Building Workforce for Chronic Disease and Complex Conditions: A Qualitative Investigation of Care Coordinators' Role Perceptions

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Building Workforce for Chronic Disease and Complex Conditions: A Qualitative Investigation of Care Coordinators' Role Perceptions

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Abstract

Background: Within interdisciplinary fields of healthcare that focus on chronic disease and complex condition management across an integrated continuum of services, there is growing emphasis on workforce reform strategies to update and expand clinical roles. In particular, different configurations of clinician teams have emerged to support older adults and others with complex health and social needs. This qualitative study sought perspectives from an emergent care coordination workforce that provide such support. The purpose of the study was to capture the views and experiences from this workforce as a means to understand the characteristics of their role; and the values care coordinators perceived to be placed on the role by external clinical colleagues.

Methods: A qualitative descriptive design was supported by purposive sampling of 57 care coordinators located at a metropolitan Local Health Network in Victoria, Australia. Data was obtained from several focus groups in the form of detailed notes and verbatim quotes then analyzed using qualitative content analysis.

Results: Care coordinators' held values about their role that were conceptually related to three key characteristics: 1) The whole person approach: making a difference to people's lives; 2) Autonomy; and 3) Practice wisdom. With regard to their viewpoints about how external colleagues perceived the role, content themes of 'picking up all loose ends' and 'waving the magic wand' emerged.

Conclusion: These qualitative findings suggest that care coordinators bring a unique and somewhat shared-practice perspective that could significantly build the interface between acute episode-based and chronic care. The findings are of interest to healthcare organizations investing in holistic workforce capability to support chronic disease and complex condition management within integrated service delivery models.

Abbreviations LGA: Local Government Area; LHN: Local Heath Network; ED: Emergency Department

Introduction

In the period 2011-12, seventy percent of the Australian health budget spending was on public hospital inpatients' services [1]. These services are grouped nationally as Local Health Networks (LHNs) that offer the following care types: emergency, admitted acute, admitted sub-acute and non-admitted. Within LHNs, high volumes of patients are admitted to services categorized as 'non-admitted' and the volume of these patients is increasing [1]. For non-admitted acute health service, national activity-based coding, classification and funding arrangements took effect from July 1, 2012. Non-admitted patients are, in the main, coded and classified nationally according to a Tier 2 Non-Admitted Services Classification [2]. Eleven non-admitted classifications are in use, also, in the US, England, Canada, New Zealand and Ireland health services; though there is considerable diversity regarding patients' care requirements and models of care [1].

In 2013-14, about 46 million occasions of service were provided for non-admitted patients by 558 Australian public hospitals [3].

The setting of the study is a LHN's Tier 2 care coordination service located in Melbourne's western metropolitan region-one of Australia's fastest growing areas [4]. It is a culturally and linguistically-diverse region: except for one Local Government Area (LGA) in the region, a quarter of their populations was born overseas; two LGAs are highly diverse with 47% and 43% of their populations born outside Australia; 80,681 migrants arrived in the region from 2001 to 2011 of which 18% settled under the federal government's humanitarian migration stream [5]. These factors, alongside the region's higher burden of chronic disease than average [5], coupled with growing healthcare needs of Australia's ageing population place demands and pressures on the LHNs healthcare and support services as the foremost provider of health services in the region.

The LHN's care coordination service facilitates client access to the most appropriate mental health, medical and social support services. It receives referrals for clients with complex care and social support needs. Clients mostly present with chronic illness associated with multiple co-morbidities. Because clients often require attention to conjunct healthcare needs that may relate to mental health, dementia, and social circumstances such as inadequate family support

mechanisms and low health literacy, they require help to navigate health service providers with different responsibilities. Care coordination services are provided in the hospital, home or community from within the authorizing environment of the LHN. Within the LHNs care coordination service, care coordinators form an interdisciplinary clinician team and comprise social workers, nurses, physiotherapists, and occupational therapists. Over a decade or so, and in response to change in service need, the team has established a shift towards fit for purpose roles.

The direct care activity of this cohort of care coordinators have been described as fulfilling the following main functions: assessment and treatment; consultation; negotiations; and contracting and liaisons with internal and external health care providers. Care coordinators do not have a specific license in Australia; their practices are regulated according to profession-specific roles.

