Multicultural approaches of Cancer Pain

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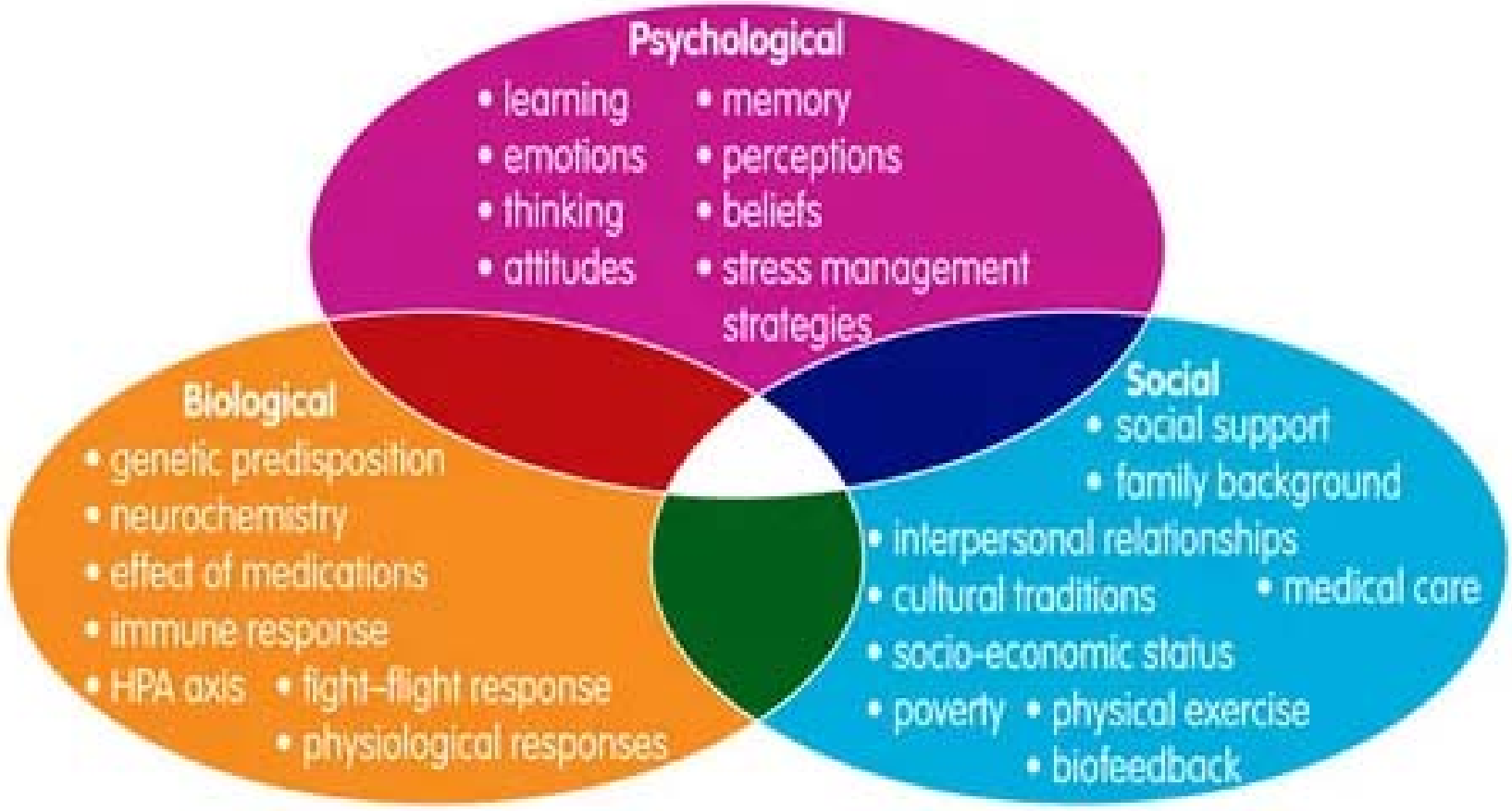
Outline

- Cancer Pain & Biology
- Patients' experience of Cancer Pain & Ethnicity
- Culturally Adapted Tools for Pain Assessment?
- Quid use of CAM for Cancer Pain in ethnic minorities ?
- Adherence to Cancer pain Treatment and Culture
- Communication
- Conclusion

