What is ACCORDS?

ACCORDS conducts pragmatic research in realworld settings to improve health care and outcomes, by providing:

- A multi-disciplinary, collaborative research environment to catalyze innovative and impactful research
- Strong methodological cores and programs, led by national experts
- Consultations & team-building for grant proposals
- Mentorship, training & support for junior faculty
- Extensive educational offerings, both locally and nationally





ACCORDS Upcoming Events

May 23, 24, & 25 **10:00 -3:00 PM MT** COPRH Con 2022: Disseminating, Scaling and Sustaining Pragmatic Research: Improving Health in Diverse Settings



Qualitative and Mixed Methods 2021-2022 Seminar Mini-Series

Reporting and Presenting Data from Qualitative and Mixed Methods Studies

Presented by:

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Professor of Public Health University of Sydney







Reporting and presenting data from qualitative and mixed methods studies

Prof Allison Jaure, Sydney School of Public Health, The University of Sydney e: Allison.jaure@sydney.edu.au ACCORDS Seminar, University of Colorado, School of Medicine May 18, 2022





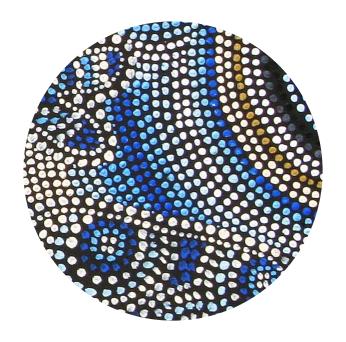
- 1. Methods of analyzing qualitative data
- 2. Reporting qualitative data and demonstrating rigor
- 3. Presenting qualitative data in a visual manner

Analysis

- Capture the breadth and depth of the data
- Comprehensible, insightful, trustworthy, compelling, original
- Answer the research question
- Describe phenomena
- Develop a theory or explanation









Principles

- Aligns with the topic and scope of the research question
- Consider audience
- May be done concurrently with data collection
- Generally inductive
- The researcher is an active participant



Quantitative	Qualitative
 Descriptive statistical analysis, variance of responses, determine general trends 	 Reading of the data, making memos, conceptualizing the data, grouping concepts into themes, identifying patterns and relationships among themes
 Inferential analysis and refined analysis using the appropriate statistical tests 	Coding and identifying concepts, grouping into themes
Software used to conduct statistical analysis	 Software used to store, label, retrieve data (facilitates but does not do analysis)
 Quantified estimates of effect or associations, statistics 	Narrative and rich description
• Frequency	Breadth and depth
 Emphasis on generalisability (involves statistical analysis to determine the extent to which the findings can be extrapolated to another population) 	 Emphasis on transferability of concepts and theories (the reader determines whether the findings "fit" or resonate in their own context or experience)

Coding

- Starting point for most forms of qualitative data analysis
- "Process of defining what the data are about" (Charmaz 2006)
- Coding is highlighting relevant segments of words and involves
 - Classifying relevant words
 - Conceptualising the data
 - Raising questions
 - Seeking explanations
 - Noticing relationships
- What can be coded? (setting and context, definition of the situation, perspectives, events, activities, consequences, relationship and social structure, meaning [define and direct an action])

Codes are tags or labels for assigning units of meaning to the descriptive or inferential information compiled during a study. Codes usually are attached to "chunks" of varying size – words, phrases, sentences or whole paragraphs, connected or unconnected to a specific setting" (Miles and Huberman 1994)

Coding exercise

Participant 1: Woman, 20s

My whole life I just thought what's the point, what's the point of like entering a relationship with any nice guys. When all you are going to do is disappoint them because your body is a failure. You don't know how long your transplants are going to last for, every time you come in here it's just depressing if you don't know what the result's going to be like. You're just living on edge your whole life. It's hard to explain, but I just... even if you have the post transplant, you kind of still look at your body like it's a ticking time bomb.

Participant 2: Woman, 30s

And I just remember sitting with my endocrinologist when I was child, because I'd had it at a younger age, and he said, "You're gonna lose your eyesight. You're going lose your kidneys. You're never going to have children... It affected me greatly because you're going through adolescent so you envision that that's your fate, and if a doctor's told you that, you'd believe it. So, I found it difficult to comprehend any other sort of future, to be honest. So, it wasn't until you start to hear other stories of women having children as a type I diabetic that you realise that there was a lot of — there's a lot wrong with what he'd said.

Identify concepts (zoom chat)



Original Investigation

Perspectives on Pregnancy in Women With CKD: A Semistructured Interview Study



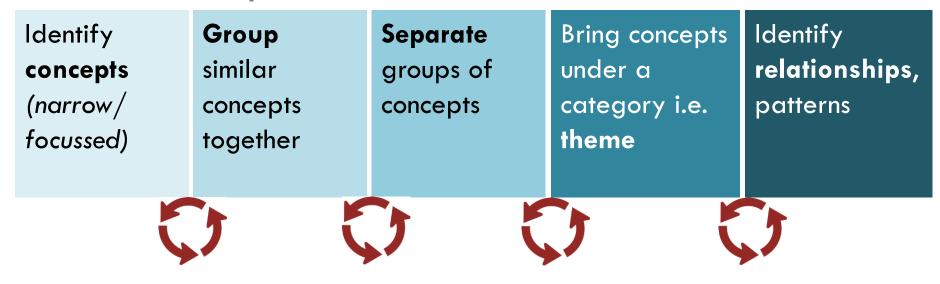
Allison Tong, PhD, 1,2 Mark A. Brown, FRACP, Wolfgang C. Winkelmayer, MD, 4 Jonathan C. Craig, PhD, 1,2 and Shilpanjali Jesudason, PhD5

