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A Realist Informed Study on Speaking up in Healthcare – Supervisors’ Perceptions of New Graduates Speaking Up

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Abstract

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A Realist Informed Study on Speaking up in Healthcare – Supervisors' Perceptions of New Graduates Speaking Up

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ABSTRACT

Introduction: For healthcare organizations to adapt and improve, staff need to speak up for patient safety and quality improvement. Speaking up has been explored in nursing and medicine with little known about speaking up in allied health. This study is part of a larger project investigating speaking up in allied health new graduates. This paper is taking a realist position to look at the perspectives of supervisors of allied health new graduates and further develop the Initial Program Theory (IPT) developed from the new graduate study. **Method:** Data was collected from two focus groups. Inductive thematic analysis was employed to develop themes and further realist informed analysis was completed using context-mechanism-outcome configurations leading to a refined IPT. **FINDINGS:** This study reports on the causal mechanisms and contextual features which supervisors believe activate speaking up in new graduates. A further developed IPT which combines findings from both studies will be introduced. **CONCLUSION:** Supervisors of allied health new graduates are aware of the complexity of speaking up in healthcare. Taking a realist position, this study has highlighted the importance of professional supervision and cultural supervision in speaking up for allied health new graduates.

Key words: speaking up, voice behavior, new graduate, allied health, patient safety, quality improvement

INTRODUCTION

Supervisors in allied health play a key role in supporting the transition of new graduates into the workforce.¹⁻³ Given the complexity of the healthcare setting, new graduates report feeling overwhelmed and under pressure resulting in burn out with some leaving their jobs.⁴ New graduates enter healthcare institutions with the latest research and see practices and processes from a new perspective. Enabling this workforce to speak up will offer healthcare teams the opportunity to improve and innovate practice. While all healthcare professionals are responsible for speaking up about patient safety and quality improvement, Schwappach and Gehring⁵ report that this often does not happen. The literature highlights that more experienced staff report that they do not feel safe to voice concerns or ideas.⁶⁻¹¹

When staff feel unsafe and/or inexperienced they do not speak up. This can have a significant impact on patient and staff safety.¹² A scoping review conducted on speaking up in healthcare identified that most evidence comes from studies involving experienced staff in emergency and surgical settings with limited information on the speaking up behaviours of new graduates in allied health.⁴ Following this scoping review, focus groups were carried out with new graduates in allied health. From these two focus groups an Initial Program Theory (IPT) around new graduates speaking up was drafted. While we can assume that supervisors of new graduates would have novel insights on speaking up behavior in new graduates and that they would play a key role in enabling speaking up in new graduates, this is yet to be evidenced in published literature.⁴ This study will refine the developing IPT from the new graduate focus groups with data from two supervisor focus groups.

Speaking Up

Speaking up is a term that appears in healthcare literature and refers to the behavior of expressing ideas or suggestions with the intention of changing practice. Within healthcare, employees speak up about patient safety and quality improvement. The act of speaking up, or not speaking up, is complex. Complex social problems can be more clearly understood from a realist philosophical position. Researching speaking up behavior in teams involves understanding the contexts within which speaking up occurs, the factors that activate speaking up behavior or not, and the outcomes resulting from speaking up.^{13,14}

Speaking up in Healthcare

In this study, the term “healthcare” is used to describe all health settings from acute inpatient to community rehabilitation and long-term care settings. In the literature on speaking up in healthcare, surgery and emergency medicine settings feature most commonly.^{9,10,15-18} A previously published scoping review⁴ provides an overview of the published literature on speaking up in healthcare. In this review, only five of the 76 studies reviewed included allied health participants, and none of the studies looked at allied health new graduates.

Allied Health New Graduates

This study sought to explore the speaking up behavior of new graduate, allied health professionals from the perspective of supervisors. The term “allied health” refers to healthcare professions who are not nurses or doctors.¹⁹⁻²¹ This group of professionals covers a wide range of disciplines from physiotherapy to social work. Allied health professionals work within different teams across healthcare settings. These teams may include members from one professional discipline or multiple disciplines. New graduates are team members who are in their first two years of practice. They are supervised in their practice by supervisors.

