



Short-Term Assessment of Risk and Treatability (START): Validation of a New Structured Professional Judgement Guide

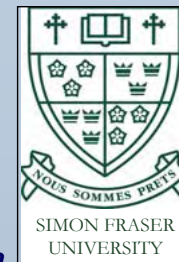
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Abstract

In a sample of 51 forensic psychiatric inpatients, this study investigated the psychometric properties of START, a new instrument intended to guide assessment and management of diverse populations of mentally and personality disordered persons and intended to act as a clinical indicator of treatment progress. This study is the first demonstrating descriptive data on START items, total scores, and risk estimates. Results provide preliminary evidence for the validity and practicality of START.

Introduction

A limitation of available tools intended to inform violence risk assessment and risk management is the restricted attention devoted to dynamic and clinical risk factors. Historical (e.g., prior aggression) and static (i.e., unchanging) predictors provide an essential foundation for any risk evaluation. Yet, the value of many such variables is considerably underplayed due to the fact that they offer little guidance for treatment. The Short-Term Assessment of Risk and Treatability (START) provides guidelines for mental health professionals charged with evaluating the likelihood of violence to others, suicide, self-harm, self-neglect, unauthorized absence, substance use, and victimization in clients with mental disorders. Distinct from existing tools, START identifies strengths as well as risks and is comprised of only dynamic items. This study was a preliminary investigation of START's validity and reliability in a sample of forensic psychiatric patients.

Method

Forensic psychiatric treatment team members completed START assessments ($N = 111$ forms completed by (psychiatrists, $n = 42$; case managers, $n = 37$; and social workers, $n = 32$) for Not Criminally Responsible on Account of Mental Disorder and Unfit to Stand Trial inpatients appearing before the BC Review Board over a six month period. File reviews and official records were used to track post-risk assessment outcomes for a one year period for 51 patients who remained in-hospital throughout the duration of the follow-up period. Prevalence and severity of the risk domains were measured using a revised version of the Overt Aggression Scale (Yudofsky et al., 1986).

Table 1. START Scores

Items	M (SD)	Range	ICC	CITC
Insight	4.60 (1.19)	2 – 6	.65	.52
Attitudes	3.95 (1.20)	1 – 6	.73	.48
Mental State	4.17 (1.37)	0 – 6	.73	.50
Emotional State	3.82 (1.04)	1 – 6	.71	.54
Substance Use	3.28 (1.85)	0 – 6	.89	.11
Impulse Control	4.03 (1.23)	0 – 6	.56	.59
Treatability	3.98 (1.24)	0 – 6	.54	.66
Plans	4.32 (1.15)	0 – 6	.70	.58
External Triggers	3.89 (1.24)	0 – 6	.27	.39
Social Support	3.68 (1.32)	0 – 6	.58	.31
Mat. Resources	3.56 (1.37)	0 – 6	.66	.60
Relationships	3.92 (1.12)	0 – 6	.46	.51
Social Skills	3.89 (1.15)	1 – 6	.55	.41
Occupational	3.77 (1.52)	0 – 6	.42	.44
Recreational	3.60 (1.29)	0 – 6	.04	.43
Med. Adherence	3.68 (1.19)	1 – 6	.43	.27
Rule Adherence	3.76 (1.22)	0 – 6	.69	.68
Coping	4.06 (1.07)	0 – 6	.79	.75
Self-Care	3.23 (1.14)	0 – 6	.69	.36
Conduct	3.50 (1.39)	0 – 6	.59	.48
Total START	78.66 (13.18)	48 - 110	.87	--

Table 2. Descriptive and Structural Reliability Characteristics

Groups	N	M	SD	Range	MIC	M CITC	Alpha
All assessors	111	76.71	13.70	48 - 110	.27	.48	.87
Psychiatrists	42	79.29	13.07	55 – 108	.18	.38	.80
Case Managers	37	75.92	13.60	57 – 110	.30	.52	.88
Social Workers	32	74.25	15.03	48 – 105	.40	.61	.92

Table 3. Predictive Validity

Modified OAS	R _{pb}	AUC	95% CI	SE _{AUC}
Verbal aggression -others	.27	.72	(.58-.86)***	.072
Physical Aggression -objects	.14	.67	(.52-.83)*	.077
Physical aggression -others	.21	.70	(.55-.85)**	.076
Sexually inappropriate	.30*	.92	(.79-1.05)*	.066
Self-harm	.22	.67	(.50-.84)	.088
Attempt unauthorized leave	.18	.92	(.85-1.00)	.038
Take unauthorized leave	-.13	.31	(.13-.50)	.095

Results

START Scores

Table 1 presents the mean and standard deviations of the item and total scores on the START. There was considerable dispersion in the scores, even in this sample in which one might expect to see scores clumping at the extreme and providing little discriminating information.

Structural Reliability

Table 2 presents the descriptive and structural reliability characteristics of the START. The interrater reliability between the three professions using the intraclass correlation coefficient was .87, $p < .000$. Table 1 also presents the internal consistency (Cronbach's alpha) of the total START scores for all raters and for psychiatrists, case managers, and social workers. Item homogeneity was measured using the mean inter-item correlation. The MIC generally exceeded .20, recognized to reflect a unidimensional scale and the findings are within the expected range (see Hart et al., 1995; Douglas et al., 2005). These findings are generally consistent with similar measures also intended to structure clinical decision-making (e.g., Webster et al., 1997).