Decisional burden Devastating loss Rationalizing consequential risks Disempowered Denied motherhood Decisional ownership by medical Resolving grief Choosing survival catastrophizing Social jealousy Compromising health Barriers to parenthood Avoiding fetal harm alternatives Responding to family Acceptability protectiveness and **Bodily failure** Unjustifiable gamble *iustification* Critical timing Conscious of fragility Noxious self Strengthening resolve Suspended in limbo Hope and opportunity Medical assurance Intransigent guilt Medical judgment < Resolute determination Disappointing partners Fear of genetic Reticent hope transmission Respecting donor sacrifice

Reorientating focus

- Valuing life
- Gratitude in hindsight

An iterative process



Re-reading and discussion

Descriptive (close to the data)



Analytical/theoretical

Thematic analysis

- Usually inductive derived from the data
- Constant comparisons within and across sources
- Output → themes (full of meaning)

Content analysis (?)

- Deductive: code data into codes identified and defined apriori
- Used when a meaningful denominator exists for reporting proportions
- Inter-rater reliability

Grounded theory analysis

- Open coding: generating preliminary initial concepts from the data
- Axial coding: reviewing, developing, linking, grouping codes/concepts
- Selective coding: organising and formalising relationships, developing theoretical frameworks
- Memoing

Theory

An organised, coherent, systematic articulation of a set of [ideas or concepts] that are communicated as a meaningful whole. (Reeves 2008)

- Directs your attention
- Provides a framework for thinking about a problem
- Guides study design (e.g. what to focus on)
- Guides data analysis (e.g. tools for interpretation → not to be a restrictive lens)

Developing theory

Individual insights

understanding the wider relevance (conceptual transferability)

Process – one way to do it

- 1. Read transcripts (familiarisation) and memo
- 2. Make initial codes
- 3. Map/list ideas



- Independent coding?
- Discuss (+ 1 who read the transcripts)
- Revise
- Refine

Focus: attitudes, values, beliefs, goals (not specific action or behavior)

Tips: thesaurus, word maps, google phrases, theories/models

Women's perspectives of pregnancy in CKD

Scope note

- Contraception, genetic testing, family planning, pregnancy, complications, IVF, surrogacy and adoption
- Treatment decision making

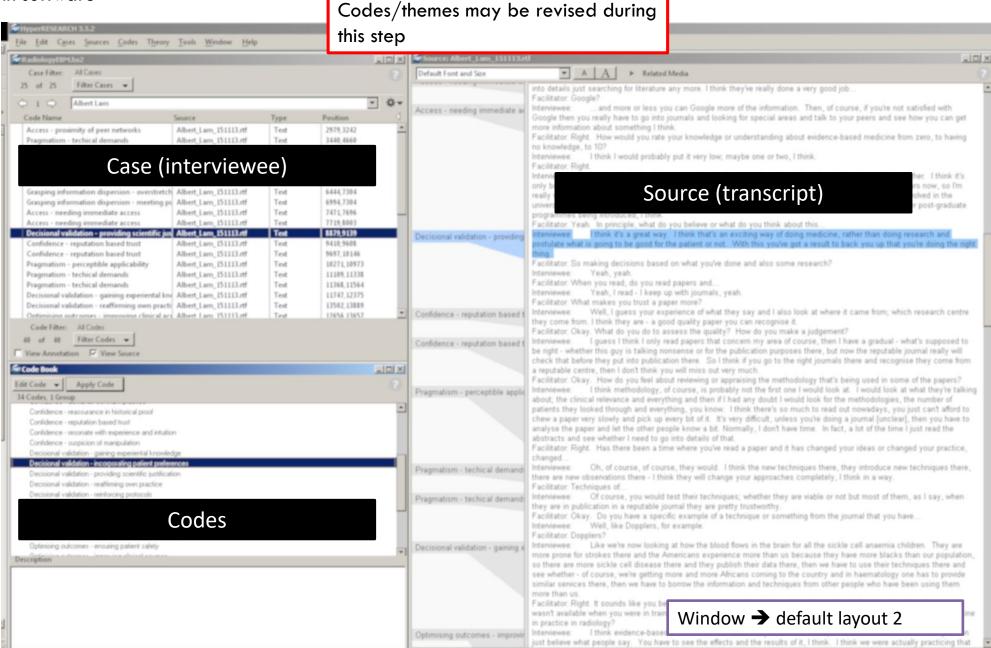
BODILY FAILURE

- Despising the noxious self body is a failure, a ticking time bomb, damaged (link to guilt) "Your body has failed you, and you can't carry on that legacy," "like a freak," "toxic"
- Racing against deteriorating health imposing pressure and urgency, racing against deteriorating health and age, conscious of time, "It puts a rush on something that should be natural." Pushing to get the transplant done
- Conscious of fragility being vigilant and protective of self, isolation in hospital, separation from family in high risk pregnancy clinic, vulnerable
- Suspended in limbo having to wait to change medications post transplant, waiting for a better kidney

