Cross Cultural Menopause Symptoms

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Why study across cultures?

• To understand the range of variation in women’s interests, behaviors, concerns, and self-care

Anthropology
• Holistic
• Comparative

• To document the range of variation in human biology

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Emic Perspective

- Informant’s own views, attitudes, and meanings
- Open-ended questions
- Rich information (difficult to compare)

Etic Perspective

- Standardized instruments, checklists
- Anthropometrics
- Clinical measures
- “Culture proof”?
- Comparable?

Anthropology of menopause

- Marcha Flint (1975)
  - Rajput Indians did not experience hot flashes
- Dona Lee Davis (1983)
  - Newfoundland “blood” and “nerves”
- Yewosbed Beyene (1989)
  - Absence of hot flashes in Chichimilá, Yucatan
- Margaret Lock (1993)
  - Ambiguous change of life in Japan

Comparative studies of symptom frequencies

- Across multiple countries
  - US (McKinlay), Canada (Kaufert), Japan (Lock), Australia (Dennerstein)
  - Decisions at Menopause Study (DAMeS) (Obermeyer et al. 2007)
    - US, Spain, Lebanon, Morocco
  - Australian/Japanese Midlife Women’s Health Study
    (Anderson et al. 2004)
  - Women’s International Study of Health and Sexuality (WISHeS)
    - France, Germany, US, UK, Italy (Dennerstein et al. 2007)
  - France and Tunisia (Ferrand et al. 2013)

Melby et al. 2011
Comparative studies of symptom frequencies

• Across ethnic groups within the same country
  • Study of Women’s Health across the Nation (SWAN)
  • Women’s Health in Midlife National Study in Israel
    Long term Jewish residents, immigrants from the former Soviet
    Union, Arab Israelis (Lerner-Geva et al. 2010)
  • Four Major Ethnic Groups (Internet) (Im et al. 2010)
  • Hilo Women’s Health Survey (Brown et al. 2009; Sievert et al. 2007)
    Japanese, Hawaiian, European-American
  • Campeche, Mexico, Maya and non-Maya (Huicochea et al. in press)

• Between migrants, their new neighbors, and women
  still residing in their country of origin
  • Indians in Birmingham, UK (Gupta et al. 2006)
  • Latin American immigrants in Madrid (Perez-Alcala et al. 2015)
  • Bangladeshis in London, UK (Sievert et al. 2016)

 Factor analyses
  • To examine how symptoms at midlife group together
  • To see examine how those groupings differ across countries
  • Example: DAMeS (Sievert et al. 2007)
• Similarities across all 4 countries:
  • Anxiety and depression clustered together
  • Difficulty concentrating and memory loss clustered together

• Difference: Fatigue/weakness
  • Clustered with mental symptoms in the U.S.
  • With emotional symptoms in Lebanon
  • With somatic symptoms in Morocco

• Difference: Hot flashes
  • Clustered with vaginal dryness and sexual symptoms in Spain
  • Clustered with somatic symptoms in Morocco
  • Not included in factors in the U.S. or Lebanon

Sievert et al. 2007

Hot flash frequencies
two weeks before interview

<table>
<thead>
<tr>
<th>Location</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Puebla, Mexico</td>
<td>50%</td>
</tr>
<tr>
<td>Sylhet, Bangladesh</td>
<td>45%</td>
</tr>
<tr>
<td>Asunción, Paraguay</td>
<td>43%</td>
</tr>
<tr>
<td>Hilo, Hawaii</td>
<td>34%</td>
</tr>
<tr>
<td>Seljka Valley, Slovenia</td>
<td>24%</td>
</tr>
<tr>
<td>Western Massachusetts</td>
<td>24%</td>
</tr>
<tr>
<td>Maká of Paraguay</td>
<td>7%</td>
</tr>
</tbody>
</table>


What have we learned from cross-cultural work? The importance of language.

What word should we use to describe hot flashes?

