MEGA²: An Examination of Protective Variables for Assessing Risk

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Overview
• MEGA² Study findings overview
• Protective Factors—overall concept, limitations, and a new look at protective factors
• Proposed Paradigm: Protective Factors Related To Sexually Abusive Youth and Erotic Development
• MEGA² Study findings for Protective Scale
• Empirically anchored concept and model of protective factors

MEGA² Risk Assessment Tool
• Ecologically based risk assessment tool for assessing risk for coarse sexual improprieties and/or sexually abusive behaviors in male and female youth ages 4 to 19, be they adjudicated youth or non-adjudicated.
• Evaluates progress every 6 months in terms of increased or decreased risk, thus an outcome measure.

MEGA² Risk Assessment Tool Terms Defined
• Coarse sexual improprieties: sexually vulgar comments, expressions, and behaviors evidencing an unsophisticated awareness of psychosexual conditions, or environments, or social situations whereby the youth engages in sexual behaviors that are crude, indecent, and outside the societal norms of propriety (e.g., crude sexual gestures, sexually suggestive and/or vulgar sexual comments, mooning, looking up skirts, a young child rubbing his or her genitals in public or trying to grab another’s genitals, a child looking over a stall in a public restroom).

MEGA² Risk Assessment Tool Terms Defined
• Sexually abusive behaviors and improprieties of these youth fall along a coercion continuum of low, moderate, high, or very high (lethal) risk; this applies to sexually abusive youths who are either adjudicated or non-adjudicated.

Contemporary Data and Risk Assessment Tools
• MEGA² is based on contemporary data.
• Validation (2006-2008) N=1184
• Cross-validation (2008-2011) N=1056
• Combined samples: N = 2200+
• These are the largest studies on youth and risk assessment tools in the field to date.
MEGA² Risk Assessment Tool

- Risk assessment is according to gender and age groups.
- MEGA² scoring scheme considers age differences within groups (i.e., 13-15 years, 16-19 years).
- Scoring scheme is based on gender and different age groups (i.e., 4-12 years, 13-15 years, 16-19 years).
- Other risk assessment tools do not consider these distinctions.

MEGA² 7 Aggregates and 4 Scales

- Aggregates: a combination of variables that represent domains or areas of a youth’s existence.
- Scales are a collection of variables, that purport to measure the variables in the 7 Aggregates.

MEGA²: Seven Aggregates

- Neuropsychological Aggregate
- Family Lovemap Aggregate
- Antisocial Aggregate
- Sexual Incident Aggregate
- Coercion Aggregate
- Stratagem Aggregate
- Relationship (Predatory) Aggregate

Neuropsychological Aggregate

- Assesses elements related to neuropsychological functioning including:
  - Cognitive areas
  - Attention Disorders and/or problems
  - Special Education

Family Lovemap Aggregate

- Assesses the youth’s Family Lovemap:
  - Individual is a product of generations.
  - Individual’s Family Lovemap consists of fundamentals in a family’s familial bio-psycho-sexio-social history and culture.
  - Family’s hereditary predispositions related to erotic development.

Antisocial Aggregate

- Assesses:
  - Patterns of antisocial behavior
  - History of onset
  - History of law enforcement involvement
  - Level of law enforcement involvement
**Sexual Incident Aggregate**
(Miccio-Fonseca, 2004, 2007; Rasmussen & Miccio-Fonseca, 2007a, 2007b)
Assesses:
- History of sexually abusive behaviors
- Legal involvement due to sexual behaviors
- Deviant sexual proclivities and/or coarse sexual improprieties
- Youth’s sexual behaviors that show progression across time and situations

**Coercion Aggregate**
(Miccio-Fonseca, 2004, 2007; Rasmussen & Miccio-Fonseca, 2007a, 2007b)
- Assesses the degree of coercion that the youth uses in influencing another person or person to comply with a sexual behavior.

**Stratagem Aggregate**
(Miccio-Fonseca, 2004, 2007; Rasmussen & Miccio-Fonseca, 2007a, 2007b)
- Assesses behaviors of the youth that imply or suggest a hypothesis of the youth’s intent and/or motivation for engaging in the sexual behavior.

**MEGA’s 4 Scales**
- Risk Scale
- Protective Scale
- Estrangement Scale
- Persistent Sexual Deviancy Scale

**Risk Scale**
- Assesses the youth’s overall potential risk for coarse sexual improprieties sexually and/or abusive behaviors.
- Gives a generalized overall potential risk level.