DEVASTATING LOSS – unfair, victim of injustice

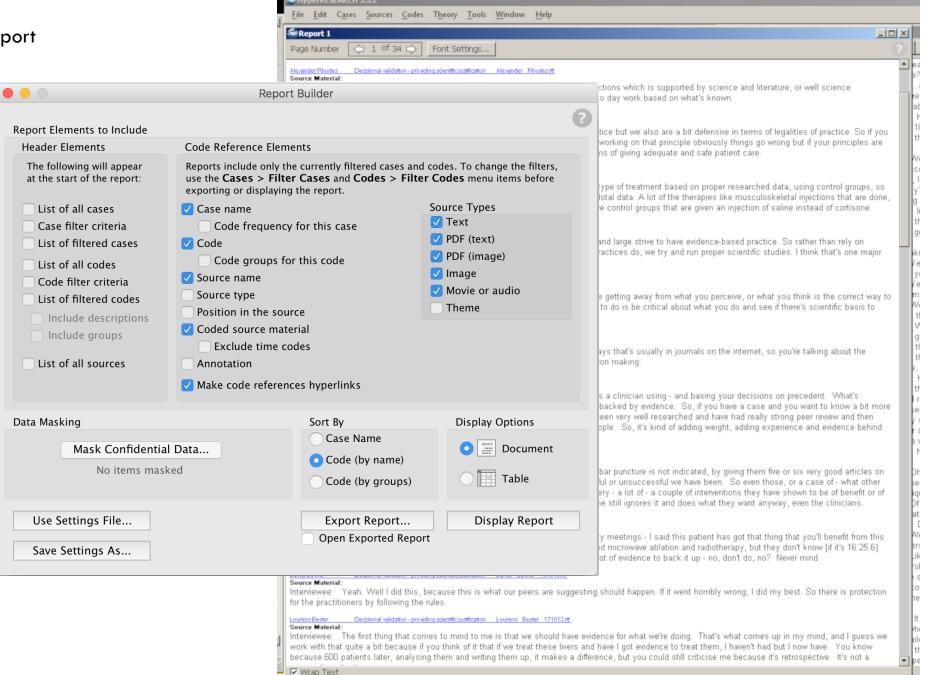
- Denied motherhood –being denied motherhood, broken, stolen, and shattered hope, being told they cannot have children, multiple complications, trauma "To my face I was told, 'so you can't have children" then I was just stuck there going, I can't." abortion contradicting personal values,
- Disempowered by medical catastrophizing helplessness, losing control/choice, submitting to medical authority, questioning physician's advice and decisions e.g. unable to understand why she could not be put on dialysis to carry the pregnancy to term, "I don't think the [warning against pregnancy] should have been so definite, because you trust your doctors and you believe in what they say is gospel. It was very hard for me to make a decision against their advice. Before saying "don't get pregnancy, you could die" maybe they should just outline the risks." Losing right to reproductive freedom or to choose motherhood. Unable to exert control due to unpredictable prognosis.
- Grieving over intangible loss
- Unfulfilled desires
- Social jealousy seeing other kids is a painful reminder, "I get jealous of pregnant women, because I was ripped
 off, I've been sick"
- Onerous pursuit of alternatives multiple barriers: surrogacy, adoption due to stigma, legal requirements, cost

4. Code in software



Display Codes In Contay

4. Generate a report



6. Table

Theme	Description	Illustrative quotations		
Bodily failure				
Noxious self	Being damaged	There is a side of feeling like you're damaged or there's nothing else.		
	• Insecurities	Your body is a failure. Your body has completely failed you.		
	Toxic b cannot provide	I thought to have to have a relative ship, and it's made me very nervous about proceeding.		
	bc	I'm hesitant to		
Expand and	• Tic	Even if you h Your feel like Capture and still look at your body like it's a ticking time bomb. JF		
describe	Key points	You feel like condense nd you can't carry on that legacy.		
		The fact that		
		body was toxic itself being on dialysis. CB		
		Because the idea of you having so many issues with your body already, I don't think it's the right thing to do		
		personally, because I really think you need to be healthy for the baby; if you're not really healthy it's very hard to		
		grow a baby well.		
Critical timing	Racing against deteriorating	Even though 30 is still young, you're body may not be that age. Like with all the medications and everything.		
	heath, pressure	So as long before I got too old and too sick. It was pretty terrifying because it puts a time limit on things. It puts a		
	Accelerating transplant	rush on something that should be natural.		
	Missed opportunity	I'm in a position where I'm like if I wait too long am I going to lose the opportunity to have a baby. Because I don't		
		know what's going to happen, like my kidney might last me for 10 years, it might last me for 20 or it might only last		
		me 5.		
		I'd sort of expected my kidney to deteriorate faster than it did, so I thought, "Well, I've still got a lot of time", you		
		know. And then it sort of dwindled on, just slowly rejecting. So it is on my mind now that I'm 36, which is getting		
		old-ish in terms of — by the time I get a transplant. ML		
		I can remember being shocked in the office when he said, "I want you to have all your kids over and done with by		
		the time you're 30," 'cause I thought – Wow – That's young and I better get cracking – I've gotta get cracking on		
		that. And it wasn't really something I really — I hadn't put enough thought into planning the family. So we kind of		
		just did it and it was a disaster really because I couldn't cope.		

7. Write up

Conscious of physical and medical fragility: Pregnancy would "put extra strain on the kidney" and potentially jeopardize their health and lives, and that of their baby. Women nervously anticipated complications and early hospitalisation. Symptoms such as bleeding or abdominal tightness were alarming as this could indicate imminent miscarriage or a life-threatening complication. Some women realized that their anxieties caused them to miss the "joy" of pregnancy. Being closely monitored in hospital provided reassurance; however some felt isolated and helpless." Significant financial strain was incurred for women residing in regional areas.