• Japan
  • Atsuku maru
  • Kaa; Hoteri
  • Nabose

• Mexico
  • Bachemos; Calores
  • Sudores; Sofocos
  • Oleadas de calor

• Bangladesh
  • Gorom vap lage
  • Gorom fawp lage
  • Akhta grown laga
  • Matha dia dhuma jai

• South Africa
  • 14 languages

Huiscochea et al. in press; Jaff 2014; Melby 2015; Sievert 2014
Have you ever felt bochornos or calores and, if so, why? Mayan women in Xmabén
- used the word calor, and associated hot flashes with
  - clima ambiental (ambient temperature)
  - la presión arterial (blood pressure)
  - las infecciones por enfermedad (infections)
  - sentir que se ahogan (the feeling of suffocation)

Have you ever felt bochornos or calores and, if so, why? Women who work in government offices in the city of Campeche describe hot flashes as part of a series of symptoms including
- sudor (sweating)
- enrojecimiento (reddening)
- nervios (nervousness)
- mal humor (bad mood or anger)

Measurement of hot flashes
- Questionnaires
- Diaries
- Body diagrams
- Ambulatory monitors
Where women feel hot flashes

Where women feel hot flashes

<table>
<thead>
<tr>
<th>Location</th>
<th>Bangladesh</th>
<th>Mexico</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top of head</td>
<td>64%</td>
<td>46%</td>
<td>27%</td>
</tr>
<tr>
<td>Face</td>
<td>100%</td>
<td>100%</td>
<td>87%</td>
</tr>
<tr>
<td>Back of neck</td>
<td>100%</td>
<td>100%</td>
<td>46%</td>
</tr>
<tr>
<td>Upper chest</td>
<td>100%</td>
<td>92%</td>
<td>68%</td>
</tr>
</tbody>
</table>

Diurnal pattern of hot flashes, Detroit, MI

Freedman et al. 1995

Peak 6 PM

Diurnal pattern of hot flashes in Hilo, Hawaii

Swerd et al 2010

Peak 3 PM

Hot flashes: Human universals

- Discomfort
- Diurnal variation
- Association with menopausal transition
Prevalence of menopause symptoms in the Study of Women Entering and in Endocrine Transition (SWEET)

Black South African women, aged 40-60 (n=702), prevalence of obesity 63%. Significantly higher prevalence of vasomotor symptoms (VMS) and sexual problems in early postmenopause stage. Severe/very severe VMS prevalence significantly higher (28.2%) in women with BMI 35+ kg/m² compared with the lower BMI groups (20.2%) (Jaff et al. 2014).

Do Japanese women have fewer hot flashes?

- **Culture-specific comparisons of subjective and objective hot flashes**

- **Frequency of hot flashes among women of menopausal age**

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Study Location</th>
<th>Study Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>12%</td>
<td>Japan</td>
<td>Lock 1986, 1993</td>
</tr>
<tr>
<td>31%</td>
<td>Massachusetts</td>
<td>Melby 2005</td>
</tr>
<tr>
<td>22%</td>
<td>Japan</td>
<td>Avis et al. 2001</td>
</tr>
<tr>
<td>12%</td>
<td>Japanese-Americans in California</td>
<td>Sievert et al. 2008</td>
</tr>
<tr>
<td>16%</td>
<td>Chinese-Americans in California</td>
<td>SWAN</td>
</tr>
<tr>
<td>16%</td>
<td>European-Americans (7 sites)</td>
<td></td>
</tr>
<tr>
<td>16%</td>
<td>Latinas in New Jersey</td>
<td></td>
</tr>
<tr>
<td>39%</td>
<td>African-Americans (4 sites)</td>
<td></td>
</tr>
<tr>
<td>18%</td>
<td>Japanese in Hilo, Hawaii</td>
<td></td>
</tr>
<tr>
<td>37%</td>
<td>European-Americans in Hilo, Hawaii</td>
<td></td>
</tr>
</tbody>
</table>
Culture-related determinants of hot flash experience

- Clothing
- Religion
- Social Norms

No difference in objective hot flash experience

Brown et al. 2009

Bangladeshi sedentary
Bangladeshi immigrants
White, London neighbors

Stewart et al. 2016, Am J Physical Anthro
Social Norms

- Smoking habits
- Alcohol intake
- Physical activity
- Diet and weight
- Access to birth control
- Sources of stress

Additional variation across cultures

- Attitudes toward menstruation, menopause, and aging
- Physical or emotional phenomena associated with menopausal symptoms
- What women think is culturally appropriate to discuss with clinicians
- Generation of migration

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