DEVELOPMENT AND EVALUATION OF A MEASURE OF THE TENDENCY TO BE GOAL ORIENTED

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Summary—This paper describes the development and evaluation of a 15-item, self-report measure of the tendency to set goals and make plans. A series of studies provided evidence of reliability and validity. The internal consistency of the scale ranged from 0.81 to 0.83; 3-week test–retest reliability was 0.82. Evidence of scale construct validity included significant associations in the expected direction with measures of several theoretically related constructs, including the number of goals one has, impulsivity, need for achievement, instability, hopelessness, depression, and official GPA. Another validity finding indicated that college students receiving psychotherapy had significantly lower goal orientation as measured by the scale than other college students. A treatment study produced evidence that goal orientation and official Grade Point Average (GPA) increased significantly in university counseling center clients who received training in goal setting and planning. The results provide initial evidence that the goal-orientation scale has promise as a measure of a psychologically significant construct.

"The concept of goals has been present throughout the history of psychology" (Pervin, 1989, p. 8). In explaining social learning theory, Bandura (1986) recently described a tendency to set goals and to make plans as part of effective human functioning. Schank and Abelson (1977) also emphasized the importance of goals in everyday human behavior.

Researchers have found that setting goals is important in many endeavors. Studies have shown that setting goals enhances performance on a wide variety of work tasks (Tubbs, 1986; Locke, Shaw, Saari & Latham, 1981). Thorn and Williams (1989) found that setting goals of tolerating pain for a certain period of time led to enhanced tolerance. Goal setting has been touted as an important part of such other tasks as helping athletes improve their performance and helping clients overcome serious psychological disorders. For instance, Bernard (1985, p. 303) noted, "Goal setting is now recognized as an important aspect of mental preparation of athletes". Frank (1973) and Mahar (1967) noted that many forms of psychotherapy are processes that are quite goal oriented, with the goals generally being some type of improvement in the client.

In light of the hypothesized and documented value of goal setting in accomplishing various tasks, it is not surprising that several therapeutic approaches involve in part teaching clients to set goals and, concomitantly, to make plans about how to reach those goals. These include approaches that can be termed problem-solving therapy (D’Zurilla & Goldfried, 1971), self-management (Mahoney & Arnow, 1979) and action therapy (Semmer & Frese, 1985).

Assessment for clinical or research purposes of the tendency to be goal oriented requires a reliable, valid measure of the construct. Two existing scales attempt to measure constructs similar to goal orientation. Nuttin (1985) developed the motivational induction method to assess (a) types of motivation (e.g. need to achieve) and (b) future time perspective, that is, the tendency to look ahead to events or accomplishments rather than focusing on the present. In this approach respondents complete 60 sentence items, and their responses are then coded into various categories of specific motivations and time orientations.

The initial report of Nuttin (1985) presented evidence of validity for assessment of type of motivation but not for time perspective, the measure that might provide information related to thinking about and planning for the future. Further, the time-perspective method, although clever in its indirect approach, is limited by the need to use a lengthy manual to make time-consuming classification decisions.
Robbins and Patton (1985) developed a 10-item scale that they characterized as measuring "a general instability or absence of orienting goals" (p. 226). However, many of the items appear to be very similar to items on maladjustment inventories. The items include "I have more ideas than energy" and "I don't seem to make decisions by myself" as well as one item that deals directly with goals: "After a while, I lose sight of my goals".

The presence of maladjustment-like items may help explain the correlation of scale scores with scores on measures of constructs theoretically related to maladjustment, such as self-esteem and perceived self-concept. Hence, the scale appears to measure a more general type of instability than just goal instability.

An implicit assumption in the scale-development efforts of Nuttin (1985) and Robbins and Patton (1985) is that there are traits involving the setting of goals. Lee, Locke and Latham (1989, p. 312) stated this view in theorizing that 'goal-directedness' is a fundamental attribute of human behavior. Following this idea, we hypothesized that the degree to which people set goals of major and minor importance, relating to the near and distant future, is a measurable, psychologically significant trait.

In view of the lack of validated measures of the tendency to be goal oriented, we set out to develop and to evaluate a measure of this tendency. We decided to focus on frequency of both setting goals and making plans about how to reach goals, because we believed these two actions are logically related and tend to be closely related as a practical matter.