Noxious self: Young women disclosed a deep and silent "heartbreak" from being irreversibly "damaged" by CKD. They were trapped in a "body that has completely failed you," and unable to "carry on that legacy." Feeling like a "freak" intensified insecurities in pursuing relationships. Some women on dialysis described their body as "toxic" and thus could not provide their baby with adequate nutrition. Transplant recipients were concerned a about the risks of immunosuppressive medications to fetal growth and well-being, and because stable health could never be guaranteed — "you still look at your body like it's a ticking time bomb."

- Write from the participants' perspective
- Use quotations
 - Gold nuggets only (compelling)
 - Trim and edit to make sense
 - Vary use (embedded, as an example)
- Table of quotations (3 pages max)
- Tag quotations
- Consider including eTables
- Comparisons



"A concise, coherent, logical, non-repetitive, and interesting account of the story the data tell – within and across themes."

"Convince the reader of the merit and validity of your analysis."

(Braun & Clarke 2006)

Quantitative	Qualitative
Objective reality to be observed and discovered	 Reality is socially constructed by an individual, which cannot be measured but it can be interpreted; contextual
Reliability: stability of findings	 Reliability: consistency and trustworthiness of findings (Kvale)
Validity: truthfulness of findings i.e. measurement	 Validity: whether a method investigates what it purports to investigate (Kvale)

Reporting

EQUATOR www.equator-network.org

Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups

International Journal for Quality in Health Care; Volume 19, Number 6: pp. 349–357

Domain 3: analysis and findingsz

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Data	ana	VS1S
)

24. Number of data coders	How many data coders coded the data?
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25.	Description of	the coding tree	Did authors provide	e a description of t	he coding tree?
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26.	Derivation of themes	Were themes identified in advance or derived from the da	ıta?
	Delivered of circuites	The distinct inclined in warming of delived from the dis-	· ccc

27.	Software	What software, if applicable,	was used to manage the data?
		, II	

28.	Participant checking	Did participants	provide feedback or	n the findings?
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Reporting

29. Quotations presented Were participant quotations presented to illustrate the themes / findings? Was each quotation identified? e.g. participant number

General tips when presenting findings (themes)

Convey meaning: Develop a phrase/statement that is rich in meaning such that is elucidates the values, beliefs and perspectives of the participants. Avoid broad general/neutral phrases e.g. emotional impact, physical consequences.

Make it distinct: Describe each theme as a distinct concept. Avoid overlapping concepts and avoid using the same key words.

Keep suggestions for the discussion: Focus on the reason e.g. why do they want <u>more education</u> (disempowered by lack of knowledge), why do they want help with <u>navigating the health system</u> (bewildered and lost in the system, threat and vulnerability).

Add "feeling" + "context": Capture both the belief/feeling and the context e.g. confused by medical jargon; fear of displacement

Aim for 5-7 themes: Try to condense to 5-7 themes (with a few subthemes to expand on each) for readability and digestibility

Focus on concepts not frequency: Use the phrase "some participants" and avoid quantification and frequency is not a valid indicator of % agreement or importance

Appraising the conduct qualitative research

- Highly contentious
- Guides available

CASP

Kuper 2008 BMJ

Box 1 Key questions to ask when reading qualitative research studies

- Was the sample used in the study appropriate to its research question?
- Were the data collected appropriately?
- Were the data analysed appropriately?
- Can I transfer the results of this study to my own setting?
- Does the study adequately address potential ethical issues, including reflexivity?
- Overall: is what the researchers did clear?

Constructs | Rigor in qualitative research

Credibility

Dependability

Transferability

Confirmability

Credibility - can the findings be trusted?

- Multiple realities exist (not measuring an objective reality)
- Offers well-rounded, reliable, and sensible explanations based on evidence

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Appropriate question guide

Purposive sampling

Thick description – context and findings described in detail

Reflexivity – researchers identify and address own biases that may have influenced decisions made during the study

Triangulation – methodological, theoretical, data/sources, researcher, interdisciplinary

Dependability – is the process logical and auditable?

- Interpretation is intrinsic, not feasible to produce identical findings
- Coherent link
 Methodology, methods, data, findings
- Clarity about how data were collected and analyzed to demonstrate rigorous and systematic approach

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Recording of data

Transcription – verbatim

Computer software

Transferability – are the findings relevant to other settings?

Concepts and theories are relevant and have implications elsewhere

Comparison with other studies

Thick description – study setting and participant characteristics are described in detail

Confirmability – are the findings and interpretations linked to the data?

- l.e. not a product of the researcher's imagination
- "Accurately" reflects participant perspectives

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Investigator checking – multiple investigators to ensure that analysis captures full breadth and depth of data

Member checking – participants provide feedback on preliminary findings; integrated

Raw data – e.g. quotations



Generating a thematic schema

Tips

- Keep themes/subthemes together (one text box)
- Note broader clusters of themes
 + label?
- Identify central theme/s
- Draw links (tensions, uni or bidirectional pathways)
- Write a figure legend
- Tools: powerpoint, canva

