Is there a short-cut?

An investigation into the life event interview

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ABSTRACT – Forty-two men and 53 women patients at the Edinburgh Regional Poisoning Treatment Centre were interviewed, usually within 8–12 h of admission. The interview covered life events and difficulties from 6 months before admission. For 43 patients it was in 3 stages: 1) a list of life events and difficulties to be ticked, 2) standard probing questions about each situation ticked, 3) free flowing unstructured interviewing eliciting fuller contextual data about the situations. An independent rater scored the situations after each of the three stages, at each point being blind to information contained in subsequent stages. Four variables were scored designed to indicate the total number of life situations present, the number of situations containing either a long-term threat or personal loss element, an overall threat score and the total number of characteristics (1). The remaining 52 patients had a similar interview but containing an extra stage at the start. In this stage the patients were invited to tell the interviewer about any problems they had had in the last 6 months. Anything volunteered was probed freely before administration of the other three stages. The raters scored all four stages separately. No important differences in results from the two types of interview were found. For *individual patients* more than 80 % of the life situation information found after the final free flow stage had been obtained by the end of the probe stage. Furthermore, the final stage took something between a third and a half the interview time. On the other hand, it was clear that it would be unreasonable to end the interview after either the first free flow or the list stages, and the gain in information from probe to final stage was highly significant and potentially important. For *individual life situations* 75 % underwent no further change in rating after the probe stage. High though this figure is, it would not, in our view, warrant shortening the interview.

Over the past two decades there have been an enormous number of studies using life events, and considerable controversy over the best ways of gathering life event data. The issues have been recently reviewed (2) and need little elaboration here. There are two well-known methods of data collection, the first, the Schedule of Recent Experiences (SRE), introduced by Holmes & Rahe (3) the second, the Bedford Life Events and Difficulty Schedule (LEDS) devised by Brown and his colleagues (4). The SRE relies on normative weights and measures the degree of social readjustment which each event would require. In its simplest form it is easy to administer, requiring only that the subject ticks which events on a list have occurred to them personally during some specified time period. There have been many modifications to the technique (5–8) and it has been subjected to some severe and basic criticism (9, 10). The LEDS is a semi-structured interview in which the contextual threat of events and degree of long-term difficulties are the main entities measured. The method requires careful training of interviewers and raters and the interviews can sometimes be very long.

Few direct comparisons of the two systems have been made, and those of which we are aware (11, 12) have relied on applying variations of both methods in their entirety to the same sample of people. Katschnig, (11) found that for an individual there was little correspondence between the SRE score and contextual threat. Faravelli & Ambonetti (12) found a much greater degree of correspondence, but, unfortunately, measured "the contextual amount of readjustment required to withstand each event", rather than contextual threat.

The present study attempts to investigate whether all the context surrounding an event or difficulty really needs to be elicited in order for valid ratings of contextual threat to be made. An interview was designed, intended to reveal the context of each event or difficulty in carefully controlled stages. At each stage a rater trained in LEDS methodology, rated the situations (i.e. both events and difficulties) elicited on the information available up to that point, while being blind to the information contained in the next stage. The ratings were made on contextual threat (T) and on the five other dimensions described by Miller & Ingham (1), namely choice of action (C) uncertainty of outcome (U) personal loss (L) hopeless situation (H) and anti-social act (A). For half the interviews the first stage was intended to correspond to the simplest possible SRE method of data gathering, and the last to the full LEDS interview. For the rest of the interviews an extra stage was added at the beginning (see below).

Method

A total of 100 Male and Female Parasuicides were interviewed in the Regional Poisoning Treatment Centre of the Royal Infirmary, Edinburgh. However, five of these were later discounted, four, because for various reasons the interviewer was unable to finish the interview and one because of a coding error at a later stage. This left 42 men and 53 women. Subjects were recruited into the study when they were considered well enough to answer questions, generally within 8–12 h of admission. The sample was drawn randomly from consecutive admissions aged between 18 and 65, except those judged by the ward staff to be too confused to participate. There was one refusal and a few selected patients were

not seen for other reasons – usually because of discharge before they could be approached.