- Provides a profile of historical themes specifically related to the youth and his or her potential risk for coarse sexual improprieties sexually and/or abusive behaviors.
- Gives information on historical variables that may need external assistance and/or further services (i.e., follow up on educational services [special education]).
Risk Scale

- Provides a profile of dynamic themes specifically related to the youth and his or her potential risk for coarse sexual improprieties sexually and/or abusive behaviors.
- Measures change in the youth related to self navigation and self direction.

Protective Scale

- Provides a profile of protective variables specifically related to the reduction of potential risk for coarse sexual improprieties sexually and/or abusive behaviors.
- Identifies protective variables that need to be enhanced giving more support for the youth.
- The lower the score, the higher the risk on this Scale.

Estrangement Scale

- Family Lovemap history (i.e., family's sexual history).
- Modeling of pair-bonding regarding different kinds of relationships (i.e., romantic, platonic), intimacy, and trustworthiness.
- Provides information regarding abuse history of youth.
- Provides information regarding self-regulation, and relationships with others.

Persistent Sexual Deviancy Scale

- Gives information on history of sexual deviant behavior.
- Provides information on the level of sophistication of sexual behaviors manifested.
- Addresses issues of age disparity.

Four Risk Levels: Low, Moderate, High, and Very High

- Risk levels are assessed as being Low, Moderate, High, or Very High Risk.
- Exception: for the Protective Scale, the inverse is true: low score means youth has variables for higher level of risk.
MEGA² and Predictive Validity

MEGA² Cross-validation study established:

- Cut-off scores for age groups and gender.
- Predictive validity (AUC of .71) \( (p < .001) \).
- Can have confidence in risk level assessed.
- An outcome measure, can assess youth every 6 months.

MEGA² Prognostic Sample

\( N=969 \) (4-19 years of age) - 869 males (89.7%), 99 females (10.2%), and 1 transgender, including:

- 222 (22.9%) youth with low intellectual functioning.
- 334 (34%) were available for 6-month follow-up.
- 28 (8.4%) identified with sexually-related probation or parole violation events between baseline and follow-up.
- Predictive validity for the Risk Scale: ROC results showed AUC = .71 (95% CI of .62 - .80) \( (p < .001) \).

Prognostic Utility with Youth Age 4-12 Years

- Measured: new reports of sexually abusive behaviors in 3 or more different locations or sexual behaviors that included oral, anal, vaginal, direct skin to skin contact, and/or penetration.
- Among the 48 subjects, 12-years-old and younger:
  - 9 were excluded that already had these events reported at baseline.
  - Remaining 39 subjects, 8 (21%) had reports of new events in these categories at follow-up.
  - AUC was 0.77 (95% C.I. of .60 - .96, \( p = .016 \)), indicating prognostic utility.

MEGA² Recidivism

- Cross-validation sample had an 8.4% estimated base rate of juvenile sexual recidivism (2008-2011).
- Recidivism rate estimate is in tandem with research literature.
- Juvenile sex offenders have low recidivism rates (generally less than 14%).

Recidivism Rates for MEGA²

<table>
<thead>
<tr>
<th>Indicator of Recidivism</th>
<th>Risk Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probation Violation Sex Related</td>
<td>Low</td>
</tr>
<tr>
<td>No</td>
<td>97.6% (n=81)</td>
</tr>
<tr>
<td>Yes</td>
<td>2.4% (n=2)</td>
</tr>
</tbody>
</table>

MEGA² Cross-Validation Research Sites

- National: California (San Diego, Riverside, Sacramento, Stockton, Inland Empire, Oakland, Berkeley), Kentucky (Department of Juvenile Justice)
- International: Canada (London, Ontario), Scotland (Glasgow), England (Liverpool, London)
MEGA Study Establishes Cut-off Scores

- MEGA, does not leave risk assessment to academic and clinical guesstimate and/or approximations related to assessing risk levels.
- Scoring scheme available for males and females of different age groups:
  - 4-12 years
  - 13-15 years
  - 16-19 years
  - Youth with low intellectual functioning

MEGA Age Groups

- Age Groups:
  - 4-12 years N=153
  - 13-15 years N=429
  - 16-19 years N=474

MEGA Studies and Youth With Low Intellectual Functioning

- 19% (n=224) Validation sample were youth with Low Intellectual Functioning.
- 23% (n=238) Cross-validation sample were youth with Low Intellectual Functioning.
- MEGA studies - largest studies on risk assessment tools and youth with Low Intellectual Functioning.
- Findings: youth with Low Intellectual Functioning are at significantly higher risk.

