

Self-Report Reliability of Skid-Row Alcoholics

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SUMMARY The stability of self-report of 72 skid-row alcoholics over a one to six month interval was explored. Relatively high response agreement on reinterview was indicated for demographic items, but less reliability was observed on items assessing social functioning and drinking patterns. Implications of the findings for the evaluation of treatment programs are discussed.

The most widely employed procedure in evaluating alcoholism treatment programs has been based upon self-report of the alcoholic. Questionnaires or follow-up interviews of alcoholics who have undergone treatment have typically been used to assess change in one or more of a number of areas (e.g., drinking behaviour, arrests, incarceration, further treatment contacts, employment, social stability etc.). Hill and Blane (1) reported that in almost half of the studies they reviewed drinking behaviour was the only criterion employed, and in almost all it was the major criterion. In a more recent critical review of the treatment literature, Baekeland, Lundwall and Kissin (2) concluded that the reliability of the drinking history is one of the most critical unsettled issues in the area.

In view of the heavy reliance that has been placed on self-report data in the evaluation of a wide range of alcoholism programs, it is surprising that only scant attention has been paid to the question of the reliability of such self-reports. The establishment of reliability of response is recognized as basic to the scientific method of inquiry. Lack of evidence on response reliability weakens any conclusions that can be drawn about program outcome.

Several considerations would seem to raise doubt about the reliability of self-reports of skid-row alcoholics in particular. It has frequently been noted that the stereotype of the skid-row man does not include the trait of honesty (c.f. 3). Social isolation, lack of affli-

ative ties and a desire for anonymity have been described as characteristic of men on the row. One investigator (4) has gone so far as to suggest that skid-row men typically respond to interview questions by outsiders 'if at all, only with responses designed for the consumption, if not appeasement, of the hostile outside world'. Furthermore, there is evidence that impairment in short-term memory is a prominent concomitant of prolonged excessive drinking and that remote memory may also be affected (5, 6). These findings applicable to the skid-row life style make it all the more imperative that the reliability of response of skid-row alcoholics should be investigated.

In the literature to date direct evidence bearing on this question is scant, and what does exist is of a fragmentary nature (7, 8, 9).

Does the skid-row alcoholic give the same answers to questions about his drinking patterns and social functioning on re-interview? This fundamental methodological question of time-associated reliability or stability of self-report is the subject of the present study.

Method

The sample

The sample was composed of 72 men who had been admitted over a period of six months to both of two detoxification centres in a large metropolitan area. The majority (60 per cent) of men in the sample had been picked up and escorted to a detoxification centre by police on at least one of their admissions.

TABLE I
Stability of self-report of skid-row alcoholics over time

Variable	Time interval: < 1 month to 6 months (N = 72)			Time interval: 1 month or less (N = 37) ^a		
	Category	Frequency of report on initial interview ^b	Agreement on reinterview N	%	Stability index ^c	Stability index
<i>Demographic :</i>						
Age	21-30	7	6	86	93	95
	31-40	19	17	90		
	41-50	31	30	97		
	51-60	13	13	100		
	61-70	2	1	50		
Racial origin	Caucasian	66	66	100	97	97
	Negro	0	0	—		
	N. Am. Indian	4	4	100		
	Other	2	0	0		
Citizenship	Canadian	70	70	100	99	97
	Other	2	1	50		
Length of residence in Canada	10 yrs. or less	0	—	—	92	89
	11-20 yrs.	3	3	100		
	21-40 yrs.	24	22	92		
	41 + yrs.	45	41	91		
No. of children	None	42	35	83	85	81
	1-2	16	13	81		
	3+	13	12	92		
Education	Grade 8 or less	23	17	74	70	76
	Grade 9-11	25	17	68		
	Grade 12 +	23	16	70		
Marital status	Single	31	23	74	71	76
	Married	5	1	20		
	Separated	21	16	76		
	Divorced	10	8	80		
	Widowed	4	3	75		
	Common-Law	1	0	0		
<i>Living Arrangements :</i>						
Present accommodation	Non-Residence/ No fee/Flophouse/ Hotel	44	38	86	65	69
	Room and Board	13	4	31		
	Apt/House	6	2	33		
	Housekeeping	6	1	17		
<i>Employment :</i>						
Presently employed	Yes	8	1	13	85	88
	No	63	59	94		
Usual type of employment	Labourer/ Semi-Skilled	58	42	72	66	61
	Skilled	10	3	30		
	Professional	3	2	67		
No. of months employed (in past year)	0-2 months	45	33	73	63	75
	3-4 months	8	1	13		
	5-6 months	7	2	29		
	7-12 months	12	9	75		

