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A SEARCH FOR BIAS IN EVALUATING JOB PERFORMANCE IN REHABILITATE--ETC(U)
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A SEARCH FOR BIAS IN EVALUATING JOB PERFORMANCE IN REHABILITATED ALCOHOLICS

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A Search for Bias in Evaluating Job Performance in Rehabilitated Alcoholics

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Abstract

Emotionally charged stigmata or halos are often associated with rehabilitation programs. This study evaluated the bias associated with one rehabilitation program. Specifically, judgment of work performance by commanding officers of Navy men returned to duty after treatment at an Alcoholic Rehabilitation Unit (ARU). Ratings were collected 6 months after a man left ARU, and were repeated at 12 and 24 months. Three procedures were used to analyze the data. First, the rating levels were compared to determine whether favorable or unfavorable ratings were given. Secondly, a factor analysis was performed on the ratings from the three evaluations times to determine whether the ratings were multi-dimensional. Finally, regression analyses were done to determine what was related to: (1) resuming drinking after treatment, (2) drinking to excess, (3) readmission to the sicklist for drinking problems, (4) recommendation for promotion, and (5) recommendation for reenlistment. This analysis showed several positive trends: (1) ratings were stable across time periods, (2) 83% of the men were recommended for promotion and 78% were recommended for reenlistment, (3) the men consistently received good to excellent ratings, (4) the ratings for the three time periods were independent, (5) 60% had drunk alcoholic beverages after discharge from ARU, (6) drinking problems after rehabilitation were associated with explicit signs of behavior problems, (7) positive recommendations were associated with a lack of overt signs of behavioral problems. Bias was not present in the judgment of commanding officers on men returned to duty from an alcoholic rehabilitation program in the Navy.

A Search for Bias in Evaluating Job Performance in Rehabilitated Alcoholics

Rehabilitation influences each facet of a patient's life. Retraining of a physically handicapped patient, retraining of a patient struck by severe illness or pathology, reeducation of a diabetic or epileptic patient, therapy after psychiatric crisis, and rehabilitation with an alcoholic patient or drug abuser must address themselves to the multiple impacts that the patient experiences in his life as a result of their intervention. Some programs have emotionally charged stigmata or halos. Either of two responses may be expected from exployers, peers, or family: (1) the patient is expected to fail or, at least, to perform below the level of his peers in any encounter, or (2) the rehabilitated patient is seen unrealistically by others with a blindness to any problems which may arise. An assessment of the outcome of treatment must respond to the termpering effects of bias.

This study focused on the assessment of bias associated with one rehabilitation program. The purpose was to determine the responsiveness of judges to patients' performance in occupational settings and to assess stigma and halos in rating employees by applying a factorial design. The study specifically examined the judgment of work performance by commanding officers of Navy men returned to duty after treatment at an Alcoholic Rehabilitation Unit (ARU). The ARU is a naval facility for inpatient treatment of men with alcoholic problems.

Method

Procedure

Eighty-four men who were returned to duty after treatment at ARU, San Diego, and remained on active duty for at least two years were studied. They ranged in age from 25 to 53 (Mean = 34.5). Ratings on work performance and military bearing were collected from the commanding officers under whom the men worked. Performance was rated on 14 dimensions: (1) quality of work, (2) military behavior, (3) leadership, (4) adaptability, (5) military appearance, (6) disciplinary problems, (7) drinking behavior, (8) readmission to the sicklist, (9) readmission for alcohol abuse, (10) injury report, (11) absenteeism/lateness report, (12) attempt at further treatment by AA, etcetera, (13) would reenlistment be recommended at the time of the rating. The ratings were initiated six months after a man left ARU and were repeated at 12 months and 24 months. Each man was working in a single work setting for the entire period of time.

Data Analyses

Three procedures were used to analyze the data. First, the rating levels for each period were compared to determine whether favorable or unfavorable ratings were given during that time of the study. Secondly, a factor analysis was performed on the ratings from the three evaluation times to determine whether the ratings were multi-dimensional. Fourteen variables should yield several factors unless a one dimensional scale or a systematic bias had been introduced into the rating procedure. Finally, a regression analysis was used to determine what behaviors were related to a man's: (a) resuming drinking after treatment, (b) drinking to excess (c) being readmitted to the sicklist for drinking problems, (d) being recommended for promotion, and (3) being recommended for promotion, and (e) being recommended for reenlistment.

Results

The results of the 6 month, 12 month, and 24 month evaluations of work performance for the sample of 84 alcoholics are presented in Table 1.