MEGA Cross-Validation Sample

- Very diverse sample; 18% were bilingual.
- Ethnicity:
  - 49.1% Caucasian
  - 20.3% African American
  - 19.9% Hispanic
  - 1.1% Asian American
  - .9% Native American
  - 8.4% Other

MEGA Cross-Validation Sample

- Residence status:
  - 45% Group Home/ Residential Facility
  - 30% In own family home
  - 7% Kinship
  - 6% Foster Care
  - 7% Other
  - 4% Detention facility
  - 1% Psychiatric facility

MEGA Risk and Gender
Protective Factors

And

Connection with Sexual Behaviors

Protective Factors Related To Sexually Abusive Youth

• Reasonable assumptions:
  • Protective factors exist and effect status of risk.
  • Protective factors mitigate risk for sexually abusive behaviors in youth.
  • Protective factors are related to the youth’s family.
  • Protective factors are related to the youth’s peers and social system.

• Any scientific research specifically looking at protective factors and their mitigating risk for sexually abusive behaviors and youth? Very limited.

MEGA\textsuperscript{4}’s Protective Factors Defined

• Manifesting pro-social behaviors and functioning in various environments; at school, home, community, and at employment if employed.
• No history of drug use or abuse
• Consistently display these pro-social behaviors across different situations and sustain them over a period of time (6 months).
• A support system composed of family members involved and engaged in the youth’s life

Proposed Paradigm: Protective Factors Related To Sexually Abusive Youth

• Protective factors need to be comprehensive, affecting as many aspects of the youth’s world as possible.
• Protective factors are both dynamic and static.
• Protective factors need to “step-wise” (i.e., need to be flexible, versatile and accommodating to the changing developmental phases of the youth into adulthood and maybe even beyond in some cases).
Proposed Paradigm: Protective Factors Related To Sexually Abusive Youth

- Protective factors are related to relationships with others, and include all levels of intimacy or lack thereof (i.e., romantic, sexual, erotic, and non-romantic, non-sexual, platonic).
  - Multi-layered
  - Multi-dimensional
  - Multiplex (i.e., intricately connected and functioning simultaneously across multiple domains of a youth’s life).

Proposed Paradigm: Protective Factors Related To Sexually Abusive Youth

- Research literature lacks study, elaboration, and definitions of how protective factors are related to more delicate aspects of an individual’s sexuality, which propels atypical sexual behaviors.
- What specific protective factors are directly (or indirectly) related to atypical sexual behaviors that are considered sexually criminal to the most limited degree, or most maximum?
- Minimal research is available related to the specifics of protective factors and their relationship with sexual behaviors, or recidivism (sexually re-offensive behaviors).

Protective Factors Related to Developmental Considerations

- Methods of assessing protective factors; developmentally determined (i.e., age groups and gender)
  - Child (under the age of 12 years of age)
  - Adolescent (13-17 years of age)
  - Young Adult (18-19 years of age)
  - Adult (20-60 years of age)
  - Senior (60-74 years of age)
  - Elderly (75+ years of age)

MEGA’s Protective Risk Scale

- MEGA2 - first risk assessment tool that specifically has a built in Protective Risk Scale, simultaneously assessing protective variables (pro-social) related to the particular youth’s risk level.
- MEGA2 Protective Risk Scale has normative data for males and females, ages 4-19 years of age including youth with low intellectual functioning.

MEGA2’s Protective Risk Scale

- The MEGA2 cross-validation findings demonstrated that only the Risk Scale had predictive validity.
- Protective Scale (guided by the empirical research) measures pro-social behaviors in various environments, was non-predictive.
- Are we missing something?
**Protective Risk Scale**

- Protective Risk Scale validation findings demonstrate a pattern of highs and lows within particular age groups.
- Patterns suggest protective factors are related to developmental issues.
- Patterns related to gender differences were also differentiated on protective factors.

**Protective Risk Scale Validation Findings**

- Protective Risk Scale = age group main effect was not significant ($p = 0.444$).
- Gender by age group interaction was highly significant ($p < 0.001$), indicating the genders differed in the progression of protective risk scores across age.
- **Males** showed increasing means with age, with the difference between the youngest and oldest groups reaching significance ($p = 0.033$).
- **Females**, on the other hand, showed declining scores, with a significant difference between the youngest and oldest groups ($p = 0.004$).