Study 1: Scale Development and Initial Evaluation

The purposes of this study were (a) to create a brief measure of the tendency to be goal oriented and (b) to evaluate its internal consistency, independence from gender and age, and validity. Ss completed possible scale items and, for construct validation purposes, they provided information relating to four variables hypothesized to be associated with the tendency to be goal oriented: impulsivity, college grade point average, anxiety, and smoking.

The basis for selecting the four variables included the following specific premises: (a) impulsivity is inconsistent with the deliberate, future-oriented style of setting goals and making plans (Wishnie, 1977, pp. 57-58); (b) college grade point average is likely to be higher as a result of being goal oriented, because setting goals improves work performance (Tubbs, 1986); (c) higher goal orientation is inconsistent with anxiety because high anxiety tends to involve impaired concentration (American Psychiatric Association, 1987, p. 251) such as that involved in setting goals and making plans; and (d) being goal oriented is inconsistent with the negative health and social aspects of smoking (Baumeister & Scher, 1988; Malouf, Schutte & Kenyon, 1990). If these supposed relationships exist, and the goal-orientation scale is valid, scale scores should be related to measures of the four constructs.

Generation of items

Development of the scale began with the goal of generating items that cover the breadth of the construct of tendency to be goal oriented, that is, to set goals and to make plans in everyday life. We decided to ask in a straightforward manner about goal setting and planning because direct items tend to be more valid than subtle ones (Jackson, 1971).

We initially wrote 21 items and then eliminated five that might not apply to some individuals who, for example, are unemployed. We combined the remaining 16 statements related to goal orientation into a preliminary scale.

Some items asked about being goal oriented, and some items asked about the lack of goal orientation. For each item, respondents used a 5-point scale (1 = strongly disagree and 5 = strongly agree) to express how much they agreed with the statement. Items asking about lack of goal orientation were scored as if the poles were reversed, so that for every item a score of 5 indicated maximum goal orientation.

Method

The 16 items were then completed anonymously by 47 male and 106 female college students, with a total mean age of 25.07, SD = 8.10.
The Ss also completed the impulsivity scale of the Personality Research Form (Jackson, 1984), and the tension (anxiety) scale of the Profile of Mood States (McNair, Lorr & Droppelman, 1971), both of which have been shown to have adequate reliability and validity for research purposes. The Ss also stated their cumulative college grade point average (GPA) and stated whether they had smoked a cigarette in the past 7 days. Kirkland and Hollandsworth (1979) found that students generally give accurate answers to a question about GPA. Smoking behavior was assessed with a question similar to one used by Barton, Chassin, Presson and Sherman (1982) in a study of smoking behavior.

**Results**

An analysis of the internal consistency of the goal-orientation items indicated that one of the items slightly decreased the internal consistency of the scale. In order to maximize the internal consistency of the measure and to make it as short as possible, we deleted that one item, leaving a 15-item scale. Deletion of any other items would have decreased the internal consistency of the scale. The final 15 items are set out in Table 1. Cronbach’s z for the 15-item scale was 0.81 for the 153 Ss.

Scale scores were calculated by adding the responses for the 15 items. Scale scores could thus range from 15 to 75, with 75 meaning that all responses point strongly toward being goal oriented. The mean scale score was 55.16, SD = 8.33. Correlational analyses showed that goal-orientation scale scores were not significantly associated with gender or age.

Higher goal-orientation scores were significantly associated with lower impulsivity and lower anxiety. Table 2 shows the correlations between goal-orientation scores and scores on all four other measures.