The subject's co-operation was obtained by means of a standard introduction, during which the interviewer (D.P.S.) emphasized that the data to be collected would not be used to determine the subject's medical treatment or time of discharge. It was assumed that the subject would not distort the data in order to gain a rapid discharge from the ward. The time span covered in the life event data was the 6-month period immediately preceding the parasuicidal act. Any life events subsequently found to be outside the 6-month period were discounted.

The study was designed to have two conditions. In both conditions the interview began with the collection of data concerning the subject's sex, age, marital status, occupation, close relatives and confidants. Condition I consisted of three stages:

(i) *The list.* A list in the format of the SRE was completed by the subject. The list together with its instructions (Appendix I) was developed for use in a study carried out by Surtees et al. (13). It contained one section for life events and another for long-term difficulties.

(ii) *The probe stage.* Each event or difficulty ticked was systematically probed as follows:

Events

(1) Who did this happen to?
(2) When did this happen?
(U) What is the situation now?
(H) Can you see any good coming out of the situation – In what way?
(C) After ... was over did you have any important decisions to make?
(A) Were the Police, Courts or official bodies involved?

Difficulties

(1) When did this difficulty start?
(T) Have you ever found this upsetting?
(C) Do you feel you have any important choices to make? if so what?
(H) Do you see any chance of the situation improving in the next 6 months?
(U) Are you expecting the situation to change in the future?
(A) Have the Police, Courts or other official bodies been involved in this difficulty?

The letters (U), (H) etc., indicate that the probe was intended to clarify the rating of uncertainty of outcome (U) or hopeless situation (H), etc. The probes were intended to provide the absolute minimum of information which, together with the list information, might allow ratings of presence of absence of CUHAL and T to be made, and also allow a provisional placement on the Bedford long-term threat (events) and objective severity (difficulties) scales.

(iii) A *final 'free flow' interview* was carried out to gain further contextual information surrounding the events and difficulties elicited in stage (ii). This stage was terminated when the interviewer was satisfied that he had sufficient contextual information for ratings to be made on the Bedford and Edinburgh Scales.

Condition II differed in that an extra stage, *the 'initial free flow'* was added between the demographic data and the list. It began with a standard introduction: "Most people have situations occur in their lives that cause them worry or trouble. Have any situations arisen in the last 6 months that you would say have caused you any problems? There then followed an unstructured interview concerned only with the problems elicited in response to

this introduction. The stage was terminated when the subject was not forthcoming with further information about them, and the interviewer then proceeded with the list and the other stages as in Condition I. The main intention of this extra stage was to see whether with this minimal prompting the subjects would "spontaneously" reveal their worst difficulties and events. A second aim was to see whether the extra rapport established early in the interview had any important effects. In Condition II the initial free flow was timed to the nearest minute, and in both conditions, the times were recorded for the list + probe stages together and for the final free flow.

Each interview was then rated after each of its stages by one of two independent raters, experienced in LEDS methods. In Condition I they began by rating the list according to a predetermined standard scheme. No attempt was made at this stage to establish whether each ticked situation would meet the LEDS criteria for inclusion as an event or difficulty, or to see whether the same situation had been included under more than one heading. The predetermined scheme contained nine ratings for each situation – i.e. whether or not CUHLA or T were present, the likely Bedford threat/objective severity rating, the likely focus (4) of the situation and whether it would be an event or a difficulty. Thus for instance, if the subject had tickled "burglaries (only burglaries of *your* property)" this was automatically scored as an event, subject focussed, with some Bedford threat and all else absent. In setting up the predetermined scoring we decided to assign the minimum scores that the situation was likely to have. There were two reasons for this. Firstly, we felt much more certain about these

minimum ratings than about some rather nebulous "average" ratings, and, secondly, rating minimally should compensate somewhat for including many "situations" which would later turn out to be not worth inclusion.

Separate Ratings of the same variables were made at the end of the probe section (blind to the final free flow) and again at the end of the final free flow. In both cases the raters used their best judgement on the information available up to that point in the interview. This procedure resulted in several situations ticked on the list being dropped from further consideration as it became clear that they did not qualify as events or difficulties. Occasionally, the opposite happened. Situations turned up, and were rated, which had not originally been found by the list.

