Miccio-Fonseca, L. C. (2017, October). Innovative scientific advancement in risk assessment of sexually abusive youth. *Perspectives: California Coalition on Sexual Offending (CCOSO) Quarterly Newsletter,* **7-10.**

Innovative Scientific Advancement
In Risk Assessment of Sexually Abusive Youth

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Three major studies on sexually abusive youth and the *MEGA♪* risk assessment tool have been recently completed on sizeable samples: *MEGA♪: Combined Sample Study* (*N*=3,901); *MEGA♪: Combined Cross Validation Studies* (*N*=2,717*); and *MEGA♪: 3rd Cross-validation Study* (*N*=1,118). The studies, completed over an extended period (1979-2017), provide unique findings never before presented in the literature on risk assessment tools of sexually abusive youth.

The *MEGA♪* risk assessment tool is the first to assess risk levels for coarse sexual improprieties and/or sexually abusive behaviors *and* protective factors in youth *simultaneously*. The tool is versatile, applicable to youth ages 4-19 years, adjudicated or non-adjudicated (males and females, *transgender*, including youth with low level of intellectual functioning) (Miccio-Fonseca, 2009, 2010, 2013, 2016a, 2016b). It is an outcome measure, given every 6 months, to compare changes in the youth's risk levels and protective factors. *MEGA♪* generates a computerized scored comprehensive risk assessment report idiosyncratic to the youth assessed, a feature not seen in other risk assessment tools. The reports are appropriate for use in forensic settings to provide information to the court related to baseline risk level and changes in risk and protective factors over time.

The *MEGA♪* subject samples were from different parts of the globe affording diversity in age, gender and ethnicity. Samples came from USA (i.e., Arizona, California, Florida, Hawaii, Kentucky Louisiana, New Mexico, and Nevada) and international (i.e., Canada, England, Ireland, Scotland, Israel, and Australia). The findings are generalizable, allowing more confidence in their results.

MEGA♪ is composed of four distinct scales: (a) *Risk Scale*, (b) *Protective Scale*, (c) *Estrangement Scale*, and (d) *Historic Correlative Scale (formally Persistent Sexual Deviancy Scale*). A distinctive aspect is *MEGA♪*'s applicability to youth with low intellectual functioning (Miccio-Fonseca & Rasmussen, 2009, 2013). In the *MEGA♪: Combined Sample Study,* 19% of the youth had low intellectual functioning.

MEGA♪, firmly anchored in the scientific method, has been tested, and retested three times on substantially large diverse samples. The *MEGA♪* cross-validation studies established that the *Risk Scale* has normative data, with cut-off scores, according to age (4-12 years, 13-15 years, and 16-19 years), gender, and intellectual functioning. Thus, the assessed risk levels have definitive thresholds providing considerably more accurate risk assessment.

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MEGA♪ has <u>four</u> levels of risk, uniquely different from other risk assessment tools for assessing sexually abusive youth (which typically have three levels). Males and females were in all levels on the *Risk Scale* (*Low, Moderate, High, and Very High*).

Discussed briefly below are descriptive findings from the three major studies.

MEGA♪: Combined Sample Study N=3,901   (1979-2017)

MEGA♪: Combined Sample Study consisted of the validation sample (N=1184 [2006-2008]), and three cross validation studies (*N=1,056* [2008-2012]; *N=543* [2012-2016]; *N=1,118* [1979-2017]). The samples in the *MEGA♪: Combined Sample Study* were surprisingly similar with each other across the board on a multitude of variables.

Through the scientific method, the *MEGA♪* studies have clearly established the existence <u>four</u> levels of risk, this is uniquely different from other risk assessment tools for assessing sexually abusive youth (which typically have three levels). Males and females, and all age groups were in all levels on the *Risk Scale* (*Low, Moderate, High, and Very High*).

Very High Risk in the *MEGA♪* implies that the youth has a number of substantially persistent and concerning variables present for potential risk for coarse sexual improprieties and/or sexually abusive behaviors, likely at very critical levels requiring immediate intervention. Among those in the *Very High Risk* level are a small number of sexually violent and predatory sexual offenders (i.e., use weapons, lure victims, remove victims from premises) (Miccio-Fonseca & Rasmussen 2014). Some may present a danger to others that can be lethal. In each *MEGA♪* study (i.e., validation and three cross-validations), the *Very High Risk* level was present in all age groups (4-12 years, 13-15 years, and 16-19 years) and primarily males. A noteworthy finding was that there were no transgender youth in the *Very High Risk* level.