**Table 2. Correlates of goal-orientation (GO) scale scores**

<table>
<thead>
<tr>
<th>Study</th>
<th>Variable</th>
<th>Correlation with GO</th>
<th>n</th>
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<tbody>
<tr>
<td>1</td>
<td>Impulsivity</td>
<td>-0.27***</td>
<td>51</td>
</tr>
<tr>
<td>1</td>
<td>Anxiety (mood)</td>
<td>-0.30***</td>
<td>51</td>
</tr>
<tr>
<td>1</td>
<td>Smoking frequency</td>
<td>-0.08</td>
<td>152</td>
</tr>
<tr>
<td>1</td>
<td>GPA (self-report)</td>
<td>0.11</td>
<td>98</td>
</tr>
<tr>
<td>3</td>
<td>Number of goals</td>
<td>0.27*</td>
<td>42</td>
</tr>
<tr>
<td>3</td>
<td>Achievement need</td>
<td>0.42**</td>
<td>42</td>
</tr>
<tr>
<td>3</td>
<td>Internal control locus</td>
<td>0.17</td>
<td>45</td>
</tr>
<tr>
<td>3</td>
<td>Goal instability</td>
<td>-0.56***</td>
<td>38</td>
</tr>
<tr>
<td>6</td>
<td>Hopelessness</td>
<td>-0.042**</td>
<td>22</td>
</tr>
<tr>
<td>7</td>
<td>Anxiety (trait)</td>
<td>-0.18</td>
<td>63</td>
</tr>
<tr>
<td>7</td>
<td>Social desirability</td>
<td>0.22</td>
<td>63</td>
</tr>
<tr>
<td>8</td>
<td>Depression</td>
<td>-0.42**</td>
<td>18</td>
</tr>
<tr>
<td>8</td>
<td>Social desirability</td>
<td>0.30*</td>
<td>18</td>
</tr>
<tr>
<td>9</td>
<td>GPA (offical)</td>
<td>0.49**</td>
<td>19</td>
</tr>
</tbody>
</table>

*P < 0.05; **P < 0.01; ***P < 0.001

All correlations were tested using 1-tailed t-tests. Positive correlations mean that higher goal-orientation was associated with higher levels of the other variable.
Study 2: Construct Validity and Factor Structure

If being goal oriented is important to mental health, as suggested by social learning theory (Bandura, 1986), one would expect that individuals distressed enough to seek psychological treatment would be lower in goal orientation. A valid measure of the tendency to be goal oriented should therefore discriminate between individuals receiving treatment and other individuals. Following this reasoning, we compared the scale scores of a group of college students who were receiving psychological treatment and a group of students who were not.

All 23 college students who received psychological treatment in a university counseling center during a 1-week period were asked to complete anonymously the goal-orientation scale, and all did so. Six of the Ss had already completed the scale as part of Study 1. With knowledge of the ages and gender and other information about the Ss, it was possible to identify their original questionnaires and to use these for the clinical group. Anonymity of their specific scale item responses was maintained throughout this procedure.

We compared the scale scores of this clinical group with the scores of the 146 Ss in Study 1 who were not counseling center clients. There were 46 males (35%) and 101 females in the nonclinical group and 8 males (32%) and 15 females in the clinical group.

The mean age of Ss in the clinical group was 27.91, SD = 7.50; in the nonclinical group it was 24.83, SD = 3.02. Even though Study 1 indicated that goal-orientation scores were not associated with age or gender, we examined the differences between the two groups on these characteristics in order to determine whether the two groups were generally comparable. Separate t tests showed no significant differences between groups in age, t(168) = 1.72, P > 0.05, or gender, t = 0.25, P > 0.81.

We next compared the two groups with regard to scores on the goal-orientation scale. A 1-tailed t test showed that the clinical Ss (M = 50.74, SD = 9.60) had significantly lower goal-orientation scores than the nonclinical Ss (M = 55.15, SD = 8.40), t(168) = 2.29, P < 0.02.

We next subjected the scale responses of the 170 Ss in Studies 1 and 2 to a principal-components factor analysis with varimax rotation. The orthogonal rotation produced four factors with eigenvalues > 1.0. Table 3 shows the factor loadings.

We interpreted the factors in terms of items that had factor loadings > 0.40. Factor 1, defined by items 1, 9, 10, 11, 12 and 14, seemed to tap primarily positive indications of goal setting and planning. Factor 2, defined by items 2, 5, 7 and 8, revolved around long-range goal setting and planning. Factor 3, defined by items 6, 13 and 15, appeared to involve mainly lack of written planning and goal setting, and Factor 4 seemed to deal chiefly with general lack of goal setting and planning.