Supervisors

Professional associations and healthcare settings require their healthcare workforce to be engaged in regular supervision. Supervision is a process in which healthcare staff meet with a more experienced colleague regularly (weekly to six weekly) to facilitate discussion on topics including clinical work, team relationships, workplace processes, and wellbeing.²² Supervision has a growth and development focus for the healthcare worker and aims to ensure the safety of patients.²² Insights into the contexts and causal factors that activate speaking up behavior in new graduates, from the perspective of the supervisors, will help educators in allied health programs and allied health leaders in better supporting this workforce.

METHODS

Research Aims

The aims of this study were to explore: 1) how supervisors of new graduates in allied health perceive new graduate speaking up behavior, and 2) their perspective on what contexts and causal mechanisms enable new graduates to speak up.

Design

This study is part of a two-phase doctoral study looking at speaking up in new graduates in allied health. Ethics approval (no: 024594) was granted by the University of Auckland Human Participants Ethics Committee. This research continues from a previous focus group study which asked new graduates in allied health about their experiences in speaking up (Friary et al, in press).

Theoretical Influence

This study is using a realist approach to understand what activates speaking up in new graduates.^{23,24} Realist researchers are interested in how and why an event has occurred rather than just identifying that it has occurred or just describing the event. Realist researchers are interested in taking an in-depth exploration of complex social issues, such as speaking up in healthcare and identifying workable solutions. This study is using realist reasoning processes to unpack the factors which activate or prevent new graduates from speaking up, otherwise called causal mechanisms.²⁵ Using realist methods, researchers can gain an understanding of 1) the contexts in which speaking up occurs which could include factors such as team culture, 2) the mechanisms which activate speaking up or not and 3) the outcomes resulting from speaking up events. This way of communicating data is also called Context-Mechanism-Outcome Configurations (CMOCs). The use of CMOCs supports researchers to generate theories called Initial Program Theories (IPTs) which can then be further tested.^{23,24}

Four focus groups were conducted to explore the topic of speaking up in allied health new graduates, two with new graduates and two with supervisors of new graduates. This paper, using a realist informed position, will report on the insights from the supervisor focus groups using context-mechanism-outcome configurations, and then building on the new graduate program theory, will propose a further refined initial program theory (IPT).

Participants

The inclusion criteria required participants invited to this study to be supervisors of new graduates in allied health. The supervisor and the new graduate/s they were supervising needed to be working within one of three tertiary hospitals in a metropolitan city in New Zealand. Table 1 summarises the demographic details of the seven participants. Purposive sampling and snowball selection were employed during the recruitment phase. Participants were invited via staff email lists and professional networks. Focus group attendance was impacted by COVID19 related workload pressures. While further focus groups were planned, they were not held as analysis indicated that similar themes were being generated and we had enough data from which to further develop the IPT.

Table 1. Focus Group Participants' Demographic Details

		<i>Focus Group 1</i>		<i>Focus Group 2</i>	
Professional discipline	Occupational therapy	1	Physiotherapy	2	
	Physiotherapy		Speech-language therapist	1	
	Speech-language therapy	2			
		1			
Ethnicity	NZ European	2	Other European Other Asian	2	
	Samoan	1		1	
	Other European	1			
Gender	Female	4	Female	3	
Country of study	New Zealand	3	New Zealand	1	
	United Kingdom	1	United Kingdom	2	

As there is limited literature on the topic, speaking up in allied health new graduates,⁴ focus groups were conducted to first explore this topic via group discussion to provide participants with the chance to expand, test and refute their own and each other's thoughts.^{4,26} Two supervisor focus groups were held (2020 and 2021). Due to COVID19 restrictions, the focus groups were conducted online using Zoom video conferencing software. The focus group questions were developed following an in-depth exploration of the literature on this topic (Appendix 1). Supervisors were asked to discuss their perceptions of new graduates' speaking up in healthcare. The questions aimed to explore the supervisors' thoughts on the contexts in which new graduates spoke up and what factors supported or impacted speaking up.

To support group cohesion and trust, time was spent at the start on introductions and discussing why this study interested the participants. Each focus group also opened and closed with a karakia¹, ensuring tikanga principles² were followed. Each focus group was approximately 60-75mins in length. Zoom transcription function was used to transcribe the meetings, followed by careful review and editing.

