USING INTERACTIVE VOICE RESPONSE TO MEASURE STRESSFUL DAILY EVENTS AMONG PRISONERS ON PAROLE

Z. Vasiljevic, Malmö University, Sweden

Background

The re-entry process is considered to be a stressful event and stress has been identified as an acute dynamic risk factor for crime and criminal recidivism. This study uses Interactive Voice Response to measure stressful daily events, and severity of those events, in paroled offenders during their first 30 days after leaving prison. As far as we know, this is the first study using automated telephony to monitor daily development of stressful events among paroled offenders.

Aim

What kind of stressful daily events have been reported by prisoners on parole during the first 30 days after leaving prison and how severe are they in terms of a) self-reported rating, and b) variables associated with psychosocial dysfunction

Methods

108 paroled offenders were recruited from the Swedish Prison and Probation Service while still in prison. A computer was programmed to perform one daily telephone assessment for each participant, starting the day after probation and continuing for 30 consecutive days.

Measures

All subjects were called daily and asked to make a voice recording, maximum 30 s, about their most stressful daily event, and then rate the severity of this event on a scale ranging from 0 (very severe) to 9 (not at all) (Stone & Neal, 1982). They were also asked to daily report their current use and craving for alcohol and drugs, common indices of stress, and symptoms of anxiety and depression (SCL-8). All questions were rated on a 10-digit scale, ranging from 0 (negative) to 9 (positive). The daily assessment involved totally 21 questions and with the exception of the rating of most stressful event, the remaining 19 questions were summarized to a total scale ranging from 0 (maximum negative) to 171 points (maximum positive).

Analysis

Descriptive content analysis was used to examine the data on daily stressful events. Mean values were calculated on the self-reported severity ratings, use and craving for alcohol and drugs, common indices of stress, and symptoms of anxiety and depression (SCL-8).

Results

Of a possible 3,240 follow-up contacts during the first 30 days after release on parole, 2,298 (70.9%) recordings were completed. The number of completed recordings for the open-ended question, the most stressful daily event, were 1020 (32.5%), of which 481 (14.8%) contained an stressful event. Of the total of 108 individuals who participated in the follow-ups 76/108 (70.6%) completed at least one recording. The recordings about stressful daily events were categorized and are presented in the table below.

