Name of Tool	Multiplex Empirically Guided Inventory of Ecological Aggregates for Assessing Sexually Abusive Adolescents and Children (*MEGA♪*)
Category	Youth Assessment: Sexual Violence Risk (Validated)
Author / Publisher	Miccio-Fonseca, L. C.
Year	2006

Description

• *MEGA♪* risk assessment tool is the first to *simultaneously* assess risk levels for coarse sexual improprieties (i.e. sexually vulgar comments, expressions and behaviours) and/or sexually abusive behaviours *and* protective factors in youth. It is an outcome measure assessing a youth's progress, with re-assessments taking place every 6 months to compare changes in the youth's risk levels and protective factors.

• *MEGA♪* caters to all levels of developmental and cognitive ability. It is applicable to youth ages 4-19 years, adjudicated or non-adjudicated (males, females, and transgender-females, including youth with low level of intellectual functioning) (Miccio-Fonseca, 2009, 2010, 2013, 2016a, 2016b, 2017a, 2017b, 2018a, 2018b, 2018c, 2019).

• *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.

• There are two types of reports. *MEGA♪-Individualized Risk Assessment Report* identifies the baseline risk level specific to the individual's risk of engaging in sexually abusive behaviours and protective factors that mitigate risk. The *MEGA♪-Individualized Outcome Risk Assessment Report* provides a comparative analysis of changes in baseline risk level and protective factors over the last 6 months.

• *MEGA♪* incorporates inquiry relating to questionable, sexually-related internet activities, such as sexting and revenge porn, and/or posting inappropriate sexual content on social media (Miccio-Fonseca, 2017b, 2017d).

• *MEGA♪* established four levels of risk. 'Very High' risk has a number of substantially persistent and concerning variables present for potential risk for coarse sexual improprieties and/or sexually abusive behaviours, likely at very critical behaviours requiring immediate intervention. For instance, sexual violence including physical threats and bodily harm, use of a weapon and luring, stalking and/or torturing victims would fall into the 'Very High Risk' category (Miccio-Fonseca, 2017d). The 'Very High' risk level is designed to differentiate youth who are sexually violent and/or predatory violent, including those who are sex traffickers (male or female) (Miccio-Fonseca, 2017c, 2017e).

Age Appropriateness

4-19.99 years

Assessor Qualifications

MEGA♪ can be completed by licensed mental health professionals or non-clinical professionals (e.g., child welfare workers, probation officers, residential support workers). Assessors must have at least 2 years of experience working with sexually abusive youth prior to using the tool, and must complete a one-day certification training.

Strengths

- *MEGA♪* s*imultaneously* assesses risk levels and protective factors.
- *MEGA♪* established normative data and calibrated risk levels grounded on given algorithms according to age and gender; no "guess estimates" on the youth's level risk. The risk level assessed is definitive.
- The tool is able to track youth over time and do comparative analysis on changes in risk level and protective factors every 6-months.
- Tested and retested on large ethnically diverse representative samples (over 4,000 youth); making the findings generalisable.
- All cross-validation studies demonstrated significance on predictive validity.
- Applicable to males, females, and transgender-females.
- Applicable to youth with low intellectual functioning
- Applicable to pre-adolescents (youth under 12 years).
- Applicable to adjudicated (those on whom a formal legal decision has been made) and non-adjudicated youth
- Can be used in forensic settings.

Empirical Grounding

The Fonseca Inventory of Sex Offender Risk Factors (FISORF-1998; Miccio-Fonseca, 2005) provided the blueprint of the ecological framework design for *MEGA♪*. The empirically guided variables for the FISORF-1998 and MEGA♪ came from two sources (a) extensive quantitative review of the literature; (b) qualitative clinical interview data from a 7 year (1988-1995) descriptive research study of youth and adult, ages 4-72 (n=656; 72% of the sample under age 18) ([Miccio-Fonseca, 1996](#)). The selected *MEGA♪* items were compared against 'best marker' variables identified in logistic regression analysis of the JSORRAT-II construction sample ([Epperson et al., 2006](#); [Epperson and Ralston, 2015](#)). Construct validity with JSORRAT-II was established in the *MEGA♪* validation study (Miccio-Fonseca, [2009](#), [2010](#)).

Inter-Rater Reliability

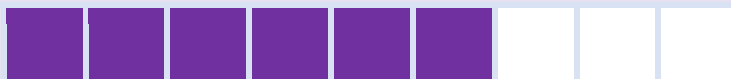| a) UK Research	Case vignettes were used to analyse the inter-rater reliability of the *MEGA♪* in the sites in England and Scotland. The tool achieved 98%-100% agreement in the scoring of the assessment by those who received *MEGA♪* training on the tool (Miccio-Fonseca, personal communication, January 2013). In each research site, each item was collectively reviewed by professionals to accommodate cultural nuances in language and clarify differences in terms (e.g. educational levels, ethnicity classification, type of adjudication, probation and type of weapons) ([Miccio-Fonseca, 2013](#)).
b) International Research	Case vignettes were used internationally to analyse the inter-rater reliability of the *MEGA♪* within the cross-validation study. Scoring of the assessment achieved 98%-100% agreement by those who received *MEGA♪* training (Miccio-Fonseca, personal communication, January 2013).