Analysis

Braun and Clarke's Reflexive Thematic Analysis (TA)²⁷ was used to initially analyse the data. This approach fits within a realist theoretical framework. Each focus group was analysed separately initially, as they took place one year apart, and then reviewed together to look for similar themes and subthemes. Given the influence of realism on this study, there was an interest in exploring the underlying mechanisms impacting the situations described by focus group participants and starting to develop possible initial theories on speaking up behaviors with new graduates in allied health. This involved further immersion in the transcripts to look for causal insights into speaking up and factors illustrative of the contexts. From these insights, context-mechanism-outcome configurations (CMOCs) were coded. From these CMOCs and the IPT from the new graduate study, the IPT has been refined and will be tested in a future study. The steps taken in this analysis are outlined in Table 2.

Table 2. Analysis Steps

1.	Notes taken by primary researcher throughout focus group discussion on initial ideas.
2.	Notes taken by primary researcher on thoughts after focus group relating to ideas, topics, and emerging thoughts on theory development.
3.	Non-analytical immersion in the data - transcripts read through several times to gain familiarity by primary researcher.
4.	Initial coding keeping close to the words used by participants.
5.	Time away from data to allow for further processing of analysis.
6.	Further round of coding with revisions and editing to group sub-themes.
7.	Grouping of sub-themes into groups and labelled as main themes.
8.	Further time away from analysis to think over themes and sub-themes.
9.	Feedback from three other research team members to ensure main themes and sub-theme labels, descriptions of themes and exemplar quotes are clear for the reader.
10.	Return to analysis for final review and editing of themes and sub-themes (this was repeated with the second focus group transcript).
11.	Return to transcripts to look for causal insights – underlying generative mechanisms which activate speaking up behaviour.
12.	Identification of context-mechanism-outcome configurations and illustrative quotes.
13.	Context-mechanism-outcome configurations placed into a matrix from which an Initial Program Theory has been created.

RESULTS

Focus group attendance was impacted by COVID19 related workload pressures with fewer participants being able to join than had originally signed up. While further focus groups were planned, data analysis identified similar main themes in both groups, giving the research team enough information to further refine the IPT developed from earlier focus groups with new graduates and then plan for further study. The findings from this study have been represented using a thematic framework (Appendix 2), CMOCs formulated into a matrix (Table 3), and the refined IPT (Figure 1). This section starts with a summary of the data in table and figure format then describes the context-mechanism-outcome configurations in further detail with illustrative quotes.

Table 3. Context-mechanism-outcome Configurations Matrix Following Allied Health Supervisor Focus Group Analysis

	Context	Mechanism	Outcome
#1	Hierarchical hospital system Reduced caseload to enable NG transition Supervision training provided to supervisors and supervisees	NGs have the opportunity to practice speaking up and debrief in supervision (mechanism resource) NGs feel sense of whanaungatanga ³ and trust with supervisor (mechanism response)	NGs will speak up with new ideas for service improvement NGs will speak up about racism in a team context NGs feel calm and connected and learn NGs stay in the role

¹ culturally appropriate way to open and close a meeting in New Zealand

² cultural protocols

³ a te reo Māori - indigenous language of New Zealand term which describes connection between people

#2	Poor team culture and racist comments being made about patients and towards marginalised staff Hierarchical hospital system No clear system for speaking up	Provision of cultural supervision (mechanism resource) NGs feel sense of whanaungatanga and trust with supervisor	NGs speak up about racism to their cultural supervisor
#3	Poor team culture and racist comments being made about patients and towards marginalised staff Hierarchical hospital system No clear system for speaking up Change resistant team	Without quality supervision (mechanism resource) NGs feel disillusioned NGs feel frustrated with lack of action/change (mechanism response)	NGs don't speak up NGs leave job OR NGs do speak up without support NGs comments are not validated

CMOC #1 – Supervision supports speaking up

In the context of a busy, hierarchical hospital system, when new graduates are allocated a trained supervisor who they meet with regularly, they feel a sense of whanaungatanga (connection) and psychological safety which results in new graduates speaking up about new ideas for service improvement and speaking up about racism within a team context. The feeling of safety within the learning relationship helps the new graduates feel calm and connected to learn and encourages them to stay in the role. Two supervisors from one healthcare institution spoke about the role of clinical coaches. These people are trained to provide regular support to all the allied health new graduates as they transition into the role. This role was also described as onboarding. This role was in addition to the usual supervision that a new graduate would receive from a more senior member of the team also known as a supervisor.

