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The Empirical Status of the Level of Service Inventory [1]

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THE CRIMINAL JUSTICE system supervises over 7.2 million offenders of all ages, from diverse backgrounds, and with a variety of individual needs (Glaze & Bonczar, 2007). The individual differences across offenders make it imprudent to take a one-size-fits-all approach to correctional treatment. Instead, criminal justice officials have the daunting task of identifying the risks and needs of every individual offender in order to determine the appropriate case management plan that will both protect the general public and effectively treat offenders so that they will not recidivate when released from criminal justice supervision.

To that end, correctional agencies have adopted a variety of assessment instruments to help classify, manage, and treat the burgeoning offender population. One of the most popular of these instruments in use today is the Level of Service Inventory, also known by its acronym of the "LSI." An estimated 900 correctional agencies across North America employ the LSI (Lowenkamp, Lovins, & Latessa, in press). [2]

Given the prominence of the LSI, a crucial issue is whether it is an effective assessment instrument. To date, at least 47 studies have been conducted on the predictive validity of the LSI. The current paper summarizes this research and thus provides a systematic overview of the empirical status of the Level of Service Inventory. As we report below, the extant literature suggests that the LSI is an effective instrument for assessing correctional populations.

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The Level of Service Inventory

The Level of Supervision Inventory (LSI) was developed in the early 1980s by Canadian psychologists Don Andrews and James Bonta. In the 1990s, the LSI was updated and renamed the Level of Service Inventory- Revised (LSI-R). This risk/needs assessment instrument is based largely on theory and research on social learning. As will be explained below, the LSI is considered to be a "third-generation" risk/needs assessment instrument, and it can be used to measure offender risk and to direct the delivery of rehabilitative services. The most current

version of the instrument is called the Level of Service/Case Management Inventory (LS/ CMI) and contains a section to assist case managers with treatment planning. [3]

As Bonta (1996) notes, first-generation assessments are based largely on subjective judgments. They are primarily clinical assessments in which those working with offenders rely on experience and intuition to decide which offenders do or do not pose a risk to society. Although clinical wisdom should not be discounted, the research is clear in showing that decisions based on such expertise are less accurate than empirical or actuarial-based decisions (Sarbin, 1943; Grove & Meehl, 1996; Gardner, Lidz, Mulvey, & Shaw, 1996; Grove, Zald, Boyd, Lebow, Snitz, & Nelson, 2000; Bonta, 2002). In a meta-analysis of 136 studies of human behavior conducted between 1966 and 1988, actuarial assessments were consistently more accurate than clinical judgments in predicting study outcomes (Grove et al., 2000). Grove and Meehl (1996, p. 320) assert that relying on clinical judgment instead of using an actuarial assessment instrument "is not only unscientific and irrational, it is unethical" (Ayres, 2007).

A second-generation of assessment then emerged that sought to advance beyond clinical judgments by using instruments that attempted to objectively measure offender risk (Bonta, 1996). The main weakness with these instruments is that they were composed of items that primarily measured "static risks" for recidivism. A static risk factor is a characteristic about an offender that is not amenable to change, such as criminal history. Although it may predict future criminality, criminal history gives little guidance for treatment intervention, because it cannot be altered. By contrast, a factor such as antisocial attitudes can be measured, targeted for change, and tested to determine whether or not changes in attitudes produce changes in subsequent criminal conduct. These have been termed "dynamic risk factors" because they are characteristics that are not inherently immutable but can potentially increase or decrease over time.

The third-generation assessment instruments include both static and dynamic risk factors. The LSI is an example of a third generation instrument. The domains selected for inclusion were based on a theory of effective correctional intervention developed by Andrews, Bonta, and other Canadian psychologists (such as Paul Gendreau). This theory argues that interventions should target for change empirically established predictors of recidivism (such as antisocial peers, antisocial attitudes, and antisocial personality). The term "criminogenic needs" is used for dynamic risk factors. An assessment instrument thus should not only identify whether offenders are at high risk of offending but also identify those "criminogenic needs" that might be targeted for treatment in the process of correctional intervention. According to Andrews and Bonta (1995, p. 3), the LSI is appropriate for use in "identifying treatment targets and monitoring offender risk while under supervision and/or treatment services, making probation/supervision decisions, making decisions regarding placement into halfway houses, deciding appropriate security- level classification within institutions, and assessing the likelihood of recidivism."