Table 1
Performance and Recommendations of Recovered Alcoholics by the Man's Commanding Officer

	Time Period		
Dimension	6 Months	12 Months	24 Months
Work Performance[a]	1.79 sd = .60	1.64 sd = .74	1.58 sd = .79
Military Behavior[a]	1.81 sd = .61	1.74 sd = .73	1.62 sd = .82
Leadership[a]	1.89 sd = .61	1.78 sd = .80	1.74 sd = .91
Adaptability[a]	1.82 sd = .57	1.58 sd = .59	1.63 sd = .83
Military Appearance[a]	1.73 sd = .50	1.52 sd = .53	1.54 sd = .70
Disciplinary Problems[b]	1.17 sd = .56	1.35 sd = .81	1.35 sd = .85
Drinking[c]	1.54 sd = .69	1.67 sd = .72	1.64 sd = .69

Table 1 (Continued)

Dimension	Time Period 6 Months	12 Months	24 Months
Readmission to Sicklist[b]	1.18 sd = .59	1.19 sd = .61	1.27 sd = .61
Readmission for alcohol abuse[d]	1.21 sd = .41	1.23 sd = .43	1.21 sd = .41
Injury[b]	1.19 sd = .58	1.12 sd = .44	1.12 sd = .44
Absenteeism/Lateness[c]	1.16 sd = .44	1.18 sd = .49	1.23 sd = .54
AA or Other Organizations[d]	1.34 sd = .48	1.29 sd = .46	1.45 sd = .50
Would you recommend reenlistment[d]	1.84 sd = .36	1.79 sd = .41	1.78 sd = .42
Would you recommend promotion[d]	1.87 sd = .34	1.79 sd = .41	1.83 sd = .38

[a] 1 = excellent; 2 = good; 3 = poor; 4 = unsatisfactory
[b] 1 = never; 2 = once; 3 = twice; 4 = 3 times or more
[c] 1 = never; 2 = infrequently; 3 = often
[d] 1 = no; 2 = yes

t-tests for correlated measures were performed to determine whether the overall ratings of the group of men were stable over time. The ratings were uniformly high for the total group. Overall, the success ratings parallel the general success figures for all men in the service. ARU patients were not different on rated success. Overall, the ratings of men returned to duty after treatment for alcoholism were stable from the sixth month through the second year.

The ratings on all measures indicated consistently high marks given to the men (between 1 = excellent to 2 = good). For those men who were hospitalized during the two year follow-up (14% of the sample), only 24% had alcoholic related problems (4% of the sample). Sixty percent of the men (n = 51) had regularly drunk alcoholic beverages at some time over the two year period with 45% of those contacting A.A. The superiors, in evaluating these men, urged that they be retained in the Navy with 78% of the men recommended for reenlistment two years after treatment and 83% recommended for promotion.

Rating Bias

A factor analysis was performed to determine whether the raters made independent judgments at the different rating periods. In addition, the procedure would suggest whether the men behaved consistently during the two year period. If the men behaved differently between the measurements and no strong response bias was operating, the factors for the ratings for different time periods would be independent. An item analysis of each man's record for the three ratings showed a 48% overlap of behavior between periods with 52% of the men behaving differently from one period to another. This result indicates that different men were receiving high or low marks in the different time periods.

The factor structure is presented in Table 2. Dimensions such as performance, appearance, and behavior were rated at 6 month, 12 month, and 24 month periods. The factor loadings appear in all those periods for which the rating occurs. For example, Factor 1 consisted only of ratings done at 24 months, while Factor 4 contained only those ratings made at 6 months. In other words, the ratings at 6 months were independent from ratings made at 12 or 24 months. The factor loadings and factor structure indicate that the ratings reflected actual behavior patterns across time periods. Performance, military behavior, leadership, adaptability, appearance, discipline, and a recommendation for reenlistment were rated independently over the three rated time periods. It can be concluded from these results that no uniform negative judgment was present. Instead, separate judgments were made during each rating period.

In addition, common factors (2,7,8, & 10) also emerged. Common concerns with hospitalization, injury and a service member's age were present throughout the ratings. If an alcohol-related injury or hospital readmission for alcohol-related problems occurred, then a uniform negative judgment was evidenced. Otherwise, no systematic bias was present.

Table 2
Factor Structure for Ratings of ARU Patients Returned to Duty

	Time Period		
	6 Months	12 Months	24 Months
Factor 1			
Performance	-	-	.79*
Behavior	-	-	.81
Leadership	-	-	.77
Adaptability	-	-	.85
Appearance	-	-	.78
Discipline	-	-	.47
Drinking	-	-	.68

Table 2 (Continued)

	Time Period		
	6 Months	12 Months	24 Months
Factor 7			
Discipline	-.60	-.74	-.58
Drinking	-.42	-.64	-.32
Injury	-	-	-.44
Factor 8			
Recommend Reenlistment	-	.79	.75
Age	-.72	-.72	
Factor 9			
Drinking	-.71	-	-
Readmission	-.57	-.40	-
Excessive Alcohol	-.74	-	-
Injury	-.54	-	-
Absenteeism	-.50	-.42	-
A.A.	-.78	-	-
Factor 10			
A.A.	-	-.39	-.57
Excessive Alcohol	-	-.31	-.59
Readmission	.34	-	-
Age	-.44		

*These numbers represent the factor loadings of each variable.