“I think even just having my role, which you know my role is to onboard people, whereas before my role was created it was all on the preceptors, who all had their own caseloads, their own clients to deal with and there was always that juggle ... And so I think having a role like mine has helped people and having the time to invest in the relationship and having some continuity across the team people get in the same sort of conversations, rather than it being dependent on which preceptor they've got.” (FG1S2)

One of the participants expanded on the skills of one competent supervisor who they felt created a rich learning environment.

“And the one that was really successful was very approachable, was really non-judgmental, was quite open about her own limitations. You know, like she would model asking for help or model not being sure of things, even though she was a really experienced clinical coach. She acknowledged that she couldn't be an expert in everything. So she was, ... I noticed that the new grads that were with her were much calmer and more settled and less jumpy, whereas the ones with the slightly more brusque kind of 'teachery' one they were jumpier and not as happy, I guess. And I sort of really think strongly that unhappy people can't learn. You need to be calm to learn otherwise yeah ...” (FG1S1)

A supervisor in a separate focus group spoke about the importance of training in how to supervise and a particular technique which they used to empower the new graduates to reach their own decisions.

“...so at the end of the day, it's their solution their action plan same as what S5 said, unless there is a safety concern it doesn't go back to the team to their supervisor or to the board, for that matter, so yeah we're really just a sounding board, so it all has to come from them.” (S6FG2)

CMOC #2 – Speaking up Despite Poor Team Culture with the Support of Cultural Supervision

Within a hierarchical hospital system with no clear process in how to speak up about racism within the workplace, cultural supervision provides Pacifica and Māori new graduates with a sense of whanaungatanga (connection) and support through a shared experience with other peers and their supervisor. This gives them the confidence to bring their experiences of racism to their cultural supervisor. One of the participants discussed the cultural supervision they provide to new graduates who identify as Māori and Pacifica. This supervisor highlighted their challenges in supporting new graduates who reported experiences of racism from members of their healthcare team towards patients and themselves as a minority group. This participant spoke about how cultural supervision created a trusting relationship which enabled the new graduates to bring these issues to supervision and then for them both to work out the best course of action. The challenge was in knowing how to report these issues given there was no clear hospital process.

“...there've been a few situations (*sigh*) that have happened where new graduates have been ... well they have told me that they have felt like racially kind of uncomfortable and some services that have been in ... within the team that they have joined and they haven't felt confident to go and escalate that within in that team...” (FG1S3)

“... at first she didn't feel confident, but with the support of a few other colleagues and you know the kind that were like, you know, 'in order to see change in this system that obviously probably has been going on for years, but you're the first one that's kind of come up and said that you want to say something about it' ... And then she felt like she

could come forward and say something. However, there's not a clear pathway, at the moment, in terms of how you escalate that..." (FG1S3)

CMOC#3 – New Graduates Leave due to Poor Team Culture

A rival theory to CMOC2 is that without quality supervision, in teams who have a poor team culture and are change resistant, new graduates will not feel supported to speak up; they will then feel disillusioned, unsupported, and frustrated with the lack of action which could eventually result in them resigning.

"And I think that then just kind of disregards what the new graduate is saying and makes them feel worse because they feel like their comments aren't valid and that their experiences aren't valid and I think that's terrible. And those two that have come to me and at one point they wanted to quit and leave. And I just think, you know, again, what are we doing, if we are trying to push for this (more Māori and Pacifica graduates) and then once they get here they want to leave." (FG1S3)

Another supervisor shared a story in which the new graduate felt pressure from the team to discharge a patient despite their thinking that this would not be safe for the patient. In this example, poor team culture and the new graduate's lack of understanding of their own role and responsibilities meant that they did not speak up. By not speaking up, a patient was placed at risk of falling and experiencing significant injury, "...they didn't feel like they could speak up because of the doctors and all the charge nurses are putting so much pressure on them to get people out of hospital quickly" (S5FG2) and "...so it's a little bit of that authority, probably. And that they felt they needed to but they didn't understand that even as a graduate that physios are independent clinicians. That we should be able to make our own decisions" (S6FG2).

When speaking about ideas to support speaking up, two supervisors spoke about the potential benefit of a novel feedback system. They felt that this would need to be anonymous either due to the team being resistant to change and resistant to new ideas from new staff or so that the new graduates would not feel singled out from a team that they had not yet established a strong relationship with.

