

Supplementary File 1

Interview Guide

Interview questions covered eleven topics and were designed to explore patients' perceptions and experiences of comfort from the time they were notified they needed heart surgery through to the time they were preparing for discharge. Questions evoked responses that covered multiple topics and so participant burden was not as great as it appears. A one-page concept map summarising the interview topics enabled the researcher to keep track of the topics covered and note down key points to return to. Open-ended, probing questions were used to obtain rich, meaningful data^[1,2]. Probing questions sought concept clarification when it was uncertain that patients were talking about their experience of comfort. Patients were also asked to score their comfort, and then their pain, on an 11-point Numeric Rating Scale (NRS) to further explore the meaning of comfort and conceptual similarity to absence of pain.

RQ = Research Question

Opening question

- I would like to begin by asking you about your overall experience of having surgery in this hospital. You have been in hospital a few days now after major surgery, what has your experience been like so far?

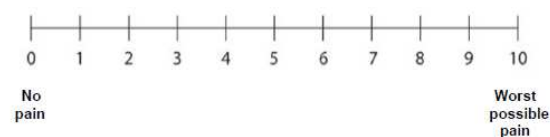
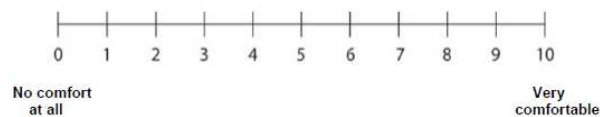
Topic 1 Meaning of comfort

RQ: What does "comfort" mean to patients who have been recovering from cardiac surgery for at least four days?

- You've been in hospital recovering from surgery for 4/5 days now. I am interested to know how comfortable you feel right now. What does being comfortable mean to you?
- Can you please look at this comfort scale? It is a scale that goes from 0 to 10; a score of 0 would mean you are extremely uncomfortable - no comfort at all - and a score of 10 would mean you are extremely comfortable. Taking all your feelings and symptoms into consideration can you give a number from 0 to 10 that describes your level of comfort right now?
- What does that score mean to you? *Probe - what does a score of x feel like?*
- What would take you to get up 10?
- What would you most like staff to know about how to help patients feel comfortable in hospital after heart surgery?

RQ: Do patients perceive pain and comfort differently?

- On the other side of this paper is a scale you will be familiar with it is a pain scale also measured pain from 0 to 10. How much pain are you in right now on this scale of 0 to 10 where 0 is no pain and 10 is worst pain imaginable.



RQ: What does “discomfort” mean to patients who have been recovering from heart surgery for at least four days – understanding discomfort helps understand comfort

- Let’s talk now about the lower end of the comfort scale, were you ever down closer to the bottom of the scale? What was that like?
- Let’s talk about any discomfort you have experienced after surgery. Probe symptoms spontaneously mentioned. Ask about symptoms generally experienced such as pain, nausea, constipation, anxiety, worries or concerns. How did that make you feel?

Topic 2 Pre-operative preparation and expectations, influences on comfort at that time

RQ: How do pre-operative events influence pre and postoperative comfort?

- Let’s talk a little about the events before surgery. What was it like for you when you realised that you needed heart surgery?
- During the time waiting for surgery what helped with those thoughts and feelings?

Topic 3 Self-comforting strategies

RQ: What strategies do patients use to promote their sense of comfort when undergoing heart surgery?

- Probe what helped/didn’t help with an unpleasant/distressing situation/event.
- Have you felt safe? Probe confidence in staff, able to ask for help? Did staff check up on you? *Probe: Influence on comfort*
- Have you been chatting to other patients? Staff? *Probe: Influence on comfort*

Topic 4 Cultural Dimension of comfort

RQ: In what way does feeling culturally connected influence the comfort of patients when they are in hospital recovering from heart surgery?

