Factors Associated with Colorectal Cancer Screening Adoption Among Chinese Americans: A Stages of Change Perspective

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Presenter Disclosures

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“No relationships to disclose”
Background

- Colorectal cancer (CRC) is the 2\textsuperscript{nd} most common cancer among Chinese Americans men and women

- Screening is effective in reducing CRC incidence and mortality

- CRC screening rates remain low among Chinese Americans
CRC Screening Adherence: Lower among limited English proficient (LEP) Chinese

Colorectal Cancer Screening Adherence Rates

72%  
Non-Hispanic Whites

59%  
LEP Chinese (speak English < well)

2009 California Health Interview Survey (CHIS)
Few Studies of Factors Associated with CRC Screening Adherence among Chinese Americans

• More education, fear of abnormal results, and lower perceived susceptibility (Sun, 2004)
• Less acculturation, no physician recommendation (Yip, 2006)
• No primary care physician (Kim, 2011)
• Lack of awareness of CRC screening (Homayoon, 2012)
Objective

Identify factors associated with CRC screening adoption among Chinese Americans using a Stages of Change perspective.
Stages of change & CRC Screening

- A core construct of the Transtheoretical Model (TTM)
- Has been applied to CRC screening intervention (e.g., Rawl 2008; Vernon 2011)
- Shown to be predictive of CRC screening in prospective study (Vernon, 2011)
- Never been applied to CRC screening in Chinese Americans
## Stages of CRC Screening Adoption

(Rawl 2005, 2008)

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Precontemplation</strong></td>
<td>Has no plan to get screened in the next 6 months</td>
</tr>
<tr>
<td><strong>Contemplation</strong></td>
<td>Plans to get screened in the next 6 months</td>
</tr>
<tr>
<td><strong>Action</strong></td>
<td>FOBT/FIT within past 1 year OR Sigmoidoscopy within past 5 years OR Colonoscopy within past 10 years</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never been screened</td>
<td>Has no plan to get screened in the next 6 months</td>
</tr>
<tr>
<td>or overdue</td>
<td>Plans to get screened in the next 6 months</td>
</tr>
<tr>
<td>Up-to-Date</td>
<td>FOBT/FIT within past 1 year OR Sigmoidoscopy within past 5 years OR Colonoscopy within past 10 years</td>
</tr>
</tbody>
</table>
Methods

- Cross-sectional data from a convenience sample of 319 Chinese Americans, aged 50-75, who were enrolled in an on-going RCT.
Self-administered paper-and-pencil survey

Key measures
- Demographics (gender, age, years in U.S., English proficiency, education, income)
- Health literacy, perceived general health, concurrent medical conditions
- Health care access: health insurance coverage, PCP visits
- Attitudes toward CRC screening
- Stages of CRC screening adoption

Data analyses
- Multinomial logistic regression
- Dependent variable: Stages
- Selection of covariates: literature and bivariate associations $p < 0.10$
Participant Characteristics (N = 319)

- 77% Female
- 70% Age >60 years
- 64% Education < high school
- 72% Married
- 99% Foreign-born, 77% from China
- 93% Spoke English < well (64% spoke English poorly or not at all)
- 89% Had PCP/regular health care clinic access

- 60% said their physician recommended CRC screening
- 70% had ever had CRC screening
- 93% agreed CRC screening is important
Results
Stages of CRC Screening Adoption (N = 319)

- **Action**: 55%
- **Contemplation**: 31%
- **Precontemplation**: 14%
Multivariable analyses: Factors associated with Stages of CRC Screening Adoption

<table>
<thead>
<tr>
<th>Covariates included in the model:</th>
<th>Gender, Age, Years in U.S., Education, Household income, English proficiency, Health literacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socio-demographics:</td>
<td>Perceived general health, Concurrent medical conditions</td>
</tr>
<tr>
<td>Health status:</td>
<td>Being insured, Regular PCP or clinic access, Medical visit within past 12 months, PCP’s recommendation</td>
</tr>
<tr>
<td>Health care access:</td>
<td>Risk (chance of developing CRC is high); Worry (worried about getting CRC); Importance (CRC screening is important to do); Time (finding time is difficult); Ease (completing CRC screening is easy)</td>
</tr>
</tbody>
</table>
When compared to those in Action, Precontemplators were less likely to be insured, to report that a physician had recommended screening, to be worried about getting colorectal cancer, to believe that screening was easy.
When compared to those in Contemplation, Precontemplators were more likely to be female, and less likely to report that a physician had recommended screening or to be worried about getting colorectal cancer.
Conclusions

1. Although most Chinese American respondents agreed that CRC screening was important for them, one-third had no plan for it.
Conclusions

2. Lack of health insurance, not having received physician recommendation, low perceived susceptibility, and perceived screening difficulty were associated with being in precontemplation.
Conclusions

3. To promote CRC screening in Chinese Americans, multi-level interventions targeting patients, providers and health care access are needed.
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