Cancer Pain & Biology

- Pain Prevalence ranging from 33% after curative treatment, to 59% on anticancer treatment and to 64% in patients with metastatic, advanced or terminal disease
- Biomedical model
  - Pathophysiology & -biology still not fully understood
  - New perspectives on the biology of pain caused by tumor : cross-talk between cancer cells and host's immune and neural systems relevant to many cancer pain syndromes
  - Expanding role of non-pharmacological modalities as neuromodulation will may play a major role in the treatment of neuropathic cancer pain (from peripheral nerve stimulation to deep brain stimulation)
  - Ethnic differences in drug (morphine) metabolism

Patients' experience : a Biopsychosocio-cultural Model



Pts' Experience of Cancer Pain & Ethnicity
What does the Literature learn us?

Kwok et al., 2014 Syst Rev of Quant & Qual studies (N=11)
Ethnicity & Pain Experience

- Objective: 2 main themes: pain experience & management of cancer pain
- Results: 6 studies show cultural differences in barriers to pain treatment, 1 study show no difference
- 3 studies show cultural differences in pain severity, 1 did not
- 2 studies show differences in perception of pain and coping between ethnic groups

Pts' Experience of Cancer Pain & Ethnicity
What does the Literature learn us?

Chen CH et al., 2011 Meta-analysis of cultural differences in Western and Asian patient perceived barriers to managing cancer pain

- Objective: Meta-analysis to compare the differences in pain management barriers between Western and Asian cancer patients using Ward's Barrier Questionnaire
- Patients: 22 studies, results from 3.272 cancer patients
- USA (1.586 pts), Puerto Rico (263 pts), Taiwan (476 pts), Hong Kong (87 pts), Australia (395 pts), and Korea (464 pts) over the period 1993-2009
- Results: Asian patients had significantly higher perceived barriers to managing cancer pain compared to Western patients

Pts' Experience of Cancer Pain & Ethnicity
What does the Literature learn us?

Im EO et al, 2009

A national online forum on ethnic differences in cancer pain experience

- Objective: To compare the cancer pain experience among White, Hispanic, African-American, and Asian cancer patients by analyzing data from online forums using thematic analysis
- Patients: In total, 22 White, 15 Hispanic, 22 African-American, and 27 Asian cancer patients was recruited through the Internet
- Results: White patients tended to seek treatment by using Western medicine, while ethnic patients aimed to normalize their pain

Pts' Experience of Cancer Pain & Ethnicity
What does the Literature learn us?

Im EO et al, 2013
Symptom clusters among
multiethnic groups of cancer patients with pain

- Objective: To determine ethnic differences in symptom clusters of patients reporting on cancer pain experiences using online surveys
- Patients: 388 cancer patients in the US were analyzed, including 87 Hispanics, 146 non-Hispanic whites, 80 African-Americans, and 75 Asian Americans
- Results: Asian Americans reported lower pain scores and African-Americans reported higher moderate functional status compared to other ethnic groups
- African-Americans reported higher symptom scores compared to white patients

Pts' Experience of Cancer Pain & Ethnicity
What does the Literature learn us?

Scott NW et al., 2008

The relationship between overall quality of life and its sub dimensions was influenced by culture: Analysis of an international database

- Objectives: To investigate whether culture influences the global health status QoI score of the EORTC QLG-C30 questionnaire
- Patients: Respondents from UK (n=1.636), Scandinavia (n=3.095), North Central Europe (n=9.816), South West Europe (n=2.386), Eastern Europe (n=528), Islamic countries (n=439), South Asia (n=1.025), East Asia (n=1.428), Australia (n=180), North America (n=1.082), and Latin America (n=127)
- Results: Influence of the pain subscale on QoL was less significant in the Islamic countries
  - Compared to the UK, pain was more influential on QoL for all other European groups

Pts' Experience of Cancer Pain & Ethnicity
What does the Literature learn us?