"In terms of barriers I definitely think the hierarchy is a barrier and despite the best intentions of all the DHBs it is still very much 'this is the way we've always done it, and who are you as a new grad to tell us that it should be different?'" (FG1S4)

Through review of the generative causal mechanisms and features related to the context highlighted through these CMOCs, and an IPT from a previous study which explored speaking up from the new graduates' position, the Initial Program Theory on speaking up behavior in allied health new graduates has been further refined. Illustrated in Figure 1, this developing concept outlines the features of the context required for new graduates to feel knowledgeable, empowered, and confident to then act and speak up for patient safety and quality improvement. This developing theory outlines the importance of supervision training and ways of ensuring quality supervision, including cultural supervision for allied health new graduates. This analysis describes the well-known healthcare context – hierarchical system, pressure during the COVID19 pandemic to discharge patients, poor team culture and no clear system in how to speak up. However, in some examples provided, new graduates were able to speak up when they were clear about their role and responsibilities and had a trained supervisor providing quality supervision. For healthcare workers who identify as Māori and Pacifica, cultural supervision is essential in order to support this workforce.

DISCUSSION

This exploratory study invited supervisors of allied health new graduates to join a focus group and discuss their perceptions of new graduates' speaking up. Informed by a realist perspective, this study has identified key mechanisms which supervisors believe impact speaking up behavior. The following discussion will expand on two key factors identified as supportive of speaking up in new graduates and will identify future research areas.

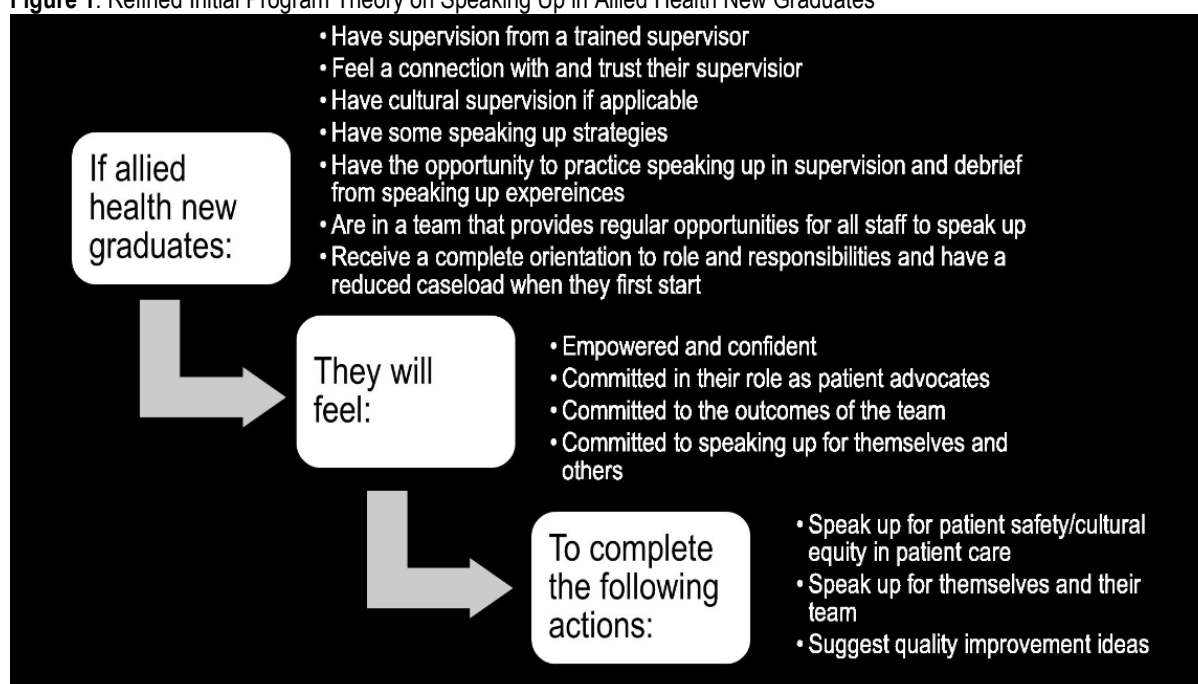
Professional Supervision

Many allied health professional associations require members to engage in professional supervision. Professional supervision can be described as a learning process between the supervisee and the supervisor with a focus on the growth of the supervisee, quality and safe practice for the clients and communities served by the supervisee, as well as personal and professional development and well-being.²⁸