Daily stressors: frequency, mean values and severity ranking

	Frequency (n)	Daily stressor (mean;sd)	Alchol Urges (mean;sd)	Drug Urges (mean;sd)	Alcohol Use (mean;sd)	Drug Use (mean;sd)	Stress score (mean;sd)	Psychiatric Symptoms (mean;sd)	Summa Score (mean;sd)
1	No answer (2220)	Legal (4.5;2.9)	Uncertainty (6.2;4.3)	Drugs/alcohol (3.4;4.4)	Drugs/alcohol (4.6;4.5)	Uncertainty (6.2;4.3)	Residence (36.1;17.9)	Drugs/alchol (39.6;23,5)	Drugs/alcohol (101.7;39.1)
2	No stress (539)	Residence (4.8;4.2)	Transport (6.8;3.0)	Residence (7.0;3.1)	Financial and employment (7.9;2.8)	Drugs/alchol (6.3;3.8)	Drugs/alchol (40,6;16.6)	Residence (47.5;23.8)	Residence (116.8;44.4)
3	Financial and employment (77)	Financial and employment (5.2;3.3)	Drugs/alcohol (7.3;3.1)	Social network (7.8;3.0)	Legal (7.7;2.7)	Financial and employment (7.1;2.9)	Legal (41.8;17.9)	Legal (48.5;24,2)	Financial and employment (121.8;36.4)
4	Social network (77)	Feelings of overload (5.8;3.2)	Financial and employment (7.6;2.5)	Financial and employment (7.4;2.8)	No answer (7.8;2.6)	Transport (7.3;3.0)	Financial and employment (42,7;16.1)	Financial and employment (49.2;17.1)	Legal (122.9;44.5)
5	Things not accomplished (43)	Transport (6.0;3.7)	No answer (7.8; 2.4)	No answer (7.6;2.6)	Social network (8.0;2.5)	Authorities (7.5;3.0)	Things not accomplished (43,5;14.2)	Things not accomplished (50.9;17.2)	Things not accomplished (128.2;31.1)
6	This call(41)	Work (6.1;2.7)	Household and leisure (7.9; 1.9)	Health (7.9;2.6)	Network (8.2;2.3)	No answer (7.6;2.7)	Work (44,2;16.2)	Feelings of overload (51.2;17.7)	Household (129.9;31.2)
7	Feelings of overload (39)	Household and leisure (6.4;2.7)	Authorities (8.2;2.2)	Legal (8.0;2.6)	Uncertainty (8.5;1.9)	Household and leisure (7.6;2.4)	Feelings of overload (44.3;16.0)	Authorities (52.8;20.1)	Feelings of overload (130.1;33.2)
8	Household and leisure(39)	This call (6.4;2.9)	Legal (8.3;1.3)	Transport (7.8;2.5)	This call (8.7;1.6)	Social network (7.6;2.5)	Household (44.4;14.0)	Workt (52.9;15.3)	transport (131.3;41.8)
9	Health (27)	Things not accomplished (6.6;2.9)	Health (8.3;1.7)	Authorities (7.1;2.5)	Residence (8.5;1.4)	Work (8.0;2.5)	Health (45.6;17.1)	Household (53.1;15.8)	Work (130.5;33.0)
10	Authorities (26)	Authorities (6.7;3.1)	This call (8.4;1.9)	Work (8.0;2.4)	Things not accomplished (8.5;1.3)	Other (8.1;2.0)	Authorities (45.9;18.8)	Transport (53.7;21.7)	Authoroties (130.9;40.5)
11	Other (26)	No anser (6.9;2.9)	No stress (8.5;1.6)	This call (8.3;2.2)	Authorities (8.7;1.1)	No stress (8.3;2.0)	Transport (46.5;15.7)	Social network (54.1;19.8)	No answer (132.6;40.9)
12	Work (21)	Uncertainity (7.0;2.8)	Work (8.6;1.4)	Other (8.1;2.1)	No stress (8.8;1.1)	This call (8.3;2.1)	No answer (47,1;16.6)	Helath (54.6;20.9)	Health (133.7;39.0)
13	Drugs/alcohol (17)	Social network (7.0;2.4)	Social network (8.6;1.5)	Household and leisure (8.1;1.8)	Feelings of overload (8.7;0.9)	Things not accomplished (8.5;1.6)	Uncertainty (47,6;17.1)	No answe (54.7;19.7)	Social network (135.2;33.2)
14	Legal (13)	Health (7.3;2.6)	Things not accomplished (8.6;1.5)	Things not accomplished (8.2;1,7)	Work (8.9;0.7)	Feelings of overload (8.6;1.5)	Social network (49.1;12.4)	Uncertainty (58.8;12.0)	Uncertainty (136.4;31.8)
15	Uncertainty (13	Drugs/alcohol (7.4;2.6)	Feelings of overload (8.8;0.6)	Feelings of overload (8.5;1.4)	Household and leisure (8.8;0.6)	Health (8.6;1.2)	This call (50.9;14.1)	This call (60.3;16.2)	This call (144.9;34.8)
16	Transport (12)	Other (7.8;2.2)	Other (8.9;0.5)	No stress (8.6;1.3)	Other (8.9;0.3)	Residence (8.6;1.1)	Other (54,4;10.9)	Other (62.7;13.5)	other (151.1;25.4)
17	Residence (9)	No stress (7.9;2.1)	Residence (9.0;0.0)	Uncertainty (9.0;0.0)	Health (9.0;0.2)	Legal (8.7;1.2)	No stress (55.7;10.1)	No stress (64.4;12.0)	No stress (154.2;23.9)

Conclusion

This study shows that it is possible to use automated telephony to monitor daily events as well as severity of those events among prisoners on parole. This kind of technology may have implication for parole officers whose work situation is associated with a significant workload and have little time to follow up and intervene on paroled offenders. It may, for example, be used to identify acute challenges related to criminal recidivism that former inmates are facing in the critical period following release.