Condition II was treated similarly except that the raters began by rating the first free flow stage using their best judgement. At the list stage they did their best to identify on the list those ticks which referred to situations already found in the first free flow. Having done so they left the ratings for these situations unchanged. Thus, if for example, during first free flow, the subject had described a traumatic separation event in which her husband had gone off with another woman and this had been scored as an event with CLHT all present, Bedford threat marked, subject focussed, then this was the scoring assigned to "separation" ticked on the list, and not the predetermined minimal score of some Bedford threat other focussed and all else absent. At the two later stages, however, it was permissible to change the ratings if new information seemed to make this desirable. This seldom, if ever, happened.

Results

The first question to be investigated was whether or not there were any discernible differences between Conditions I and II. In this analysis and throughout what follows four dependent variables were used. These were 1) the total number of situations elicited, 2) the number of situations containing T and/or L, 3) the total threat score*, and 4) the total number of characteristics (C, U, L, H, A or T) present. Table 1 shows the mean values on these variables for the two conditions after the four interview stages.

The observed significant differences between the conditions after the administration of the list are entirely due to the rating procedure. In Condition II those situations discovered after the first free flow have been fully rated. These appear again, fully rated at the list stage so that Condition II is made up partly of fully rated and partly of minimally rated situations. These are set against the entirely minimally rated situations of Condition I. There are no other differences between the conditions and their means throughout the rest of the table are similar.

The scores on number of situations present both fall after the probe stage, due to the pinpointing of situations which do not meet the inclusion criteria and clarification of which ticks on the list clearly refer to the same situation. Despite the removal of these spurious situations, the other three scores all rise as rating becomes more accurate.

The second question to be tackled is that of the completeness and accuracy of the information gained at each stage. To test this we used the final free flow stage as the criterion. Completeness of information at each stage can then be assessed on the basis of the mean scores at each stage, and the accuracy by the correlations between the final free flow scores and the scores at each stage.

Table 2 shows the correlations between scores at the final stage and at the various other stages. Conditions I and II have been pooled where possible.

Since the correlations are so high all the differences between scores at the probe stage and scores at the final stage are highly significant. (Using repeated measures t-tests for number of situations $t = 3.06$, $P < 0.01$, for number with L or T, $t = 5.64$, $P < 0.001$, for threat score, $t = 5.36$, $P < 0.001$, for number of characteristics, $t = 6.70$, $P < 0.001$). We did not consider it worthwhile to test other differences in the table.

These differences although significant are small. If one views the information gained as something that increases con-

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* Brown & Harris score events on a four-point scale of long-term threat with 1 representing severe threat and 4 representing little or none. They score difficulties on a seven-point scale of degree of difficulty, again with 1 representing the greatest degree of difficulty. In combining the scores into one index for each subject we transformed them as follows:

Original rating	Transformed rating
Event or difficulty scoring 1	3
Event scoring 2 or difficulty scoring 2, 3	2
Event scoring 3 or difficulty scoring 4, 5	1
Event scoring 4 or difficulty scoring 6, 7	0

The transformed ratings are then summed for each subject. Thus, for example, if a subject had an event originally scored 3 and a difficulty originally scored 2, she would receive an overall transformed threat score of 3.

Table 1
Mean values of number of situations elicited, number of situations T or L, threat score, number of characteristics and time taken for the two conditions after the four interview stages

	After first free flow		After list		After probes		After final free flow	
	Cond. I (n = 43)	Cond. II (n = 52)	Cond. I	Cond. II	Cond. I	Cond. II	Cond. I	Cond. II
No. situations	–	2.3	7.1 — 6.7 — 6.4		4.8 — 4.9 — 5.1		5.3 — 5.3 — 5.3	
No. situations with L or T	–	1.8	0.8*	2.3*	3.7 — 3.6 — 3.5		4.4 — 4.2 — 4.1	
Threat score	–	4.1	5.7*	7.5*	8.6 — 8.5 — 8.4		9.9 — 9.6 — 9.4	
No. characteristics (C, U, L, H, A and T)	–	4.6	3.3*	6.6*	9.1 — 9.3 — 9.5		11.0 — 11.1 — 11.1	
Average time taken (min)		8.9	–		17.8	27.3	32.7	40.0

*Condition I differs from Condition II, $P < 0.01$.

