Designing Mixed Methods Studies

Kate Coleman-Minahan PhD, RN, FNP-BC
Assistant Professor, University of Colorado College of Nursing
Affiliate, University of Colorado Population Center
She/her
Objectives

- To identify 2-3 ways to design mixed methods studies
- To describe how theory can be incorporated into generating research questions and mixed methods designs
- To identify 2-3 practical implications of mixed methods designs
My process

1. Problem
2. Literature
3. Theory
4. Research questions
5. Design
Example 1: Migration, Family, Gender, and Reproductive Health of Mexican-origin Young Women

- Collaborators: Jean Scandlyn, Sheana Bull, Patrick Krueger, Fernando Riosmena, Goleen Samari
- Funded by Sigma Theta Tau’s Alpha Kappa Chapter-at-Large and the National Institute of Nursing Research [1F31NR013821-01A1]
Migration, Family, Gender, and Reproductive Health of Mexican-origin Young Women

- Problem: Inequities in sexual and reproductive health outcomes by race/ethnicity and immigrant generation

Problem

Literature

Theory

Research questions

Design
Migration, Family, Gender, and Reproductive Health of Mexican-origin Young Women

Literature:
- Teen childbearing as a cause of social problems
- Blaming families and “traditional Latino culture” for inequities
- Overlooking structural factors
Migration, Family, Gender, and Reproductive Health of Mexican-origin Young Women

Theory:

- Segmented Assimilation Theory (Portes & Zhou, 1993)
- Theory of Gender and Power (Connell, 1987)
## Segmented assimilation theory

<table>
<thead>
<tr>
<th>FIRST GENERATION</th>
<th>SECOND GENERATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Background determinants</td>
<td>Expected outcomes</td>
</tr>
<tr>
<td>Family structure</td>
<td>Downward assimilation</td>
</tr>
<tr>
<td>Family SES</td>
<td>(early sexual initiation, non-contraceptive use, adolescent childbearing)</td>
</tr>
<tr>
<td></td>
<td>Mostly upward assimilation</td>
</tr>
<tr>
<td></td>
<td>(later sexual initiation, contraceptive use, delayed childbearing)</td>
</tr>
<tr>
<td></td>
<td>Upward assimilation and biculturalism</td>
</tr>
<tr>
<td></td>
<td>(later sexual initiation, contraceptive use, delayed childbearing)</td>
</tr>
</tbody>
</table>

Acculturation “Traditional cultural values”
<table>
<thead>
<tr>
<th>SOCIETAL LEVEL</th>
<th>INSTITUTIONAL LEVEL</th>
<th>SOCIAL MECHANISMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gendered division of labor</td>
<td>Family, work</td>
<td>Economic inequities for women and economic dependence upon men</td>
</tr>
<tr>
<td>Gendered division of power</td>
<td>Relationships</td>
<td>Unequal power</td>
</tr>
<tr>
<td>Cathexis: social norms and affective attachments</td>
<td>Family, relationships, religion</td>
<td>Expectations that constrain women’s behavior</td>
</tr>
</tbody>
</table>

Wingood and DiClemente (2002)
Migration, Family, Gender, and Reproductive Health of Mexican-origin Young Women

Research questions:
How do cultural constructions of gender and sexuality help explain the relationships between immigrant generation, family characteristics, and reproductive health of Mexican-origin young women?

• Aim 1: To examine how the relationship between immigrant generation and reproductive health in Mexican-origin adolescents varies by family structure and SES.
• Aim 2: To explore how gender and sexuality help explain these associations?
Migration, Family, Gender, and Reproductive Health of Mexican-origin Young Women

Design:
• A partially mixed, sequential, equal status mixed design (Teddlie and Tashakkori, 2006)
Migration, Family, Gender, and Reproductive Health of Mexican-origin Young Women

Quantitative

- The National Longitudinal Study of Adolescent to Adult Health
- Representative sample of grades 7-12 in 1994-1995
- 1,638 Mexican-origin participants
- Discrete time survival models for time to first sex and first birth
Implications:

• Sample selection
• Sample integration legitimization
## Migration, Family, Gender, and Reproductive Health of Mexican-origin Young Women