This study forms part of a larger investigation on care coordination workforce reform and service integration within the LHN-a large metropolitan and teaching institution located in the West of Melbourne, Australia. ANON 1 and ANON are research team members on this larger investigation that includes, also, a range of clinicians.

In 2010, the LHN reviewed the care coordination service with a particular focus on the 'patient journey' and the interdisciplinary workforce model. Although established as a new configuration, the care coordinators' role characteristics as well as their interactions with 'external clinical colleagues' were not well understood across many parts of the organization. Further steps were needed to enhance understandings of care coordination roles. Press [6] provides a clinician's point of view on the concept of care coordination and says "…it remains an abstract concept to many people who are not on the front lines of clinical care, as well as to some on the front lines who lack (or don't want to have) the quarter- back's view of the field". Within the LHN, the workforce model posed particular challenges for workforce development leadership; it was perceived to lack internal clinical governance frameworks, recruitment and retention required improvement, and skill development for optimisation of the scope-of-practice had to be addressed. For example, workforce recruitment strategies were not supported by sufficient understandings of preferred skills and behavioural attributes needed for the role.

The aim of the study was to determine key characteristics of the care coordination role by gaining a better understanding of how care coordinators valued their role, and how they perceived external clinical colleagues valued the role. The study was designed to harness care coordinators' perspectives for internal workforce reform initiatives; leadership from within the LHN considered them crucial to inform and support the internal workforce development strategy. The information was anticipated to help structural workforce opportunities that could improve integration across a diverse workforce, as well as optimisation of workforce productivity and efficiency for the longer term.

Methods

Study design and participants

An interdisciplinary research team commenced a qualitative investigation which is most appropriate for describing subjective perspectives [7]. The design overlapping data collection and analysis derives from the traditions of ethnomethodology [8]; where

partnership principles and values of authenticity, inclusiveness, trust and reciprocity are at the forefront of research procedures adopted in this study.

As the study was exploratory in nature, qualitative content analysis was employed for the purpose of reporting common characteristics in a conceptual way [9]. The study reported here was carried out within the care coordination service of the LHN. Participants were care coordinators (n=57) working within the care coordination service. They were recruited by ANON through face to face contact at staff meetings, and information sessions. Participation was voluntary. At the time of data collection there were 91 care coordinators (87.15 Equivalent Full-Time) employed within the service; participation rates were approximately two thirds of the entire population. The breakdown of the total full-time equivalent staff of 87.15 for 2013 was: Nursing (professional) (53.5); Allied Health (30.25); Psychology/pharmacy (2.4); Allied Health Assistant (1). When possible, we ensured representations from each discipline for each focus group.

Data collection

Data were collected from participants in eight separate focus groups of 1.5 hours duration at the LHN's research facility. The first focus groups (four) were held during October and November 2012. The second focus groups (four) were held during August and September 2013. Participants were allocated to groups according to availability. During the first focus groups, structured questions centred on gaining in-depth understanding about what care coordinators valued about the role and how they perceived 'external' colleagues valued the role. Key questions were: Tell me about what attracted you to a care coordination role? How would you describe your role as a care coordinator to a stranger at a party? Tell me about your current experience of working as a care coordinator. The second focus groups were designed to gain understandings of care coordinator's perceptions of external colleagues by asking: What do you think your colleagues outside of care coordination value about your role?

To ensure consistency and dependability of data collection ANON, with five care coordination clinicians who were heavily involved as part of the wider workforce investigation, collected data from each focus group. Two of these clinicians facilitated focus group discussions. Another noted ideas on a white board including verbatim quotes. ANON also took detailed notes and verbatim quotes using a laptop computer. All notes and quotes were transcribed and used as the study's data source.