The LSI-R is the most widely used version of the instrument. This assessment includes 54 questions that fall into 10 domains or categories: Criminal History (10), Education/ Employment (10), Financial (2), Family/Marital (4), Accommodation (3), Leisure/Recreation (2), Companions (5), Alcohol/Drug Problems (9), Emotional/Personal (5), and Attitudes/ Orientation (4) (Andrews & Bonta, 1995). Although the instrument does contain items that target static factors, the majority of the questions assess dynamic factors that potentially can be changed through treatment.

The assessment is designed to be administered by a criminal justice practitioner who has been trained on the instrument. This practitioner administers the instrument in a semi-structured interview with the offender that typically takes 45 minutes to an hour to complete. The 54 items on the assessment are scored as either Yes or No or on a scale of 0 to 3. The 0 to 3 scale can be translated to the following: 3 = a satisfactory situation with no need for improvement; 2 = a relatively satisfactory situation with some room for improvement evident; 1 = a relatively unsatisfactory situation with a need for improvement, and 0 = a very unsatisfactory situation with a very clear and strong need for improvement (Andrews & Bonta, 1995, p. 5).

Upon completion of the interview, the criminal justice practitioner scores the offender on the 54

items. One point is awarded for each item that is scored Yes, 1, or 0. The criminal practitioner then tallies up the points based on the offender's responses to the 54 questions to determine the total score. The score is then compared against the range of scores that fall within each designated risk level: 0–13 = Low, 14–23 = Low/Moderate, 24–33 = Moderate, 34–40 = Moderate/High, and 41–54 = High. Based on the risk designation determined by the offender's total LSI-R score, the criminal justice practitioner is able to outline a case management plan most suitable for the offender, based on his or her risk, needs, and responsivity factors.

The LSI is an important tool in promoting effective correctional treatment, because it addresses and overcomes a number of limitations associated with first- and secondgeneration assessments. To illustrate, the LSI uses a semi-structured interview and includes dynamic items that have been empirically proven to be the best predictors of crime. Moreover, the LSI is straightforward, easy to administer and score, and allows for criminal justice practitioners to exercise professional override if necessary. The LSI assigns each offender to a risk category, so that an appropriate case management strategy can be put into place. Once the offender has received treatment, then a follow-up LSI can be administered to monitor the offender's progress and modify the offender's treatment plan as needed. In sum, the LSI is a theoretically and empirically based assessment instrument that is designed to enhance the supervision and effective treatment of offenders.

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Methods

Sample

The sample includes 47 studies on the predictive validity of the Level of Service Inventory (all versions of the instrument) conducted between 1982 and 2008. Individually, the 47 studies include samples of adults, juveniles, males, and females. The studies examine offenders in a variety of correctional placement settings in the United States, Canada, and Europe.

Measures

Six study/sample characteristics, including age, sex, correctional placement, location, type of LSI instrument, and measure of recidivism, are included in this literature review. All of the study/sample characteristics are nominal in nature.

The primary outcome measure is valid predictor of recidivism: that is, whether or not an offender's total score on the Level of Service Inventory predicts recidivism. This variable is a dichotomous outcome measured 0 = no and 1 = yes. In most cases, the individual studies included in the literature review reported Pearson r correlation coefficients to indicate whether or not the Level of Service Inventory was a valid predictor of recidivism. If a study reported the instrument to be a valid predictor of recidivism, the outcome measure is coded 1 = yes. If a study reported the instrument was not a valid predictor of recidivism, the outcome measure is coded 0 = no.

A secondary outcome measure is positive association—that is, whether or not an offender's total score is associated with recidivism. This outcome measure is dichotomous and coded 0 = no and 1 = yes. Studies that indicated that the Level of Service Inventory is a valid predictor of recidivism were coded as 1 = yes. Studies that failed to report the instrument as a valid predictor of recidivism but indicated a positive association between total LSI score and recidivism were also coded 1 = yes. Studies that failed to find an association between total LSI score and recidivism were coded 0 = no. Analysis The analysis will include univariate and bivariate statistics summarizing the results from the 47 studies included in the literature review. Subsequent tables will include raw numbers and corresponding percentages for the respective independent and dependent variables.

