Trauma Screening in Primary Care for American Indian and Alaska Native People

Development and Feasibility Testing of a Pilot Process Using Community-Based Participatory Research Methods

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Presentation Overview

1. Describe our study of trauma screening, brief intervention, and referral to treatment in 2 Native American communities
2. CBPR methodology used to develop screening procedures
3. Findings from feasibility pilot including validity of the screening instrument
4. Recommendations for implementation

Research Objectives

- Identify recommendations of patients, healthcare providers, administrators, and tribal leaders to develop an adult trauma screening, brief intervention, and referral for treatment process

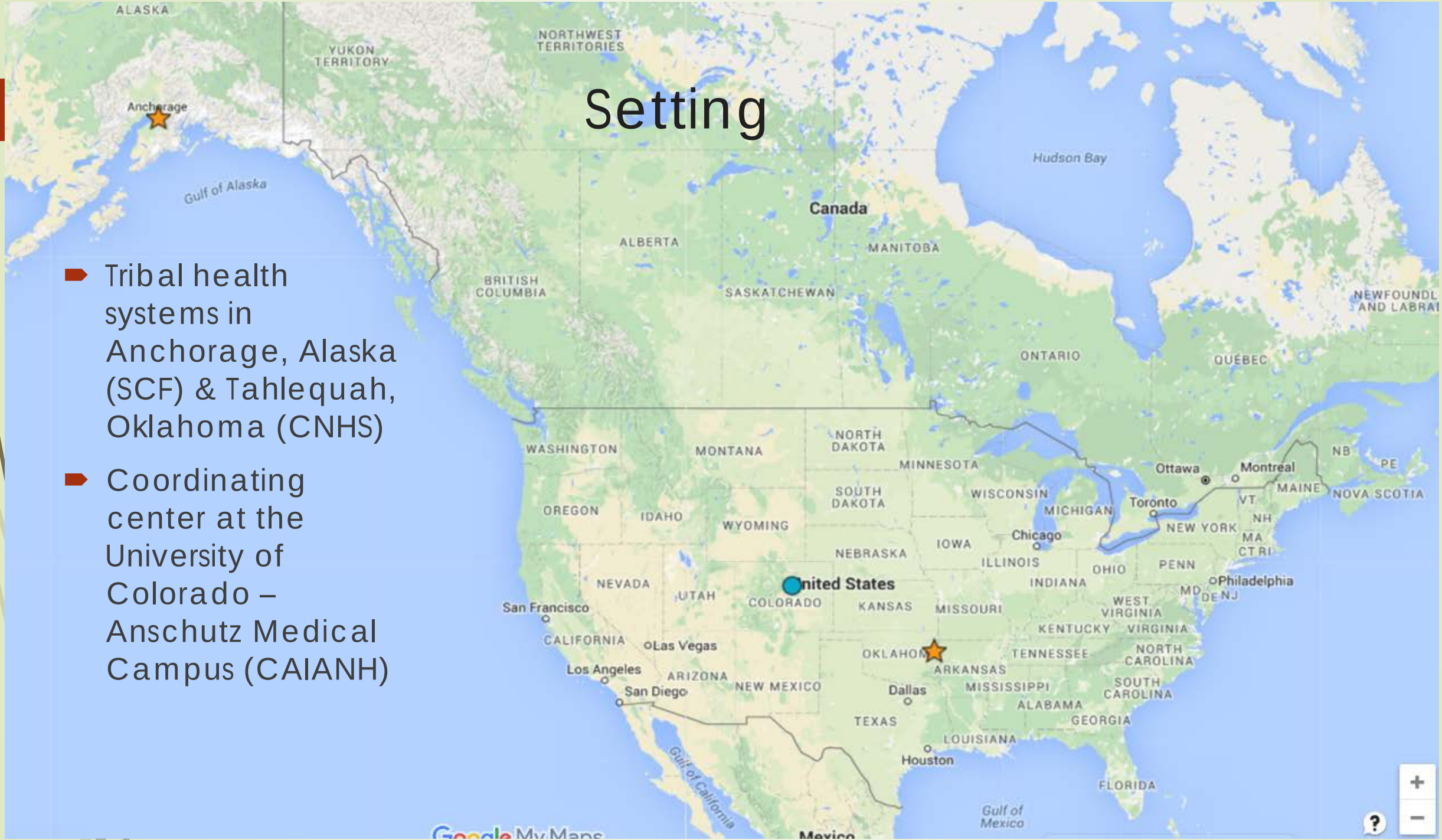
- Develop an adult trauma screening, brief intervention and referral for treatment (T-SBIRT) process in two AI/AN primary care settings

