for the affects of the intercorrelations among the variables (MMPI scale scores). However, there are two drawbacks for this type of analysis. Nunnally (1962) underscored the difficulty associated with discussing "the semi-undefinable quality of 'similarity'" and Cronbach and Gleser (1953) proposed that shape, level and dispersion of profiles be analyzed separately. In order to assess differences in levels of scores between the two motivation groups (as contrasted with a shape analysis using the $D^2$) a Lindquist (1953) Type I analysis of variance was performed. Post hoc t tests of the differences between individual MMPI scale scores for each group were also computed. These procedures resulted in an interaction $F$-ratio and a main effect, between-groups $F$-ratio which was not statistically significant. Also, all t tests of the
Figure 1

Mean MMPI Profiles for the Motivated and Unmotivated Groups

Motivated
Unmotivated

MMPI Scales

L  F  K  Hs  D  Hy  Pd  Mf  Pa  Pt  Sc  Ma  Si
comparison of MMPI scale scores between the motivated and unmotivated groups, except one, were not significant. The group of clients who were judged unmotivated for rehabilitation services had a mean score on the Psychopathic deviate (I'd) scale of the MMPI which was significantly greater (p < .01) than the mean Pd score of the unmotivated client group.

DISCUSSION

Although the rehabilitation counselors' maxim concerning client motivation and rehabilitation outcome was not fully supported, the findings regarding DVR case closure status and client motivation level are noteworthy since most rehabilitation counselors in the United States work for a state rehabilitation agency and use similar procedures for closing cases as employed or unemployed (or other categories). One possible explanation for differences between MRC and DVR regarding the frequency with which motivated rehabilitation clients are closed employed is the differential reward system for substantial closures of employed clients which was experienced by counselors in the two agencies. Whereas many rehabilitation counselors in the Minnesota DVR experienced supervisory and/or administrative pressures for "12 closures" (i.e. closed employed), counselors employed at MRC were more concerned with receiving DVR referrals and with providing quality rehabilitation services than with the long-term rehabilitation outcome of any individual client. For example, if the MRC counselor was not involved in the placement of a particular client, such services having not been purchased by DVR, his responsibility for that client ended with a comprehensive report and a set of recommendations. If communica-
tion with the DVR counselor several months later revealed that the client had not secured employment, it was quite likely that the MRC counselor might close the case unemployed. Thus, a case closed unemployed by MRC might later be closed employed by DVR since DVR counselors were reluctant to close cases as unemployed. Further, it was not a rare occurrence that clients who were unemployable (Gellman, 1961), in the judgment of this former MRC counselor, were closed employed by DVR counselors with such job titles as "unpaid family worker." In sum, the case closure systems of MRC and Minnesota DVR were substantially different and may be the element which resulted in the different outcome results related to extent of client motivation.

Another possible explanation for the results concerning client motivation for rehabilitation services and outcome may be related to sampling bias. Anderson (1967) noted that biased sampling occurs when subjects are selected in such a way that "certain segments of the population have a greater chance of being represented in the sample than others." In the present study, only 21% of the sample of 118 subjects were judged to be unmotivated. Perhaps most of the clients who dropped out of the MRC program before their diagnostic conference was held would have been classified as unmotivated but would have had successful rehabilitation counseling outcomes. In some instances, clients who are referred by DVR counselors to rehabilitation centers distant from their homes may resort to remunerative employment to avoid such counselor-initiated plans.

It was not unexpected that the demographic variables studied in this research did not differentiate the motivated and unmotivated groups since, generally, biographical and demographic data have not been consistent or
accurate predictors of rehabilitation success or failure. However, some experienced counselors would suggest that (a) married clients would be more motivated for work than single clients (for reasons of family responsibility, past work history, etc.) and (b) clients who do not receive workmen's compensation or other outside financial support would also be more motivated. For example, Berkowitz (1963) suggested that in some instances workmen's compensation can be a barrier to successful rehabilitation. Nevertheless, as was already noted, none of the demographic variables which were studied distinguished the motivated from the unmotivated groups.

Concerning the comparison of MMPI profiles of the motivated and unmotivated groups of clients, the results indicated that although the two profile configurations were "similar" both the overall mean MMPI scale differences between the two groups and the mean differences between individual MMPI scales for the two groups were not statistically significant. Thus, the shapes of the profiles were similar but the distance between scale means for the two groups were not significant. Except for the Psychopathic deviate scale of the MMPI, the motivated and unmotivated client groups produced essentially normal profiles (see Figure 1).

It was not totally unexpected that the unmotivated client group would have a higher Pd scale score on the MMPI than the motivated group. One type of client who may often be viewed as unmotivated for work or for rehabilitation services is the public offender; the sociopathic or psychopathic deviate. These persons may be "characterized by a lack of concern and anxiety about potential dangers and punishments, . . . repeated and flagrant disregard for social
customs and mores, an inability to profit from punishing experiences . . ., an emotional shallowness in relation to others . . ." (Dahlstrom and Welsh, 1960, p. 60).

There are two conclusions which can be drawn from this research paper. First, some evidence has been presented to support the intuitive hypothesis held by many rehabilitation counselors that clients who are motivated for rehabilitation services are more likely to become rehabilitated than unmotivated clients. Second, it is possible that the case closure systems currently used by private and public rehabilitation agencies may not accurately reflect reality as seen either from the client's viewpoint or from the counselor's position. Many potential rehabilitation clients may become "unmotivated" for rehabilitation services because of administrative procedures (i.e. waiting lists, medical examinations, forms to complete, psychological testing) which may be experienced as unnecessary barriers to case services. It seems clear that rehabilitation clients may require unusual and careful preparation for services, and increased readiness to use the rehabilitation services. Conversely, perhaps rehabilitation casefinding and intake procedures can be modified (for example, by the use of indigent paraprofessionals) to increase the meaningfulness of such initial services and, concurrently, to increase client motivation for rehabilitation services.
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