Im EO, 2007 Ethnic Differences in Cancer Pain Experience

- Objective: To determine ethnic differences in cancer pain experience of 4 ethnic groups
- Patients: Cross-sectional comparative survey design of a multiethnic sample of 480 cancer patients in the U.S.
- (105 Hispanics, 148 N-H Whites, 109 N-H African Americans, and 118 Asians)
- Results: VDS, VAS, FS, MPQ, and BPI scores of Non-Hispanic (N-H) Asian participants were significantly lower than those of Hispanic and N-H White participants ($p<.01$)

Verbal Descriptor Scale (VDS), Visual Analog Scale (VAS), Wong-Baker Faces Pain Scale (FS), McGill Pain Questionnaire (MPQ), Brief Pain Inventory (BPI)

Pts' Experience of Cancer Pain & Ethnicity
What does the Literature learn us?

Im EO, 2007 Ethnic Differences in Cancer Pain Experience (con't)

- VAS and MPQ scores of N-H African American participants were significantly lower than those of Hispanic and N-H White participants ($p<.01$)
- FACT-G scores of N-H Asian participants were significantly lower than Hispanic participants ($p<.01$)
- Being N-H Asian or not was a significant predictor of the VDS, FS, and BPI scores

Verbal Descriptor Scale (VDS), Visual Analog Scale (VAS),
Wong-Baker Faces Pain Scale (FS), McGill Pain Questionnaire (MPQ),
Brief Pain Inventory (BPI),
Functional Assessment of Cancer Therapy Scale (FACT-G)

Culturally Adapted Tools for Pain assessment?

- Various levels of reliability (R) & validity (V) across ethnic groups

Brief Pain Inventory (BPI)

- ✓ High degree of R & V in countries outside the US
- ✓ Translated in Vietnamese, Chinese, Philipinne language & French

Numerical Rating Scales (NRS)

- ✓ NRS 0-5, 0-10, 0-100
- ✓ V well established for 0-10 NRS
- ✓ Translated into Chinese, French, German, Greek, Hawaiian, Hebrew, Philipine language, Italian, Japanese, Korean, Pakistan, Polish, Russian, Samoan, Spanish, and Vietnamese

Culturally Adapted Tools for Pain assessment?

Faces Rating Scales (FRS)

- Wong-Baker face scale high reliability
- Most preferred by pts from Nepal & China as they are not used to convert the magnitude of a sensation into a length on a line or number (*Pathak et al., 2018*)
- Translated into Chinese, French, Italian, Portuguese, Romanian, Spanish, and Vietnamese

Visual Analog Scale (VAS)

- Horizontal or vertical line presentation
- Chinese pts' responses to VAS revealed vertical presentation more clearly understood

Use of Complementary treatment for Cancer Pain

- Non-pharmacological therapies aim to treat affective, cognitive, behavioral and socio-cultural dimensions of cancer pain
- Evidence supports use of CAM therapies to control symptoms in cancer patients and survivors (*Satija et al., 2017*)
- Yet evidence of CAM in relieving pain of cancer patients seems insufficient
- Analysis of 27 SR (*Yanju Bao et al., 2014*)

  - Only 2 interventions (*psychosocial intervention and massage therapy*) from 5 systematic reviews were of moderate evidence level on cancer pain
  - Definitive conclusions were not achieved for most of them due to the methodological problems and/or small sample size

Use of Complementary treatment for Cancer Pain

- Objective: Randomized controlled trials (RCTs) that evaluated any type of invasive *acupuncture* for pain directly related to cancer in adults aged 18 years or over (Cochrane SR, 2015)
- Studies/Patients: 5 RCTs (285 participants)

Results: - No benefits of acupuncture over conventional medication for late stage unspecified cancer

- No benefits for auricular (ear) acupuncture over placebo for chronic neuropathic pain related to cancer
- None of the studies described in this review were big enough to produce reliable results
- Insufficient evidence to judge whether acupuncture is effective in relieving cancer pain in adults

Paley CA, Johnson MI, Tashani OA, Bagnall AM. Acupuncture for cancer pain in adults. *Cochrane Database of SystematicReviews 2015, Issue 10. Art. No.: CD007753. DOI: 10.1002/14651858.CD007753.pub3*