### Quantitative
- The National Longitudinal Study of Adolescent to Adult Health
- Representative sample of grades 7-12 in 1994-1995
- 1,638 Mexican-origin participants
- Discrete time survival models for time to first sex and first birth

### Qualitative
- Mexican-origin women in Metro-Denver
- 27-39 years old
- 11 first generation
- 10 second generation
- Life history interviews, 1-2 hours
- Thematic analysis - theory testing
<table>
<thead>
<tr>
<th>QUANTITATIVE</th>
<th>QUALITATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conceptualization and design</td>
<td></td>
</tr>
<tr>
<td>Add Health data set chosen</td>
<td>Sample inclusion criteria based on Add Health</td>
</tr>
<tr>
<td>Participants 29-37yo in 2013</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Data Collection</td>
<td></td>
</tr>
<tr>
<td>Significant associations found in Add Health data</td>
<td>Adjusted interview questions to elicit more detail</td>
</tr>
<tr>
<td>Added Add Health variables</td>
<td>New findings emerged qualitatively</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Analysis</td>
<td></td>
</tr>
<tr>
<td>Tested qualitative patterns quantitatively for generalizability</td>
<td>Patterns influenced reproductive outcomes</td>
</tr>
</tbody>
</table>
Implications: Output
Example 2: Access to Judicial Bypass for Abortion Care in Texas

• Co-principal investigators: Amanda Jean Stevenson, Emily Obront, Susan Hays
• Funded by the Texas Policy Evaluation Project and Private Funder
Access to Judicial Bypass for Abortion Care in Texas

Problem:

• Minors need parental consent to access abortion in Texas
• Texas’ HB 3994
• Jane’s Due Process wants to know the impact successful bypasses
Access to Judicial Bypass for Abortion Care in Texas

Literature:
- Only one study young people’s experiences with judicial bypass
- Little to no empirical information about the judicial bypass process or the denials
Access to Judicial Bypass for Abortion Care in Texas

Research aims:
• Evaluate the impact of HB 3994 on minors’ access to abortion in Texas
• Describe the judicial bypass process
Access to Judicial Bypass for Abortion Care in Texas

Theory:

- Stigma (Goffman, 1986)
- Nation-state power over bodies (Foucault, 1975, 1980)
Access to Judicial Bypass for Abortion Care in Texas

Design:

• A partially mixed, concurrent, dominant qualitative status mixed design (Teddlie and Tashakkori, 2006)
Access to Judicial Bypass for Abortion Care in Texas

Implications:
• Sample selection
• IRB and minors
Access to Judicial Bypass for Abortion Care in Texas

**Quantitative**
- Jane’s Due Process attorney records
- State of Texas court data
- Records reconstruction of judicial bypass cases

**Qualitative**
- 20 young people who sought judicial bypass 2015-2016 in Texas
- 19 attorneys (collective 800 bypass cases)
- Semi-structured interviews
- Thematic analysis – mostly inductive
Access to Judicial Bypass for Abortion Care in Texas: Theory used to analyze & interpret results

- Young women experience judicial bypass as a deserved consequence
  - Malcolm Feely’s (1992) “The process is the punishment”
- Attorneys are stigmatized and reinforce stigma
  - Stigma Power: Keep young women “in” (Link & Phalen, 2014)
  - Meso-level stigma: Between structural level (state) & individual level (Corrigan, 2004)
- Preservation of “what’s most at stake” (Yang et al., 2014)

Amanda Jean Stevenson, PhD, Kate Coleman-Minshew, RN, PhD, FNP-BC, and Susan Hays, JD

Implications: Timing of results for each method

Access to Judicial Bypass for Abortion Care in Texas
Example 3: Medication abortion among young people: A mixed-methods study in four states

- Co-investigators: Katherine Riley (COLOR), Ena Valladares & Maricela Cervantes (CLRJ), Eleanor Grano & Sarah Lopez (JDP), Alyssa Vera Ramos (ICAH), Antonia Biggs & Lauren Ralph (UCSF)
- Funded by Society of Family Planning & University of Colorado College of Nursing Dean’s Intramural Funding Award
Access to Judicial Bypass for Abortion Care in Texas