TABLE I—continued

Variable	Time interval: < 1 month to 6 months (N = 72)				Time interval: 1 month or less (N = 37) ^a	
	Category	Frequency of report on initial interview ^b	Agreement on reinterview N %		Stability index ^c	Stability index
<i>Treatment:</i>						
No. of months in out-patient treatment (in past year)	None	62	53	85	75	73
	1 month	6	1	17		
	2-3 months	2	0	0		
	4-5 months	1	0	0		
	6-12 months	1	0	0		
No. of months in residential treatment (in past year)	None	46	30	65	50	51
	1 month	13	3	23		
	2-3 months	9	3	33		
	4-5 months	3	0	0		
	6-12 months	1	0	0		
Attendance at A.A. (in past year)	Yes	23	16	70	56	52
	No	49	24	49		
No. of A.A. Meetings attended (in past year)	None	49	24	49	42	37
	1-5	4	1	25		
	6-10	8	2	25		
	11-40	9	3	33		
	41+	2	0	0		
<i>Involvement with the Law:</i>						
No. of months in jail (in past year)	None	48	33	69	58	57
	1 month	10	3	30		
	2-3 months	6	3	50		
	4-5 months	3	2	67		
	6-12 months	5	1	20		
No. of arrests for public intoxication (in past year)	None	20	7	35	44	51
	1-2	16	6	38		
	3-6	17	4	24		
	7+	19	15	79		
<i>Drinking:</i>						
Usual frequency of drinking	Daily	68	61	90	85	86
	4-5 times/wk.	2	0	0		
	2-3 times/wk.	1	0	0		
	1 time/wk.	0	—	—		
	Less often	1	0	0		
Usual alcoholic beverage	Beer	7	2	29	54	56
	Wine	14	4	29		
	Liquor	4	0	0		
	Non-beverage	0	—	—		
	Two or more of above	47	33	70		
Usual daily alcohol consumption	10 oz absolute alcohol or less	6	0	0	56	59
	11-30 oz	59	36	61		
	31-50 oz	5	3	60		
	51+ oz	2	1	50		

^a An internal analysis was conducted on those respondents with a time lapse between interviews of one month or less.

^b On some variables the 'N' does not add to 72 because of missing data on some respondents.

^c Based on a 'percentage agreement' statistic; see text.

Interview-reinterview interval

Each man was originally interviewed during his stay at one of the two detoxification centres, and reinterviewed upon his subsequent admission to the other centre within the six month study period. The interview-reinterview interval was therefore necessarily variable. For 37 of the men the time lapse between interviews was one month or less, while for the remaining 35 men it ranged from 2 to 6 months.

Interviewers

All interviews were conducted by the staff of the detoxification centres, who had established some rapport with skid-row clientele. Since reinterviews for the 72 men always took place at a different detoxification centre from the original interview, in no case did the same staff member conduct both the original and follow-up interviews.

Questionnaire and administration

The questionnaire covered demographic information, living arrangements, employment, treatment contacts and involvement with the law in addition to questions on drinking patterns (see Table I). The men were interviewed following withdrawal from the acute effects of intoxication, typically two to four days after their admission to the unit. In an attempt to achieve standardization in the administration of the questionnaire, all detox staff serving as interviewers participated in training sessions conducted by research personnel.

Results

The replies of the 72 men on the initial interview to questions on demographic information, living arrangements, employment, treatment, involvement with the law and drinking variables appear in Table I. Inspection of the column 'Frequency of Report on Initial Interview' reveals a population profile consistent with a skid-row life-style. The 'typical' respondent was about 45 years of age, had never married, was living in a flophouse or cheap hotel accommodation, had worked less than two months in the past year in labourer or semi-

skilled work, had been arrested several times for public intoxication, and usually drank the equivalent of 15 or more ounces of absolute alcohol daily.

Stability of self-report

A 'percent agreement' statistic (maximum possible range: 0 to 100 per cent) was employed as an index of stability of self-report between the two interviews. In the calculation of this index, the interview replies of each man were assigned to a number of discrete response categories on each question, and the percentage of men whose answer category on the second interview agreed with that on the first interview was calculated. Hence the stability index was in terms of between-category shifts rather than in terms of change along a continuous dimension. Such use of category data provides a less stringent criterion for the assessment of consistency of response. However, it should be noted that the resulting stability index for any variable is dependent upon (1) the number of categories, (2) the width or narrowness of the chosen categories, and (3) the distribution of respondents within the categories. Comparison of stability indices across variables must therefore be made with these factors in mind.

