Low Health Literacy in Asian American Immigrant Families: Implications on Children’s Mental Health Equity

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Background: Health Literacy (HL)

“Degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions” (p. vi)

Ratzan and Parker (2000)
Background: Mental Health Literacy (MHL)

“Knowledge and beliefs about mental disorders which aid their recognition, management or prevention”

(Jorm, 2012)
Why is Health Literacy Important?

• Impacts timely access to, and use of, existing health services

• Related to…
  – Limited awareness of health symptoms
  – Lack of knowledge of where to seek services
  – Limited ability in identifying illnesses
  – Decreased health service utilization

Baker, Parker, Williams, Clark, & Nurss, 1997; Friedman & Hoffman-Goetz, 2008; Lindau, Tomori, McCarville, & Bennett, 2001; Wolf, Gazmararian, & Baker, 2005
Importance of Health Literacy

• Limits an individual’s ability to communicate to service provider
• Affects one’s understanding and ability to follow health instructions
  – 1 in 4 parents have limited health literacy skills
  – One-third of U.S. adults are not able to perform basic child wellness tasks
  – Asian immigrants had lower HL than non-Latino Whites

(Kutner Greenberg, Jin, & Paulsen, 2006; Yin et al., 2009, HY Lee)
Why is Mental Health Literacy Important?

- Low knowledge about mental health disorders by the general public
- Lack of understanding on how to recognize a developing disorder
- Poor knowledge about effective self-help strategies or how to seek help for one’s self and others
- Approx. 18% of the total U.S. population experienced a mental health illness in 2014

(NIMH 2014; Jorm 2012)
Mental Health Literacy Importance

- 13% of children (8 to 13 years old) had a diagnosable mental health disorder in the last year
- Asian Americans (AA) and Native Hawaiians/Other Pacific Islanders had the highest rates (21% and 22% respectively)
- AA may be of particular interest because:
  - AA underutilize mental health services
  - High level of stigma in AA populations

(NIMH 2014; Jorm 2012)
Parents and Children

What about link between parents and children?

– Parents are in control of their children’s health decisions

– Parents may be the gateway from which we could address disparities in child mental health outcomes

– Previous research supports relationship between parental HL and child physical health outcomes
Parents with Low Health Literacy:

(Jimenez et al. 2013; Porr, Drummond, and Richter 2006)
Gaps in Current Research

• Little research has looked at the effect parental health literacy has on child mental health outcomes or utilization of mental health services

• Limited understanding of HL in AA immigrant populations
  – And its relationship to outcomes both for the individual and child

(DeWalt & Hink, 2009)
Research Aims

• This study aims to investigate the impact of parental health literacy on children’s health and mental health outcome/service utilization among Asian American immigrant parents.
Research Questions of Interest

a) Level of health literacy in AA immigrant, Latino immigrant, African American, and White parents?

b) Are the health literacy levels of Asian American immigrant parents related to their child’s mental health service utilization?

a) Are the health literacy levels of Asian American immigrant parents related to their children’s mental health and wellbeing?
Dataset

- 2007 California Health Interview Survey (CHIS)
- Cross-sectional telephone survey of the non-institutionalized population in California
- Collected data from households that had at least one parent and one minor child
- Administered in five languages
- Oversampled AA
Dependent Variables

• Mental health service utilization
  • “During the past 12 months, did (CHILD) receive any psychological or emotional counseling?”
  • “During the past 12 months did you think you needed help for emotional or mental health problems, such as feeling sad, anxious or nervous? “ (Teen)

• Depressive Symptoms
  • Seven-item scale (Goodman, Meltzer, & Bailey, 1998) on a 3-point Likert Scale ranging from not true (1) to certainly true (3) (Child)
  • Six-item emotional functioning scale on a 5-point Likert Scale ranging from All (1) to None (5) (Adolescent)
Independent Variables

• Parental Health Literacy
  – “When you read the instructions on your prescription bottle, would you say it is very easy (1), somewhat easy (2), somewhat difficult (3), or very difficult (4) to understand?”
  – “When you get your written information at a doctor’s office, would you say that it is very easy (1), somewhat easy (2), somewhat difficult (3), or very difficult (4) to understand?”

• Spearman Brown Correlation is .66
Control Variables

- Parents: age, gender, whether they live in a rural or urban area, income, English proficiency
- Children: age, gender, current asthma status, ADHD (child only), insurance, dental insurance, general health status
Data Analysis

- Univariate analyses: levels of HL and utilization
- Multiple regression analyses: relationship between the parental HL and child outcomes, and between parental HL and child utilization
Results: Participants - Parents

- 18 – 84 years, $M = 40.76$, $SD = 9.11$
- Latino ($N = 1,195$), Asian ($N = 722$), African American ($N = 368$), White ($N = 4,772$)
- 3,511 Men, 5,888 Women
- 7,638 in Urban areas, 1,761 in Rural areas
Results: Participants - Children

- 4-11 years of age
- 5,161 boys, 4,752 girls
- 9,474 insured, 439 without insurance
Results: Participants - Adolescents