Implications:
• Proposals
Medication abortion among young people: A mixed-methods study in four states

Problem

• COLOR believes parental notification law barrier to medication abortion
• Increasing state-level restrictions on abortion care means medication might be the only option
Medication abortion among young people: A mixed-methods study in four states

Literature:
- Access to and use of medication abortion primarily among adults
- Limited information on policy contexts and cultures in different states
Medication abortion among young people: A mixed-methods study in four states

Theory:
- Bandura’s social cognitive model of human behavior (1977)
- Critical theory (Singer, 1989)
- Reproductive Justice Framework (Ross & Solinger, 2017)

Diagram:
- Problem
- Literature
- Theory
- Research questions
- Design
Medication abortion among young people: A mixed-methods study in four states

**Aim 1: To assess inequitable access to and use of medication abortion (MA) among young people**

- RQ1. What are young people’s needs (e.g., privacy) to access and manage MA? What are unique needs of oppressed young people?
- RQ2. Do young people access MA at rates comparable to older individuals, overall and after adjusting for their gestational age?
Medication abortion among young people: A mixed-methods study in four states

Aim 2: To describe the role of structural factors in access to and use of MA among young people

- RQ3. How does the structural policy landscape, such as parental involvement requirements, shape preferences for, access to, and management of MA?
- RQ4. Are parental involvement requirements associated with reduced access to MA?
Medication abortion among young people: A mixed-methods study in four states

Design:

- A partially mixed, concurrent, equal status mixed design (Teddlie and Tashakkori, 2006)
Medication abortion among young people: A mixed-methods study in four states

Implications:
• Site selection
• Sample size constraints of one method
Medication abortion among young people: A mixed-methods study in four states

<table>
<thead>
<tr>
<th>Qualitative</th>
<th>Quantitative</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 80-100 young people 15-24</td>
<td>• TX &amp; CO: ITOP data</td>
</tr>
<tr>
<td>• Considered or obtained abortion in the last 2 years</td>
<td>• IL: clinic data</td>
</tr>
<tr>
<td>• CA, CO, IL, TX</td>
<td>• CA: Medi-Cal billing data</td>
</tr>
<tr>
<td>• Semi-structured interviews</td>
<td>• Examine trends in MA use over time</td>
</tr>
<tr>
<td>• Theory driven thematic analysis</td>
<td>• Examine the impact of enacted PI laws in IL &amp; TX using difference-in-difference</td>
</tr>
</tbody>
</table>
- Triangulation
- Expansion of individual level to the population level
- Increase depth and breadth
<table>
<thead>
<tr>
<th>Preliminary paper topics</th>
<th>RQ</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge &amp; preferences around MA, including self-efficacy to manage, among young people</td>
<td>1</td>
<td>Qual</td>
</tr>
<tr>
<td>Privacy and social support and young people’s abortion decision-making</td>
<td>1</td>
<td>Qual</td>
</tr>
<tr>
<td>Access to and utilization of MA by age</td>
<td>1, 2</td>
<td>Quant &amp; Qual</td>
</tr>
<tr>
<td>Impact of PI requirements on utilization of MA including young people’s experiences navigating PI laws</td>
<td>3, 4</td>
<td>Quant &amp; Qual</td>
</tr>
</tbody>
</table>
Thank you!

Our participants who bravely shared their stories

Funding

• Society of Family Planning
• National Institute of Nursing Research 1F31NR013821-01A1
• The Eunice Kennedy Shriver National Institute of Child Health and Human Development funded University of Colorado Population Center (grant P2C HD066613)
• University of Colorado College of Nursing Dean’s Intramural Funding Award
• Texas Policy Evaluation Project

Collaborators

• Colorado Organization for Latina Opportunity and Reproductive Rights, Jane’s Due Process, California Latinas for Reproductive Justice
• Amanda Jean Stevenson, Jean Scandlyn, Sheana Bull, Patrick Krueger, Fernando Riosmena, CU
• Goleen Samari, Columbia University
• Lauren Ralph & Antonia Biggs, UCSF
References