Predictive Validity

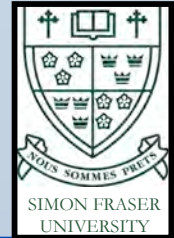
Results of the univariate analyses (correlations and ROC) of concurrent validity of the START in relation to the modified OAS can be found in Table 2. When we examined inpatient behaviour, we found evidence of the strength and direction of the relationship between the START and challenging inpatient behaviours we hypothesized. Results show moderate-sized point biserial correlation coefficients that generally did not reach significance. The ROC analyses, perhaps less affected by low base rates, were also moderate to moderate/large and generally were statistically significant.

Discussion

Mental health professionals regularly are asked to determine whether individuals are at risk to themselves or others. These are difficult judgements with potentially serious implications for the patient and public. START provides a structured framework for the systematic assessment of the strengths and liabilities of the individual patient to facilitate enhanced violence risk assessment and risk management strategies.



A Comparison of Treatments and Services Used by Civil and Forensic Psychiatric Patients Following Release from Hospital: The BC Aftercare Project



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THE AFTERCARE PROJECT An international, prospective, multi-site risk management study seeking to evaluate the influence of various individual, socio-legal, and contextual factors on the community tenure of individuals released from civil and forensic psychiatric hospitals in Canada, Germany, Finland, and Sweden.

BACKGROUND

Recent epidemiological studies in Canada and abroad have reported that service utilization for mental health reasons varies by sociodemographic and clinical factors, and that the majority of those with a diagnosable mental disorder do not seek help. These studies, while informative, have limited generalizability for people with serious mental illness (SMI) as researchers have either: 1) not screened for SMI; 2) removed such individuals from analyses; or 3) recruited participants only in private noninstitutional settings. Studies conducted on people with SMIs have also shown utilization to be influenced by factors including age, diagnosis, comorbidity, and a long psychiatric history. They have also highlighted the immense social and economic costs associated with the treatment of the so-called "heavy users". This paper describes the service utilization of discharged civil and forensic psychiatric patients in B.C. The study's matched groups design allows for a comparison of service utilization by a relatively homogenous patient sample across two parallel but distinct systems over the same time period, in the same region. The paper also examines the factors – legal, clinical, and demographic – that may influence the nature and intensity of service use in this population.

METHODS

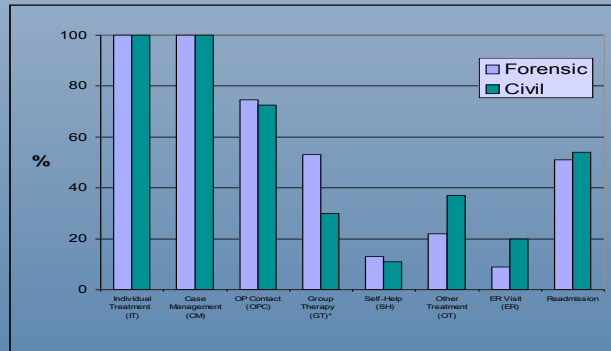
Subjects. 108 male patients were recruited and assessed prior to release from each of two hospitals: Forensic Psychiatric Hospital (FPH) and Riverview Hospital (RVH). Most participants were single (94%), Caucasian (80%), unemployed (86%), and without a high school education (53%). The majority (89%) of the sample had previously been hospitalized for psychiatric reasons on multiple occasions (5) and from a young age (23.6 yrs.). Most were diagnosed with psychotic spectrum disorders (91%) and had a recent history of substance misuse (56%).

Design. At Baseline, chart reviews and patient and collateral interviews provided information on sociodemographic, clinical, and risk variables. Follow-up assessments - consisting of a review of outpatient charts and participant and collateral interviews - took place in the community at 6 and 12 months post-release.

SERVICE UTILIZATION BY GROUPS

Overall, the use of mental health services was high in this sample – all were seen by a mental health professional, most attended multiple services (2.8) biweekly or more (77%) for the majority (83%) of the year. **Nature.** The nature of services used did not differ greatly across groups (see Figure 1). While the released FPH sample showed a trend towards greater use of services, the only statistically significant difference was in the use of group therapy (GT; $p < .05$). **Intensity.** Groups did not differ with regards to the intensity – duration or frequency – with which they utilized case management (CM) or individual treatment (IT) services.

Figure 1. Type of Service by Group



FACTORS INFLUENCING SERVICE UTILIZATION

In a series of logistic regressions, controlling for outpatient commitment orders (OCO), variables that demonstrated a univariate relationship with the dependent variable (DV) were selected by stepwise entry using a probability cutoff of $p < .05$, while attempting to maximize the model's Goodness of Fit. Odds ratios for significant predictors of service use are presented in Table 1. OR's of less than 1.0 suggest a negative relationship to the DV.

Table 1. Odds Ratios for Type of and Intensity of Service Use

Service Type	Forensic	Civil
Individual Treatment (IT)	1.0	1.0
Case Management (CM)	1.0	1.0
OP Contact (OPC)	1.0	1.0
Group Therapy (GT)	1.0	0.5
Self-Help (SH)	1.0	0.7
Other Treatment (OT)	1.0	1.8
ER Visit (ERV)	1.0	2.0
Readmission	1.0	1.1

Nature. Predictors varied according to the type of service, but generally reflected illness chronicity and severity, and antisocial traits. Despite the finding that those with recent substance misuse were 7.5x more likely to be in SH, they were also 6.3x more likely than others to use the ER. Those with high general and negative symptoms were less likely to use GT.

Intensity. A single composite index of high-intensity service use was predicted by unemployment, not having finished high school, high positive symptoms and low negative symptoms.

CONCLUSION

Due to an inherent lack of variability in the sample, standard demographic variables had little impact on service use. The impact of OCO was overshadowed by clinical variables. High rates of SH and ER use by individuals with recent substance misuse suggest unmet need in this subgroup. Similarly, lower GT use and service intensity may reflect a lack of engagement in treatment among those with high general and negative symptoms.