Use of Complementary treatment for Cancer Pain

- A more recent systematic review with meta-analysis (*Chiu et al., 2017*) of 29 RCTs found *acupuncture* effective for cancer-related pain, particularly malignancy-related and surgery-induced pain
- Limitations of research evidence for effect of T'ai Chi and qigong on cancer pain
- Further studies should be based on stringent research methodology, and the role of CAM for alleviating cancer pain should be investigated
- *Yoga* has shown positive effect for reducing pain but the sustainability of these results needs more investigation

Chiu HY, Hsieh YJ, Tsai PS. Systematic review and meta-analysis of acupuncture to reduce cancer-related pain. *Eur J Cancer Care (Engl). 2017;26(2)*

Ethnicity & Use of Complementary treatment for Cancer Pain

- *Maskarinec et al., 2000* found CAM use highest among Filipino and white patients, intermediate for Native Hawaiians and Chinese, and significantly lower among Japanese (as a part of the Japanese tradition, “it is not customary to question physicians' recommendations”)
- Ethnic preferences: herbal medicines were preferred by Chinese, Hawaiian healing (spiritual counseling) by Native Hawaiians, and religious healing and prayer by Filipinos

Ethnicity & Use of Complementary treatment for Cancer Pain

- *Lee Marion M. at al., 2000*, examined the use of alternative therapies by women of different ethnic groups with breast cancer: Latino, white, African-American, and Chinese women
- African-American women most often used spiritual healing (36%), Chinese most often used herbal remedies (22%), and Latino women most often used dietary therapies (30%) and spiritual healing (26%) Among whites, 35% used dietary methods and 21% used methods such as massage and acupuncture
- Prevalence of herbal use by the Chinese in general
- Data did not provide a clear explanation for the differences
- In African-Americans, the high use of spiritual healing may indicate a greater focus on spirituality and religious faith

Ethnicity & Use of Complementary treatment for Cancer Pain

- *Mao Jun J. et al., 2011. Use* of complementary and alternative medicine (CAM) among 1.471 cancer survivors
- In multivariate analysis adjusting for socio-demographic factors, cancer survivors were found to have both increased past use of CAM (AOR 1.61, 95% CI 1.39-1.86, p<0.001) and recent use of CAM (AOR 1.28, 95% CI 1.11-1.49, p=0.001)
- *6.7% of CAM use were to treat pain-related symptoms*, mostly because medical treatments did not help
- CAM disclosure among cancer survivors was significantly higher when compared to non-cancer controls (OR 1.84, 95% CI 1.58-2.16)

Ethnicity & Use of Complementary treatment for Cancer Pain

- *Barrett M et al., 2016,* examined data from a prospective pain survey in Chinese Americans who were first-generation immigrants, had an active cancer diagnosis, and experienced persistent or frequent pain for the past three months (n = 170)
- 20.6% reported using CAM approaches for cancer pain management, either alone or in combination with analgesics
- Chinese herbal medicine (11.2%) and acupuncture (7.6%) were the most commonly reported
- Other methods included Chinese massage (tui na) (4.7%), energy healing (2.9%), qi gong (1.8%), tai chi (1.2%), and meditation (0.6%)
- Patients with higher average pain intensity ratings were significantly more likely to use CAM (P = 0.01)

Ethnicity & Use of Complementary treatment for Cancer Pain

- *Horneber M et al., 2012* Systematic Review and Meta-analysis of how many cancer patients use complementary and alternative medicine?
- Proportion of cancer patients using CAM has increased after 2000
- On average, about 40% of cancer patients reported current or previous use of CAM
- Considerable differences in the pooled prevalence estimates between the countries and continents with higher rates of CAM use in North America compared with Australia, New Zeeland and Europe
- Evaluation of CAM use in ethnically diverse populations should recognize ethnic-specific modalities and variation across ethnicity
- *No robust data specific regarding use of CAM for cancer pain in ethnic groups/minorities*

Ethnicity & Adherence to Cancer Pain Treatment

- Majority of adherence trials do not report ethnical background > they may suffer from a lack of diversity
- When they do, "whites" are often more than 90%
- Most of the socio-cognitive theoretical models used in adherence trial are not relevant to explore adherence in ethnic minorities
- If ethnicity is reported as predictive factor of poor adherence, studies present important limitations avoiding conclusion:
  - Nearly exclusively conducted in US > socioeconomic factors often may interact to explain non- adherence
  - Most of the socio-cognitive theoretical models used in adherence trial are not relevant to explore adherence of ethnic minorities
  - Factors shaped by culture are rarely included in adherence studies design
  - Majority of studies concern other chronic disease than cancer
- The search for the causes of (non)-adherence should be accompanied by a search for understanding of underlying mechanisms → Additional Qualitative and ethnographic studies
- No robust data specific regarding adherence to cancer pain treatment in ethnic groups/minorities