With limited budget as a factor, we harnessed clinicians as both facilitators and data collectors. We considered clinicians to be precisely the people with whom fellow clinicians (as participants) would logically discuss perspectives and experiences; that they know each other brings the advantage of building relational understandings of shared experiences central to the conduct of focus groups [10]. Clinicians achieved a dynamic, social interaction with participants and focus groups were productive and engaging. During focus groups, when points of interest generated intense discussion, facilitators ensured sufficient time was allocated for collective reflection to settle agreement on salient points. Focus group discussions were iterative and reflexive in nature; there was a bouncing of ideas off each other and, to some extent, emergent themes were co-created as the discussion ensued. The research encounter between data collectors, facilitators and participants was relational in nature where both were equally involved in the interplay and co-construction of meaning. Facilitators were entwined with focus group discussions and

contributed to the discussion by drawing upon their own experience of care coordination and the culture of healthcare organization. To ensure views were represented accurately, and not taken out of context, participants were given great control during focus groups regarding how their narratives were documented and interpreted. For example, focus groups sessions were akin to an informal forum, where ideas were clarified and where participants were allowed to set priorities.

Analytical approach

Content analysis was the approach adopted in this study to map data [11]. Data mapping proceeded through immersion in transcribed notes and through data reading and re-readings. Key areas denoted as what participants valued about the role, and how they perceived 'external' colleagues valued the role formed the frame of reference. In this study, the processes of recording focus group data cannot be sharply distinguished from the interpretation and analysis of data. ANON 1 commenced to structure repeated use of terms, phrases, ideas and concepts from the data. In an iterative process, ANON 1 and ANON conducted several cycles of meetings to re-examine and map the semi-structured data to tentative content themes. We co-opted care coordinators from the research team in the wider workforce investigation (mentioned previously) to form a reference group and assist with respondent validation. Draft content themes were discussed and refined with the reference group. Once the content themes emerged, ANON 1 and ANON undertook refinements to the final version.

The dependability of the data was ensured because care coordinators' perspectives were collected in a manner to optimise shared understandings of work characteristics. Scrutiny by care coordinators from the wider team helped establish credibility of the analysis as they were involved in regular research meetings and information sharing. High participation rates also ensured trustworthiness of the data for this population.

Results

Results are presented in two main sections: First of all, what participants valued about the role; and secondly, how they perceived 'external' colleagues valued the role. Content areas are presented and illustrated using data excerpts. In relation to values that care coordinators place on their roles, three content areas were discerned from the data: The whole person approach: making a difference to people's lives; autonomy; and practice wisdom.

The whole person approach: making a difference to people's lives

Care coordinators placed high value on the 'whole person' approach as illustrated.

As a care coordinator, I like that I am the key difference in people's lives (group 1)

I love being able to really make a difference. I used to think people went home and that was it (group 2)

To potentially make a difference each time you interact with them- you look at the person as a whole (group 3)

The whole person approach had an underlying moral purpose

It's that challenge between your duty of care versus dignity of risk. That's what I really like and where I want to work (group 1).

The duty of care versus dignity of risk concerned the trade-off between a client's resolve to assume a particular risky lifestyle, such as living in squalor, and at what point a clinician should step in to preserve dignity.

The whole person approach was described as inherently holistic and tied to the idea of the 'client as family'. Client as family signalled an integral professional relationship where there was a '… need to be able to notice how clients or carers are feeling and investigate their real needs'. The whole person approach was understood to be much broader than what medical interventions alone could achieve. Well-honed investigative and communication skills for rapport building were frequently mentioned and these included listening, communicating, being empathetic, providing educational information to help with choice, sharing decision-making, and promoting wellness by empowering the patient though self-care as illustrated.

You have a plan of learning with that person, their skills and their goals; and you develop a plan to advocate for that person and their family. You need to go out and take from different areas and build a package [of self-learning] for that person; whereas in hospital you have short sharp education sessions because the person is always about to go [home] (group 4).

Autonomy

Generally, care coordinators perceived they had acquired an expert knowledge base; and that complex decision-making skills were needed to support team-based, goal-directed activity. The role gave scope for 'working as an independent practitioner' as expressed.

- *I value the autonomy of the role but also the support and back up of a wider team (group1)*
- *It's the ability to decide between what is needed and not just what is wanted (group 2)*
- *We have a chance to address multiple issues in the patient rather than being restricted to one issue (group 3)*

Some care coordinators commented that the role had attracted a specific staffing group who are highly experienced practitioners with an interest in working to the full extent of their education.

Care coordinators were highly sensitive to matters of autonomy. Autonomy was embedded in perceptions that autonomous roles had been shaped by the changing context of the practice environment. Autonomy was firmly embedded in notions of 'being progressive' that was not only tied to ideas that care coordinators hold a 'new progressive vision' but that the service model in itself was progressive.