Analysis

The analysis will include univariate and bivariate statistics summarizing the results from the 47

studies included in the literature review. Subsequent tables will include raw numbers and corresponding percentages for the respective independent and dependent variables.

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Results

Table 1 and Table 2 present an overview of findings from 47 studies on the Level of Supervision/Level of Service Inventory (LSI) conducted between 1982 and 2008. Each of these studies tests the predictive validity of the LSI and/or various versions of the assessment instrument. Specifically, the findings describe the degree to which offenders' total LSI score can accurately predict their likelihood to recidivate. The following section is a discussion of four major conclusions drawn from the review of previous research.

First, the LSI appears to be an empirically supported instrument for predicting recidivism. As indicated in the Valid Predictor of Recidivism column (Table 1), a large majority of studies (81.4 percent) report a statistically significant relationship between total LSI score and recidivism. Although some studies (18.6 percent) fail to report a significant relationship between the LSI total score and recidivism, nearly all (97.9 percent) of the studies report a positive association between total LSI score and recidivism. That is, the higher the total LSI score, the more likely the offender will recidivate. Conversely, the lower the total LSI score, the less likely the offender will recidivate.

Second, the LSI is a valid predictor of recidivism across groups of offenders. Table 2 includes information on the LSI's predictive validity across categories of age, gender, correctional placement, and location. Thirtythree studies using adult samples (84.6 percent) report the LSI to be a valid predictor of recidivism. The findings from juvenile offender samples are slightly less favorable, though only five studies of juveniles were included in this review of literature.

Eighty percent of the juvenile samples report a positive association between the LSI and recidivism and half of the juvenile studies report statistically significant findings. However, given the very limited number of studies with juveniles coupled with relatively small sample sizes, it is important to interpret these findings with caution and to encourage more research in this area. It should be noted that the most recent and largest study of juveniles to date found the YLS/CMI to be a statistically significant predictor of recidivism.

The ability of the LSI to predict recidivism for male and female offenders is a topic of debate among researchers (Lowenkamp, Smith, & Latessa, 2008). Some suggest that the LSI may not predict as well for female offenders as it does for male offenders, because the risk factors of female offenders may not be identical to the risk factors of their male counterparts. These differences may result in female offenders being misclassified (Reisig, Holtfreter & Morash, 2006; Holtfreter & Culp, 2007). Despite the potential for important differences between male and female offenders (see Table 2), the results of this literature review indicate the LSI is a valid predictor of recidivism with samples of males (80 percent), females (71.4 percent), and mixed samples (94.7 percent).

The LSI is designed to be a versatile assessment tool, appropriate for use in a variety of correctional settings (Andrews & Bonta, 1995). For this reason, researchers have tested the instrument with offenders in prisons, jails, juvenile detention, and community corrections. As seen in Table 2, research on the predictive validity of the LSI with offenders in prison has been established; in fact; 90 percent of the effect sizes with prison samples were statistically significant. The LSI also performs well in community corrections settings (77.3 percent) and in jails (75 percent). It appears that the LSI is the weakest predictor for offenders in juvenile detention, because only 50 percent of the studies report a statistically significant relationship. Again, this finding should be viewed with caution, due to the limited number of studies on juveniles in detention centers.

The LSI has been adopted for use by domestic and foreign correctional systems. To date, the

predictive validity of the LSI has been tested in Canada, Germany, the United Kingdom, the Island of Jersey, and the United States. Given the instrument's Canadian roots, it is no surprise that Canadian researchers have been actively involved in testing the LSI with Canadian offenders. As seen in Table 2, the results indicate that the LSI is a valid predictor of recidivism in nearly 88 percent (87.5 percent) of Canadian studies. Nineteen studies of the LSI have been carried out in the United States, with two-thirds (66.7 percent) of the studies reporting statistically significant findings. Nine studies have been conducted in European countries or include Canadian and U.S. samples and each of the studies reports statistically significant findings between LSI total score and recidivism. Regardless of study location, the majority of the studies empirically support the LSI as a predictor of recidivism.