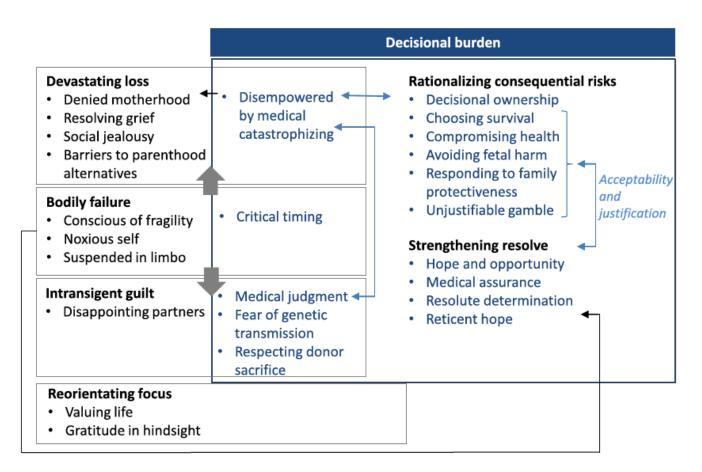


Figure 1. Thematic schema. Bodily failure due to chronic kidney disease (CKD) and treatment intensified the sense of loss and guilt in women with CKD who were unable to have a successful pregnancy. These weighed into difficult decisions about pregnancy, in which women contended with an emotionally charged negotiation of conflicting values; attaining motherhood and averting risks to their own health, survival, and child. A perceived overemphasis on medical risks caused some women to feel helpless, disempowered, and judged, whereas the opportunity to process these risks in their life context provided reassurance, hope, and autonomy.

Child and Parental Perspectives on Communication and Decision Making in Pediatric CKD: A Focus Group Study



Talia Gutman, Camilla S. Hanson, Sarah Bernays, Jonathan C. Craig, Aditi Sinha, Allison Dart, Allison A. Eddy,



Gaining knowledge, recognizing own expertise, and being empowered to identify and assert priorities in decision-making Striving to assert own priorities Negotiating broader life impacts Recognizing own expertise Choosing to defer decisional burden Intuition and instinct unique to parental bond Disempowered by Overprotected and Emerging wisdom and knowledge imbalance overruled confidence Struggling to voice own Identifying opportunities Unprepared and ill informed preferences for control and inclusion **Empowering participation** Suspicion of censorship in children Inadequacy as technicians Uncertain trajectory of CKD = need to re-negotiate for each decision Managing child's involvement Respecting child's expertise Children's perspectives about their parents and clinicians Attributing risky Parents' perspectives about clinicians behaviors to rebellion Parents' perspectives about their children Protecting children from

illness burden

Patient beliefs and attitudes to taking statins for preventing CVD

Ju et al Br J Gen Pract 2018; 68:408-419

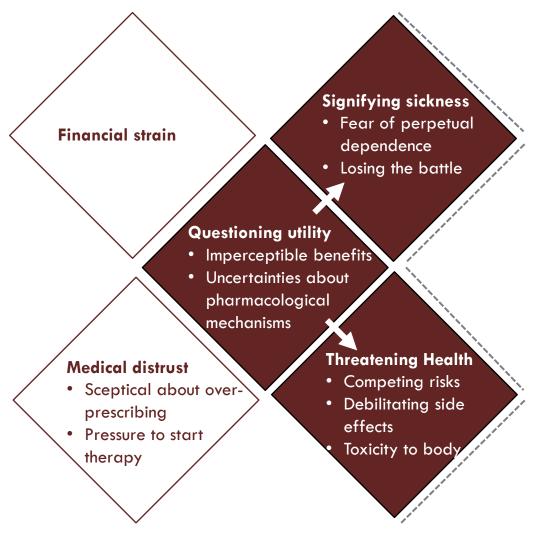
Adherence: \sim 50% (primary prevention); \sim 70% (secondary prevention) @ 2 years

"It gives me a peace of mind. ... my general concern Confidence in about my health decreases because I take the prevention medication that ultimately is very effective for Trust in efficacy Minimising regulating cholesterol levels." catastrophic CVD/ Taking control Acceptance and use of statins **Routinising into** daily life

Patient beliefs and attitudes to taking statins for preventing CVD

Ju et al Br J Gen Pract 2018; 68:408-419

Adherence: \sim 50% (primary prevention); \sim 70% (secondary prevention) @ 2 years



"I worry that I may have to take cholesterol medicine for the rest of my life."

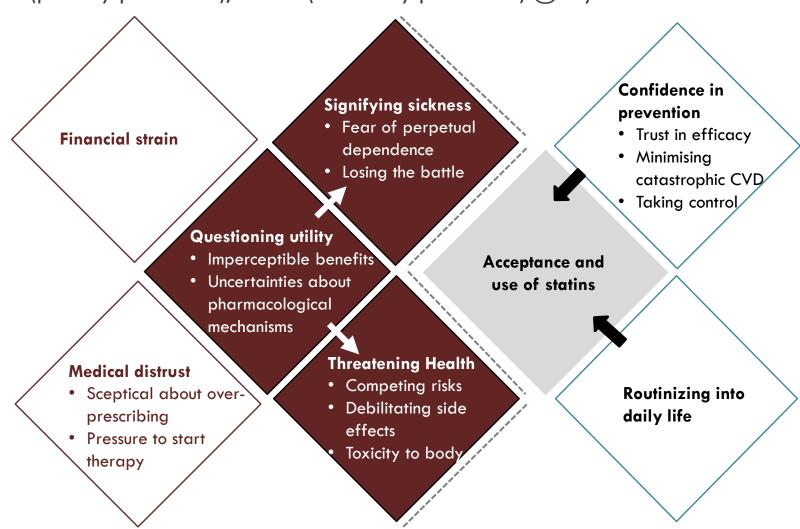
"I was on [statins] for two years until I got muscle weakness and actually crashed my car into other cars twice in one week...then when I realised it was because of [my medication], I stopped taking it immediately and told my doctor I'd rather die of a heart attack than die in a car accident."

"I don't want a load of trash in me. I won't take medication to prevent disease. I'd rather have another herring (fish)."

