






# Patient Perspectives On Pain, Disability, Psychosocial Experiences And Treatment Needs

## Within One Year Of Major Orthopedic Injury: A Qualitative Study Protocol

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### Significance

-  Orthopedic trauma (injury to musculoskeletal system requiring surgery) is highly prevalent, costly, and disabling.<sup>1-4</sup>
-  This injury can result in pain and disability for several years with biomedically-focused treatment.<sup>5</sup>
-  Psychological factors are more predictive of recovery outcomes than medical factors.<sup>6-8</sup>
-  While we know that mental health conditions are highly comorbid,<sup>9</sup> **we don't know how orthopedic trauma is experienced from a psychosocial perspective.**
-  Further, existing psychological intervention for early orthopedic trauma recovery shows variable engagement, with patients reporting complex barriers to care (e.g., heavy time commitment, intervention lacking personal relevance).<sup>10</sup> Thus, **we also don't know what psychosocial resources patients would find helpful at this time.**

### Objectives

Qualitatively describe experiences and treatment needs of adults from major injury through first year of recovery.

Among adults who have experienced major orthopedic injury:

- 1: identify most-impactful pain and disability experiences within one year of recovery.
- 2: identify most-impactful psychosocial experiences within one year of recovery.
- 3: identify patient preferences and needs for psychosocial treatment and resources.

### Participants & Procedures

- **Eligibility**
  - **Inclusion**
    - adult age 18+, sustained orthopedic injury requiring surgery, with initial admission to the trauma/orthopedic center or service OR all required patient data available in the medical record, recruited at time of primary injury, within 1 year of hospital discharge
  - **Exclusion**
    - unable to provide informed consent, endured femoral peri-prosthetic fracture, endured lower extremity amputation, endured moderate to severe brain injury, history of severe brain injury resulting in cognitive impairment, likely to have severe problems with maintaining follow-up, non-English speaking/reading/writing
- **Recruitment**
  - Established relationship with orthopedic trauma clinic
    - Predominant recruitment via phone/email from an existing database of patients who previously participated in orthopedic trauma studies
    - Supplemental in-clinic recruitment
  - Purposive sampling by time since hospital discharge from surgical repair
    - 50% from 0-6 months, 50% from 7-12 months
- **Sample Size**
  - Approximately 20 participants
- **Procedures**
  - 1-hour, individual, semi-structured qualitative interview with a pain psychologist
  - Option for in-person or Zoom interview, for increased accessibility
  - Concurrent data collection and data analysis to ensure sufficient sample and data saturation<sup>11</sup>
  - Descriptive Phenomenological semi-structured interview design<sup>12</sup>
    - adjusted based on Community Advisory Board Feedback
  - Inductive Thematic Analysis<sup>13</sup> with two independent coders, with the support of NVivo v15 coding software<sup>14</sup>
  - To follow and report on COREQ (COnsolidated criteria for REporting Qualitative research) Checklist<sup>15</sup>

### Design & Analysis Plan

#### Descriptive Phenomenological Design:

- chosen to structure semi-structured interview guide
- this design centers participants' lived experiences without limitations of prior biases, assumptions, and theories



#### Semi-Structure Interview Guide:

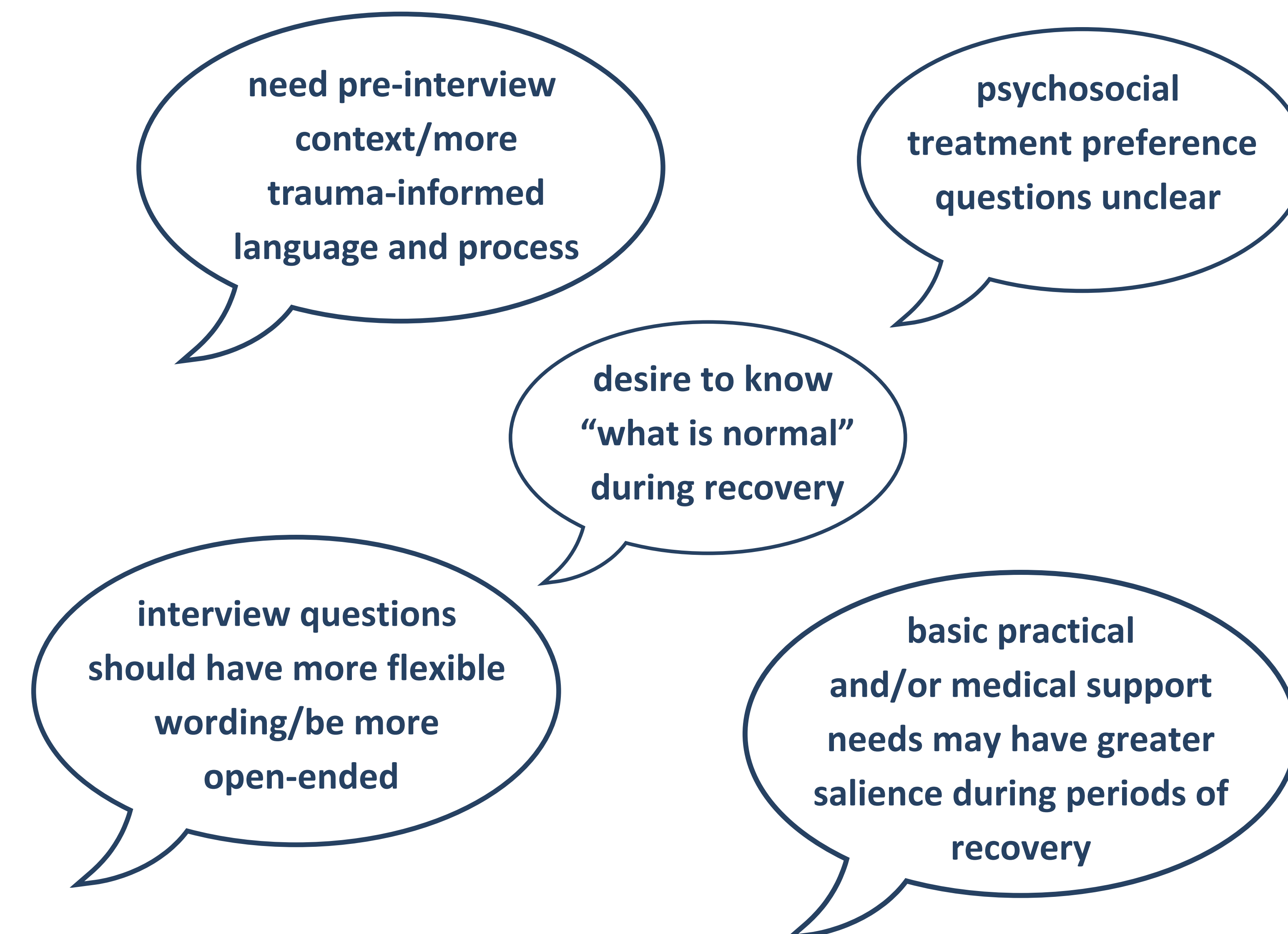
- **Injury journey:** open-ended start
- **Pain & Physical Functioning:** challenges, impact to valued function, pain, medication/substance use
- **Emotional Well-being & Stress:** challenges, resilience (as indicated), other stressors
- **Coping:** coping overall, physical vs emotional, helpfulness
- **Treatment:** access to formal supports, openness to mental health provider, most important time, needed support/skills

