

Pain Management Outcomes: Comparing Post-Operative Patients in the US and China

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Objectives and Disclosure

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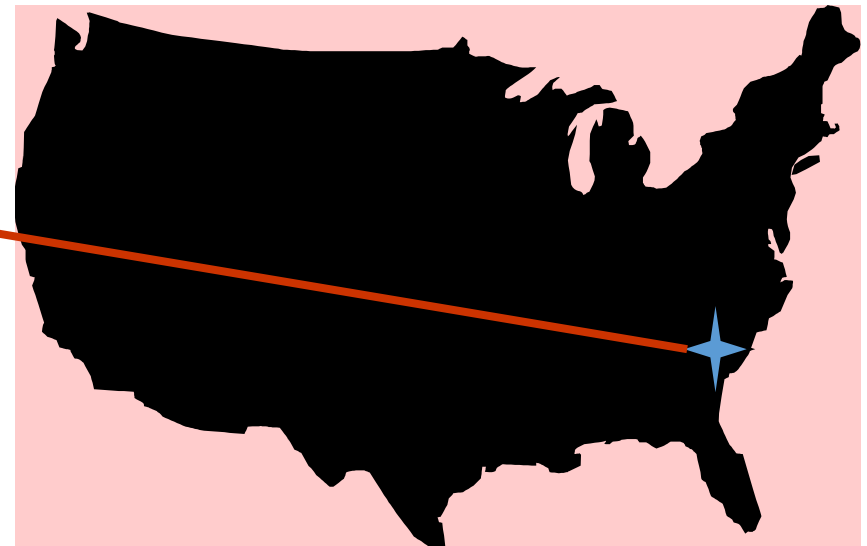
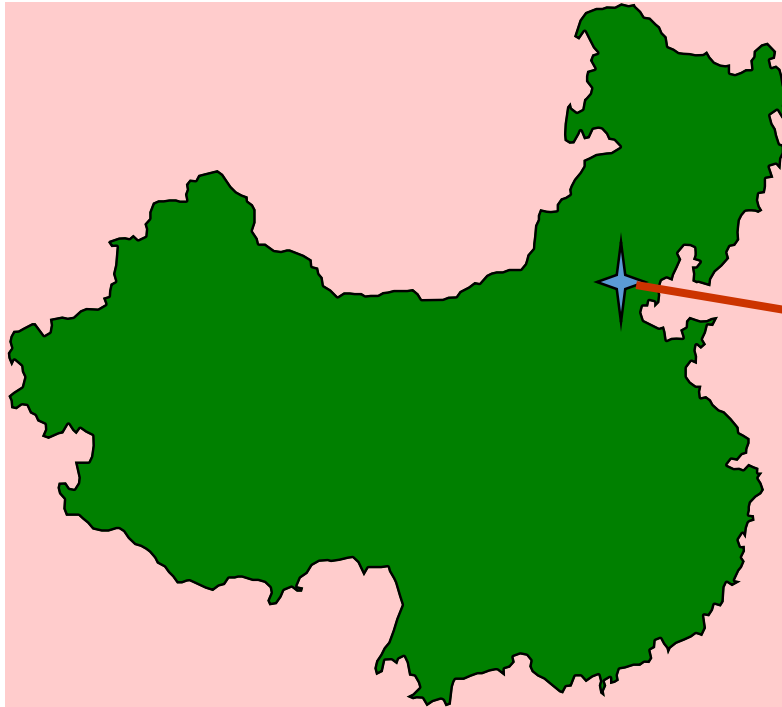
There is no conflict of interest.

Describe post-operative pain management outcomes for surgical patients in an American and a Chinese hospital

Examine the cultural considerations of pain management outcomes for implications of patient centered care.

*Joint project between
UNC-Chapel Hill and
Peking Union Medical
College PhD student.*