- Adolescents: 12-17 years old
- 1,823 boys, 1,815 girls
- 3,434 insured, 204 without insurance
## Results: Parental Health Literacy Levels

<table>
<thead>
<tr>
<th></th>
<th>Non-Latino Whites</th>
<th>Latino Immigrants</th>
<th>Asian Immigrants</th>
<th>African Americans</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean</strong></td>
<td>4.55</td>
<td><strong>4.09</strong>*</td>
<td><strong>4.21</strong>*</td>
<td>4.53</td>
</tr>
<tr>
<td><strong>Standard Deviation</strong></td>
<td>.61</td>
<td>.84</td>
<td>.87`</td>
<td>.65</td>
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<tr>
<td>$b$ (weighted, ref = white)</td>
<td>-.46</td>
<td>-.34</td>
<td>-.02</td>
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<tr>
<td>$t$-statistic</td>
<td>-20.76</td>
<td>-12.22</td>
<td>-.47</td>
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<tr>
<td>$p$-value</td>
<td>&lt; .001</td>
<td>&lt; .001</td>
<td>.64</td>
<td></td>
</tr>
</tbody>
</table>

*Significant at the 0.05 level.
Health Literacy Levels by Race/Ethnicity

- Non-Latino Whites
- Latino Immigrants
- Asian Immigrants
- African Americans
Results: Utilization

- Parental health literacy did not predict mental health service utilization in any groups.
Results: Health Outcome

• Parental health literacy significantly predicts:
  – Health outcome in Asian American children only
Results: Mental Health Outcome

• Parental health literacy significantly predicts:
  – Mental health outcome in Asian American children only
## Parental health literacy and Children Mental Health: Asian American

<table>
<thead>
<tr>
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<th>B</th>
<th>SE</th>
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<tbody>
<tr>
<td>Parent Age</td>
<td>.004</td>
<td>.082</td>
</tr>
<tr>
<td>Parent Gender</td>
<td>.051</td>
<td>.057</td>
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<tr>
<td>Household Income</td>
<td>&lt;.001</td>
<td>.126</td>
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<tr>
<td><strong>HL Mean</strong></td>
<td>.038</td>
<td><strong>.026</strong>*</td>
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<tr>
<td>Urban/Rural Location</td>
<td>-.039</td>
<td>.514</td>
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<tr>
<td>Child Gender</td>
<td>-.079</td>
<td><strong>.003</strong>*</td>
</tr>
<tr>
<td>Child Age</td>
<td>.001</td>
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<tr>
<td>Child General Health (1)</td>
<td>.605</td>
<td><strong>.001</strong>*</td>
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<tr>
<td>ADHD</td>
<td>-.380</td>
<td>&lt;.001*</td>
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<tr>
<td>Current Asthma</td>
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<td>.184</td>
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<tr>
<td>Insurance</td>
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<td>.813</td>
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<tr>
<td>Dental Insurance</td>
<td>-.052</td>
<td>.191</td>
</tr>
</tbody>
</table>
Conclusions/Discussion

• HL did not predict mental health outcomes for all groups
  
  – Suggests that HL may be a barrier to poor mental outcomes for a certain ethnic group
  – Although HL may be low in immigrant populations, it may be a barrier only for certain groups
Conclusions/Discussion

• Contrary to expectations, HL was not significant for teen utilization or outcomes. May be explained by:
  – Teens have more control of their health decisions than children
  – Teens do not realize when they are suffering from poor mental health
Limitations

• Health Literacy Construct
  – Although previous research has suggested that the two item HL scale is a good representation of HL (The Commonwealth Fund, 2015), the scale had low reliability for our sample which could have impacted results

• Were not able to look at sub-Asian or sub-Latino groups

• Were not able to look at non-Asian or Latino immigrants
Implications for Practitioners

Study results suggests *poor health literacy*:
- may be associated with lower health and mental health outcomes for their children among Asian American parents

→ Practitioners need to recognize poor health literacy & devise ways to increase health literacy among their clients!
Health Literacy Screening

Variety health literacy screening tools available for different populations – most commonly used:

1-Item Question:

Q. How confident are you filling out medical forms by yourself?

(Extremely, quite a bit, somewhat, a little bit, not at all)

*Predict Low Health Literacy – Veterans populations

(Chew et al., 2008)
Health Literacy Screening

2-Item Questionnaire:

Q1. When you read the instructions on your prescription bottle, would you say it is:

Q2: When you get your written information at a doctor’s office, would you say that it is:

(Very easy, Somewhat easy, somewhat difficult, or very difficult to understand)

2007 California Health Information Survey (CHIS)
Health Literacy Screening

3-Item Questionnaire:

How difficult is it for you to:

- Get advice or information about health or medical topics if you needed it?
- Understand information that doctors, nurses and other health professionals tell you?
- Understand written health information?

(Very easy, Somewhat easy, Somewhat difficult, Very difficult, I do not know)

2016 CDC Behavioral Risk Factor Surveillance System
Questions and Answers

Thank You!

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References


References


