Contributors

The project idea was initially discussed in a meeting with all three of the following contributors.

Ashtami Bharathan (AB): Primary Author. AB was responsible for the conception of the research questions, literature review and research design, with supervision and support from JN and CB. AB undertook the data collection, analysis and interpretation of findings. Critical revisions were conducted by AB with support from JN.

Dr. Justin Needle (JN): Project Supervisor. Provided AB with access to the Value Creation Framework. Supported AB through ethics application. JN provided guidance throughout the process, gave relevant feedback on the write up draft and provided proofreading.

Cleo Butterworth (CB): Associate Clinical Director: Patient Safety Collaborative at the Health Innovation Network (HIN). CB was responsible for the original project idea. Provided approval from the HIN to support the research and provided access to Communities of Practice (CoP) supported by the HIN. CB sent out invitation emails to prospective participants on behalf of the researcher. CB also provided resources to review in relation to the HIN and CoPs supported by the HIN.

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Exploring value creation in Communities of Practice within South London: a Qualitative Study.

By

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Abstract

As the UK healthcare system is facing significant challenges relating to future financial sustainability and an aging population. Integration and innovation, underpinned by effective knowledge transfer are seen as critical to improve services. Communities of Practice are an example of a tool to manage knowledge transfer. Multiple Communities of Practice have been introduced across South London supported by the Health Innovation Network. However, little is known about the value that is produced from them. The research objective was to explore the unique experiences and narratives of members of some of the Communities of Practice supported by the Health Innovation Network. A qualitative study design was applied using semi structured interviews. An interview guide was created using Wenger, Trayner and De Laat's (2011) Value Creation Framework to assess whether value has been created according to the five value creation cycles; immediate, potential, applied, realised and reframing. Thematic analysis was used to analyse the transcripts from ten participants. Results identified that value was created by all Communities of Practice and that value was created across all value cycles. Immediate and potential value were the most dominant themes identified, and were linked to more intangible processes and products such as creative conflict, safe spaces, increased confidence and a collective voice. There was less evidence of applied, realised and reframing value. This was potentially linked to challenges identified around membership and engagement, leadership, capacity and future sustainability. To the researcher's knowledge this is the first application of the Value Creation Framework to Communities of Practice in a healthcare context and thus provides useful insight into the value created and informing future research.

The Value Creation Framework (VCF)

In the VCF, value creation is defined as "the value of the learning enabled by community involvement and networking" in particular when communities are used as "social learning activities". The VCF contains five cycles of value creation which are dynamic and not linear. The value cycles and their descriptions are outlined below:

- Cycle 1 Immediate Value
    - The CoPs activities and interactions, for example conversations that take place at meetings and exchanging of experiences.
- Cycle 2 Potential Value
    - The knowledge produced that may or may not be realised. Knowledge can be produced in different ways; human capital (e.g. skills and information), social capital (e.g. active relationships that are made), tangible capital (e.g. documents and procedures shared or created), reputational capital (e.g. a collective voice that is regarded) and learning (e.g. when members use learning from CoP in other contexts).
- Cycle 3 Applied Value
    - When practice is changed as a result of this new knowledge (e.g. changing procedures, implementing ideas and leveraging a collective voice).
- Cycle 4 Realised Value
    - The performance outcomes of applied knowledge and reflection with regards to what matters to members (e.g. is there a return on investment for example in terms of time or money, following a change in practice).
- Cycle 5 Reframing Value
    - The reframed strategies and goals to redefine success (e.g. reframing the measures for performance in relation to changes in practice or transforming the existing structure of a CoP to be more effective). This strategic thinking can take place at an individual, collective and organisational level.

Fundamental to the framework is the collection of personal and collective narratives of the community in the past, present and future, via Value Creation Stories (VCS). The sharing of these stories acts as a way of illustrating the journey of individuals and the community. The framework outlines key questions for each value cycle that can be asked to members of a CoP when collecting VCS to establish whether value was created. These questions were used to inform the interview guide for the current study. Furthermore, the framework introduces a Value Creation Matrix (VCM) as a way of visually presenting the value indicators identified at each value cycle.