Validation History

General Predictive Accuracy									

a) UK Research	•A cross-validation study by Miccio-Fonseca (2013) was carried out in several sites in the UK including Scotland and England (further information is available below).
b) International Research	•A cross-validation study was conducted on 1,056 young persons (males and females), 238 of whom were identified through information in the case file as having low intellectual functioning. Sample consisted of youth from 13 research sites from several different countries, which included the US, Canada, (and the UK). The Risk Scale obtained moderate accuracy in predicting sexual recidivism in the age groups 4-12 (n=39) and 13-19 (n=334) years old (AUC of .77 and .71 respectively). It was also found that risk levels increased with age, with those aged 13-15 scoring higher than youth aged 4-12 years old (Miccio-Fonseca, 2013). •Three cross-validation studies (Miccio-Fonseca, 2016b, 2017a, 2018a), as well as two major studies with combined samples (Miccio-Fonseca, 2017a, 2017b, 2017d, 2018c) were carried out. In all five studies, *MEGA♪* consistently demonstrated consistent predictive accuracy (AUCs ranging from .71 to .91). •An independent 6-year longitudinal study by Rasmussen (2017) compared *MEGA♪* and J-SORRAT-II. The study was on adjudicated male adolescents (n= 129) in an intensive facility for sexually abusive youth. The study indicated both tools had predictive validity; AUC for the *MEGA♪* was .67; whilst the JSORRAT-II was not predictive. •In the major study sample of 2717, 12 transgender female youth were present. appear to have more varied sexual experiences and contact than their male/female counterparts. Moreover, there were a greater number of incidents involving adults or adults and children (transgender-females 17%, males 4% and females 3%), as well as those involving more than two victims (transgender-females 50%, males 27% and females 10%). The results indicate that approaches to sexually abusive transgender-female youth should be tailored accordingly (Miccio-Fonseca, 2018b).

Validation History

Applicability: Females									

a) UK Research	None available at present.

b) International Research	• Studies have included males, females, and transgender-females (Miccio-Fonseca 2009, 2010, 2013, 2016a, 2017a, 2017b) • Gender comparisons showed that males scored higher than females. Moreover, there were also differences between age groups: for females, it was found that the older the youth, the lower the protective score (Miccio-Fonseca, 2009, 2010). • Miccio-Fonseca (2016a) reported females were found to present more psychological difficulties in terms of higher incidences of depression and negative affect in the last six months.

Validation History

Applicability: Ethnic Minorities									

a) UK Research	None available at present.
b) International Research	• The *MEGA♪* has been tested and retested on large ethnically diverse representative samples (over 4000 youth from USA and several countries); all cross-validation studies demonstrated prognostic utility making the findings generalisable (Miccio-Fonseca, 2009, 2010, 2013, 2016a, 2016b, 2017a, 2017b, 2017d, 2018a).

Validation History

Applicability: Mental Disorders									

a) UK Research	None available at present.
b) International Research	• An independent study by Fagundes (2013) examined the association between the risk levels from *MEGA♪*, J-SORRAT-II and DSM-IV diagnosis. Findings were that there was a significant correlation between the two tool's ability to measure the same aspect of risk (r = 0.48). • The *MEGA♪* was validated and cross-validated on large samples of youth (N=1184 and 1056 respectively) aged between 4 and 19. The samples also included approximately 20% of youth with low intellectual functioning (Miccio-Fonseca, 2009, 2010, 2013).

Contribution to Risk Practice

- *MEGA♪* empirically establishes a fourth level of risk, for those sexually abusive youth who are the anomalies (i.e. most dangerous and potentially lethal, sexually violent and/or predatory sexually violent) (Miccio-Fonseca and Rasmussen, 2009, 2014, 2018).

- *MEGA♪* is composed of four distinct scales (reflecting the incorporated seven aggregates): (a) Risk Scale, (b) Protective Scale, (c) Estrangement Scale, and (d) Historic Correlative Scale (formally Persistent Sexual Deviancy Scale).

- *MEGA♪* has seven aggregates related to risk for coarse sexual improprieties and/or sexually abusive behaviors, each providing an accumulation of information on particular targeted areas in need of attention for the youth being assessed (i.e., Neuropsychological, Family Lovemap, Antisocial, Sexual Incident, Coercion, Stratagem, and Relationship [Predatory Elements]). Items are rated as either yes or no.

Other Considerations

- The *MEGA♪* can be completed by licensed mental health professionals or non-clinical professionals (e.g., child welfare workers, probation officers, residential support workers). However, assessors must have at least 2 years of experience working with sexually abusive youth prior to using the tool.

- The *MEGA♪ Specialized Risk Assessment*, 1-Day Certification Training is required to use the tool.

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