The Influence of the Social Determinants of Health on Diabetes Self-Management in Rural Appalachia

Myra L. Clark, PhD, RN, FNP-C
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Social Determinants of Health

Source: Dahlgren and Whitehead, 1991
Background

• Diabetes is epidemic in United States
  – 11.3% adult population ≥ age 20 diagnosed or undiagnosed diabetes
  – 13% higher in rural areas
  – 33% higher in rural distressed areas (CDC, 2011)
• Diabetes is 6th leading cause of death in United States
• Healthcare costs $245 billion (ADA, 2013)
Background - Appalachia

– Geography/geology
  • Extends from Canada to parts of Mississippi
  • Coal, minerals (copper, gold)
– People
  • Individualists/Family
  • Mistrust/Loyal
– Extraction/Exploitation
  • Natural resources: lumber, minerals
  • People
Methods

• Recruitment
  – Community involvement
  – Toll-free telephone number
  – Networks
    • Community stakeholder
    • Clinic managers
  – Development of potential recruitment sites
• Disappearing sample
Methods

- Hermeneutic phenomenology
- Recruitment
  - Purposive sampling
- Interviews
- Step wise analysis using Kockelmans’ Canons (1975)
- Credibility, dependability, transferability
- Interpretation of findings
# Participants

Table 1. Participant Demographics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>46.5 (8.8)</td>
</tr>
<tr>
<td>Gender n (%)</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>4 (40)</td>
</tr>
<tr>
<td>Male</td>
<td>6 (60)</td>
</tr>
<tr>
<td>Race n (%)</td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>1 (10)</td>
</tr>
<tr>
<td>Caucasian</td>
<td>9 (90)</td>
</tr>
<tr>
<td>Education (years)</td>
<td>11.4 (1.7)</td>
</tr>
<tr>
<td>Diabetes Education n (%)</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>3 (30)</td>
</tr>
<tr>
<td>No</td>
<td>7 (70)</td>
</tr>
<tr>
<td>Residence n (%)</td>
<td></td>
</tr>
<tr>
<td>Rural, not a farm or ranch</td>
<td>7 (70)</td>
</tr>
<tr>
<td>Farm or ranch</td>
<td>1 (10)</td>
</tr>
<tr>
<td>Small town</td>
<td>2 (20)</td>
</tr>
<tr>
<td>Time since diagnosis with diabetes (months)</td>
<td>11 (5.2)</td>
</tr>
</tbody>
</table>
Results

• Major Themes
  1) importance of work;
  2) importance of social connectivity/support; and
  (3) importance of family or sense of place in self definition.
Importance of Work

• “I’ve always worked. May not be hard as I used to be but I’m pretty good.”

• “I was a single mom so I was constantly on the go all the time working. Most of my time is spent working”.

University of Virginia
School of Nursing
Social connectivity/support

- “There’s no better living in the world than around here.”
- “It’s my house, my uncle’s, my first cousin which was her daddy died... So there for about a mile it’s family”.
- “I was at deer camp and I had somebody down there that was diabetic and I said, “Would you prick my finger and check it?” And the next morning before I ate anything it was 144. So he told me to come up here (for medical care)”.
Importance of family or sense of place

• And hope my daughter don’t ever have to go through this. I stuck her finger and it was on up over a hundred and I think that opened her eyes a whole lot”.

• “And I feel alienated from my family because I’m not able to do the things that they want to do:

• “My husband on the other hand, he takes care of me. He manages all my medicines and stuff like that”.

Limitations

- Small sample size
- Not generalizable to other populations
- Recruitment
- Researcher bias
- Participant responses
Discussion and Conclusions

• Diabetes is a nationwide public health concern in the United States.
• Individuals in rural communities often face unique barriers or challenges.
• Healthcare providers and health policy need to include social determinants of health in diabetes self-management to improve patient outcomes.
• External or social determinants influence an individual’s health.
• Further research to determine the influence of social determinants on diabetes self-management will help to improve individuals’ health outcomes.
 References