Care coordinators spoke about new and updated work roles in the patients' home environment and their ability to shape those roles in expanded areas of practice as illustrated.

It's nice to feel that you're in an area that's progressive (group 1)

[Care Coordination has] been around for a while but [this team provides] a new approach so [I was attracted to] getting in at the ground floor and being able to shape it (group 3)

Autonomous work practices were generally accepted as a characteristic of the role that made it highly attractive. An antecedent to autonomous work practice was role flexibility. Care coordinators valued the ability to take up updated and flexible roles and contribute to a broader area of practice. They were involved in a wider range of tasks considered outside their traditional discipline-specific scope-of-practice. They perceived that flexibility in roles defied entrenched assumptions about established role boundaries as illustrated.

I've worked in a lot of other roles but here I'm not just practicing my profession. I'm able to cross other areas and the flexibility and challenges [of the role] really interest me (group 1)

The absence of professional boundaries is very attractive because I've gained skills in lots of different areas but I also have the ability to use my discipline skills (group 1).

As a case manager I felt limited; but as a care coordinator I am challenged to be really flexible and adaptable (group 1).

Nevertheless, autonomy in the workplace and added role flexibility had constraining features. With regard to career pathways, care coordinators expressed emotions of despair such as 'reaching a glass ceiling' and 'nowhere to go'. Excerpts illustrate the frustration related to opportunities for career pathway progression as described.

May suit workers at a particular stage in their career (group 2)

The only issue is there's nowhere to go from here. If you stayed in nursing you could go higher but in care coordination this is it (group 4).

S.no	Personal Characteristics	Research team and reflexivity
1	Interviewer/facilitator	Which author/s conducted the interview or focus group? X
2	Credentials	What were the researcher's credentials? E.g. PhD, MD X (listed in submission
3	Occupation	What was their occupation at the time of the study? X
4	Gender	Was the researcher male or female? X (implied by gender names)
5	Experience and training	What experience or training did the researcher have? Relationship with participants X
6	Relationship established	Was a relationship established prior to study commencement? X
7	Participant knowledge of the interviewer X	What did the participants know about the researcher? e.g. personal goals, reasons for doing the research X
8	Interviewer characteristics	What characteristics were reported about the interviewer/facilitator? e.g. Bias, assumptions, reasons and interests in the research topic X
Domain 2: Study design		
9	Methodological orientation and Theory X	Participant selection X What methodological orientation was stated to underpin the study? Qualitative content analysis x
10	Sampling	How were participants selected? e.g. purposive, convenience, consecutive, snowball X
11	Method of approach	How were participants approached? e.g. face-to-face, telephone, mail, email X
12	Sample size	How many participants were in the study? X
13	Non-participation	How many people refused to participate or dropped out? Reasons? Setting Not applicable
14	Setting of data collection	Where was the data collected? e.g. home, clinic, workplace X
15	Presence of non-participants	Was anyone else present besides the participants and researchers? X
16	Description of sample	What are the important characteristics of the sample? e.g. demographic data, date X
Data collection		
17	Interview guide	Were questions, prompts, guides provided by the authors? Was it pilot tested? X
18	Repeat interviews	Were repeat interviews carried out? If yes, how many? No repeat interviews
19	Audio/visual recording	Did the research use audio or visual recording to collect the data? X Detailed at notes taken using a PC and the details provided about note taking are provided
20	Field notes	Were field notes made during and/or after the interview or focus group? No

21	Duration	What was the duration of the interviews or focus group? X
22	Data saturation	Was data saturation discussed? Content analysis procedures identified.
23	Transcripts returned	Were transcripts returned to participants for comment and/or correction? Not returned-content analysis data returned for review
Domain 3: Analysis and findings data analysis		
24	Number of data coders	How many data coders coded the data? X
25	Description of the coding tree	Did authors provide a description of the coding tree? Not used
26	Derivation of themes	Were themes identified in advance or derived from the data? X
27	Software	What software, if applicable, was used to manage the data? Software not used
28	Participant checking	Did participants provide feedback on the findings? X
29	Quotations presented	Were participant quotations presented to illustrate the themes / findings? Was each quotation identified? E.g. participant number Participants identified according to group membership-explanation for not using a unique identifier has been included.
30	Data and findings consistent	Was there consistency between the data presented and the findings? X
31	Clarity of major themes	Were major themes clearly presented in the findings? X
32	Clarity of minor themes	Is there a description of diverse cases or discussion of minor themes? X

Table 1: Consolidated criteria for reporting qualitative studies (COREQ): 32-item checklist.