Table 2
Correlations of scores after the final free flow stage with scores at other stages

	After initial free flow	After list	After probes
No. situations	0.44	0.69	0.87
	$n = 52$	$n = 95$	$n = 95$
No. situations with L or T	0.53	0.39	0.88
	$n = 52$	$n = 95$	$n = 95$
Threat score	0.47	0.65	0.89
	$n = 52$	$n = 95$	$n = 95$
No. characteristics	0.55	0.55	0.88
(C, U, L, H, A and T)	$n = 52$	$n = 95$	$n = 95$

tinually up to the end of the interview then for number of situations $\frac{4.94}{5.29}$ = 93 % has been obtained after the probe stage. For L or T situations the figure is 86 %, for threat score 88 %, and for number of characteristics 84 %. However, it may be noted that in Condition II, had the interview been terminated after the first free flow stage, rather less than half the available information would have been obtained.

Thirdly, we were interested in the time taken to acquire the data. In Table 1 the last row shows the mean times taken (min) after the first free flow, the probe and the final free flow stages. (The time after the list stage was not recorded.) For Condition I, 84–93 % of the available data are gathered after (on average) approximately 18 min interviewing time. The remainder are gathered after a further 15 min. For Condition II the corresponding times are approx. 27.5 min and 12.5 min.

So far, we have considered the *total* scores for each subject. We turn now to the individual events and long-term difficulties, to investigate the changes that these underwent as the interviews proceeded. A life situation once it had appeared, could either disappear again altogether (if found later not to meet the inclusion criteria), or it could have its ratings changed. Table 3 sets out the relevant data.

It may be seen that to use the list alone without further probing would be highly inaccurate. Only 20 % of the situations there discovered remain unchanged as the interview progresses, and 32 % are found not to meet the Bedford inclusion criteria. On the other hand, for Condition II only, stopping the interview after the first free flow stage would have left 83 % of the situations correctly rated according to the final free flow criterion. Stopping the interview after the probe stage would have left 75 % of the situations correct. This is the figure for the pooled total group. To find the figure for Condition I alone, i.e. the figure uninfluenced by the presence of a first free flow stage one can simply subtract the figures in the top row from those in the third. The revised percentages then become 7 % after final free flow, 24 % changed after final free flow and 72 % unchanged.

Discussion

In a study such as this, it would be desirable to be certain there was no interviewer bias and, particularly, to be sure that the information after the final stage

Table 3
Changes in rating of situations after the various interview stages

	Removed completely after probe stage	Ratings changed after probe stage	Removed completely after final free flow stage	Ratings changed after final free flow stage	Remained unchanged through remaining stages	Total
Situations present at end of the first free flow stage	0	12 10 %	3 2 %	6 5 %	99 83 %	120
Situations present after the list stage	205 32 %	287 45 %	8 1 %	17 3 %	126 20 %	643
Situations present after the probe stage	–	–	26 6 %	92 19 %	353 75 %	471
Situations present after the final free flow stage	–	–	–	–	503 100 %	503

was as complete and accurate as possible. In the current study one interviewer, only, performed all the interviews. His interview times are perhaps shorter than might be expected. The interview situation is not absolutely ideal – there are some time pressures in the ward and, in fact, four patients were lost because the interview was not fully completed. Nevertheless, we believe there is no very serious bias for two reasons. Firstly, we are dealing with a sample of very severe events and difficulties. For many of them it is immediately evident how serious they are, and the ratings are never in doubt. Hence less time is needed in the free flow stages. Secondly, our results are similar to those of Katschnig (11). His sample, also drawn from the Edinburgh Regional Poisoning Treatment Centre, consisted of 11 men, mean age 34 years and 31 women, mean age 27 years. Our sample had relatively more men and was slightly older – 42 men, mean age 34, 53 women, mean age 35. Katschnig found that in the 6 months before interview "nearly 60 %" of his sample had at least one markedly or moderately threatening life event. Our figure for the same statistic is 72/95 = 76 %. Given the enormous rise in unemployment between 1975 and 1983 and the greater percentage of men in our sample we believe these figures to be comparable. Serious unemployment situations (e.g. redundancies or long-term unemployment of self or spouse) were in fact found in 33/95 = 35 % of our subjects. Certainly, we are not underestimating the threats present.