Third, the LSI appears to be an effective predictor across measures of recidivism. Table 3 provides information on the variety of ways that recidivism has been measured in extant literature on the LSI. In the studies reviewed, reincarceration (26.6 percent) is the single most popular measure of recidivism, followed closely by re-arrest (21.9 percent) and reconviction (20.3 percent). Program completion (7.8 percent), absconding (3.1 percent), new charges (3.1 percent), parole violation (3.1 percent), release outcome (3.1 percent), supervision violation (3.1 percent), and evidence of domestic violence (1.6 percent) are used less often. Regardless of the measure of recidivism, a positive association between total score and recidivism is consistent across studies. Further, the LSI total score is a statistically significant predictor of recidivism across all 12 measures of recidivism.

Fourth, the LSI has garnered empirical support through three decades of research. During this time, the LSI has undergone minor modifications, resulting in multiple versions of the instrument. For this reason, the specific type of LSI instrument is identified for each individual study. As Table 4 shows, 29 of the studies (61.7 percent) test the Level of Service Inventory-Revised (LSI-R) while 11 of the 47 studies (23.4 percent) test the original version of the LSI. Five studies (10.6 percent) test versions of the instrument designed for youthful offenders (i.e., Youth Level of Service/Case Management Inventory and Youth Level of Service Inventory). Finally, the Level of Service Inventory-Revised: Self Report (LSI-R:SR) and Level of Service Inventory- Ontario Revision (LSI-OR) have received much less scrutiny from researchers to date and respectively represent roughly 2 percent (2.1 percent) of the studies included in this review. Interestingly, all versions of the instrument received empirical support as valid predictors of recidivism.

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Discussion

The dramatic increase in the offender population over the last 30 years has forced correctional agencies to make difficult decisions about how to balance the need for public safety against the cost of treating and supervising the offender population. As a result, correctional agencies are forced to manage groups of offenders (Feeley & Simon, 1992). Offender classification instruments are commonly used by correctional agencies to separate offenders into groups based on offender risk level in order to adjust the intensity or duration of treatment accordingly. Although there are a number of different classification instruments available for use today, the LSI has emerged as one of the most popular.

A review of extant literature from 1982 through the present revealed that the majority of studies on the LSI conclude that the instrument is a valid predictor of recidivism (see Gendreau et al., 1997; Barnoski & Aos, 2003; Simourd, 2004; Mills et al., 2005; Holsinger et al., 2006). Moreover, the instrument has proven to be a valid predictor of recidivism with adults, juveniles, males and females. The LSI has been validated across a variety of correctional placement settings and with domestic and international offenders. The notion that the LSI is appropriate for general use (that is, for a variety of offender populations) as opposed to specific use (only appropriate for use with a select offender population) will likely add to the already broad appeal of the LSI with correctional agencies in the United States and internationally.

Although considerable research has been conducted on the LSI, there is still need for further inquiry. Much of the research to date has examined the predictive validity of the LSI based on a single assessment. Recently, scholars have explored the impact of assessing offenders at multiple points in time (O'Keefe, Klebe, & Hromas, 1998; Hollin, Palmer, & Clark, 2003; Miles & Raynor, 2004; Raynor, 2007, Vose, 2008). The notion that an offender's risk level may change from one assessment point to the next may mean that multiple assessment points are necessary.

Given the fact that the LSI includes a number of dynamic items, a reduction in an offender's total LSI score should occur after the offender has received treatment services appropriate for his or her risk, need, and responsivity levels (Andrews et al., 1990; Andrews & Bonta, 1998). To that end, multiple assessment points will allow correctional agencies to fine-tune an offender's supervision level to match fluctuations in offender risk level. This will afford correctional agencies the opportunity to allocate scarce resources in a more cost-effective manner that will balance the safety needs of the general public with the treatment needs of the offender population.