Background

- Why trauma?
  - High rates of trauma
  - Trauma negatively affects health
- Why primary care?
  - Behavioral health disorders often unrecognized and untreated
  - People with trauma histories seek services in primary care

Setting

- Tribal health systems in Anchorage, Alaska (SCF) & Tahlequah, Oklahoma (CNHS)
- Coordinating center at the University of Colorado – Anschutz Medical Campus (CAIANH)



Phase I: Development through CBPR

Development of T-SBIRT

- Cross-site steering committee meetings (annually) and conference calls (semi-monthly*)

Steering Committee Composition

CAIANH	CNHS	SCF
PI	Co-PI*	Co-PI*
Project Coordinator*	Behavioral Health Provider	Behavioral Health Consultant
	Primary Care Provider	Community Program Director
	Patient	Research Staff*
		Patient

Community-Based Participatory Research

- 2 rounds of focus groups and interviews 6 months apart
  - Round 1: Questions on aspects of strength and resiliency as well as questions on trauma experiences
  - Round 2: Review options for the T-SBIRT

Interview and Focus Group Participants	Round 1	Round 2
SCF Leadership	8	7*
SCF Provider	8	7*
SCF Patient	5	3
CNHS Leader / Provider	8	7*
CNHS Patient	8	6

*Participant was lost to follow-up due to separation of employment

Selection of the Screening Instrument

- Narrowed over 20 possible screeners to 3 for discussion with focus groups and in interviews
  - New York PTSD Risk Score (NYPRS)
  - Primary Care PTSD Screen (PC-PTSD)
  - Traumatic History Screen (THS)
- CBPR process informed our selection of the PC-PTSD for this study

Primary Care - Post Traumatic Stress Disorder Screener (PC-PTSD)

In your life, have you ever had any experience that was so frightening, horrible, or upsetting that, in the past month, you:

1. **Have had nightmares about it or thought about it when you did not want to?** YES / NO
2. **Tried hard not to think about it or went out of your way to avoid situations that reminded you of it?** YES / NO
3. **Were constantly on guard, watchful, or easily startled?** YES / NO
4. **Felt numb or detached from others, activities, or your surroundings?** YES /NO

“Yes" to any three items is considered positive.