#### Sample Questions

1. "Can you tell me how life has been since your injury?"
2. "If you were to explain your pain to someone who's never felt it, how would you describe what it feels like?"
3. "Can you tell me what the biggest emotional struggles have been like for you since injury?"
4. "What have you been doing to cope with challenges in recovery?"
5. "What would have been most helpful from a mental health professional to help you manage pain or changes in physical functioning?"

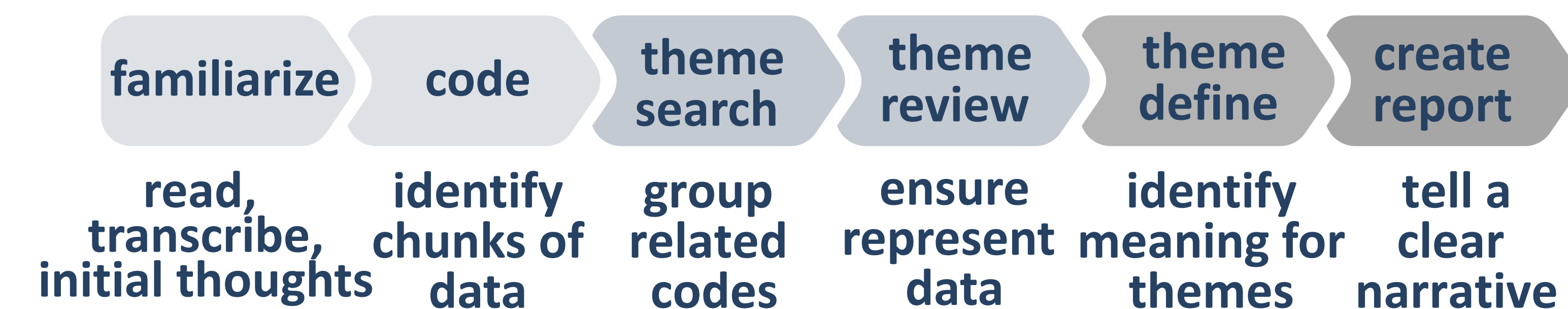
#### Community Advisory Board Feedback:

- N = 3 participants
- 60 Minute Session:
  - review of study aims
  - discussion of method, interview guide topics, and questions
- Feedback Incorporation:
  - adjusted protocol to provide interview guide topics prior to interview
  - revised interview guide
    - adjusted language with assumptions (e.g., about emotional challenges)
    - streamlined psychosocial treatment preference questions
    - added question inquiring about priority of mental health treatment during recovery (vs other needs)
    - reviewed and reduced potentially stigmatizing language
    - increased open-ended framing of questions


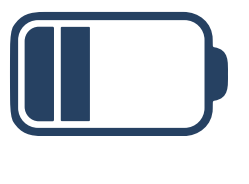



#### Inductive Thematic Theory:

- chosen to structure data analysis
- this analysis allows themes and new theoretical framework to arise naturally from data (vs fit into existing theory), which can inform development and tailoring of future intervention



### Implications

-  Limited psychological interventions exist that address pain and distress post-injury.
-  Available interventions show variable patient engagement, vary significantly in psychological components, and have inconsistent theoretical rationale.
-  Insights gained from this study will inform the development of a patient-centered, empirically-driven, psychological intervention post-orthopedic injury.