Crombez P et al., 2018

The Explanatory Model of the Patient

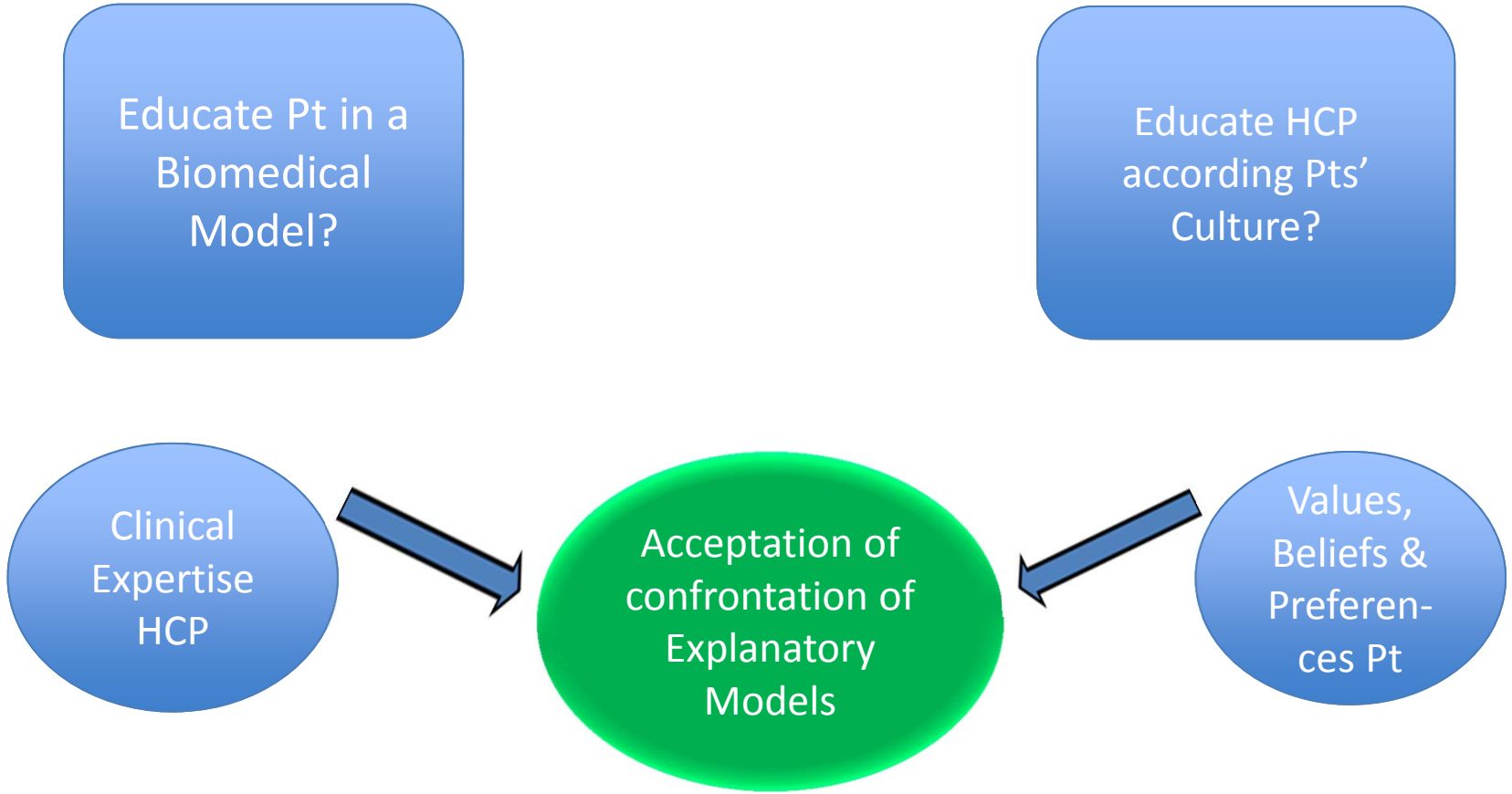
- People conceive their illness through their social and personal experiences