Decisions and Outcomes

An examination of the process of decisions made by commanding officers was completed. Each man's record was coded across time periods. If a man resumed drinking within six months after treatment but did not continue, he received a score of 1. If he started in the second six month period and continued through the third period, he received a score of 2. Someone who was admitted to the hospital during one six month period scored 1; during two periods, scored 2. Someone recommended for reenlistment each time scored 3; for only two periods, scored 2. Similar compound scoring was done on the data across all time periods. The total scores on each factor were summed across each six month period as were the outcome measures. Then the analyses were performed.

Table 2 (Continued)

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Resuming Drinking after treatment. The resumption of drinking after treatment was accompanied by a man's commanding officer reporting increase in disciplinary problems ($r = .61$) and increased absenteeism ($r = .52$); $R = .65$.

Drinking to excess. Drinking to excess was signaled by overt behavioral signs: injury ($r = .57$) and initiation of attendance at A.A. meetings ($r = .26$); $R = .63$. It appears that the judgment of excessive drinking may not be made until explicit cues are present.

Readmission to the sick list for drinking. Readmission to the sick list was associated essentially with one event. If an injury occurred in conjunction with drinking, hospitalization was initiated ($r = .76$). Otherwise, hospitalization was not associated with a drinking problem. It appears that both "drinking problem" and the need for hospitalization for a drinking problem were associated with an overt event severe enough to warrant attention by the Command.

Recommendation for promotion. Recommendation for promotion by a commanding officer was related to the following three variables: (1) injury was inversely related to a positive recommendation ($r = -.30$); (2) the more adaptable a man was judged, the greater the likelihood of a recommendation for promotion ($r = -.27$); (3) the less the absenteeism, the greater the chance for a positive recommendation ($r = -.25$), $R = .51$. A man with no reported injuries, never absent or late, and with good to excellent adaptability would most likely be recommended for promotion.

Recommendation for reenlistment. A recommendation for reenlistment from a commanding officer was associated with the following 3 factors: the younger man was more likely to be recommended ($r = -.43$ between recommendation and age); a man with few disciplinary problems was more likely to be recommended ($r = -.31$); a man with good military behavior was more likely to be recommended ($r = -.31$); $R = .57$. In this sample, a man around 35, with no disciplinary problems, and exhibiting good to excellent military behavior would be most likely to be recommended for reenlistment. Seventy-eight percent of the men were recommended for reenlistment.

Discussion

Summary

A review of the data shows several positive trends associated with rated performance of rehabilitated alcoholics, Navy recommendations for these men, rating bias, and outcome decisions: (a) ratings were stable from 6 months to 12 months to 24 months; (b) 83% of the men were recommended for promotion and 78% of the men were recommended for reenlistment; (c) the men consistently

received good to excellent ratings, and the ratings for the three time periods were independent; (d) 60% of the men had drunk alcoholic beverages after discharge from the Rehabilitation Unit; (e) drinking problems after rehabilitation were associated with explicit signs of behavior problems - injury, absenteeism, disciplinary problems; (f) positive recommendations were associated with a lack of overt signs of behavioral problems.

Comment

The following patterns were present; (a) resumption of drinking was associated with increased behavioral problems; (b) half of those who resumed drinking had two times the propensity for problems than those who did not resume drinking; (d) rehabilitation does produce men who can receive positive evaluations as productive members of the work force; and (e) bias was not present in the evaluations of commanding officers on men returned to duty from alcoholic rehabilitation in the Navy.

An occupational setting, such as the Navy, can tolerate the behavior of the rehabilitated alcoholic. Performance can even be seen as outstanding. This tolerance and positive evaluation is not maintained when the following occurs: (a) injury while drinking, (b) absenteeism, or (c) alcohol related disciplinary problems. The characteristics of performance and behavior monitoring in the Navy are such to allow a narrow spectrum of deviance, but the Navy with its structure may even encourage rehabilitation by setting limits, monitoring performance, and intervening when performance deteriorates.

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Emotionally charged stigmata or halos are often associated with rehabilitation programs. This study evaluated the bias associated with one rehabilitation program. Specifically, judgement of work performance by commanding officers of Navy men returned to duty after treatment at an Alcoholic Rehabilitation Unit (ARU). Ratings were collected 6 months after a man left ARU, and were repeated at 12 and 24 months. Three procedures were used to analyze the data. First, the rating levels were compared to determine whether favorable or unfavorable

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