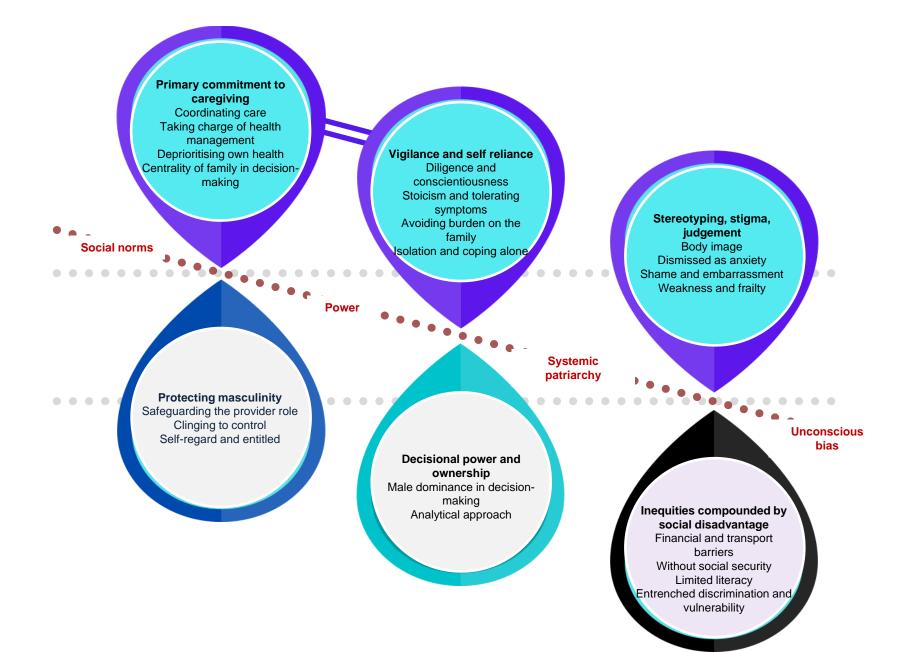
Patient beliefs and attitudes to taking statins for preventing CVD

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Nephrologists' perspectives on gender disparities in chronic kidney disease and dialysis



Translate into implications

Domain	Suggestions
Empowerment in decision- making and self- management	 Engage trained independent interpreters to support direct communication with women (women) Establish treatment regimens that are flexible with and centred around life priorities e.g.
Financial support	 caregiving responsibility and work (women, men) Advocate for the provision of universal healthcare coverage/insurance for CKD treatment and dialysis; particularly for those who are socio-economically disadvantaged
	Provide assistance in accessing financial support e.g. childcare (women)
	 Work with stakeholder organisations including government and charity organisations to establish grants specifically for women (women)
Patient awareness and	 Emphasise and encourage ownership of treatment (men)
education	 Identify care-partners to provide support (women)
Communication	 Address appearance and body image concerns, for example in relation of vascular access
	 Encourage lifestyle management using a sensitive and positive approach
Unconscious bias in clinicians	 Establish system alerts for comorbidities, complications, and lab results to avoid dismissing symptoms (women)
	 Conduct explicit and object assessment of capacity and functioning to inform treatment decisions (women)
Access to clinics	 Establish and provide outreach or mobile clinics (for dialysis, medical consultation, educational sessions)
Accountability	 Establish institutional policies and mechanism for accountability in addressing gender disparities



Pre-biopsy

- Establish visit plan
- Deliver information for self-management pre/post procedure
- Conduct thorough consent process outlining risks and necessity for b

Biopsy

- Admission: explain expected schedule
- Pre-procedure: introduce operator to patient, check patient comfort
- Post-procedure: explain restrictions/timing (moving, eating, voiding),
- Recovery: check in with patient at expected time
- Discharge: explain post-procedure care, notify caregiver
- All: Keep informed of delays, multidisciplinary communication to mo

Post-biopsy

Delivery of results: schedule clinic to deliver results as soon as post

Demonstrate impoct



Hemodialysis International 2017; 21:213-223

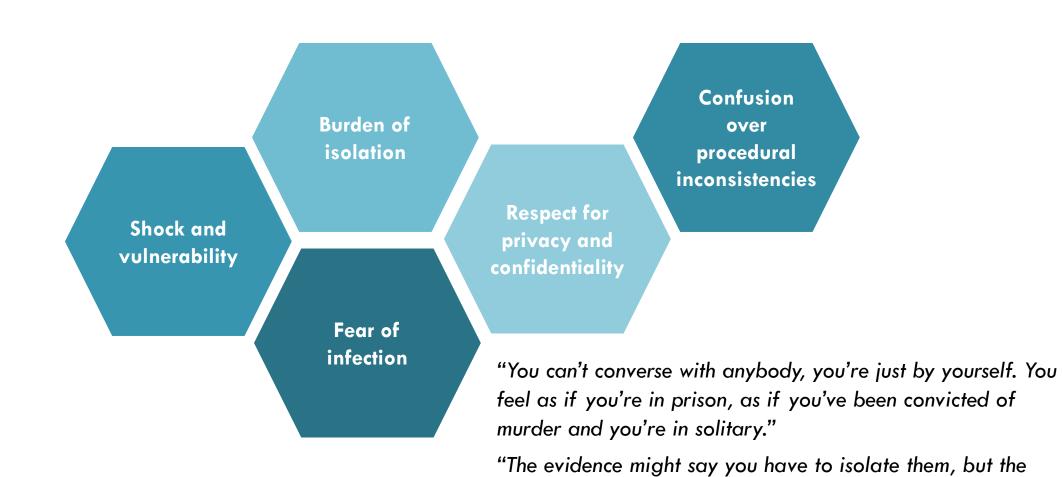
Original Article

Infection

Identifying and integrating patient and caregiver perspectives for clinical practice guidelines on the screening and management of infectious microorganisms in hemodialysis units

Aim: To identify the priorities of patients and caregivers to include in clinical practice guidelines on screening and management of infectious microorganisms in hemodialysis units

11 patients/caregivers (4 diagnosed with infectious microorganism)



guideline should say what you should do to make sure that the

person isolated isn't feeling stigmatized, upset, alone."

