

Malcom, J. R., & Nunes, K. L. (2011, June). Validity and predictive accuracy of the Static-99, Static-99R, Static-2002, and Static-2002R. Poster presented at the 2nd North American Correctional and Criminal Justice Psychology Conference, Toronto, Ontario.

Introduction

- The Static-99 (Hanson & Thornton, 1999, 2000) and Static-2002 (Hanson & Thornton, 2003) are actuarial assessment tools designed to estimate risk of sexual recidivism among sex offenders.
- Both the Static-99 and Static-2002 have demonstrated impressive predictive accuracy for sexual, violent, and general recidivism (Hanson & Morton-Bourgon, 2009).
- The Static-2002 has shown to be slightly better at predicting recidivism than the STATIC-99 (Hanson, Helmus, & Thornton, 2010).
- The age item has recently been revised to create the Static-99R and the Static-2002R.

Purpose

- The purpose of the present study was to examine the validity and predictive accuracy of the Static-99, Static-99R, Static-2002, and Static-2002R.

Method

Participants

- 327 adult male sex offenders previously released from Canadian federal prisons in the 1990s.
- Offenders were from a previously compiled sample of 842 male federal sex offenders over the age of 18 at the time of their index offense created by Motiuk and Brown (1996).
- Mean age = 39.54

Measures

Static-99

- The STATIC-99 consists of 10 items that assess the risk of sexual recidivism.
- Questions pertain to age at release, relationship status, criminal history, and victim characteristics.
- Scores on the STATIC-99 can range from 0-12

Static-99R

- Static-99R is a revision of the Static-99 with revised age weights for item #1- Age at release
- Scores on the Static-99R can range from -3 -12

Static-2002

- Revised to increase consistency, conceptual transparency, as well as coding and predictive accuracy (Hanson & Thornton, 2003).
- Consists of 14 items with possible scores ranging from 0-18

Static-2002R

- Revised version of the Static-2002 with revised age weights for item #1 –Age at release.
- Scores on the Static-2002R range from -2-13

Procedure

- Offenders from the Motiuk & Brown (1996) sample were followed up on November 10th, 2009 by coding information from criminal record files.
- Recidivism, defined as new criminal convictions, as well as offense information was coded from the criminal records files.
- Static-99, Static-99R, Static-2002, and Static-2002R items were recorded from archival data on these offenders and current criminal records.
- ROC curves were used to analyze the predictive accuracy of all four actuarial assessment instruments
- ROC curves were assessed by calculating the area under the curve (AUC) of the receiver operating characteristic (ROC)

Results

- The average follow up period was 19 years (SD = 2.42)

Table 1. Descriptive statistics for Static-99, Static-99R, Static-2002, and Static-2002R total scores

Measure	M	SD
Static-99	2.93	1.98
Static-99R	2.77	2.48
Static-2002	5.92	3.31
Static-2002R	5.50	3.52

Table 2. Recidivism rates for sexual and non-sexual violent recidivism

	Sexual Recidivism	N	Violent Recidivism	N
Positive		72		146
Negative		255		181

Table 3. Correlations between Static-99, Static-99R, Static-2002 and Static-2002R total scores

	Static-99R	Static-2002	Static-2002R
Static-99	.90*	.87*	.85*
Static-99R	-	.88*	.91*
Static-2002		-	.99*

