Maternal Role Attainment Theory: A Conceptual Reformulation for Adolescent Mothers

PRESENTED BY
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Research on Adolescent Pregnancy

- 95% of pregnancies are unplanned.
- Least likely to complete high school.
- Most likely to rely on social services
- Have subsequent pregnancies.
- Higher risk of low birth weight and preterm birth.
- 71% are unmarried.
Overview

- 2.5 million unintended pregnancies in the US in 2014 (the last year for which data are available)

- Unintended pregnancy is associated with:
  - Increased health care costs
  - Mothers more likely to smoke or use alcohol in pregnancy
  - Child more likely to be low birth weight
  - Depression in mothers more likely
  - Reduced school completion for mother
  - Lower income if mother is unmarried
  - Mother less likely to breastfeed
  - Less time and attention with child

- In 2004, teen childbearing in the United States cost taxpayers at least $9.1 billion
  - Unintended pregnancies to teens are only 21% of all unintended pregnancies
  - Total costs of unintended pregnancies therefore much higher
Teenage Birth Rates 1920-2014

NOTE: Beginning with 1959, trend lines are based on registered live births; trend lines for 1920–1958 are based on live births adjusted for underregistration.

Teenage Birth Rates Aged 15-19

Teen Pregnancy in America

- Birth rates have declined 9% from 2013 to 2014 to 24.2 births per 1000; a drop of 61% since 1991.

- Significant disparities exist in teen pregnancies by state and racial–ethnic groups.
  - In 2008, rates varied widely in 5 to 19 year olds from less than 25.0 per 1,000 to greater than 60.0 per 1,000.
  - Rates for non-Hispanic white and Hispanics were higher in the Southeast and lower in the Northeast and California.
  - Rates for non-Hispanic blacks were higher in the upper Midwest and in the Southeast.
Live Births by Age and Race for Women 15 to 19 years of Age

- Non-Hispanic White: 87,007
- Non-Hispanic Black: 181,135
- Hispanic: 60,979

Birth rates for Women 15 to 19 years of Age

- Non-Hispanic White: 38
- Non-Hispanic Black: 23
- Hispanic: 35.1
Estimated pregnancy, birth and abortion rates for teenagers 15-17 years: United States

Pregnancy, birth and abortion rates for teenagers 18-19 years: United States


Contraceptive Use

- In 2007
  - 62% of sexually active students used a condom at last sex and 39% did not.
  - 16% of sexually active students used birth control pills at last sex.
  - Black sexually active high school students were more likely to use condoms than their Hispanic or white peers.
  - Twice as many white students (21%) as black (9%) and Hispanic (9%) reported using birth control pills before last sex.

# Instructions on Birth Control Methods

<table>
<thead>
<tr>
<th>Did not receive instruction</th>
<th>Grade Ages 15-19</th>
<th>1-5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10-12</th>
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<td>29.5%</td>
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<td>39.5%</td>
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<td>10.0%</td>
<td>20.3%</td>
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<td><strong>Males 2002</strong>¹</td>
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<td>33.8%</td>
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<td>13.8%</td>
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<td>16.0%</td>
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<td><strong>Males 2006-2010</strong>²</td>
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<td>45.1%</td>
<td>6.8%</td>
<td>5.1%</td>
<td>8.9%</td>
<td>8.9%</td>
<td>15.5%</td>
<td>9.3%</td>
</tr>
</tbody>
</table>
Sex Education

- 96% females and 97% male teenagers received formal sex education before age 18 years.

- Female teens (47%) to males (38%) more likely to receive instructions on birth control methods in high school.

- 2 out of 3 female teens talked to parents about “how to say no to sex” compared to 2 out of 5 male teens.

Sex Education

- 89.5% adolescents received HIV/AIDS prevention education.
- Two-thirds of the 48 comprehensive programs “National Campaign to Prevent Teen and Unplanned Pregnancy” reported positive behavioral effects.
  - Delayed or reduced sexual activity
  - Reduced number of sexual partners
  - Increased condom or contraceptive use

RECAPP, 2009
In 2013

- Forty-four percent (44.1%) of high school students reported having sexual intercourse.
- Fifty-nine percent (59%) of sexually experienced teen females had a first sexual partner who was 1-3 years their senior.
- Eight percent (8) had had first partners who were six or more years older.
- More than half (53%) of all 12\textsuperscript{th} grade students reported sexual activity compared to 20% of all 9\textsuperscript{th} grade students.
STD / HIV Risk

- Youth aged 13 to 24 accounted for more than 1 in 5 HIV diagnoses in 2014
- Young gay and bisexual males accounted for 8 in 10 HIV diagnoses among youth in 2014
- At the end of 2012, 44% of youth ages 18 to 24 years living with HIV did not know they had HIV