New guideline topics

1. Privacy and confidentiality

- Disease notification
- Exchange of patient information between staff

2. Psychosocial care during and after disease notification

- Information
- Ongoing support following diagnosis

3. Quality of transportation

Minimize cross-infection during transportation

4. Psychosocial treatment of patients in isolation

Inform about the reasons for isolation

5. Patient/caregivers education and engagement

- Impact of infection on future treatment (dialysis, infection)
- Transmission (to understand their own risk to others)

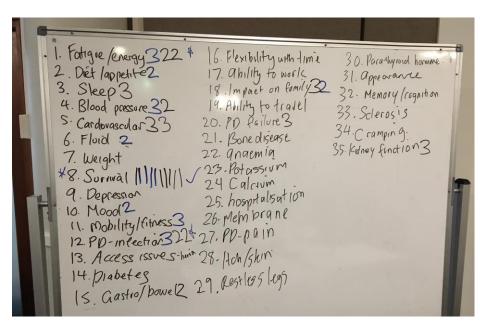
6. Patient advocacy

Empower patients to disclose information (express concerns anonymously)

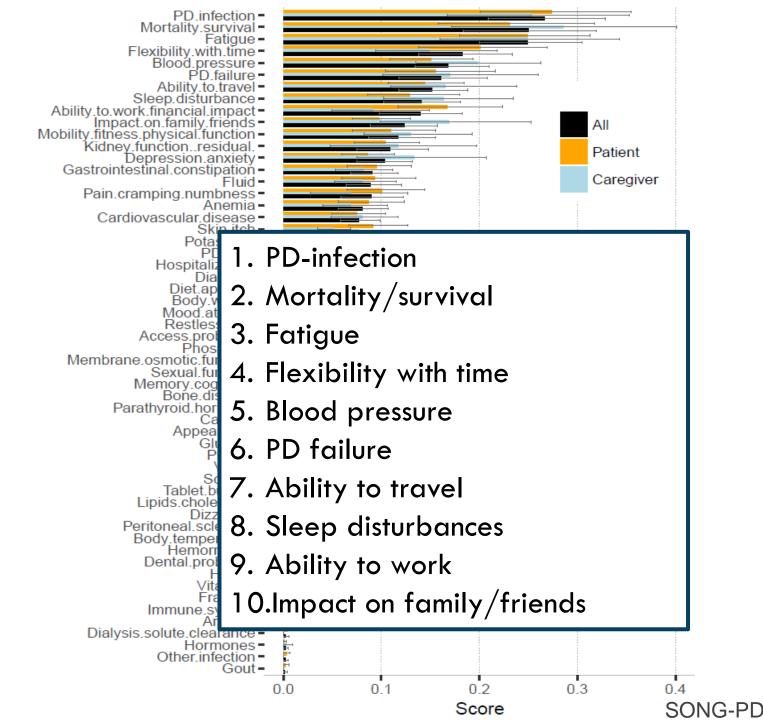
DISERSE NOTIFICATION-WHO-HOW-WHEN OUTCOME - RESISSURANCE PRIVACY. TRANSPORT - (NEPT): TAXI V. TEGNSPORT CROSS-CONTAMINATION ISSUES FOUCHTION-INFORM FULL OUTCOMES FREQUENCY of SCREENING -SPREAD of INFECTION CONTROLS SOCIAL WORKER - COUNCELLING - DEAL WITH BEING INFORMED * DEPRESSION: SMOCK: PANIC PREVELANCE/ HOW OFFEN OCCURS 8 METHOD OF INFORMING WHEN IT HAPPENS IN EACH DEALYSIS UNIT. (INCLUDING HOSPITAL UNITS)