*Data collection by
trained undergraduate
students in each
location.*



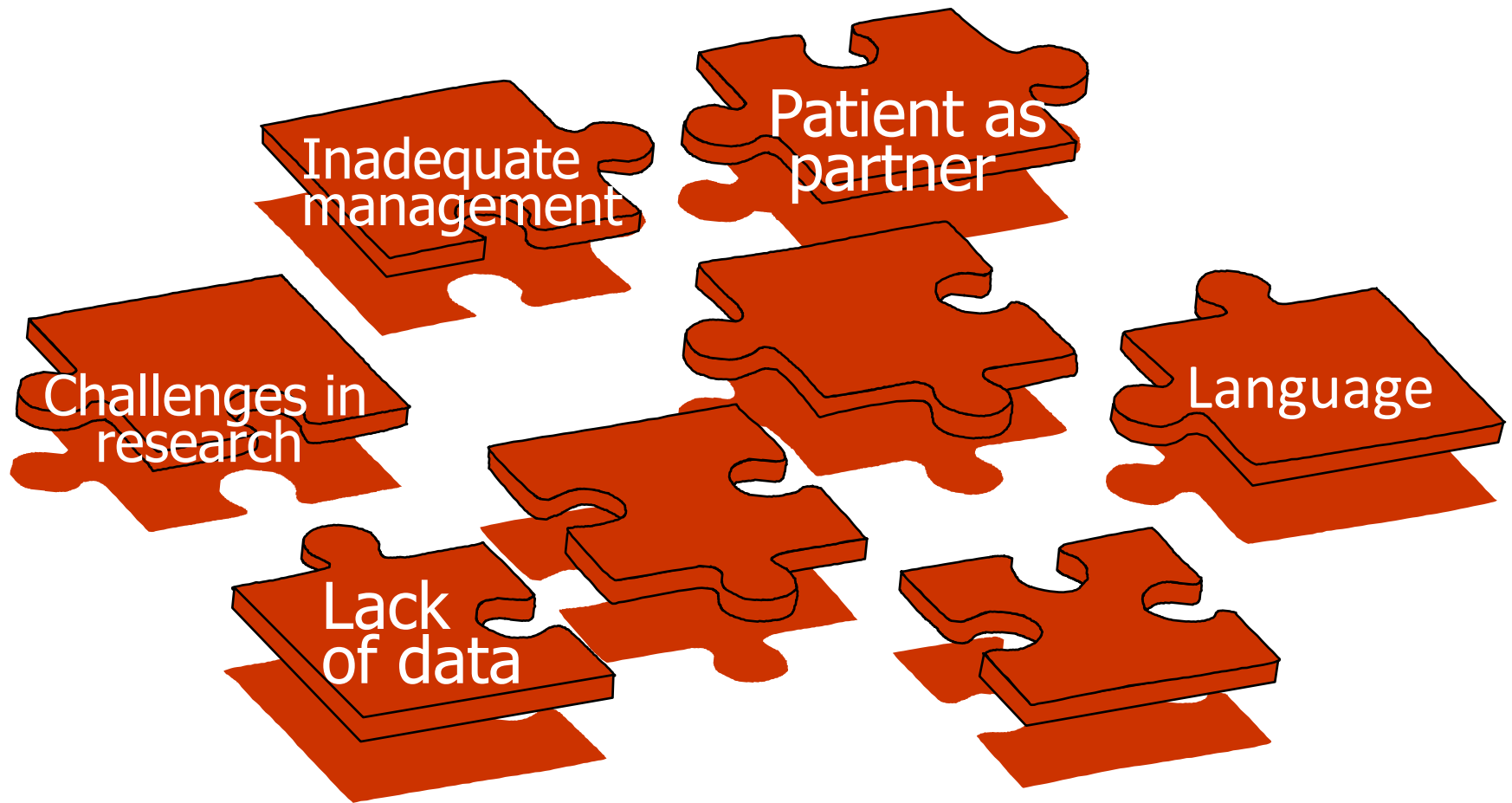
The Experience of Pain: A Cultural Transaction

Culture: influence of affiliation and background:

- Response to pain
- Perceptions of and about pain
- Communication about pain, to whom
- Behavior regarding pain
- Adherence to treatment
- Expectations and desired outcomes

Bates Biocultural Model of Pain: melds Gates Control Theory with social learning theory.

Challenges in pain management for ethnic populations



Research Questions

What are similarities and differences in the experience of post-operative pain among a sample of US and China in-patients?

What are similarities and differences in outcomes of post-operative pain management between the two populations?

Human Subjects review in both locations

Instruments: English and Mandarin translation

Revised American Pain Society Pain Outcome Questionnaire (APS, 1994; Gordon et al, 2010)

- Current pain
- Average pain
- Pain severity
- Pain interference with mood, activities, sleep
- Adverse effects
- Pain management goals

Chart Review of medications ordered and administered

Demographics: Convenience and purposeful sample

	USA	China
Sample	N=231 completed	N=248
Age, Range 18-84 years	51 +/- 15 years	51.9 +/- 14 years
Female	61.8% (143)	56.5 (140)
Type Surgery: Abdomen/pelvic	47.2% (109)	47.2% (117)
<u>Cancer diagnosis</u>	19.5 (45)	26.2% (65)
<u>Used analgesia</u>	100%	51.8%

Results:

0=no pain, 10=worst pain	US	China
Average pain	5.93	3.68
Present pain	4.33	2.57
Affective interference	3.23	1.51
Least pain	3.45	2.68
Worst pain	8.0	6.04
Side effects	3.44	1.85
Perception of pain care (0-10 highest)	8.02	6.36