- Let’s talk now about what it is like for you in general being in hospital. Can you remember when you first came into the ward for your surgery? Did you feel welcome? *Probe What was welcoming/not welcoming i.e. greetings, environment, staff; How important was that initial welcome?*
- What have you missed from your home life?
- Have you any values, preferences related to health and illness that are important to you? *Probe: impact on comfort in context of care experienced.*

RQ: How does an acute care environment support cultural connectedness?

- Were staff aware and respectful of your cultural values, preferences? *Prompt: For e.g. return of body parts, cultural support such as visiting kaumātua*

Topic 5 Spiritual Dimension of comfort

RQ: In what way does spiritual connectedness influence the comfort of patients when they are in hospital recovering from heart surgery?

- Many patients can experience a feeling of uncertainty during the days before and after surgery. Some people find that spirituality, a faith or a belief, karakia, prayer can help them over this time. Is that something that occurred to you?
- Is there something else, some other sense of a higher power or meditation for example, that that has helped you at this time?
- Were there times when connecting with your faith or beliefs was comforting?

RQ: How does an acute care environment support spiritual connectedness?

- Was spiritual support offered and available?
- Do you feel that staff respected your spiritual needs?
- Has there been times in hospital when you have felt unsupported or restricted in your spiritual beliefs or faith? *Prompt I am thinking of things that staff might have said or done? Was your time for karakia/prayer respected? Quiet place for prayer?*

Topic 6 Family/Whānau

RQ: How is family/whānau presence important to patient comfort?

- Have you missed your family/whānau since you have been in hospital?
- How important have family/whānau been for you at this time?
- Where there times when you didn’t want visitors?

RQ: In what way might staff-family/whānau relationships contribute to patient comfort?

- Did staff make your family/whānau feel welcome? How was that important to you?

RQ: If shown to be important, how does an acute care environment a) support family/whānau presence b) include family/whānau in care?

- Have family/whānau been able to visit or keep in contact as much as you needed them to be?
- How have your family been involved in your care? *Prompt: Have there been times when family/whānau have intervened on your behalf in ways that improved your comfort?*

Topic 7 Staff Influences - Engagement and Commitment

RQ: How do staff interactions influence the emotional and physical comfort of patients in hospital for heart surgery, including willingness to participate in care?

- Were doctors comforting? Were nurses comforting? *Or, ask in response to spontaneous description of a distressing situation.*
- What qualities did you want the nurses who look after you to have? Were there any staff that you felt you particularly related to or able to confide in? *Probe What was it about that person that made you feel that way? Why was that important?*
- In your experience of care in this hospital have staff had time for your needs? *Probe How/why this was important.*
- Were you comfortable using the call bell for help? *Probe Why was that?*
- Did you experience (or see) any care that disturbed you? *Probe What happened?*

RQ: How do staff in acute care environments respond to individual patient's comfort needs?

- Can you recall a time since your surgery when someone went out of his or her way to help you feel more comfortable? What difference did that make?

Topic 8 Staff Influences - Information and Participation

RQ: How does information influence patient comfort when undergoing heart surgery?

- Did anything happen in your recovery that you weren't prepared for?
- Did you know what your plan of care was for each day? How was this/would this have been helpful?
- Let's talk about going home and what life will be like for you in the first few weeks. Do you have any concerns about how you will manage? What have you been told about going home? *Probe impact on comfort*

RQ: How does patient participation (such as opportunities to personalise care by reporting symptoms, negotiating care) influence patients' physical comfort after heart surgery?

- Were you encouraged to report your pain? Other symptoms?
- Who made decisions about the pain relief you were given? Can you recall a time when you were given options about what strength pain relief you had? *Probe management of other physical symptoms of significance to the participant*
- Did you ever put up with any pain or symptoms? *Probe why*

RQ: How do opportunities for participation promote emotional comfort?