→ Individuals create their own explanatory model of the causes, meaning, evolution, mechanisms, diagnoses, treatment actions and consequences of the disease

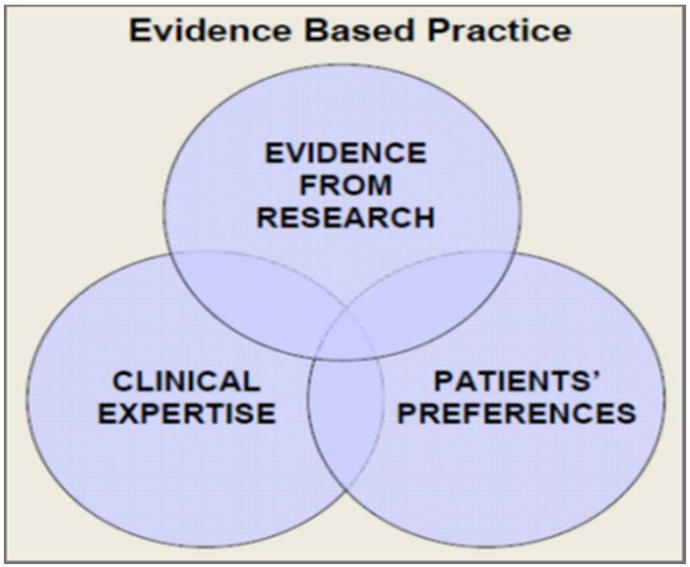
→ Culture affects all aspects of the cancer experience and its treatment: Perception of symptoms and how to respond to them, description and management of physical changes, moment to seek help