Practice Wisdom

Care coordinators had developed tacit knowledge or 'practice wisdom' from many sources to support decision-making. When presented with complex, patient-related issues, care coordinators use each other to bounce around ideas. They got to know and respect each other as a result of team-based interactions.

We are communicating better, calling on each other -we are more confident in doing that (group 1)

I will talk with our colleagues in [one service] and see if they can help out over the weekend with a welfare visit (group 1)

There was considerable cross pollination of knowledge and skills amongst the different teams of the service. Team-based interactions helped enhance understandings of each teams' roles with a focus on sharing responsibilities. There are joint visits and assessments of clients where care coordinators learn from each other. New learning comes from interactions with different disciplines that bring different areas of expertise. Some care coordinators were still learning critical knowledge 'on the job' and had expressed 'low' knowledge.

There are the core responsibilities and there is the other side of things. There is a lot of new learning and you are forced to go and learn new things all the time (group 1)

Pivotal to a shared viewpoint about the person-centered approach, excerpts from team-based learning and team-based work practices illustrate knowledge sharing among the team.

We have to be tolerant to different approaches within your working group [who all come] with different ideas. We all approach the same problem with a different frame of reference and different clinical reasoning preferences. You have to respect that your colleague is just as skilled (group 3).

The majority of the time we reach the same conclusions because there's so much chit- chat in the office and bouncing ideas off each other (group 1)

Although the multidisciplinary team works as a team in the wards, they all do their own [separate] part. This team is more of a team process than I found on the wards (group 3)

Role-specific skills were learned 'on the job' in an expanded scope-of-practice as stated.

I do think that our knowledge has increased but there is still a long way to go. It is a 'car park' conversation where you learn (group 4)

The job descriptions don't tell you what you do; it's a suck it and see situation. You need to do the job to know what it is (group 2)

Particular knowledge and skills, inherent to the role, were spoken about in terms such as: clinical assessment; problem solving; prioritising and investigative skills; coordination skills; and advocacy, counselling and communication skills.

The depth of knowledge I now have about chronic diseases is over and above my particular specialty (group 4)

Broad knowledge of the regional health system and community services assisted with the considerable complexities of referral opportunities.

It's all about system navigation stuff. Clients would have no hope in hades of working things out by themselves (group 4).

The referral [to us] comes with all the current information but we need to know more (group 3)

When I started, I was amazed at how people [fellow care coordinators] could sense that a referral didn't feel right and would investigate further (group 2).

You need to have a good understanding of the hospital and whole medical system and be able to explain it to the client (group 1).

You need to be a detective and do the homework on your referral before the assessment (group 1).

Communication skills were elaborated as digging deep, skilled listening, instant rapport, narrative-sensitive, negotiate good outcomes, and an ability to liaise with broader network of client and family as illustrated.

You need to be able to build rapport really quickly so you can get all of the really personal information in the first assessment … to get so much information in the patient's voice (group 1)

You have to learn to deal with the consultant in the emergency department and community providers. You have to advocate for the patient and really build your communication skills (group 3)

You need really good communication skills so you can build different ways of telling the story to everyone… newer clinicians often can't do is … sometimes you need to tell the same story in four different ways to explain: why this thing they haven't even considered is crucial to why the patient can't go home! (group 3)

There's a real skill and art [to communication]; you need to learn how to ask questions over the phone. My phone manner has completely changed (group 2)

Communication skills [are important] with patients to make them feel relaxed; and to give you information they don't give to the doctors and nurses … emergency department nurses are often too busy; they don't ask (group 3)

There was general agreement that the service had shifted to a shared, collaborative and person-centred model of care.

I think this [practice] strengthens my role as a nurse. I feel I have much more skills as a nurse through my work here (group 4)

You need to have practice wisdom to follow the person's narrative, and be narrative sensitive (group 1)

Practice wisdom resulted, also, from the work practices of exploring and knowing service provider boundaries, building knowledge of community services, developing relationships through rapport and advocacy, and recognising carers' issues.