Findings from this study highlight the importance of supervision in enabling new graduates to speak up. Additionally, this study describes how new graduates are often unclear about their role and responsibilities, and the processes for speaking up on safety issues within healthcare. While the benefits of supervision in supporting new graduates to navigate the healthcare system is well reported,¹⁻³ the benefits of supervision in supporting speaking up is not evident. In a narrative literature review conducted by Moores et al,²⁹ they found that supervision supported the new graduates transitioning into the workforce and the lack of supervision hindered this transition process. However, they did not report more specifically on speaking up skills. In a scoping review on speaking up in healthcare,⁴ 17 papers discussed intervention programs targeting speaking up skills. No studies looked at new graduates in allied health and no studies looked at the benefits of using ongoing supervision to

support speaking up. While we know about the benefits of supervision for allied health new graduates generally,¹⁻³ this study has identified how supervision may specifically support speaking up behavior. Further research on how supervision promotes this skill will enable development of a more targeted intervention program for supervisors and new graduate supervisees.

Figure 1. Refined Initial Program Theory on Speaking Up in Allied Health New Graduates



Cultural Supervision

Cultural supervision was identified as an enabler in this study in supporting Māori and Pacifica new graduates to speak up. Cultural supervision emerged in the 1990's in New Zealand and has since developed as an approach to supporting clinicians with particular ethnic heritage through practices and processes which align with their worldview.²² He Kōrero Kōrari is one example of a Kaupapa Māori supervision framework, by Māori, for Māori working with Māori whānau.³⁰ Eruera³⁰ provides four cases illustrating the benefits of the use of this framework to support the well-being and practice of Māori clinicians. While supervisors in our focus group study did not specifically talk about a framework they use in supervision, they did speak about how cultural supervision supported the new graduates to speak up or to choose to not speak up in some situations when speaking up could impact their reputation. Despite the benefits of cultural supervision, of concern was that some focus group participants were not aware of cultural supervision despite supervising staff who identified as Māori and Pacifica. While these findings illustrate the importance of ensuring that Māori and Pacifica clinicians are given the opportunity to engage in cultural supervision, they have also highlighted the ongoing structural racism within healthcare.

Limitations

This study is reporting on low focus group numbers with a narrow range of allied health disciplines, all female participants and only one of the participants identifying as Pacifica. While participant numbers were low, the discussion provided rich qualitative data. This focus group study is also part of a larger focus group study which together iteratively form the IPT which will be further tested in a follow up longitudinal cohort study. And while the full allied health range of professions was not represented, there did not appear to be significant differences in the comments made between the different disciplines. However, there was a significant difference in the examples provided by the Pākeha/New Zealand European participants compared to the Pacifica participant. A final limitation is that COVID19 restrictions resulted in the focus groups being online. While meeting a group online for the first time and helping everyone to feel comfortable is challenging and may impact on what participants choose to disclose, the researcher made efforts to foster a connection with the participants from initial emails to time taken at the start and during the focus group to develop a trusting relationship.

CONCLUSION

This study builds on the Initial Program Theory developed from a new graduate focus group study, by adding the perspective of supervisors of new graduates. This study employed realist methods to further refine the IPT on speaking up in new graduates in allied health. In addition to a positive team culture which supports speaking up, this study has identified the importance of professional and cultural supervision in developing this behavior in new graduates. A deeper understanding of how new graduates develop speaking up skills overtime, particularly the role that supervision plays, will provide universities and healthcare institutions with specific strategies to implement through intervention programs.