Development of the Screening Procedure

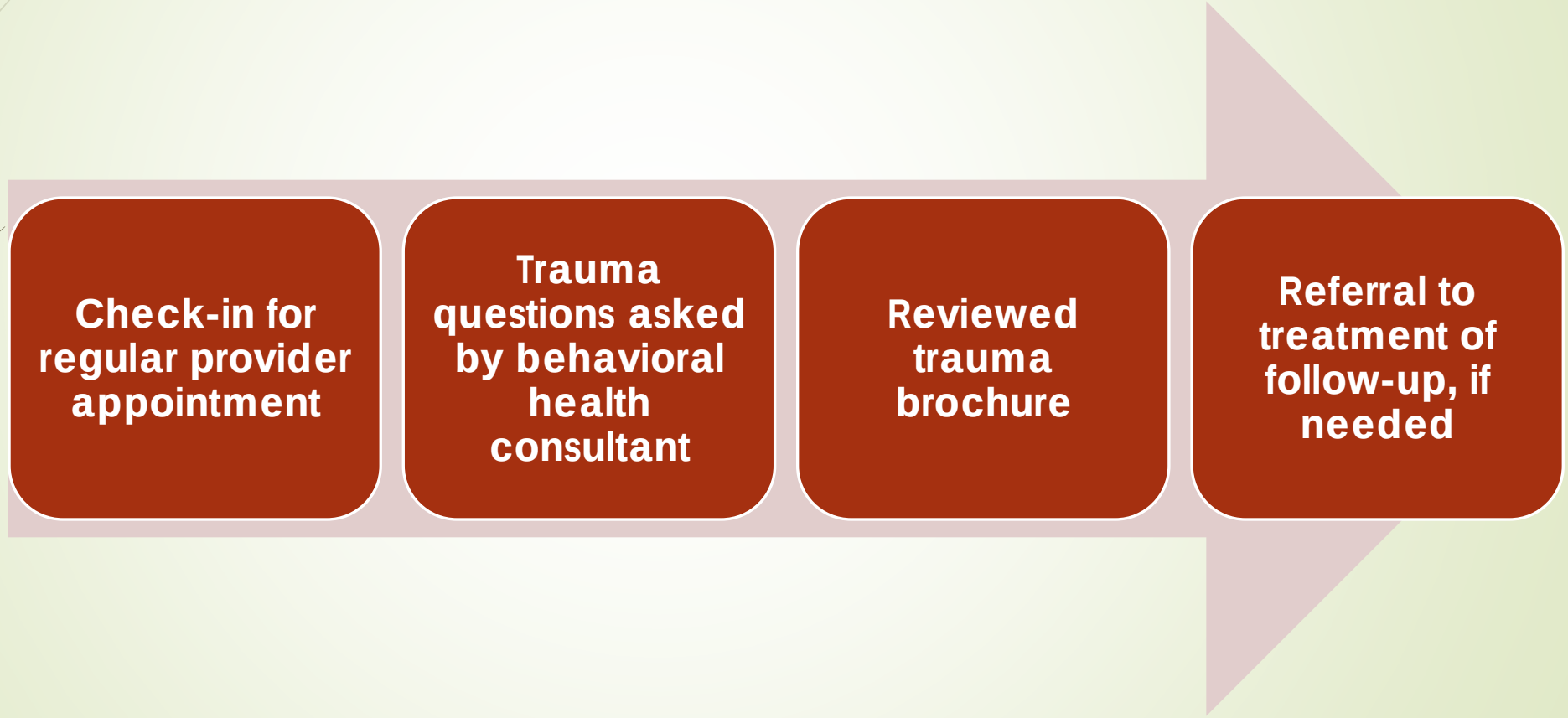
- Three ways to ask screening questions
  - Paper and pencil questionnaire at check-in
  - Nurse/BHC administered screening in exam room
  - Provider administered during scheduled exam

- CBPR process was key to informing our selection

Development of Brief Intervention and Referral Processes

- Conducted by primary care provider
  - Selection informed by CBPR process
- Brochure developed with content customized to each project site
  - Simplicity
  - Normalization of trauma
  - Education about effect of trauma on health
  - Reinforce resiliency
- Provided to patients with both positive and negative screening outcomes

Preparing for the pilot test



Phase 2: Feasibility Test of the Screening Instrument and Procedures

- 99 were screened and provided with brief intervention/referral
  - Completed usability and acceptability questionnaire
- Subset of 42 completed
  - SCID-I clinical interview
  - WHO-DAS 2
- Subset of 24 completed
  - Post-test qualitative interviews

Examining Usability and Acceptability of the Pilot

- Participants were ready and willing to talk about trauma in primary care.
- > 90% of the participants found the screening questions, time involvement, brief intervention, and overall process satisfactory.
- 21% felt questions increased feels of stress.
- 99% would recommend the process to others.

Testing the Diagnostic Validity of the PC-PTSD

Validity is the ability of a screening test to indicate which individuals have a condition and which do not.