Practice wisdom was tied to concepts of persistence, crisis intervention and doing the undesirable. Persistence was expressed as delivering 'what you promise' and finding out about: 'what is the real problem?' Persistence was perceived to have dimensions of confidence, authority and 'being prepared to act'. Being prepared to research and investigate, skills in assertive outreach, engaging and probing, and skills in crisis and family intervention were often mentioned by care coordinators.

Not getting frustrated with the gaps or quality of referrals and having a sense that it's my job to work that out (group 2)

You need to understand that there's no one single formula (group 1)

You need to have a willingness to accept risk especially of chronic [disease] or unresolved issues (group 1)

You need to rely on your wits (group 1)

I have got someone who has gone home today and they don't have anything in the fridge: we will pull out all stops to have it done (group 2)

Crisis intervention was perceived to be a particular skill that involved being able to act immediately; but to stay calm and rationalise the problem. Thus client complexity was not just associated with managing complex dependencies associated with chronic illness and social support needs; in many instances care coordinators needed to be ready for crisis intervention. Even so, in comparison to the 'more safe' hospital environment, crisis intervention was perceived as quite different in care coordination practice': 'it's about doing the undesirable'.

You need to be able to take the gloves off and do the hard work … (group1)

It's all about crisis intervention. We walk into families that are falling apart (group1)

You need the confidence to go out and make the right call on the spot; to call an ambulance if needed (group1)

You need really highly tuned skills of observation … to walk into a room and be able to identify other risks or determine the truth and identify needs (group1)

Care coordinators' perceptions about what external colleagues valued about the role

Care coordinators had a lot to say about how they perceived external colleagues understood and valued the role. Two content areas were identified: 'Picking up all loose ends' and 'Waving the magic wand'.

Picking up all loose ends

Care coordinators expressed views that external colleagues viewed their roles as one of 'fixing and sorting out'. 'Picking up all loose ends' emerged as a content area as illustrated.

We are seen as the Fix It Squad! (group 8)

We are good at multitasking. I think they [external colleagues] are relieved that they have found someone that can navigate the system; but it defers their responsibility (group 6)

We solve the problems when the doctors can do no more (group 7)

Sometimes with residential services they think we can do everything-assuming that we have access to a doctor (group 7)

In one instance, a care coordinator used the phrase 'dumping ground' in the sense that she perceived the care coordination role was understood by external colleagues as one that provides assistance to them to 'navigate the system'. In contrast, care coordinators perceived that external colleagues viewed their navigational qualities as positive, and as 'great resource people'.

I have rung because you'll know: "How do I get this outpatient appointment made?"(group 6)

We have a big net that we catch everything in so they feel a little bit calmer (group 7)

Care coordinators' felt that external colleagues perceived their roles as responsive, adaptable and flexible. Noticeably the faster turnaround for patients, the shorter stay, and same day responses were considered

pivotal to positive perceptions within the Emergency Department (ED).

ED [clinicians] are grateful for the service … notice when we can't cover a shift … love [the service] because of reduction in ED presentations and service demand (group 7)

Care coordinators had received positive feedback from external colleagues:

They value that we bring the clients to appointments (group 8)

A case manager said a couple of weeks ago. The service is transparent and it is all documented. I thought that this was good feedback (group 5).

We are seen as skilled in bringing information together and providing perspective of what is happening at home; knowledge of what medication is being taken; what treatment is being complied with (group 8).

Most GPs love it that we are involved-they like the idea that we can bring the information together from all different sources (group 8).

Waving the magic wand

Another content area concerned care coordinators' perceptions that external colleagues had unrealistic expectations of the service-like it was a 'magic wand'. They expected that care coordinators would take on most client care responsibilities and crisis/emergency management. They expected to use care coordination brokerage to fund all wound dressing, taxis and to find accommodation. Further excerpts are illustrative:

Unrealistic expectations about what we can do. They expect that if someone has heart failure that sending the nurse out will stop them (group 8)

They think that we have a lot of money to spend-there are really not many issues but they need taxi vouchers (group 8)

Some people think that we are going to case manage them long term (group 8)

Care coordinators perceived that there were gaps in external colleagues' understandings of the service

Enormous gaps-people don't have a clue what [the service] does. You can sense that when people are talking on the phone-they think we go out and visit people at home! (group 6).