Study 3: Construct Validity—Scale Correlates

It seems likely that one who tends to set goals has more goals than other individuals. Further, internal locus of control seems likely to lead to setting long-term goals partly because internally oriented individuals achieve seems likely more goal-directed.

One would therefore expect the scale to correlate with the social desirability scale of the MMPI. The results of this study were in line with the hypothesis: 

The mean scale scores of the two groups were significantly different.

Robbins and P. L. Carroll (1974) found that people who have a high goal-oriented personality are more likely to achieve success than those who do not. In order to obtain a reliable measure of the construct validity of the goal-orientation scale, we administered it to 100 male and 100 female college students. The mean score of the male group was 52, while the mean score of the female group was 50. The difference was statistically significant, t(199) = 2.34, P < 0.01.

There is no reason to believe that the scale would not work as well for women as for men. Further research is needed to determine the validity and reliability of the scale for different populations.
Tendency to be goal oriented

Achievement-oriented individuals are better able to delay gratification (Lefcourt, 1972). Finally, the desire to achieve seems likely to lead to goal setting because achievement-oriented individuals tend to show more goal-directed behavior (Atkinson & Feather, 1966).

One would therefore expect that higher scores on a valid measure of the tendency to be goal oriented would be associated with (a) a larger number of long-term goals, (b) more of an internal locus of control, and (c) a higher need to achieve. Study 2 was done to evaluate the goal-orientation scale in these respects and to examine again its internal consistency.

Nineteen male and 27 female college students, with a total mean age of 26.06, SD = 7.29, completed anonymously the goal-orientation measure, the Rotter Locus of Control Scale (Rotter, 1966) and the Achievement (desire to achieve) scale of the Personality Research Form (Jackson, 1984). Both of the latter two scales have been shown to have adequate reliability and validity for research purposes. The Ss also answered the question: "How many long-term goals do you have?" None of the Ss participated in Studies 1 or 2.

The internal consistency of the scale, as determined by Cronbach's z, was 0.83 for the 46 Ss. The mean score was 56.70, SD = 8.95.

Higher goal-orientation scores were significantly associated with having more goals and having a higher need for achievement. Table 2 shows the correlations between goal-orientation scores and scores on all three other measures.

Study 4: Test-Retest Reliability

In order to obtain information about the test-retest reliability of the goal scale, we asked 18 female and 2 male college students (mean age = 33.50, SD = 9.34) to complete the scale and then asked them to do so again three weeks later. The Ss attended a different college from those in the other studies.

The mean score for the initial completion of the scale was 56.05, SD = 8.81. Three weeks later the mean score was 54.15, SD = 10.25. The correlation coefficient for scores on the two administrations was r(19) = 0.82, P < 0.001. A t-test indicated that there was no significant change in group means over time, t(19) = 1.45, P > 0.15, 2-tailed.

Study 5: Construct Validity—Correlation with Goal Instability

Robbins and Patton (1983) developed a scale that they characterized as measuring goal instability, although the scale items seem to deal with aspects of a more general type of maladjustment or psychological instability. Regardless of whether their scale measures goal instability or more general instability, one would expect that scores on it would be associated with scores on a valid measure of goal orientation. This is because both general instability and goal instability are inconsistent with the deliberate, future-oriented nature of goal setting and planning.

We therefore arranged to have 40 individuals complete both measures. We chose as Ss 23 male and 17 female adult outpatients in a day program for the chronic mentally ill so that we could evaluate the validity of the goal-orientation scale with a severely maladjusted sample. All the Ss participated voluntarily, completing both scales without anonymity for their case managers.

We noticed that two of the completed questionnaires showed repetition of a single number as a response for several consecutive items that were logically inconsistent. We therefore excluded all the responses of these two Ss from analyses.

The mean scores for the remaining 38 Ss on the scales were 49.32, SD = 7.54, for the goal-orientation scale, and 36.76, SD = 8.89, for the instability scale. Higher goal-orientation scores were significantly associated with lower instability (see Table 2).