Results

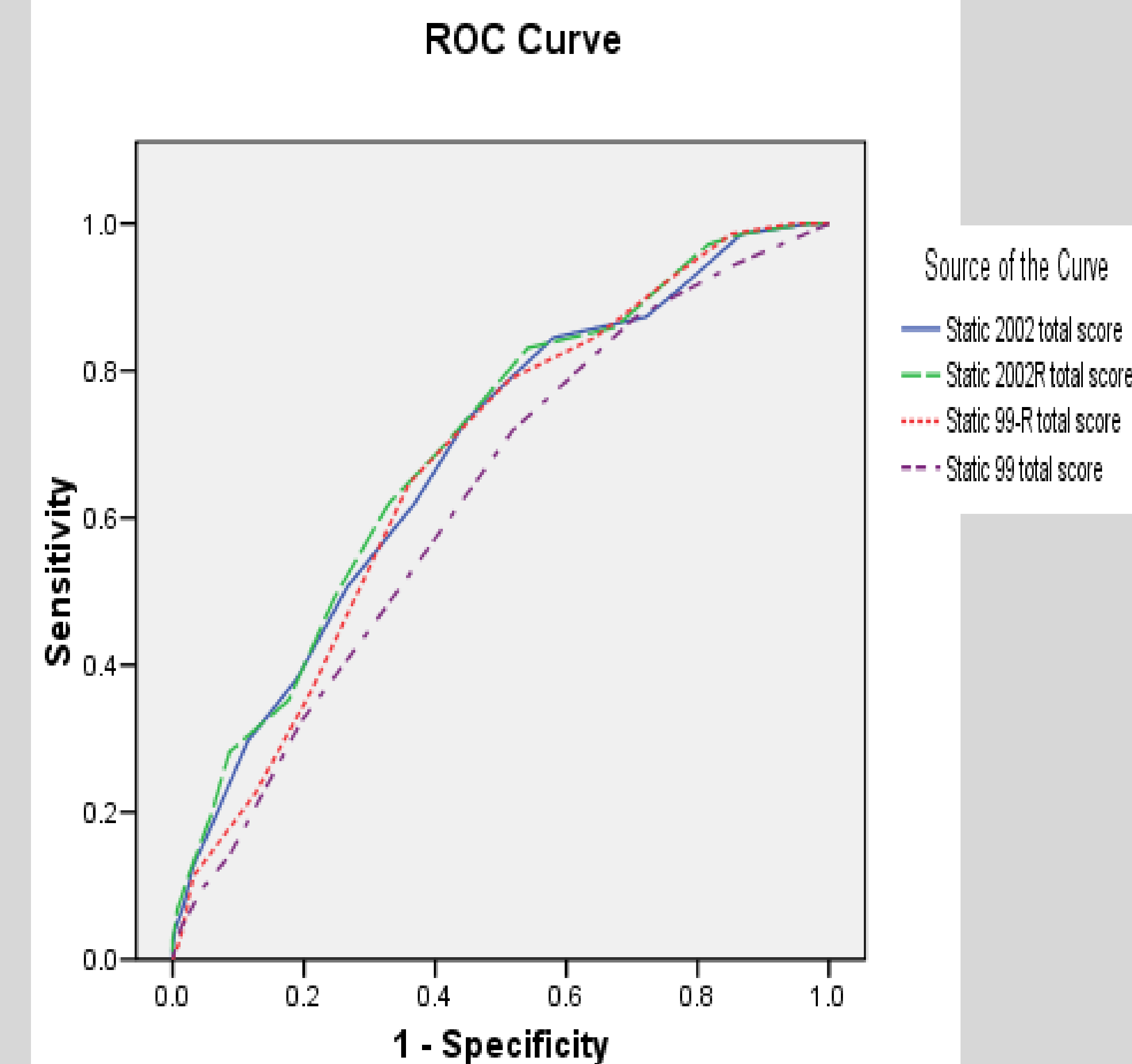


Figure 1. ROC curve for Static-99, Static-99R, Static-2002, and Static-2002R for sexual recidivism