From a client perspective, the ward staff don't give them [patients] good information about how the service operates; patients think that I will be going out to clean their house! (group 6).

There was some confusion and frustration regarding care coordination roles and the roles of clinical ward staff. For example, a question was raised:

Should the ward staff or the care coordinators be responsible for providing the level of detail required in the documentation associated with personal care referrals?(group 6).

Another point of confusion centred on the nature of referrals from external colleagues. Internal referrals tended to request discipline-specific services rather than care coordination services, showing a gap in the referee's knowledge about the service.

Referrals still come through for just physiotherapy or social work which is more role specific than care coordination. Sometimes the clinician making the referral doesn't know what they want. They say it is care coordination but it is occupational therapy (group 7).

Care coordinators sense that external colleagues are 'not sure what they want'. At times, care coordinators perceive they make assumptions about what the service can actually provide, such as medical input which is not available.

Yes we often get referrals with no real trigger-yes patients are at risk! Yes there are bad things going on but there is no real definitive requirement. What are we actually going to do or be able to do? (group 5).

Care coordinators' roles within the outreach arm of the service were particularly misunderstood by new rotations of doctors in the emergency department. As explained:

When you get the new rotation of doctors coming through, they will focus on the discharge and not liaise with the care coordinators. They don't want you to see the patient. They do not want you to rock the boat. They say: "You can see them but they are going home!" (group 7).

Discussion

The care coordination workforce that has been the subject of this study emerged because of problems right on the region's door step. The people of Melbourne's West face considerable healthcare challenges. The results of this study show that a healthcare workforce of care coordinators comprising clinicians from different disciplines have developed, over a period of time, shared understandings about person-centred, coordinated care. This workforce has highlighted the need for greater recognition of holistic and continuing care to support a particularly marginalised and disadvantaged population-even if they have been socialised and educated differently in their respective professions. When care coordinators spoke about what was important to the role, notions of the whole person approach that made a difference to people's lives, professional autonomy and flexibility, and a commitment to new and updated team-based ways of working with clients loomed large. Of note is that much of the practice wisdom associated with transferring discipline-specific skills to updated roles came about from learning on the job, and through team-based interactions, rather than a structural, top-down educational intervention.

Reported collegial relations with external colleagues show they held, to some degree, a definitive understanding about the characteristics of care coordinators that represents a favourable climate to extend the practice of care coordinators. Still, care coordinators perceived that not all external colleagues understood what care coordinators offered and the boundaries of their practice. Care coordinators perceived a need for improved knowledge sharing and exchange across the LHNs services and the care coordination service. They perceived that referrals, for example, were at times inappropriate. Connections and better sharing of knowledge between the care coordination service and external colleagues required improvement across many organizational levels with respect to improved understandings about governance, the management of labour processes and workforce capability. There must be real opportunities to embrace system literacy to further the knowledge base of care coordination [12].

To date, and as a result of this research and the larger workforce investigation, specific internal changes have been made to enhance

care coordinators' roles. Shared in-services, shared occasions and joint visits were implemented to improve information sharing and greater collaboration with management. New roles were created and developed: care coordinator consultant roles provide advice and education in wards; other roles were designated as 'senior assessment clinicians'; and assistant roles were created to provide clinical support. Recruitment tools and processes have been enhanced by giving greater emphasis to behavioural attributes required for success in care coordinator roles.

Strengths, limitations and future research

There is significant national and international interest in forging strategies designed to solve problems associated with higher disease burdens. This exploratory study has been situated in a clinical context where what is known about workforce initiatives for chronic and complex disease management is very limited. It brings valuable qualitative evidence about an emergent workforce model of shared care, where clinicians from different disciplines feel a sense of belonging to care coordination and have an interest is working and/or learning in partnership to make a real difference to the client journey. Innovative person-centred models that improve outcomes for chronic disease and complex conditions differ in many respects. There is little agreement on the definition or attributes of such models [13]. Participants in this study originate from a non-admitted, care coordination service located in Australia. Care coordination roles vary according an organization's structure and operations, and the healthcare setting. This may mean that the understandings generated in this study may not apply to wide-ranging contexts of care coordination practice.