Demographic variables. As can be seen in Table I, a high degree of response consistency between the two interviews was obtained in questions of 'age', 'racial origin', 'citizenship', and 'length of residence in Canada'. For most categories of response on these variables, 90 per cent or more of the men agreed in their answers on the two interview occasions. Somewhat less consistency of response was indicated on questions pertaining to 'number of children', 'marital status', and 'education'. On 'number of children', there was agreement between interviews for 60 cases (85 per cent); on 'education' 51 cases (71 per cent) showed agreement from first to second interview; and on 'marital status' 50 cases agreed (71 per cent).

Living arrangements. The present accommodation reported by the men was categorized into 4 types, (i) 'non-residence, no fee, flophouse, or hotel' (ii) 'room and board' (iii) 'housekeeping' and (iv) 'apartment or house'. There was complete consistency between inter-

views in only 45 cases (65 per cent). It should be noted, however, that the observed response inconsistency was largely confined to the last three types of accommodation; among respondents reporting 'non-residence, no fee, flophouse or hotel' accommodation on initial interview, consistency of response on reinterview was high (86 per cent).

Employment. On the question of whether or not the respondent was 'presently employed', agreement was obtained in 60 cases (85 per cent), while 'usual type of employment', divided into three board categories (labourer or semi-skilled/skilled/professional), showed consistency of response in 47 cases (66 per cent). On 'number of months employed' in the past year (0-2 months/3-4/5-6/7-12) there was agreement in only 45 cases (63 per cent); a discrepancy involving adjacent categories occurred in 18 cases (25 per cent) and a discrepancy of more than one category in the remaining 9 cases (12 per cent).

Treatment. 'Number of months in out-patient treatment' and 'number of months in residential treatment' in the past year (none/1/2-3/4-5/6-12) showed consistency in 54 cases (75 per cent) and 36 cases (50 per cent) respectively. It is particularly noteworthy that most of the response consistency on these variables was contributed by respondents who reported no contact with these treatment settings. Of the 62 respondents who originally reported no contact with an out-patient department, 53 (85 per cent) agreed in self-report on re-interview. However, of the 10 who initially reported some duration of out-patient treatment, only 1 showed complete consistency, 6 denied having any out-patient contact and the remaining 3 showed a discrepancy in length of reported contact of more than one category. Positive reports of having an out-patient contact would appear to be very unreliable indeed. A similar situation held for report of residential treatment. A stability index of 65 per cent (30 out of 46 cases) was indicated for those who originally reported no admission to a residential treatment program, compared to an index of 23 per cent (6 out of 26 cases) for those who initially did report some duration of residential treatment.

Among this latter group, half (13 out of 26 respondents) denied having undergone residential treatment on re-interview and 3 more showed a discrepancy in reported length of treatment of more than one category. As with out-patient contact, self-reports of having entered residential treatment appear to be grossly unreliable.

On the question of contact with 'Alcoholics Anonymous', only 40 respondents out of 72 (56 per cent) agreed on re-interview on whether or not they had attended any A.A. meeting during the past year. This, of course, is very close to chance level. On the finer categorization of number of A.A. meetings attended (none/1-5/6-10/11-40/41+), the stability index dropped to 42 per cent.

Involvement with the law. On reported 'number of months in jail' in the past year (none/1/2-3/4-5/6-12), agreement was obtained in 42 cases (58 per cent); of the 30 discrepant cases, 10 involved adjacent categories while the remaining 20 involved a change of more than one category. 'Number of arrests for public intoxication' in the past year (none/1-2/3-6/7+) showed consistency of report in 32 cases (44 per cent); 10 of the 40 discrepant cases involved a change of more than one category while 30 cases involved a discrepancy between adjacent categories. Self-reports of arrests and incarcerations would therefore appear to have very marginal reliability with this population.