References

1. Chiller P, Crisp BR. Professional supervision: A workforce retention strategy for social work? *Australian Social Work*. 2012;65(2):232-242.
2. Franklin N. Clinical supervision in undergraduate nursing students: A review of the literature. *E-Journal of Business Education and Scholarship of Teaching*. 2013;7(1):34-42.
3. Melman S, Ashby SE, James C. Supervision in practice education and transition to practice: Student and new graduate perceptions. *Internet Journal of Allied Health Sciences and Practice*. 2016;14(3):1.
4. Friary P, Purdy SC, McAllister L, Barrow M. Voice behavior in healthcare: A scoping review of the study of voice behavior in healthcare workers. *J Allied Health*. 2021;50(3):242-260. (PMID 34495036)
5. Schwappach DL, Gehring K. Silence that can be dangerous: A vignette study to assess healthcare professionals' likelihood of speaking up about safety concerns. *PLoS One*. 2014;9(8):e104720. (PMID 25116338)
6. Alingh CW, van Wijngaarden J, van dV, Paauwe J, Huijsman R. Speaking up about patient safety concerns: The influence of safety management approaches and climate on nurses' willingness to speak up. *BMJ Quality & Safety*. 2019;28(1):39-48. (PMID 29954948)
7. Attree M. Factors influencing nurses' decisions to raise concerns about care quality. *J Nurs Manag*. 2007;15(4):392-402. (PMID 17456168)
8. Dendle C, Paul A, Scott C, Gillespie E, Kotsanas D, Stuart RL. Why is it so hard for doctors to speak up when they see an error occurring? *Healthcare Infection*. 2013;18(2):72-75. doi: 10.1071/HI12044.
9. Dixon-Woods M, Campbell A, Martin G, et al. Improving employee voice about transgressive or disruptive behavior: A case study. *Acad Med*. 2019;94(4):579-585. (PMID 30211753)
10. Edrees HH, Ismail MNM, Kelly B, et al. Examining influences on speaking up among critical care healthcare providers in the united arab emirates. *International Journal for Quality in Health Care*. 2017;29(7):948-960. (PMID 29186417)
11. Etchegaray JM, Ottosen MJ, Dancsak T, Thomas EJ. Barriers to speaking up about patient safety concerns. 2017. (PMID 29112033)
12. Schwappach D, Gehring K. 'Saying it without words': A qualitative study of oncology staff's experiences with speaking up about safety concerns. *BMJ open*. 2014;4(5):e004740. (PMID 24838725)
13. Westhorp G, Prins E, Kusters C, Hultink M, Guijt IM, Brouwers J. Realist evaluation: An overview. 2011.
14. Jagosh J, Bush PL, Salsberg J, et al. A realist evaluation of community-based participatory research: Partnership synergy, trust building and related ripple effects. *BMC Public Health*. 2015;15(1):1-11. (PMID 26223523)
15. Belyansky I, Martin TR, Prabhu AS, et al. Poor resident-attending intraoperative communication may compromise patient safety. *J Surg Res*. 2011;171(2):386-394. (PMID 21601875)
16. Gardezi F, Lingard L, Espin S, Whyte S, Orser B, Baker GR. Silence, power and communication in the operating room. *J Adv Nurs*. 2009;65(7):1390-1399.
17. Hooper P, Kocman D, Carr S, Tarrant C. Junior doctors' views on reporting concerns about patient safety: A qualitative study. *Postgrad Med J*. 2015;91(1075):251-256. (PMID 25898840)
18. Landgren R, Alawadi Z, Douma C, Thomas EJ, Etchegaray J. Barriers of pediatric residents to speaking up about patient safety. *Hospital pediatrics*. 2016;6(12):738-743. (PMID 27909093)
19. Dyess SM, Sherman RO. The first year of practice: New graduate nurses' transition and learning needs. *J Contin Educ Nurs*. 2009;40(9):403. doi: 10.3928/00220124-20090824-03. (PMID 30803103)
20. Theisen JL, Sandau KE. Competency of new graduate nurses: A review of their weaknesses and strategies for success. *J Contin Educ Nurs*. 2013;44(9):406. doi: 10.3928/00220124-20130617-38. (PMID 23799789)
21. Gilmour ASM, Jones RJ, Cowpe JG, Bullock AD. Communication and professionalism skills of a new graduate: The expectations and experiences of dental foundation trainers. *European Journal of Dental Education*. 2014;18(4):195-202. (PMID 24467418)
22. Beddoe L. Supervision in social work in Aotearoa New Zealand: Challenges in changing contexts. *The Clinical Supervisor*. 2016;35(2):156-174.
23. Pawson R, Tilley N. An introduction to scientific realist evaluation. *Evaluation for the 21st century: A handbook*. 1997;1997:405-418.
24. Pawson R. Nothing as practical as a good theory. *Evaluation*. 2003;9(4):471-490.
25. Jagosh J. Retroductive theorizing in pawson and tilley's applied scientific realism. *Journal of Critical Realism*. 2020;19(2):121-130.
26. Krueger RA. *Focus groups: A practical guide for applied research*. Sage publications; 2014.
27. Braun V, Clarke V. Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health*. 2019;11(4):589-597.
28. Beddoe L, Davys A. *Challenges in professional supervision: Current themes and models for practice*. Jessica Kingsley Publishers; 2016.
29. Moores A, Fitzgerald C. New graduate transition to practice: How can the literature inform support strategies? *Australian Health Review*. 2017;41(3):308-312. (PMID 27373808)
30. Eruera M. He korari, he kete, he korero. *Aotearoa New Zealand Social Work*. 2012;24(3/4):12-19.