Study 6: Construct Validity—Correlation with Hopelessness

There is no reason for someone who feels hopeless to spend the cognitive energy required to set goals and make plans about how to reach those goals. Hence, scores on a valid measure of goal orientation should be associated with scores on a measure of hopelessness. To evaluate the goal-orientation scale in this regard, we used the hopelessness scale of Beck, Weissman, Lester and Trexler (1974), which has adequate reliability and validity for research purposes.
We used clinically maladjusted adolescents for the study in order to explore whether the scale is valid when used with them. Fourteen male and 8 female adolescents in a long-term residential treatment program for substance abusers completed the goal orientation scale and the hopelessness scale. They knew that staff members might discuss their individual scores with them. Their average age was 15.32, SD = 1.17.

The mean scale scores of the 22 Ss were 49.41, SD = 8.99, for the goal orientation scale, and 4.82, SD = 3.98, for the hopelessness scale. Higher goal-orientation scores were significantly associated with lower hopelessness (see Table 2).

**Study 7: Construct Validity—Correlation with Anxiety**

Study 1 showed that scores on the goal orientation scale correlated significantly with scores on a measure of anxiety, the POMS-Tension scale. Because items on the goal orientation scale are straightforward, a possibility exists that this association was produced solely because scores on both measures are influenced by social desirability responding. We explored this possibility by determining the association between scores on the goal orientation scale and scores on a measure of anxiety after statistically eliminating the association of both scores with social desirability responding. We chose the trait anxiety scale of Spielberger, Gorsuch and Lushene (1970) because it is different from the scale used in Study 1 and might therefore provide different information. The scale has adequate reliability and validity for research purposes (Spielberger et al., 1970). We used the social desirability scale of Crowne and Marlow (1964), which was shown by its authors to have adequate psychometric properties for research purposes.

Forty-two male and 24 female college students, with a mean age of 22.35, SD = 7.42, participated in the study. None of the Ss participated in the prior studies. The Ss completed the three measures, with mean scale scores of 54.80, SD = 7.66, for the goal orientation scale, 39.82, SD = 7.76, for the anxiety scale and 14.86, SD = 4.98, for the social desirability scale.

Sixty-three Ss provided complete data for all three measures. Higher goal-orientation scores were significantly associated with higher social desirability responding; there was no significant association between goal-orientation and anxiety scores (see Table 2). The partial correlation of goal-orientation scores and anxiety scores, controlling for social desirability responding, was nonsignificant, r = 15, P < 0.12.

**Study 8: Construct Validity—Correlation with Depression**

The finding of a nonsignificant relationship between goal-orientation scores and anxiety scale scores raised the question of whether there is a real relationship between lower scores on the goal orientation measure and maladjustment. It occurred to us that anxiety might lead to planning in some individuals and impair it in others, thereby preventing attempts to find a linear relationship between the two variables. Depression, another common type of maladjustment, seemed less likely to have this sort of relationship with goal orientation, because depressed individuals tend to be indecisive (American Psychiatric Association, 1987, p. 222). One would thus expect that higher levels of depression would be associated with lower levels of goal setting and planning.

A valid measure of goal orientation should show this relationship, and the relationship should remain even after statistically controlling for the association of the measures with social desirability responding.

We used the Beck Depression Inventory (Beck, Ward, Mendelson, Mock & Erbaugh, 1961) because it is a widely respected measure with adequate psychometric properties for our purposes. We again used the social desirability measure of Crowne and Marlow (1964).

Twenty-two male and 16 female adults, with a mean age of 22.68, SD = 7.36, participated in the study. The Ss were college students and friends of college students. None of them participated in the prior studies.

The mean scale scores of the 38 Ss were 59.63, SD = 9.02, for the goal orientation scale, 10.92, SD = 8.12, for the depression scale, and 17.05, SD = 4.74, for the social desirability scale. Higher goal-orientation scores were significantly associated with lower depression and higher social desirability responding (see Table 2). The partial correlation between goal-orientation scores and depression scores, controlling for social desirability scores, was -0.33, P < 0.021.
Study 9: Construct Validity in a Treatment Study

One way of evaluating the validity of a scale is to determine whether scores on it change after an appropriate treatment. In an effort to help poorly achieving college students improve their grades, we provided college students with four sessions of counseling aimed at increasing study-focused goal setting and planning and other desirable study behaviors, such as outlining textbooks. We hypothesized that the treatment would lead to increased goal orientation and that the increase would be associated with an increase in grade point average (GPA). In this study, as compared to Study 1, we obtained official GPAs from the university registrar rather than GPA self-reports from the Ss.