How to measure validity:

1. Use a “Gold Standard Test” to determine the correct diagnosis
2. Administer the screening test
3. Use a 2 x 2 table to compare the performance of the new test to the gold standard

PC-PTSD score versus gold standard (SCID-I)

SCID Lifetime PTSD

PC-PTSD	Positive	Negative	Total
Positive	8 100%	15 46%	23 56%
Negative	0 0%	16 55%	18 44%
Total	8 20%	33 80%	41 100%

SCID Current PTSD

PC-PTSD	Positive	Negative	Total
Positive	4 100%	17 49%	21 54%
Negative	0 0%	18 51%	18 46%
Total	4 10%	35 90%	39 100%

Sensitivity and Specificity of the PC-PTSD

- Sensitivity: probability that the screening test will be positive if the condition is present
- Specificity: probability that the screening test will be negative if the condition is absent

SCID-I Diagnosis	Sensitivity	Specificity
PTSD, lifetime	100%	55%
PTSD, current	100%	51%
Substance Use Disorder*, lifetime	83%	55%
Substance Use Disorder*, current	80%	47%
Any behavioral health condition, lifetime	77%	80%
Any behavioral health condition, current	80%	58%

* Includes abuse and dependence on alcohol and/or drugs

Efficiency of the PC-PTSD

- Efficiency of a screening test is the overall proportion of correct screens (true positive and true negative screens) relative to the total number of screening tests conducted.

SCID-I Diagnosis	Efficiency
PTSD, lifetime	63%
PTSD, current	57%
Substance Use Disorder*, lifetime	63%
Substance Use Disorder*, current	51%
Any behavioral health condition, lifetime	78%
Any behavioral health condition, current	66%

* Includes abuse and dependence on alcohol and/or drugs

Positive and Negative Predictive Values of the PC-PTSD

- Positive Predictive Value (PPV): probability that patients with a positive screening test truly have the condition
- Negative Predictive Value (NPV): probability that patients with a negative screening test truly don't have the condition

SCID-I Diagnosis	Positive Predictive Value	Negative Predictive Value
PTSD, lifetime	35%	100%
PTSD, current	19%	100%
Substance Use Disorder*, lifetime	44%	89%
Substance Use Disorder*, current	17%	94%
Any behavioral health condition, lifetime	87%	67%
Any behavioral health condition, current	52%	83%

* Includes abuse and dependence on alcohol and/or drugs

The WHODAS 2.0

	Total Combined Sample				
	PC-PTSD Screen				
Functional Domain	**Positive (n=23)**		**Negative (n=18)**		
	M	sd	M	sd	P
Overall Score	33.89	25.57	17.88	20.01	**0.04**
Understanding and Communicating	5.86	4.42	3.00	3.55	**0.02**
Getting Around	4.91	5.10	3.06	3.33	0.26
Self-care	1.48	2.41	0.50	1.47	**0.03**
Getting Along with People	4.43	5.15	2.17	3.24	0.14
Life Activities	6.80	7.07	5.94	6.23	0.79
Participation in Society	9.83	6.88	3.33	4.39	**0.002**
In the past 30 days, for how many days were you totally unable to carry out your usual activities or work because of any health condition?					0.18

WHODAS interpretation

- Those that screened positive on PC-PTSD had significantly greater disability overall (p=0.04) compared to those that screened negative, specifically:
  - Understanding and Communicating (p=0.02)
  - Self-care(p=0.03)
  - Participation in Society (p=0.002)

- Those that screened positive had an increase in behavioral health utilization in the 3 months following the brief intervention compared to those that screened negative (p=0.01).

What We Learned

- The CBPR process was key to our T-SBIRT design
- It assured the detection and initial management of trauma was acceptable and sustainable at clinical sites
- The PC-PTSD was 100% sensitive to detecting PTSD in our pilot participants
- Participating providers reported no or little slow down in clinic flow due to added screening
- No adverse reactions during screening or brief intervention

Recommendations for Implementation

- Consider community, provider, and leadership concerns in program development
- Get buy-in from key stakeholders by educating about importance of screening in your setting
- Start small – one provider and his/her caseload
- Screen in private location
- Utilize staff trained in delivery of sensitive screening questions
- Engage primary care provider to provide brief intervention (for positive patients) and education (for negative patients)
- Assess availability of Behavioral Health professional staff for urgent consultation

Future Plans

- Develop and test a Health Information Technology website intervention for AI/AN persons with history of trauma

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