Arising from this research, there are clear implications for practice beyond this particular healthcare system. Governments around the world are establishing policies necessitating reconfigurations to healthcare workforce roles to meet rapidly changing health service delivery structures [14-16]. Potential threats to policy making have been observed regarding the expansion of healthcare workforce roles suggesting that "… progress in restructuring delivery systems may come more rapidly at the practice level, where physicians, nurses, and other care- givers are freer to innovate and to assign tasks to persons on the basis of the full extent of their training and what makes organizational sense" [17]. Our study provides insights into how a workforce has adapted at the level of practice in a way that connects closely to a service model. The workforce has shifted from the idea of multiple clinicians performing discipline-specific functions to a reconfigured, shared care workforce model in order to meet regional patient care requirements. In that sense, the structure, function and form of the workforce that has been the subject of this study and the wider investigation differs from established models [6]. The workforce sits within a service making a shift from an episode-based acute care model to one that supports chronic disease and complex condition management and where clinicians work together to reach care decisions that are responsive to patients' preferences and values. For practice leaders in similar contexts who are forging ahead with the development of similar services and workforce, this study offers useful insights and a vantage point for workforce development and leadership programs.

A limitation of this study is that we did not adopt conventions of audio recording focus groups. Voice recording does protect the authenticity of the voice. But we made every effort to ensure the procedures and analysis carried legitimacy by drawing close to care

coordinators, writing an in-depth account, and checking with them that the account is authentic. Further, in academic research it is often researchers who undertake data collection - but in this study we used clinicians as facilitators, moderators and note takers. The downside of using experienced clinicians is that they are less experienced as researchers. We were unable to attribute a unique identifier to each participant. Still, we hope to have shown the analysis has captured characteristics perceived by participants as common or the shared viewpoints; nevertheless we are undertaking research to understand some of these differences as part of the wider investigation.

We do not suggest that the data presented represents 'objective information', or even that they are comprehensive in any way. Ultimately, data is selective and numerous factors shape commentary or analysis on data. For example, our status as 'insiders', where the culture of healthcare organization and service delivery is familiar lending to a sensitivity about the concerns and perspectives of those in the setting, has bearing on the writing of the discursive and mediated aspects of experiences.

The workforce in this study reported characteristics of team membership. Current research confirms that when teams work collaboratively and interdependently, patient outcomes are enhanced [18-21]. Future research could elaborate the reference point established by our qualitative findings and pursue empirical knowledge about holistic and responsive workforce development such as measurement of the strength of team membership and its association with indicators of individual, patient and organizational outcomes.

Conclusions

This study was largely undertaken to support regional workforce reform and innovation tied to a LHNs service model for complex care coordination. Understandings about the role characteristics of care coordinators have been very useful to build awareness about care coordination services and roles. From a research point of view, the workforce leadership issues raised in this study have international resonance. Building collective responsibility to support role redesign initiatives for chronic disease and complex conditions could move the current focus on individual professions and consider building evidence about the effectiveness of holistic workforce models.

Ethics

Ethics approval for this study was sought and received from Western Health Human Research Ethics Committee and by Victoria University Human Research Ethics Committee. A reference number was not issued. Participants were fully informed about research procedures. Participants gave written informed consent. We did not have line or supervisory roles with participants. ANON, a clinician recruited staff as participants, but was not neither practising nor had supervisory roles during the conduct of the study.

Authors' contributions

ANON 1 conceived the design of the study, conducted analysis and interpretation of data and drafting of the manuscript. ANON 2 participated in the design of the study, collected data and contributed to the interpretation of data and drafting of the manuscript.

Acknowledgements

Endnotes

An 'External clinical colleagues' is a term applied to denote clinicians from within the LHN and community-based external healthcare agencies who are not directly employed to work within the care coordination service. Nonetheless, interactions with external colleagues form part of the day-to-day activity of care coordinators, especially for liaison, consultation and referral processes. External colleagues include: general practitioners; clinical ward staff; clinical staff from community services; and medical consultants. Health Policy Analysis and Health Consult (2014) National evaluation of the HWA Aged Care Workforce Reform program. Health Workforce Australia, Adelaide.

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