Method

Subjects. Eighteen male and 27 female college students, with a mean age of 22.87, SD = 7.02, participated in the study. They learned of the program through campus-wide publicity or through letters sent by the registrar to students on academic probation encouraging them to participate. The Ss participated voluntarily and without recompense.

Procedure. At the start of the study all the Ss completed the goal-orientation scale. They were then all assigned to the same treatment, in 4 weekly 50-min counseling sessions over 22 days, beginning about 5 weeks into a 15-week semester. The Ss received the counseling either individually or in groups, depending on which option fit their schedules better.

The Ss completed the goal-orientation scale again at the end of the final session. Their GPAs for the semester of the study and their cumulative GPAs from prior semesters were obtained from the university registrar.

Counselors. Providing individual counseling were 22 upper-division undergraduate student-therapists who received several hours of training specifically for this program, as well as several hours of additional training in general counseling skills. The group therapists were graduate students completing their masters internship in counseling. The senior author treated one of the students seeking counseling because of the scheduling limitations of the client.

Results

Twenty-seven of the 45 clients (60%) completed the program. It is unknown what led to the drop-out of 18 clients. The clients showed a significant increase in goal-orientation scores from pre-assessment (M = 50.04, SD = 8.84) to the end of treatment (M = 55.78, SD = 8.56), t(22) = 3.24, P < 0.004). The clients also showed a significant increase in GPAs from their cumulative GPAs before the semester of the program (M = 1.66, SD = 0.78) to their cumulative GPAs that semester (M = 2.18, SD = 0.82), t(24) = 3.31, P < 0.003. Table 2 shows the significant correlation between higher goal-orientation scores and higher official GPAs. The increases in goal orientation over the 22 days of the treatment were significantly correlated with the increases in GPAs from prior semesters to the one of the treatment, r(18) = 0.43, P < 0.05.

DISCUSSION

Studies 1, 2 and 4 produced evidence that the goal-orientation scale has reliability of 0.81 to 0.83 as measured by Cronbach's α and 3-week test-retest reliability of 0.82. That range is adequate for research and clinical purposes.

The factor analysis of Study 2 indicated that scale items load on four factors that vary in terms of whether the goal setting is short-term or long-term, whether it is written, and whether the items are positively or negatively worded.

Studies 2, 5, 6 and 9 provided evidence of scale construct validity with clinical samples of adults or adolescents; studies 1, 7 and 8 provided evidence of construct validity with normal individuals.

Studies 1, 3, 5, 6, and 8 showed that goal-orientation scale scores were significantly associated with scores on sets of theoretically related variables. Specifically, higher goal-orientation scores were associated with (a) having more long-term goals, (b) being less impulsive, (c) having a higher need for achievement, (d) being more stable, (e) being less hopeless, and (f) being less depressed.
Study 2 showed that individuals who sought psychotherapy had significantly lower goal-orientation scores as a group than other individuals. Study 9 showed that goal-orientation scores increased significantly after university counseling center clients received a 4-session treatment focusing on goal setting and planning over 22 days. Study 4 found no increase in scores after three weeks in a separate group of university students involved in a test-retest evaluation of the scale. This pattern suggests that the scale has potential as an indicator of treatment-produced change in goal orientation.

Study 9 also showed that an intervention intended to help college students raise GPAs through enhancing goal orientation and other treatment components was associated with a significant increase in official GPAs. Because of the lack of a control group and the inclusion of other treatment elements, it is not possible to tell whether the treatment as a whole, the goal-orientation components or something else led to the changes. However, the correlation between increases in goal orientation over the 22 days of the treatment and the increases in GPA is suggestive.

For several reasons, caution is appropriate in interpreting the findings of the nine studies in this program of research. First, in the present studies two highly related variables were not found to be related to goal-orientation scores. These were smoking status and locus of control.

Second, goal-orientation scores were correlated with official college GPAs in Study 9 but not with self-reported GPAs in Study 1. This difference could be the result of the unreliability of self-reports, but there is no direct evidence of that in these studies.

Third, goal-orientation scores were not significantly associated with scores on an anxiety measure in Study 7, although they were with scores on a different anxiety measure in Study 1.