The LSI has received empirical support through three decades of research. The instrument's ability to effectively predict recidivism with a variety of offender populations has made this classification instrument a favorite among correctional agencies both foreign and domestic. That said, now is not the time to rest on our research laurels or turn attention away from the LSI. The need still exists for replication studies, studies that consider the effect of administering the instrument at multiple points, and other studies that bring to light innovative ways in which offender classification instruments may be improved to better treat, supervise, and manage the burgeoning offender population.

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References

Table 1: Summary Findings from Previous LSI Research

Author	Year	N	Measure	Strength of Prediction	Measure of Recidivism	Valid Predictor of Recidivism
Andrews	1982	561	LSI	r = .41	Reconviction	Yes
Bonta & Motiuk	1985	75 (S1) 89 (S2)	LSI	r = .40 (S1) r = .32 (S2)	Reincarceration Reincarceration	Yes Yes
Andrews et al.	1986	192	LSI	r = .48	Re-arrest	Yes
Motiuk et al.	1986	147	LSI	r = .36 r = .40	Program Completion Reincarceration	Yes Yes
Bonta & Motiuk	1987	108 (S1) 244 (S2)	LSI	r = .58 (S1) r = .39 (S2) r = .34 (S1) r = .31 (S2)	Program Completion Program Completion Reincarceration Reincarceration	Yes Yes Yes Yes
Bonta	1989	119	LSI	r = .35 (Natives) r = .50 (Non-Natives) r = .51 (Natives) r = .46 (Non-Natives)	Reincarceration Reincarceration Parole Violation Parole Violation	Yes Yes Yes Yes
Bonta & Motiuk	1990	580	LSI	RIOC = 70%	Reincarceration	NA
Bonta & Motiuk	1992	580	LSI	r = .35	Reincarceration	Yes
Motiuk et al.	1992	97	LSI	RIOC = 38.7%	Reincarceration	NA
Shields	1993	162	YO-LSI	r = .563	Reincarceration	Yes
Coulson et al.	1996	526	LSI	r = .51 r = .53 r = .45	New charges Parole Violation Program Completion	Yes
Gendreau et al.	1996	4,579	LSI-R	r = .35	Varies	Yes
Gendreau et al.	1997	2,252	LSI-R	r = .23	Varies	Yes
Kirkpatrick	1998	138 88 31 17	LSI-R	r = .27 (Intake) r = .40 (3 Months) r = .29 (9 Months) r = .60 (12 Months)	Release Outcome Release Outcome Release Outcome Release Outcome	Yes
O'Keefe et al.	1998	257	LSI	r = .31 (Parole T1) r = .22 (Parole T2) r = .08 (CCT1) r = .11 (CCT2)	Reincarceration Reincarceration Reincarceration Reincarceration	Yes Yes No No
Ilacqua et al.	1999	164	YO-LSI	Risk of recidivating increased as YO-LSI scores increased.	New charges or Reincarceration	NA
Kirkpatrick	1999	164	LSI-R	r = .41	Release Outcome	Yes
Raynor et al.	2000	948	LSI-R	r = .35	Reconviction	Yes