Almost 60% of the total sample (*N=3,901*) were in the *Low* to *Moderate* risk range, with a small number (13%) that were *Very High Risk.* Three times more males were *Very High Risk* than females. Out of 409 females, there were only 16 (4%) in the *Very High Risk* level, compared to 491 out of 3,480 males (14%). These findings affirm that male sexually abusive youth are at much higher risk for coarse sexual behaviors and/or sexually abusive behaviors than females (Miccio-Fonseca, 2016a).

MEGA♪: Combined Cross Validation Studies, N=2,717 (1979-2017)

The *MEGA♪: Combined Cross Validation Studies,* consists of the three cross validation studies (*N=1,056* [2008-2012]; *N=543* [2012-2016]; *N=1,118* [1979-2017]). All studies demonstrated predictive validity (with recidivism defined as a sexually related probation or parole violation) (see Table 1).

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Table 1. *MEGA♪: Combined Cross Validation Studies, N=2,717 (1979-2017)*

MEGA♪ Cross-Validation Study	*Subject Sample*	Time Period	Area Under the Curve (AUC)
1st Cross-Validation	*N* = 1,056	2008-2011	AUC = 0.71 [95% CI: 0.62-0.80], *p* < 0.001
2nd Cross-Validation	*N* = 543	2014-2016	AUC = 0.91 [95% CI: 0.79-1.00], *p* < 0.016
3rd Cross-Validation	*N* = 1,118	1979-2017	AUC= .87 [95% CI of 0.78-.96], *p*=.012

Descriptive findings of the total sample of the three cross-validation studies demonstrated particular aspects characteristic of sexually abusive youth. For example, drug use and abuse is not a predominate factor, (i.e., 77% avoid drugs). Most (60%) are victims of child maltreatment (i.e., neglect/emotional abuse); however less than half are victims of abuse (i.e., sexual = 39%; physical = 43%). The great majority of youth (84%) experienced separations from their parents before the age of 16 years, and many are exposed to domestic violence (46%). Close to a third reported educational problems (e.g., learning disabilities = 31%).

MEGA♪: 3rd Cross-validation Study, N=1,118 (from 1979 to 2017)

The most recent study of *MEGA♪*, the *3rd Cross-validation,* is the most extensive in terms of time period covered (38 years). Similar to the other studies, sample size was notable (*N*=1,118). There were 163 youth that were available for Time 1-Time 2 comparisons; the recidivism rate was low, 2.45%, comparable with the literature on recidivism (Caldwell, 2016).

The *3rd Cross-validation study* makes a substantial contribution to the literature in that it is the first risk assessment study on sexually abusive youth to report predictive validity findings on protective factors. As noted above, a unique feature of *MEGA♪* is that it contains a *Protective Scale* that allows for simultaneous assessment of protective and risk factors. In the *3rd Cross-validation study,* not only was the *Risk Scale* predictive, but also the *Protective Scale* (AUC= .85 [95% CI of 0.70-.99], p=.017). See Table 2.

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Table 2. *MEGA♪: 3rd Cross-validation Study, N=1,118 (from 1979 to 2017)*

MEGA♪-3rd Cross-validation Study-Scales	*Subject Sample*	**Time Period**	**Area Under the Curve (AUC)**
Risk Scale	*N=1,118*	1979 to 2017	AUC= .87 [95% CI of 0.78-.96], *p*=.012
Protective Scale	*N=1,118*	1979 to 2017	AUC= .85 [95% CI of 0.70-.99], *p*=.017

Summary

The results of the three major *MEGA♪* studies consistently describe a segment of the youth population that are sexually abusive (ages 4-19, males, females, and transgender youth, including youth with low intellectual functioning). The studies affirm that these youth present with a very specific psychological configuration of risk and protective factors. The study findings can significantly assist professionals who assess, treat, supervise, and monitor sexually abusive youth when designing tailored programs to their specific needs. This information in turn, may contribute to a more personalized approach to the youth, possibly a reduction in unneeded and/or duplication of services and likely beneficial economically.

A more comprehensive description and presentation of the findings on these studies will be forthcoming in peer reviewed journal articles.

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