Appendix 1. Focus Group Interview

Supervisor Focus Group Questions:

Warm up question:

What made you decide to join this focus group today? Why is this topic important/interesting to you?

Main questions:

Discuss your experience of new graduates speaking up (using voice behavior) for patient safety or quality improvement purposes or not? It may be easier to think of a particular situation – what happened before/during/after?

Describe how they had spoken up? (probe for communication style/strategies/modality)

How successful/effective was this?

When NGs do speak up, what communication style/strategies do you find most effective?

How does the way they speak up impact on your perception of them?

In your experience, are there other situations in which they speak up or purposes for speaking up?

What do you think influences/motivates/supports them to speak up?

What influence do you think context / communication partners / topic have on them speaking up?

What do you think prevents them speaking up?

Describe a situation in which a NG should have spoken up but didn't? What was the context/what do you think stopped them speaking up/what was the impact of this?

What could be done to improve NGs' ability to speak up?

What could NGs do differently to improve their success in speaking up?

Discuss how you as leaders/supervisors can/could enable NGs to speak up?

What could the hospital do more broadly to support NGs in speaking up?

What could the education institutions do?

Concluding questions:

Is there anything else anyone would like to add?

Given your knowledge and experience working in healthcare and supervising New Graduates, is there anything you think this research team needs to explore in this area?

Appendix 2. Thematic Framework from Supervisor Focus Groups

Focus Group 1 & 2	Focus Group 1	Focus Group 2
Themes and theme definitions (3)	Subthemes (18)	Subthemes (22)
<p>Safety drives SU – <i>this includes patient safety and staff safety.</i></p> <p>SU Impact – <i>this includes the outcomes and perceived experiences of the NGs as observed by the supervisors.</i></p> <p>Scaffolding SU – <i>this includes; (a) elements which appear to support the NGs speaking up and strategies they employ, (b) the barriers to the NGs speaking up which appear in the absence of scaffolding and (c) ideas raised by the supervisors of ways speaking up could be improved.</i></p>	<p>Patient Safety – <i>(COVID impact)</i> Cultural safety & quality improvement needs</p> <p>NG reprimanded publicly Experience devalued (<i>incl racist actions defended</i>) NG frustrating team (<i>incl not following recommendations</i>) Risk of loss of talent and missed opportunity to innovate Wanting to protect NGs (<i>supervisors</i>)</p> <p>Protective attributes (<i>incl passion, resilience, not taking responsibility</i>) Potential to innovate Proactive (<i>both positive and also negative ie; impulsive – not thinking about impact and reputation</i>)</p> <p>Transition reality shock (<i>limitations and role</i>) Low role power (<i>incl - NGs not having the right to legitimate knowledge – power, NGs have to fit into the system</i>) Comfort routines Poor team culture (<i>incl - Reluctance to take responsibility, leadership awareness, no support structure, poor supervision, NGs need to figure it out themselves, not learning from mistakes</i>) Racism Burn out</p> <p>Cultivating cultural safety (<i>incl - Importance of whakawhanaungatanga</i>) Nurturing psychological safety – <i>cultivating a learning culture</i> Quality supervision</p> <p>Cultural Safety</p>	<p>Breaches in cultural safety Equity and quality improvement Workplace culture Patient advocacy</p> <p>Overwhelmed and Juggling Hit the ground running</p> <p>Supervision Using networks Speaking up through action Psychological safety Own values and prior experience</p> <p>Low role power COVID pressure / institutional pressure Not wanting to feel incompetent (<i>Didn't understand the rationale</i>) Poor team culture – (<i>Interprofessional relationships and change resistant teams</i>) Personality</p> <p>Look to other industries – <i>review NG definition</i> Longer orientation Explicitly teach speaking up Psychological safety ideas</p> <p>Issues Positives</p>