Lowenkamp et al.	2001	442	LSI-R	r = .26 r = .24 r = .14	Reincarceration Program Completion Absconding	Yes Yes Yes
Dowdy et al.	2002	140 127 123	LSI	r = .11 r = .14 r = .13	Program Completion Re-arrest Any Re-arrest Felony	No No No
Gendreau et al.	2002	7,367	LSI-R	r = .37	Varies	Yes
Austin et al.	2003	985	LSI-R	Risk of recidivating increased as LSI-R scores increased.	Re-arrest, Absconding or Reincarceration	NA
Barnoski & Aos	2003	22,533	LSI-R	r = .29	Reconviction	Yes
Marczyk et al.	2003	95	YLS-CMI	YLS/cMI score did not predict recidivism.	Re-arrest	No
Mills et al.	2003	209	LSI-R	r = .39	Re-arrest	Yes
Girard & Wormith	2004	630	LSI-OR	r = .39	Reconviction	Yes
Holtfreter et al.	2004	134	LSI-R	r = .16	Re-arrest	No
Miles & Raynor*	2004	1,380	LSI-R	r = .29	Reconviction	Yes
Simourd	2004	129	LSI-R	r = .44 r = .26 r = .31 r = .50 r = .46	Re-arrest Violent Rearrest Reconviction Reincarceration Supervision Violation	Yes Yes Yes Yes Yes
Mills et al.	2005	209	LSI-R	r = .39	Re-arrest	Yes
Schmidt et al.	2005	107	YLS-CMI	r = .19	Re-arrest	No
Dahle	2006	307	LSI-R	r = .41 r = .34 r = .29	Reincarceration	NA
Flores et al.	2006	2,030	LSI-R	r = .18	Reincarceration	Yes
Flores et al.	2006	2,107	LSI-R	r = .28	Reincarceration	Yes
Hendricks et al.	2006	200	LSI-R	r = .16	Domestic Violence	No
Hollin & Palmer	2006	216	LSI-R	r = .20	Reconviction	Yes
Holsinger et al.	2006	403	LSI-R	r = .18	Re-arrest	Yes
Mills & Kroner	2006	209	LSI-R	r = .39	Re-arrest	Yes
Reisig et al.	2006	402	LSI-R	r = .07	Violation, Re-arrest or Reconviction	No
Bechtel et al.	2007	4,482	YLS-CMI	r = .196	Reconviction	Yes
Folsom & Atkinson	2007	100	LSI-R:SR	r = .30	Reconviction	Yes
Palmer & Hollin	2007	96	LSI-R	r = .53	Reconviction	Yes

Lowenkamp & Bechtel	2007	1,145	LSI-R	r = .25	Re-arrest	Yes
Schlager & Simourd	2007	446	LSI-R	r = .06 r = .09	Re-arrest Reconviction	No No
Kelly & Welsh	2008	276	LSI-R	r = .25	Reincarceration	Yes
Lowenkamp et al.	2008	14,737	LSI-R	r = .35	Varies	Yes
Vose	2008	2,849	LSI-R	r = .137 (T1) r = .193 (T2)	Reconviction Reconviction	Yes Yes

* R scores for this study appear in Raynor (2007).

Table 2: Predictive Validity across Categories

	N	%	% Positive Association	N	% Valid Predictor of Recidivism
Age					
- Adults	42	89.4	100.0	33	84.6[a]
- Juveniles	5	10.6	80.0	2	50.0[b]
Sex					
- Female	7	14.9	100.0	5	71.4
- Male	17	36.2	100.0	12	80.0[c]
- Mixed Sample	21	44.7	100.0	18	94.7[d]
- Missing	2	4.3	100.0	0	0.0
Correctional Placement					
- Community Corrections	22	46.8	100.0	17	77.3
- Jails	4	8.5	100.0	3	75.0[e]
- Juvenile Detention	5	10.6	80.0	2	50.0[f]
- Prison	12	25.5	100.0	9	90.0[g]
- Varies	4	8.5	100.0	4	100.0
Location					
- Canada	19	40.4	100.0	14	87.5[h]
- United States	19	40.4	94.7	12	66.7[i]
- Other	9	19.2	100.0	9	100.0

[a] Calculation based on 39 studies instead of 42 because three studies failed to report significance.
[b] Calculation based on 4 studies instead of 5 because one study failed to report significance.
[c] Calculation based on 15 studies instead of 17 because two studies failed to report significance.
[d] Calculation based on 19 studies instead of 21 because two studies failed to report significance.
[e] Calculation based on 3 studies instead of 4 because one study failed to report significance.
[f] Calculation based on 4 studies instead of 5 because one study failed to report significance.
[g] Calculation based on 10 studies instead of 12 because two studies failed to report significance.
[h] Calculation based on 16 studies instead of 19 because three studies failed to report significance.
[i] Calculation based on 18 studies instead of 19 because one study failed to report significance.