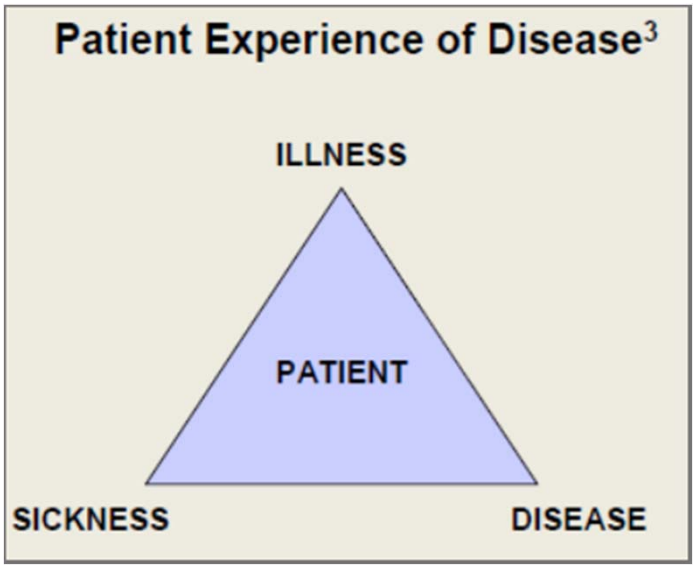
Anderson et al. 2003

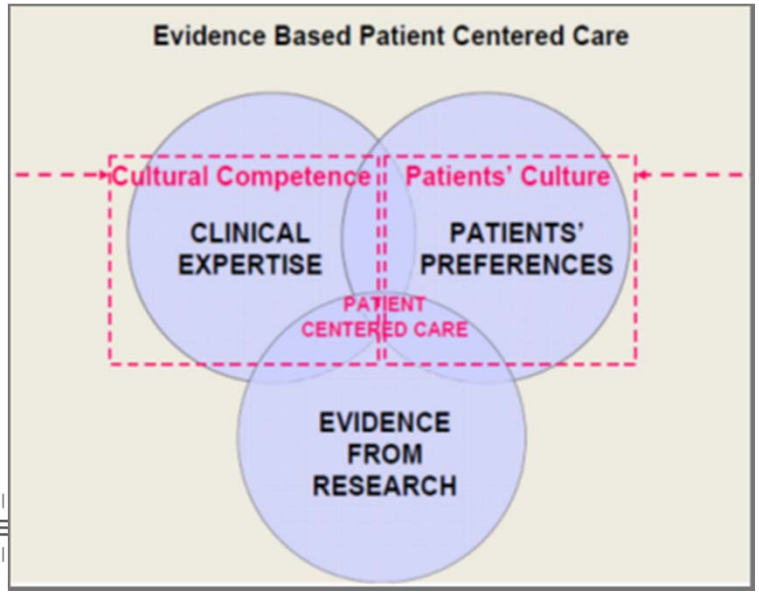
The Explanatory Model of the Patient

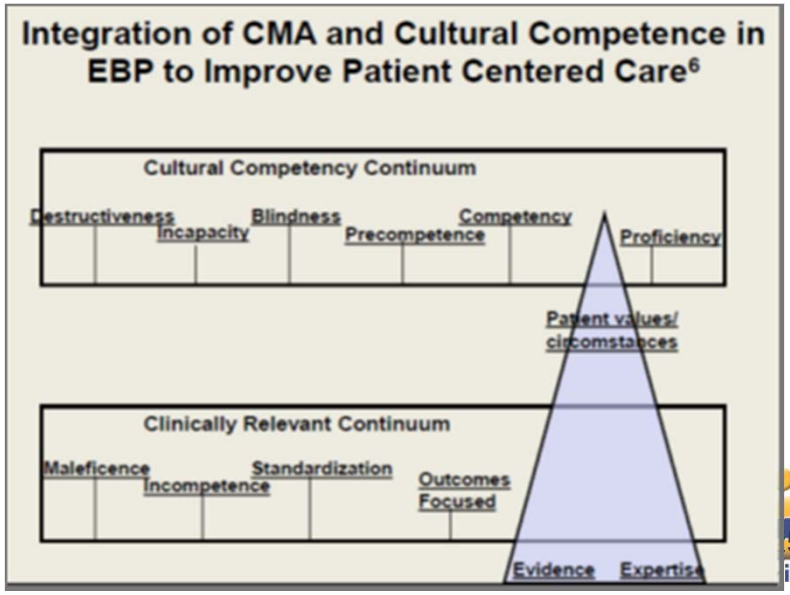


Occidental Biomedicine
Evidence-Based Medicine or Medicine without Culture?









Explanatory Model Interview for Pain Assessment

- What do you think is causing your pain?
- When did it start? Why do you think it started when it did?
- What do you fear most about the pain?
- What problems does it cause you?
- What have you used to help you with the pain? How does it help?
- Who else have you consulted about the pain? Family members? A traditional healer?
- What treatments do you think might help you with the pain?
- Who helps you when you have pain? How do they help?

Practical Guidance for Multicultural Approach of Cancer Pain

- Utilize adapted assessment tools
- Appreciate variations in affective response to pain (active listening, establish a connection)
- Be sensitive to variations in communication styles
- Recognize that communication of pain may not be acceptable within a culture
- Appreciate that the meaning of pain varies between cultures
- Utilize knowledge of biological variations
- Identify common goals & strategies
- Fostering a team culture of interest for culture-sensitive care (training in cultural competence)
- ***Avoid stigmatization!!***

Conclusion

- Evidence of ethnic differences in pain assessment, pts' experience and pain management without stigmatization
- Most research show quantitave differences , but explore poorly ethnic differences in cancer pain experience and suggested explanations remain mostly speculative
- Studies are nearly exclusively conducted in US
- Literature on disparities in cancer pain management has focused on African Americans and Latinos, few studies have included Asian American, Arab American, Native Hawaiian, Pacific Islander, Native American, Alaskan Native, or other ethnic groups
- Future robust qualitative (or mixed methods-) research on cancer pain-related disparities is needed and should explore in depth
  - cultural values and beliefs related to cancer pain and to pain management
  - ethnic differences in cancer pain experience
  - appropriateness and adequacy of pain rating scales
  - miscommunication in context of cancer pain (not as language problem)
  - intra-ethnic variability & acculturation

  (adequate number of ethnic minorities to provide more comprehensive picture)

Cancer Pain Management: an "old" problem that calls for new approaches in a multicultural world

MERCI DE VOTRE ATTENTION