Results summary

51.8% (128) of China patients used no analgesia

59.7% (138) US patients used PCA

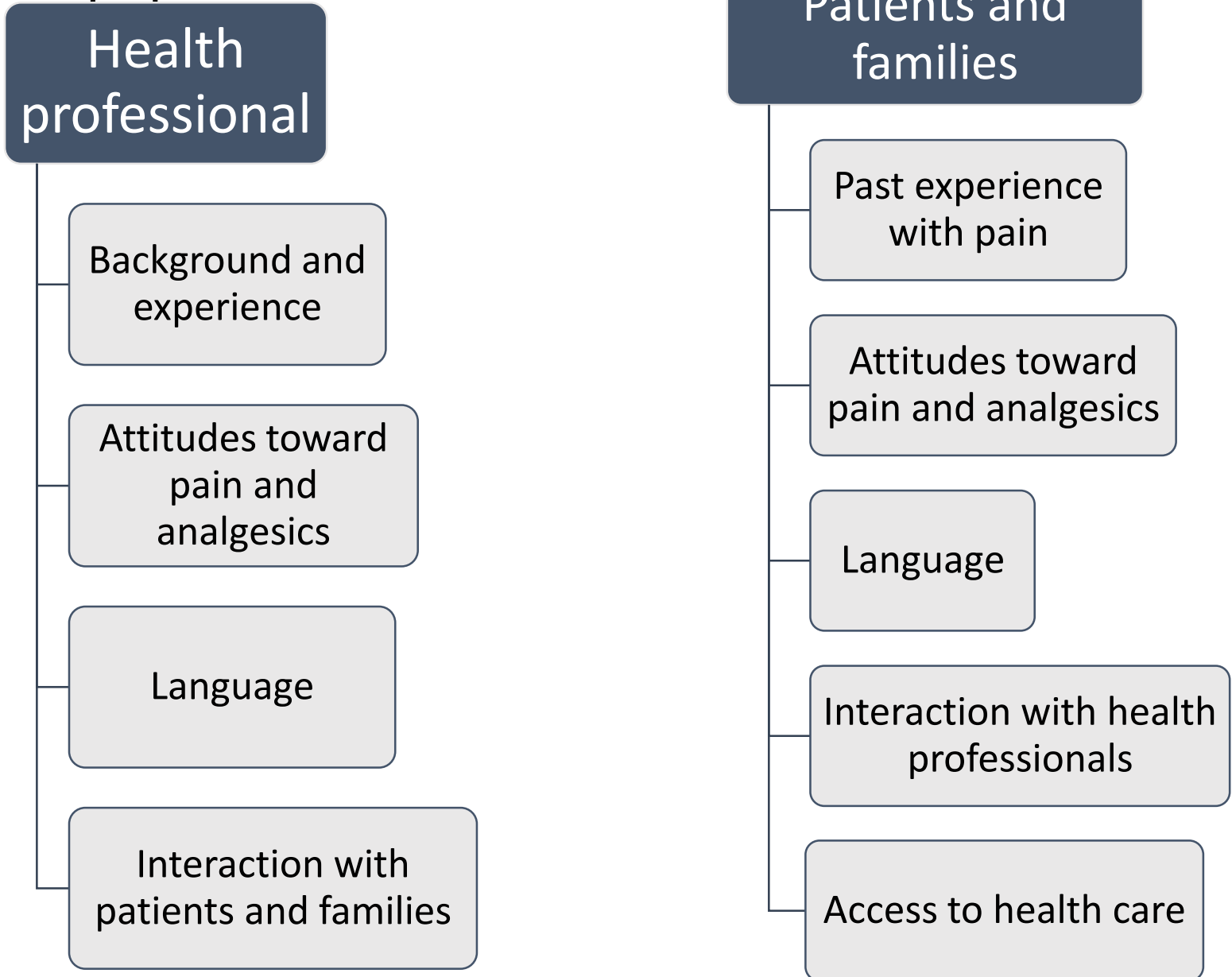
33.1% (82) of China patients used PCA

31.6% (12) non-PCA China users received IM Meperidine; none in US

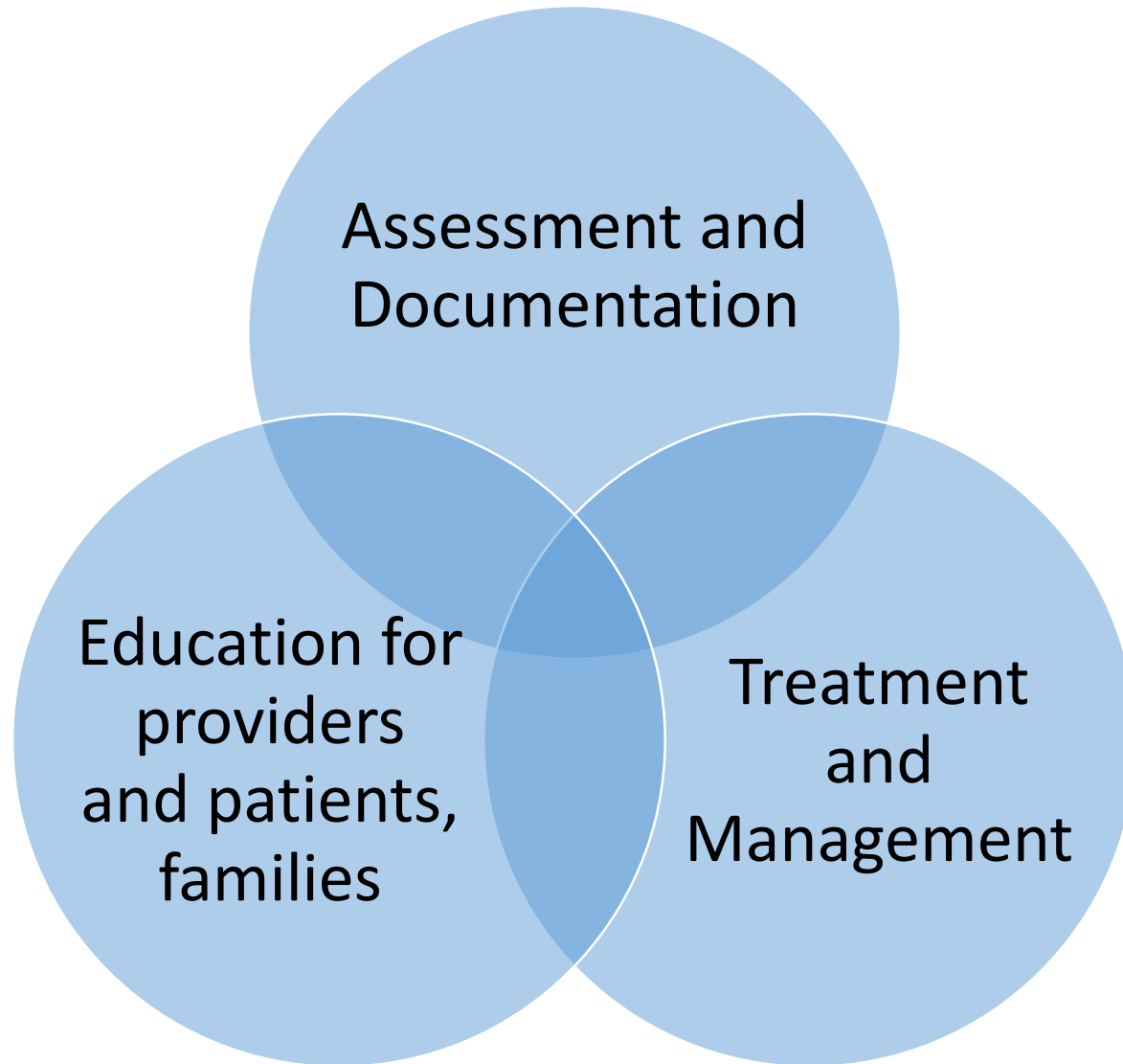
US PCA users had higher morphine dose (.55 mg vs .43 China)

US sample reported higher interference of pain with activities and with side effects

Human factors influence pain management in both the US and China populations



3 components in a System Approach to Effective Post-Op Pain Management in diverse populations



Assess and Document

Scheduled patient centered assessment using standard numeric scales that consider cultural background

Identify/monitor high risk

Provide culturally and language appropriate information and tools

Reassess after analgesic interventions

Document/Communicate with patients and care team

Treatment and Management

Standardize protocols to apply evidence based best practices:

- Administer appropriate medication for pain intensity
- Provide around the clock vs prn scheduling for initial postoperative pain management
- Use oral or IV route whenever possible, not IM
- Do not use IM Demerol unless specifically indicated
- Consider non-pharmacological, adjunct therapies
- Manage analgesic Side Effects

Education

Provide culturally and language appropriate instruction to patient/family, providers

Collaborate with patients/families, especially high risk

Set expectations; Identify and correct misinformation

Use all forms of media for instruction

Establish unit experts as resources for patients and staff

Conclusions

Patients in the two populations appear to perceive pain differently for actual pain and pain management goals.

With increasing patient diversity and global migration, pain management remains an important clinical problem.

More research is needed to examine how different populations respond to pain, use analgesics and manage pain expectations.