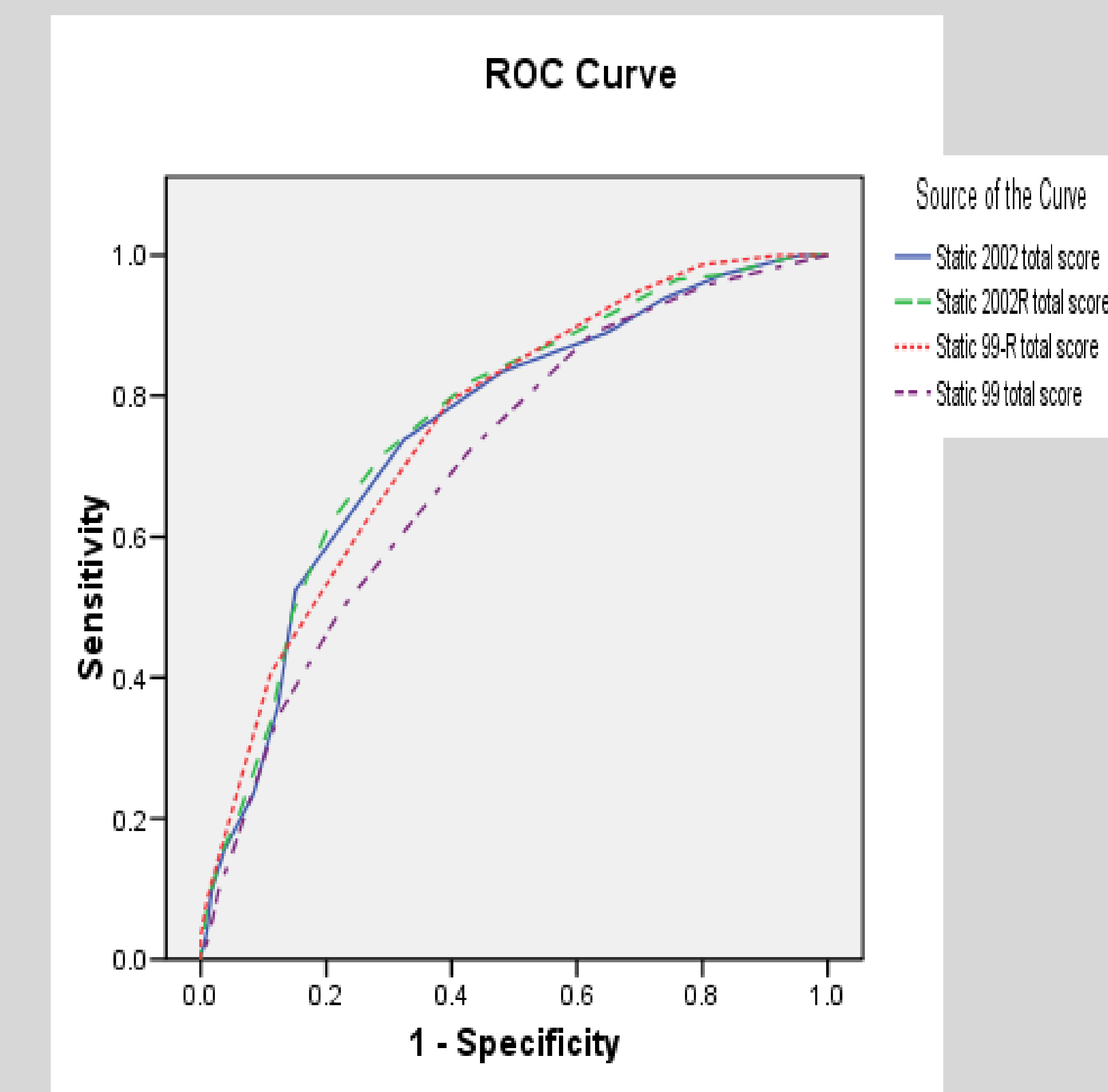


Figure 2. ROC curve for Static-99, Static-99R, Static-2002 and Static-2002R for violent recidivism

Results

Table 4. AUC's for Static-99, Static-99R, Static-2002, and Static-2002R for sexual recidivism

Measure	AUC sexual	95% CI	
		LL	UL
Static-99	.63	.56	.70
Static-99R	.67	.61	.74
Static-2002	.69	.62	.75
Static-2002R	.70	.63	.77

Table 5. AUC's for Static-99, Static-99R, Static-2002, and Static-2002R for violent recidivism (including sexual)

Measure	AUC Violent	95% CI	
		LL	UL
Static-99	.70	.65	.76
Static-99R	.76	.71	.81
Static-2002	.76	.70	.81
Static-2002R	.75	.71	.81

Discussion

- The Static-99, Static-99R, Static-2002, and Static-2002R all showed good predictive accuracy for both sexual and violent recidivism.
- All risk assessment instruments yielded medium to large effect sizes (Rice & Harris, 2005).
- The greatest predictive accuracy for sexual recidivism was shown by the Static-2002R and the greatest predictive accuracy for violent recidivism was shown by the Static-99R and the Static-2002.
- Overall the revisions of both the Static-99 and the Static-2002 added validity in the prediction of sexual recidivism.
- Findings were consistent with those found in other meta-analyses (Hanson & Morton-Bourgon, 2009).
- These findings show support for the Static-2002 and the Static-99R and Static-2002R age revisions.

Limitations

- Only convictions were used to determine previous offences and prior involvement with the criminal justice system
- Recidivism was defined only as new criminal convictions and did not include charges
- Type of recidivism was determined solely on the type of conviction