**Ethnicity and Risk Levels Means**

**Protective Factors and Erotic Development**

- Intimacy is a kernel part of human bonding and begins at birth with mother/child.
- Erotic Development: very private intimate inner world.
- Erotic Development: A Mystery.
- We can extrapolate on MEGA findings that give information about areas of possible intimacy deficits.

**Protective factors and Cultural differences**

- There may be mitigating protective factors related to unique cultural psycho-socio-sexual differences.
- MEGA studies found ethnic differences in risk levels. The lower risk group were Hispanics and bilingual youth. Caucasian and African American were the highest risk groups.
- Protective factors in their operational definition need to be related to gender and age groups, and include specific aspects for youth with low intellectual functioning.
Erotic Development

- Erotic development, like other developmental processes is individualized, with critical periods and particular achievements in each developmental phase.
- Erotic development unfolds in tandem with domains of sexual development. Psyche and soma involve all physical aspects: brain development, endocrine system, reproductive system, etc.
- Crystallized content in sexual fantasies and erotic dreams evidence a benchmark of the individual's erotic development (i.e., nocturnal emissions).

Protective Factors and Erotic Development

- Sexually abusive individuals generally emerge from unconventional families on multiple levels.
- Sexually abusive individuals' Family Lovemap sexual history often reveals the presence of intimacy deficits.
- Area is very delicate for both discussion and study and few know how to do such research, let alone are trained.

Erotic Development

- Research regarding sexual, romantic, and erotic development for the elderly age group is extremely limited; nevertheless, examples in the society show a growing number of individuals remain sexually active well into their 90’s.
- Hugh Hefner just celebrated his 88th birthday and didn’t look like he was “slowing down”.

MEGA² Data Findings and Erotic Development

- Abuse (either physical, sexual, or child maltreatment and neglect) contribute to “vandalized Lovemaps”.
- Vandalized Lovemaps contribute to derailing erotic development.
- Abuse (particularly sexual abuse) has a long term impact related to individual having romantic and sexual relationships.
- MEGA² data findings may provide insights into contributing variables related to vandalized Lovemaps and Family Lovemaps.

MEGA² Data Findings and Erotic Development

- MEGA² data findings may provide insights into developmental variables related to erotic development.
- MEGA² data findings (validation - N=1184; cross-validation - N=1056) found that a little more than half the youth in the study were arrested for a sexually related crime before the age of 18 years.
- Unconventional sexual activity appears to occur early amongst sexually abusive youth and may rise to the level it brings law enforcement attention.

Conclusions and Recommendations

- MEGA² findings reported the Protective Scale which measures pro-social behaviors, was not predictive.
- Protective factors that mitigate risk may be related to variables more directly related to intimate behaviors, as opposed to pro-social behaviors.
Conclusions and Recommendations

- There is a dearth of research on protective factors and their correlates. Particularly true with sexuality, sexual behaviors (specifically deviant sexual proclivities).
- MEGA² studies, indicated that protective factors are differentiated by age and gender.
- Protective factors are then likely related to developmental issues and gender, and linked to Lovemap and Family Lovemap.

Conclusions and Recommendations

- Proposed a new model related to protective factors and assessing sexually abusive youth (4-19 years, males and females).
- Protective model includes issues of sexuality, sexual development, intimacy deficits (sexual and non-sexual), and erotic development.
- Recommend that the professional community engage in more self education about human sexuality and sexual development.

Conclusions and Recommendations

- Recommend that the professional community engage in investing, funding, and researching the correlates of sexually abusive behaviors in youth sexual development.
- Require professionals to attend yearly human sexuality educational courses related to youth, sexual abuse and sexual development.

Conclusions and Recommendations

- Recommend that the professional community only allow professionals who are well educated and versed in human sexual development to work with youth and these delicate issues related to sexual development, sexual proclivities and erotic arousal, intimacy and erotic development.

Conclusions and Recommendations

- Recommend that the professional community find ways to bring in the community at large to become involved in these unexplored and underdeveloped areas of sexually abusive youth.
- Recommend that the communities, schools, religious organizations invest in becoming more aware of the sexualities that exist our society, thus hopefully, becoming more tolerant.
Conclusions and Recommendations

- Level of sexual abuse in USA society is at epidemic levels, effecting and costing systems at all levels, (i.e., schools, religious organization, military, law enforcement); regretfully it is not mandatorily addressed.

- Recommend that policy makers and legislators look to fund critically needed research in the area of youthful sex offenders (all ages and genders) that addresses risk assessment, treatment, and sex crimes in our cities.

References


