

Level of Service/Case Management Inventory (LS/CMI™)

Supplement: A Gender-Informed Risk/Need/Responsivity Assessment

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The identification and measurement of risk, need, and responsivity (RNR) factors in female offenders has become an increasingly important issue in offender assessment. The latest revision of Andrews, Bonta, and Wormith's Level of Service (LS) instruments, the Level of Service/Case Management Inventory (LS/CMI, 2004), provides a gender-informed RNR assessment with proven validity for female offenders. It can be used in various settings (parole, probation, prison/jail) without the need for separate gender-specific forms. Empirical research regarding the development, normative samples, reliability, and predictive validity with female offenders supports the LS/CMI as a comprehensive RNR assessment device for use with females.

This document highlights the strengths of the LS/CMI as a gender-informed RNR assessment tool. Specific features of the LS/CMI include:

- A more positive and complete representation of women and men than can be achieved by a sole reliance on general risk/need (or, on gender-neutral risk/need)
- Normative data from over 20,000 women from inmate and community populations in four countries
- The inclusion of several assessment items addressing gender-specific factors involving risk, need, and responsivity
- An RNR assessment that is as reliable with females as it is with males
- Prediction of re-offending as accurately with women as with men

RNR Assessment in Female Offenders: Development of the LS/CMI

There are several reasons for the recently increased attention placed on RNR assessment for females, including a notable escalation in the number of women entering the criminal justice system relative to men in recent years (Blanchette & Brown, 2006; Bureau of Justice Statistics, 2001a; 2001b; 2007). Furthermore, the origins of existing RNR instruments were based primarily on male samples (Blanchette & Brown, 2006). These factors have prompted researchers to identify various female-specific RNR factors, such as adult victimization, parenting concerns, accommodation problems, and financial concerns (Blanchette & Brown, 2006; Bloom, Owen, & Covington, 2003).

The LSI-R is based on a general personality and cognitive social learning perspective of the dynamics of criminality (Andrews & Bonta, 2006). In response to valuable user feedback and concern raised by critics that the Level of Service Inventory-Revised (LSI-R; Andrews & Bonta, 1995) may ignore gender-specific factors central to criminal

behavior and produce invalid results for female offenders, the LSI-R was revised to the LS/CMI. The authors collected normative data on over 20,000 females from inmate and community populations in the U.S., Canada, the U.K., and Singapore (Andrews et al., 2004). Special norms and procedures were developed from these data for assessing and managing female offenders with the LS/CMI. Normative tables for scoring female offenders are now a standard inclusion in the LS/CMI manual. Scoring procedures also specifically instruct users to consider female-specific factors when assessing women.

Gender-Informed Factors Assessed by the LS/CMI

Various researchers (e.g., Bloom et al., 2003) have empirically identified the female-specific responsivity factors, such as mothering concerns, adult victimization, and women's health, that should inform the modes and delivery of rehabilitation services. Gender-specific factors also may influence an administrative override of the offender's risk level or her general case management.

Many of these gender-informed factors were already included in the LSI-R and have been carried over to the new scale. Others were added in the development of items for the LS/CMI. Specific gender-informed LS/CMI items spanning Sections 1, 4, and 5 are listed in Table 1.

The LS/CMI allows areas of particular strength to be scored as protective factors, and these items (education/employment, family/marital) may be scored as female-specific factors that may aid in case management.

Reliability of the LS/CMI in Female Offenders

The value of the LS/CMI items is evident in the reliability and validity of the instrument when analyzed with groups of female offenders.¹

One of the initial steps in evaluating any instrument is to assess its reliability. The alpha coefficient (ranging from zero to one, with higher values denoting higher reliability) is the most widely-used statistic used to evaluate the internal consistency of a scale. The LS/CMI alpha value in the normative correctional female sample is .91, highly similar to the normative correctional male sample (.89). Similarly, the alpha value for the normative community female sample is .93, almost identical to that of males (.94; Andrews et al., 2004).

¹ Refer to the *LSI-R User's Manual* (Andrews & Bonta, 1995), p. 13, for more detailed demographic information about the 1995 normative groups.

Table 1. Gender-Informed LS/CMI Items

LS/CMI Item	LS/CMI Section
Education/employment Family/marital (e.g., family conflict) Substance abuse	Section 1: General Risk/Need Factors
Accommodation problems Financial problems Parenting concerns Victimization (e.g., child abuse, adult victimization, relationship dysfunction)	Section 4: Other Client Issues
Woman, gender-specific issues (e.g., women's health, mothering concerns, cross-gender victimization)	Section 5: Special Responsivity Considerations

Likewise, the interrater reliability of a test is commonly examined to evaluate the consistency of scores between raters. Empirical studies have demonstrated LSI-R interrater agreement levels of 95% (Palmer & Hollin, 2007) and 97% (Shields & Simourd, 1991) in rating female offenders with respect to their risk/need classification.

Overall, studies suggest that the LS/CMI is highly reliable with both women and men.

Predicting Recidivism of Female Offenders with the LSI-R and LS/CMI

In predicting real-world outcomes with any RNR assessment, the ability to gauge the risk of re-offending is of the highest importance. In this context, the LSI-R and LS/CMI have been empirically tested in thousands of female offenders, and the data have recently been summarized in two major independent research studies. The metric used in these studies was the correlation between LSI-R scores and re-offending. Scores range from 0.00 to 1.00, with higher values illustrating stronger predictive validity.

In the first summary, Goggin and Gendreau (2004) found an average correlation of .41 between LSI-R scores and re-offending in studies covering 2,259 females. In the second summary, Lowenkamp, Smith, Latessa and Cullen (in press) reviewed 25 studies on 14,737 female offenders and reported an average correlation of .35. These results place the LSI-R and LS/CMI among the strongest predictors of female re-offending in the entire offender risk assessment literature. Furthermore, Lowenkamp and colleagues reported highly similar results for males and females within the studies they examined, suggesting that the LSI-R does not produce gender-biased results.

Summary

Many concerns have been raised regarding RNR classification of female offenders. The LS/CMI provides an objective assessment that is useful for addressing these concerns. Development of the LS/CMI incorporated greater emphasis on female-specific RNR factors, resulting in items that cover mothering concerns, adult victimization issues, protective strengths, and other pertinent factors. Certainly, to date, the LS/CMI guidelines stress the importance of minor risk/need factors in relation to responsivity issues and/or as non-criminogenic needs. Minor risk/need factors may be targeted for motivational purposes or for humanitarian reasons.

Empirical research on thousands of female offenders supports the reliability and validity of the LS/CMI as a gender-responsive tool across correctional settings. Moreover, there is no evidence for gender bias with respect to internal consistency, interrater agreement, or the prediction of re-offending. Furthermore, there is no need to employ separate forms or versions of the LS/CMI for various settings (parole, probation, prison/jail). In sum, the LS/CMI provides a gender-informed RNR assessment that is appropriate for female offenders.

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