- Were you involved in treatment and care decision as much as you would have liked to be? *Probe preference for involvement in treatment decisions when asking about symptom management, or aspects of care described as distressing/improve comfort*
- How did you feel about taking the pills? Were there any medications that you refused to take? *Probe – or were reluctant to take? Why was this?*

RQ: How is patient participation influenced by the quality of staff interactions, specifically patients' sense of engaged and committed staff?

- *Refer Engagement and Commitment questions*

Topic 9 Staff Influences - Holistic Care and Assistance,

RQ: How is patient comfort assessed in the first four / five days after cardiac surgery?

- Let's talk about the care you needed to help you feel more comfortable. Did nurses ask you about your pain? What else did they ask you about? What did doctors seem concerned about? *Probe - Aware of patients' specific symptoms or causes of discomfort identified in other responses.*
- Were you able to do the things that were expected of you each day? *Probe - I am thinking of being able to get out of bed, walk to the toilet? What about sleep and rest?*
- Did you get the care you needed? *Probe how this affects comfort and who provided necessary help*

Topic 10 Staff Influences - Symptom Management

RQ: How effective and consistent is the care provided for patients' symptoms or generalised discomfort in the first four / five days after surgery?

- Can you remember any delays in getting relief for your symptoms? Explore symptoms previously mentioned.
- What about non-medicine methods (non-pharmacological) or non-western methods of healing or rongoa (Māori methods of healing)

Topic 11 Physical Facilities and Ambience

RQ: How does the ambience of an acute care environment affect people's comfort?

- Was the general ward environment comfortable? I am thinking about chairs, beds, smells, noise, lights, cleanliness, sharing a room, bright pictures, access to TV/radio, family space?

Closing Question

- Is there anything else you would like to add about your experience of comfort or discomfort during your time in hospital for heart surgery?

References:

1. Yeo, A., Legard, R., Keegan, J., Ward, K., McNaughton Nicholls, C., & Lewis, J. (2014). In-depth interviews. In J. Ritchie, J. Lewis, C. McNaughton Nicholls & R. Ormston (Eds.), *Qualitative research practice: a guide for social science students and researchers* (2nd ed., pp. 177-210). Los Angeles, California: Sage.
2. Creswell, J. W. (2012). *Qualitative inquiry and research design: Choosing among five approaches*: Sage publications.

Supplementary File 2

Table: Characteristics of patients			
Participant characteristics	NZE (n = 10)	Māori (n = 8)	Pacific (n = 7)
Procedure			
CABG	6	3	5
Valves	4	4	2
CABG + Valve	-	1	-
Male (%)	6 (60)	5 (62)	5 (71)
Median Age Years (range)	63 (48-85)	64 (41-75)	58 (30-75)
Mode of admission			
Booked admission (n=12)	4	5	3
Transferred from a referring hospital after an acute, unplanned admission (n = 13)	6	3	4
Surgery postponed (n = 7)	4	2	1 [#]
Interviewed POD 4 (n = 18) (remainder interviewed POD 5)	7 (70%)	6 (75%)	5 (71%)
Average interview duration in minutes (range)	40 minutes (23 to 62)	48 minutes (25 to 66)	42 minutes (26 to 58)
Family/whānau present at the interview	1	3	3

CABG - Coronary Artery Bypass Grafts; Valves - Valve Replacement or Repair; # - because of infection; POD – postoperative day

Supplementary File 3

Table: Reasons for non-participation in those approached

	Number of patients	Ethnicity of non-participants (N, %)		
		Maori	Pacific	NZE
Total number approached but did not participate	15	4 (27%)	4 (27%)	7 (47%)
Declined consent	13			
Inconvenient time	6	1	2	3
Reluctant – too much going on	2	-	-	2
Perceived as Australian research	1	-	-	1
Declined – no reason given	4	2	1	1
Approached, indicated interest but left the ward before interview	1	1	-	-
Judged as not meeting purposive sampling requirements*	1		1	

NZE - New Zealand European; *N*=number; * Admission details stated Pacific ethnicity but recent English ethnicity immigrant to Cook Islands.