It is difficult to know what to make of the different results in Studies 1 and 7 regarding anxiety. The different results might have occurred because the two anxiety scales measure somewhat different characteristics, but there is no direct evidence of that in these studies.

Fundamentally, the inconsistent results might indicate that there is no relationship between the constructs of goal orientation and anxiety or that the relationship between goal orientation and anxiety is complex. It is reasonable to think that at some levels anxiety increases goal orientation and at higher levels it interferes with it. Arousal appears to have this type of U-shaped relationship with goal-oriented behavior (Deci & Ryan, 1985). Hence, the different results could be due to random differences between the groups in level of anxiety. Only further research can clarify this issue.

Fourth, caution is appropriate in interpreting the findings of the present set of studies because the goal-orientation scale contains straightforward items that seem susceptible to faking, given an incentive to present oneself especially favorably or unfavorably, and susceptible to social desirability responding. The significant associations found in Studies 7 and 8 between scale scores and scores on a social desirability measure suggest that scores may be influenced by a desirability response bias even under conditions of anonymity. However, the significant partial association found in Study 8 between goal orientation and depression, after controlling for the association of each with social desirability responding, suggests that goal orientation is associated in the expected direction with this form of maladjustment regardless of this response bias.

Some of the most promising findings about the construct of being goal oriented were those that suggested an association with maladjustment. Lower goal-orientation scores were associated with depression, hopelessness and seeking psychotherapy.

However, it remains unclear what the connection is between being low in goal orientation and tending to be maladjusted. It may be (a) that being low in goal orientation leads to maladjustment, (b) that maladjustment leads to low goal orientation, or (c) that a third factor causes maladjustment and low goal orientation.

The results of the present nine studies provide initial reliability and validation evidence for the goal-orientation scale. Overall, the results provide an advantage for the scale over the time-perspective scale of Nuttin (1985), for which no published evidence of validity appears to exist. The correlation of goal-orientation scores with measures of constructs other than maladjustment gives the scale an advantage over the goal-instability scale of Robbins and Patton (1985), which appears to contain maladjustment-like items.

One appropriate research use for the goal-orientation scale would be to explore questions of causation involving goal-orientation and important other constructs. Another possible use might be to determine whether different treatments or educational interventions produce different changes in goal orientation, would seem especially to achieve other by Mahoney and associates.

There are seven studies 1, 2 and 3 and standard deviation at two different levels of abo.

With this data goal-oriented C: norm groups as ethnic background counselors can setting and plans for the counselor.

Acknowledgements—data analysis.

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in goal orientation and whether these changes are associated with changes in other variables. This would seem especially relevant for treatments that attempt to enhance goal orientation in order to achieve other effects, as in the treatment described in Study 9 and in the treatments described by Mahoney and Arnkoff (1979) and Semmer and Frese (1985).

There are several possible clinical uses of the goal-orientation scale, some of which require norms. Studies 1, 2 and 4 produced initial normative data for normal college students. The mean scores and standard deviations were within two points of each other in all three studies, which were carried out at two different universities. The mean for each group of students was about 56, with a standard deviation of about 9. No evidence was found that scores vary with gender or age.

With this data, counselors could assess college student clients in terms of their degree of being goal-oriented. Caution would be essential though because of the limited number of Ss in the initial norm groups and because of the possibility that scores are influenced by unknown factors such as ethnic background. Local norms might be best.

Counselors could also use responses on individual items as lead-ins to counseling about goal setting and planning. For instance, if a client indicates strongly that setting goals is a waste of time, the counselor may want to explore that view with the client.

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REFERENCES


From his reviews of criminal behavior, the person’s parent was identified as urban residential. For personality of punishment, (4) childhood history, (5) urban residence, (6) childhood history, and (7) a broad-ranging set.
Ellis noted that neurological processes of nervous systems are more difficult to control. A second theory of the condition of stress implicates holistic controlled in mood.
Ellis perceived nervous systems to be responsive to neurotransmitters, particularly serotonin (Hertler).
Ellis speculated on system. He notes that (estrogens) during neurotransmitter serotonin (Hertler). Consequent neurotransmitters are therefore upon...