Table 3: Measures of Recidivism Across LSI Studies

	N	%	% Positive Association	N	% Valid Predictor of Recidivism
Reincarceration	17	26.6	100.0	12	100.0[a]
Re-arrest	14	21.9	92.9	7	53.9[b]
Reconviction	13	20.3	100.0	11	84.6
Program completion	5	7.8	100.0	4	80.0
Absconding	2	3.1	100.0	1	100.0[c]
New charges	2	3.1	100.0	1	100.0[d]
Parole Violation	2	3.1	100.0	2	100.0
Release Outcome	2	3.1	100.0	2	100.0
Supervision Violation	2	3.1	100.0	1	50.0
Domestic Violence	1	1.6	100.0	0	0.0
Varies	4	6.3	100.0	4	100.0

[a] Calculation based on 12 instead of 17 because five studies failed to report significance.
[b] Calculation based on 13 instead of 14 because one study failed to report significance.
[c] Calculation based on 1 instead of 2 because one study failed to report significance.
[d] Calculation based on 1 instead of 2 because one study failed to report significance

Table 4: Types of LSI Instruments

	N	%	% Positive Association	N	% Valid Predictor of Recidivism
LSI-R	29	61.7	100.0	23	85.2[a]
LSI	11	23.4	100.0	9	90.0[b]
LSI-OR	1	2.1	100.0	1	100.0
LSI-R:SR	1	2.1	100.0	1	100.0
YO-LSI	2	4.2	100.0	1	100.0[c]
YLS-CMI	3	6.4	66.7	1	33.3

[a] Calculation based on 27 instead of 29 because two studies failed to report significance.
[b] Calculation based on 10 instead of 11 because one study failed to report significance.
[c] Calculation based on 1 instead of 2 because one study failed to report significance.

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Endnotes

References

The Development and Validation of a Pretrial Screening Tool

[1] Despite the similarity in failure rates, the two measures of outcome were not representative of the same individuals. The correlation between the two outcomes was r=.30

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The Best Laid Plans: An Assessment of the Varied Consequences of New Technologies for Crime and Social Controls

[1] March 28, 2008 presentation at the 2008 Hixon-Riggs Forum on Science, Technology and Society, Harvey Mudd College, Claremont, California.

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The Empirical Status of the Level of Service Inventory

[1] Address correspondence to Brenda Vose, University of North Florida, Department of Criminology and Criminal Justice, 1 UNF Drive, Jacksonville, FL 32224. Email: brenda.vose@unf.edu

[2] For ease of communication, the term LSI is intended to be inclusive of all versions of the instrument including the LSI-R, LS/CMI, LSI-R: SR, LSI-OR, YLS/CMI, etc.

[3] The LS/CMI is often described as a "fourth generation" risk assessment as it includes additional domains to document specific responsivity factors (e.g., transportation, mental health issues, etc.) as well as a case management portion to assist with the development of individualized case plans.

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Cognitive Behavioral Intervention with Serious and Violent Juvenile Offenders: Some Historical Perspective

[1] The author appreciates the comments of Dr. Bernie Glos, Wayne Liddell, Kia Loggins, Terry Martinek, and Albert Murray on earlier versions of this paper.

[2] The Tennessee Department of Corrections' official publication, Historical Timeline: 1700-2003, lists the creation of the Intensive Treatment Unit (ITU) at Spencer Youth Center as one of the significant events of 1974 (p. 8). (Available at http://www.tennessee.gov/correction/pdf/timeline2003.pdf.)

[3] The Control Unit was one large room on the first floor of the main residential dormitory. Entrance to the unit was through steel-reinforced double doors at one end of the room. There was no second means of egress. At one end, there were two rows of cots each separated by a small nightstand where youth could store some personal effects. At the other end, there were several wooden church pews in front of a table with a TV. On the other side was a modesty wall around a bay of sinks, toilets, and showers. There was no privacy; there were no staff offices; and there was only one small storage room for supplies.

[4] Time-outs can occur in various locations. Many individuals and agencies used a time-out room. In an institution, use of isolation is problematic and requires increased staff supervision in order to guarantee resident safety. Furthermore, putting a juvenile offender in a time-out room seemed to increase the temptation on staff to lock the door to the time-out room when the resident was not cooperating with the guidelines of time-out and subsequently creating more work for the staff member regarding supervision. The alternative was to use a time-out that could be administered in the same location as the staff member. This would ensure better supervision, would avoid moving a youth to a different location, and would eliminate the sense of time-out as a room confinement. The options for a same location or "same area" time-out were to have the youth move to an empty part of the room and stand facing the wall or sit in a chair facing the wall.

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