Nominal group technique

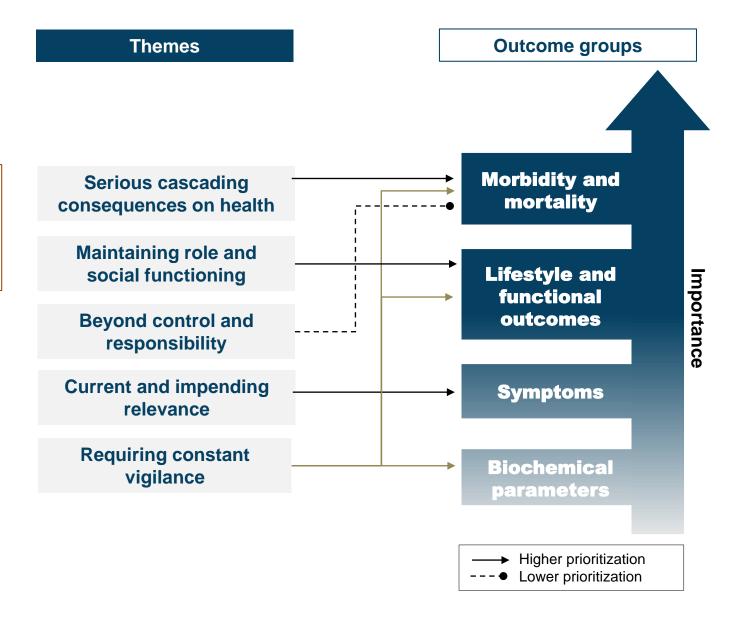




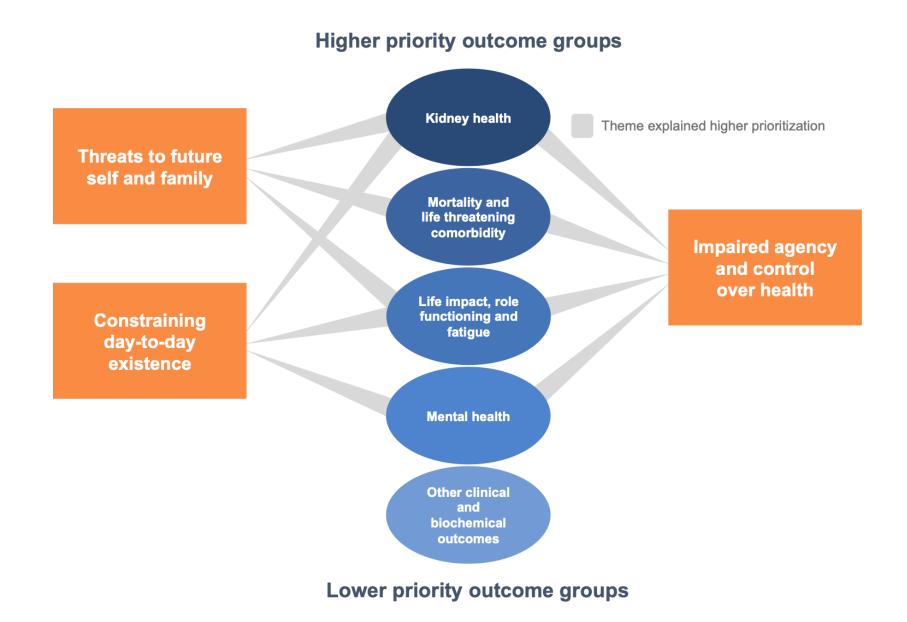


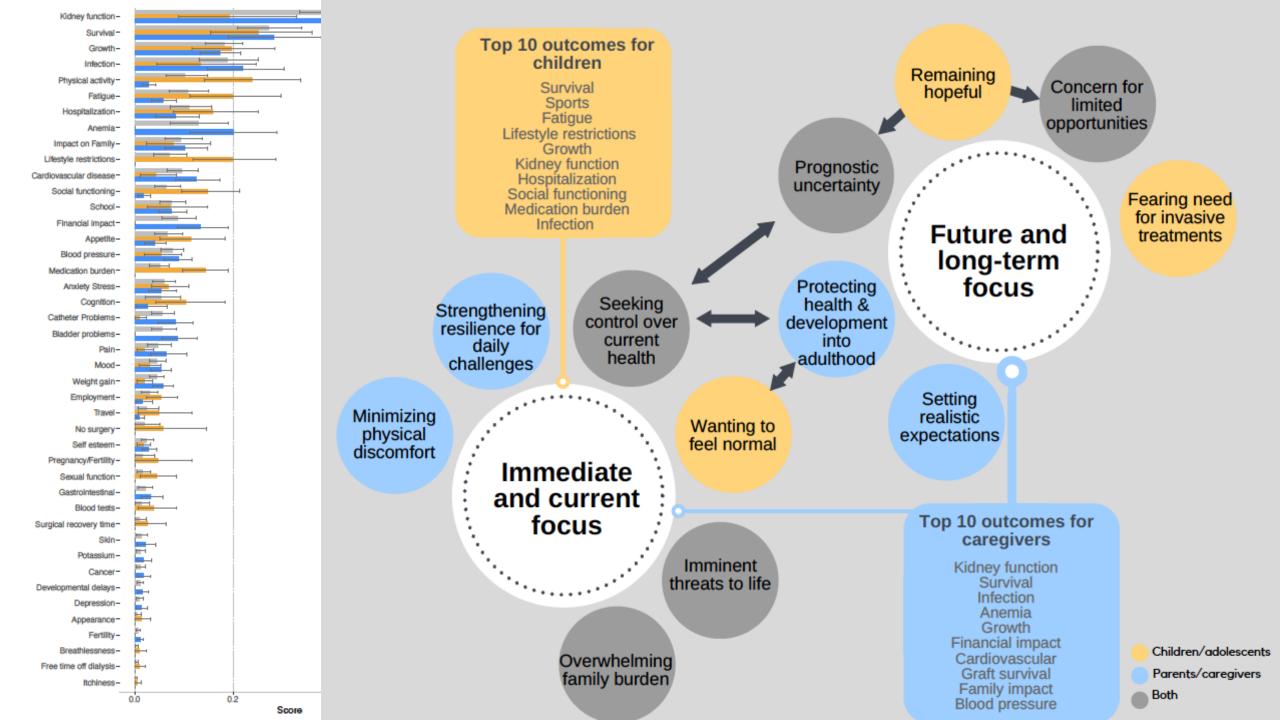
Nominal group technique

"without that [flexibility with time, energy, mobility] you're really just sitting at home not doing anything."



Identifying outcomes important to patients with glomerular disease and their caregivers: a multinational nominal group technique study







Summary

- The findings should reflect the full range and depth of the data collected, and be presented in a comprehensible, insightful, trustworthy and "actionable" manner.
- Demonstrate credibility, dependability, transferability and confirmability.
- This may increase the potential of qualitative evidence to impact on practice and policy.