The results seem to indicate that it is possible to obtain considerable accuracy of rating on very slight data – even though for the raters the experience can only be described as mildly harrowing. One is often making ratings, after the probe stage, without any clear idea of

what is taking place. Whether the accuracy obtainable after the probe stage is sufficient for any given purpose must be left for the reader to judge. Our own belief is that, high though it is, it is not sufficient. Considering individual situations – nearly 30 % of these would be misrated in some way if one had only the information from the probe stage, a proportion which might well be greater in samples of less traumatic situations. This could lead to large errors in inference about differences between samples. However, the solution might well lie in more detailed standard probing rather than in further free flow interviewing.

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APPENDIX

The life situation list

Instructions
"Here is a list of things that can happen to people. I want you to place a tick in front of any of these things that have happened to you or to people close to you, in the past 6 months – that is back to (*Date*). By people close to you, I mean: (*Spell out all the living people that are relevant. These are parents, siblings, husband (whether or not separated), fi-* ancé, children, step-parents, step-siblings, adopted children, confidants not otherwise covered.)"

"You may find that something that has happened falls into more than one category. If so, tick it each time it occurs. This is just to start us off. When you have finished I will be asking you about these things in more detail."

When S reaches the end of the events section say: "Now this is a list of aspects of life in which you may have been experiencing difficulty during the past 6 months. Once again, place a tick in front of any of these which have happened to you or to the people close to you."

Events

Remember. Include things that have happened either to you personally or to the people close to you

———— Loss of job or change of job
———— Time off work because of illness
———— Return to work after period away from it
———— Trouble at work (e.g. arguments with bosses or workmates; strikes)
———— Promotion or change of responsibilities at work
———— Pregnancy
———— Birth
———— Starting or leaving school or university; starting a new course
———— Engagement (including also decision to get engaged as well as the formal or informal announcement)
———— Marriage (ceremony; setting the date of a wedding)
———— Divorce
———— Separation (including temporary separation)
———— Retirement
———— Illness (including nervous illness)
———— Admission to hospital
———— Discharge from hospital
———— Death (including also the deaths of friends and more distant relatives)
———— Miscarriage
———— Surgical operation
———— Contact with the police or the courts
———— Accidents (including witnessing an accident or being involved in the consequences of an accident)
———— Burglaries (only burglaries of *your* property)
———— Loss, damage or theft of *your* property
———— Examinations (including also hearing the results)
———— Crises or emergencies (e.g. emergencies involving the children, money, housing or marriage)
———— Receiving news (e.g. getting bad or surprising news about something or somebody)
———— Satisfactions and disappointments (including anything which has upset you or made you happy, e.g. substantial increase in income)
———— Making important decisions (e.g. buying a house, giving up work, etc.)

Difficulties

Remember. Include difficulties experienced both by you personally and by the people close to you

———— Family relationship (e.g. family rows; problems with relatives)
———— Housing (e.g. problems with state of repair or decoration of house; size, privacy;

problems with landlord, neighbours)

—— Work (e.g. lack of employment; insecurity of job; poor work conditions; problems getting on with workmates; difficult hours)

—— Money (e.g. problems with hire-purchase repayments; gambling; paying the rent or mortgage)

—— Health (including nervous illness, mental or physical handicaps, drugs, drinking problems, problems associated with the change of life, worries about aged relatives)

—— Children (including problems in looking after them, problems with schooling, behaviour, discipline and trouble with the police)

—— Personal relationships (including problems associated with sex; problems concerning getting on with friends, neighbours)

—— Has anything else happened to you during this period which has not been covered in this list?