Evaluating Chronic Care Management in a Primary Care Setting

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**Background**
- 24% or $2.9 Trillion Dollars of US GDP on National Health Expenditures
- 93% of Medicare Spending on care of 2/3 of beneficiaries with 2 or more Chronic Conditions

**Purpose**
- To Improve the Goals of Triple Aim:
  - Health (Chronic Disease Sample Questionnaire)
  - Health Care (HbA1c, SBP, DBP & Qualitative Reports of CCMP)
  - Cost Value (ER Visits & Hospitalizations)

**Chronic Care Management Program (CCMP)**
- 2015 Medicare Initiative
- > 2 Chronic Conditions
- 20 Minute Monthly Phone Calls
- Reimbursement Rates Based on Geographic Location

**Theoretical Framework**

**Chronic Care Model**

- **Health Systems**
  - Organization of Health Care
- **Delivery System Design**
- **Decision Support**
- **Clinical Information Systems**

**Community Resources and Policies**

**Improved Outcomes**

**Methods**

**Design**
- Comparative, Longitudinal Study at a Primary Care Practice

**Sample**
- Medicare recipients ≥ 65 years
- Able to speak, read, and write English without cognitive impairment
- Have access to phones

**Research Questions**
- What is the relationship between CCMP and:
  - Hospital Admissions
  - Emergency Room visits
  - Urgent Care Visits
  - HbA1c, SBP, DBP

**Analysis**

**Mean Distribution Table of SBP/DBP and HbA1c at Baseline and Month 3**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Baseline</th>
<th>Month 3</th>
<th>t</th>
<th>df</th>
<th>p</th>
<th>Cohen's d</th>
</tr>
</thead>
<tbody>
<tr>
<td>SBP</td>
<td>127.8714</td>
<td>127.1114</td>
<td>-1.13</td>
<td>35</td>
<td>.26</td>
<td>-0.136</td>
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<tr>
<td>DBP</td>
<td>74.5455</td>
<td>73.5385</td>
<td>0.98</td>
<td>35</td>
<td>.33</td>
<td>0.085</td>
</tr>
<tr>
<td>HbA1c</td>
<td>6.6050</td>
<td>6.5125</td>
<td>0.38</td>
<td>20</td>
<td>.70</td>
<td>0.085</td>
</tr>
</tbody>
</table>

**Summary of Independent Samples t-tests Comparing Married and Unmarried Patients’ Utilization of Medical Services (n = 36)**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Married</th>
<th>Unmarried</th>
<th>t</th>
<th>df</th>
<th>p</th>
<th>Cohen's d</th>
</tr>
</thead>
<tbody>
<tr>
<td>ER Visits</td>
<td>1.03</td>
<td>0.22</td>
<td>4.12</td>
<td>36</td>
<td>.000</td>
<td>1.085</td>
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<tr>
<td>Hospitalizations</td>
<td>0.13</td>
<td>0.26</td>
<td>0.55</td>
<td>33</td>
<td>.59</td>
<td>0.085</td>
</tr>
<tr>
<td>Urgent Care</td>
<td>0.38</td>
<td>0.15</td>
<td>1.88</td>
<td>33</td>
<td>.08</td>
<td>0.34</td>
</tr>
</tbody>
</table>

**CCM Benefits**
- Symptom Management
- Medication Management
- Care Coordination
- Community Services Coordination
- Meeting Acute Care Needs

**CCM Barriers**
- Need full staff support
- Additional clinic resources needed in time and personnel
- Improvements may not be immediate

**Limitations**
- Small sample size from one clinic
- Patient without telephones not included
- Patients without English skills not included
- Lacks comparison group

**Implications for Practice**
- Advanced Practice Nurses in primary roles implementing & evaluating CCMP
- Interprofessional Teamwork
- Promote Self-management and Self-efficacy

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