CDC. Diagnoses of HIV infection in the United States and dependent areas, 2014
Estimated New HIV Diagnoses Among Youth Aged 13-24 in America, 2014

Number of New HIV Diagnoses

<table>
<thead>
<tr>
<th>Race/Ethnicity and Sex</th>
<th>Number</th>
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<tbody>
<tr>
<td>Black/African American Males</td>
<td>4,687</td>
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<tr>
<td>Hispanic/Latino Males</td>
<td>1,905</td>
</tr>
<tr>
<td>White Males</td>
<td>1,426</td>
</tr>
<tr>
<td>Black/African American Females</td>
<td>777</td>
</tr>
<tr>
<td>White Females</td>
<td>218</td>
</tr>
<tr>
<td>Hispanic/Latina Females</td>
<td>203</td>
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</tbody>
</table>

*Subpopulations representing 2% or less of the overall US epidemic are not represented in this chart.*
Maternal Role Attainment (MRA)

- A process of adjustment to the role of being a mother.
- Includes four stages in which a mother must accomplish.
- Influencing factors are age and lack of readiness.
Stages of MRA

- Anticipatory
- Formal
- Informal
- Personal
Purpose of the Study

- To investigate the relationship among age, ethnicity, social support, learning ability, and learning needs of adolescent mothers when identifying fever and illness of infants less than twelve months of age.
Study Variables

- Teenage mother’s level of maturity
- Cultural / ethnic background
- Knowledge of childrearing skills
- Level of social support
Research Design

- A non-equivalent control group quasi-experimental design.

- The design allowed for a pre-and post-test on both the experimental and control groups without having pre-experimental sampling equivalence.

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<tr>
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<th>Pretest</th>
<th>Intervention</th>
<th>Posttest</th>
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<tbody>
<tr>
<td>Experimental</td>
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<tr>
<td>Control</td>
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</table>
Study Limitations

- Multiple treatment interferences
- Interaction effects:
  - Selection-maturation
  - Selection history
  - Selection testing
Null Hypotheses

An adolescent mother's learning need when identifying illnesses and temperature elevations in infants less than twelve months of age is not determined by her chronological age, ethnicity, social support, or learning ability.
Study Hypotheses

- There are significant differences among adolescent mothers' ages in years categories 12-14, 15-17, 18-20 and their learning needs.

- There is no significant relationship between adolescent mothers' age, ethnicity, social support, learning ability, and learning need.

- There will be minimal impact on maternal role attainment among participating ethnic groups.
Sample Population

- 100 adolescent mothers enrolled in an alternative public school.
- Minimum age 11 years and the maximum age 20 years.
- Able to read and speak English.
- Must have had an infant less than 12-months of age or have a gestational age greater than 16 weeks.
Assumptions of the Study

- Egocentrism interferes with the teen mother attaining the maternal role achievement.

- Barriers to healthcare interfere with obtaining adequate health care.

- Perceived-received social support plays a primary role in maternal role attainment.

- Health promotion activities directed toward the cognitive and developmental levels of the adolescent mother, will help ensure healthier infants and mothers.
Mercer’s Conceptual Model of MRA

- Ecological model
- Used Bronfenbrenner’s models of environmental levels.
- Deleted the meso-system.
- Expanded the micro-system.
Bronfenbrenner’s Ecological Model
Social Utility of Mercer's Theory

- Maternal attitudes
  - Fetus or infant
  - Self as mother
  - Mother-infant-interactions

- Achievement of developmental tasks during pregnancy
  - Early adolescence
  - Middle adolescence
  - Late adolescence
Conceptual Reformulation

- Learning needs placed within the MRA framework
  
  - Macrosystem
  
  - Exosystem
  
  - Microsystem
Washington’s Learning Needs Identification Scale

- Forty-six item Likert-type self report scale.
- Developed from the three domains learning and the defining attributes of MRA.
- Items selected by exploratory factor analysis.
- Includes four factors for testing with total reliability coefficient score = .8187.
Washington’s Reformulation: MRA Conceptual Model
Findings and Conclusion

- An early pregnancy predisposes the adolescent mother, unborn child and the infant to unnecessary health risk.

- Early warning signs of illness are treatable if recognized early and interventions initiated in a timely manner.

- MRA theory addressed and statistically supported the assumptions of the study.

- Flexibility in the MRA allowed it to be applied to the variables of interest in the study.
1. CDC. Diagnoses of HIV Infection in the United States and dependent areas, 2014.


The End

THANK YOU