Drinking. Three drinking variables were assessed: 'usual frequency of drinking', 'usual alcoholic beverage' and 'usual daily alcohol consumption'. For 'usual frequency of drinking' the stability index was high (85 per cent), the great majority of respondents (61 cases out of 72) consistently reporting that they were daily drinkers. 'Usual alcoholic beverage' showed complete consistency in only 39 cases (54 per cent); however, it is important to note that all but 2 of the discrepant cases involved a change between the 'two or more beverage' category and one of the single beverage categories. It is impossible to determine from the present data whether or not response stability would be higher if respondents were forced to choose a single beverage. The question on 'usual daily

alcohol consumption' was phrased to respondents in terms of the number of bottles of beer, wine, liquor or non-beverage alcohol consumed on drinking days, and then converted for purposes of analysis to ounces of absolute alcohol. When four broad categories of consumption were employed (10 oz absolute alcohol or less/11–30 oz/31–50 oz/51+ oz) only 56 per cent agreement was found. The median absolute change in response between first and second interviews was 10 oz absolute alcohol daily, with 20 per cent of the respondents showing a variation on reinterview of more than 20 oz.

Time interval and stability of self-report. The design of the present study involved a time lapse of up to six months between interviews for some of the respondents. Inconsistency in response on reinterview after any lengthy time lapse is open to the possibility that a 'real' shift in the respondent's social functioning or drinking behaviour may have taken place over time. In order to assess the extent to which real changes in the variables under study might have lowered the stability indices obtained, an internal analysis was conducted on the responses of those 37 individuals whose time lapse between interviews was one month or less. With such a short time interval, very little distortion due to a true alternation in the respondent's circumstances would be expected. These results are presented in the last column of Table I. Although there was a tendency for stability indices to be higher over the shorter time interval, the magnitude of the difference on most of the variables was only a few percentage points. It was therefore concluded that very little of the instability observed could be attributed to 'real' shifts in the life situation or social functioning of the respondents.

Discussion

The question of reliability of response is a critical methodological issue which has been largely neglected in the evaluation of alcoholism treatment programs. Response stability is a necessary prerequisite to the establishment of any other type of reliability or validity of alcoholic self-report data. Unless it can be

demonstrated that the alcoholic respondent will give the same answers to questions on re-interview, program evaluations based on follow-up self-report data must remain suspect.

A major difficulty with the reinterview method for obtaining reliability estimates is the possibility that responses to the initial interview will be remembered and influence those given in the second interview, thus artificially inflating observed reliability indices. There are several reasons for thinking that this was not a serious source of bias in the present study. The interview-reinterview data were collected as part of an ongoing client documentation system within two physically distant detoxification centres each with its own staff who served as interviewers. Neither staff nor residents were aware that interview material between the two centres would be compared. It is therefore unlikely that respondents made any deliberate attempt to remember prior answers. An attempt was also made to control sources of error that can serve to lower obtained estimates of reliability. All staff serving as interviewers participated in training sessions designed to achieve a standardized mode of questionnaire administration, response observation and recording. The reliability indices obtained, should therefore largely reflect inconsistency in the answers given by respondents to identical questions about themselves on different occasions.

The present study was concerned with stability of response among skid-row alcoholics. Fairly high response agreement on re-interview was found for demographic items including age, marital status, number of children and education. This finding parallels similar low discrepancy rates for 'life-time identity' items reported by Bahr and Houts (7) and Blumberg, Shipley and Shandler (8) in their studies of skid-row men. However, considerably less reliability was indicated in the present study on items assessing recent employment history, other treatment contacts, recent arrests and incarcerations, and current drinking patterns. It is, of course, precisely in these areas of social functioning and drinking patterns that the reliability of self-reports is of critical importance

when follow-up interviews are used to evaluate treatment programs.

The question arises as to what self-report reliability level is acceptable in program evaluation or treatment follow-up work. This is a very difficult area in which to offer any firm conclusion. It is clear from the magnitude of error demonstrated in the present study that self-reports of skid-row alcoholics in the areas of social functioning and drinking patterns constitute very 'noisy' data which should be viewed with caution. One solution with large sample studies may be to employ a research design which permits the calculation of a statistical estimate of the magnitude of such error in the various outcome criteria. However, this procedure will not be applicable in the typical small sample follow-up study. Unreliability in self-reports due to random error fluctuations will make it necessary for large treatment effects to be present before improvement indices reach statistical significance. Even in studies employing control groups, the measurement error introduced by the unreliability of self-reports in areas of recent employment, arrests, treatment contacts and drinking behaviour may tend to mask any program or treatment effects that are present. Consideration should therefore be given to the inclusion of alternative sources of follow-up information. These may include documentary traces such as arrest, jail, welfare, employment and treatment records, as well as the use of collaborative reports of relatives, friends or employers.

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