Application of the Value Creation Framework

Immediate value

The immediate value explores the knowledge capital produced by activities and interactions of the CoP at a basic level, focusing on five main subthemes: the help and support members provided to each other, the creative conflict between members leading to greater knowledge of a domain, feelings from interactions, a safe space for interaction and a creative space for interaction. Primary methods of contact for the CoPs included in the research were face to face meetings, events and workshops.

Getting help and support

Many participants described issues that had been raised and how they had been supported in their CoPs. One convener described an example of a diabetologist presenting a data set at a session:

> *"…she opened up being like, I can't do this on my own…and that initial showing a bit of vulnerability and saying, I can't do it, was, I think helped set the tone."*

Another convener described the practical ways her CoP continued this support to each other outside of the main events:

> *"we even set up a WhatsApp group from this…anyone has a question in the group, they put it on WhatsApp and then people all generate different ideas to help."*

One convener highlighted that trust is an important factor in being able to ask for help:

> *"I think lots of people contact me for help. I try and act as a conduit with other members as well…I think it's taken us a while to get to a place where we all trust each other enough to say, I really don't know what I'm doing. Can you help me? And that's actually unusual in the health and care professions…we're meant to know it all, but it takes a certain kind of relationship to be able to say, I need your help."*

The convener goes on to highlight the expectations placed on healthcare professionals to know more and therefore ask less. Furthermore, a conflicting narrative regarding the

support provided was given by a convener, in the context of asking for support from members in her community in terms of running of the CoP itself, they described:

> *"I did ask, suggest if anyone wanted to be the deputy convener so be able to support me…but nobody wanted to do it."*

This suggests support may be dependent on the level of commitment and resource required from members.

"Creative conflict"

Participants described instances where interactions through debate were encouraged to draw out different experiences and perspectives from members. One member described the exchange of different perspectives and what it provides in terms of knowledge:

> *"…I'm not sure that the goal is always to agree, because I think some perspectives are different…I think one real value of communities of practice is knowing what people think and knowing what the controversies are, what the difficulties, what the challenges are. I think that is of equal value to having solutions."*

One convener described their active encouragement of debate in their CoP, linking debate with creativity and generating ideas:

> *"…we actively promote creative conflict. In a lot of the environments that I think our members find themselves in, it's not easy to say you disagree. Whereas we actively use processes that encourage people to disagree, but you're disagreeing about ideas, you're not disagreeing with people."*

In addition, another convener described the respect that underpins this type of debate:

> *"there's plenty of productive disagreement but I would say they're a very cohesive group…they're very curious about each other and respectful of each other's positions and perspectives."*

The feeling of interaction

Participants commented on positive feelings generated from CoP events, for example fun, one convener said:

"I really enjoy community of practice convening's, I usually have fun. I usually feel energised and inspired."

Multiple participants also discussed acknowledgement of passion (their own and in others), one member said:

"…the thing that has probably impacted me most is, what I'm passionate about other people are passionate about."

By far the most commented feeling for members was of energy, one convener described this in the context of their first meeting:

"We had about 50, 60 on the day, and it was just, the energy was incredible." and they the go on to say: *"…we've got such passion and energy…it just snowballs"*

One member goes on to explain the difference in energy when compared to other contexts:

"It was energising. I go to a lot of meetings that are not energising and this was one where there was a vision, there was purpose."

The safe space

Many of the participants interviewed referred to the CoP as a space in some way, whether it the environment created or the time away from work to think. The more dominant reference to space was reference to the CoP as a safe space. Participants described genuine interactions based on the perception of the CoP as a safe space. One member described:

"I think trust sometimes comes from being able to make yourself vulnerable and to appropriately self-disclose and people will support you…you're not on your own…So, I think there's something about communities that are a safe space."

One convener recalled a member's personal interpretation of the safe space:

"You need that psychological safety, so people do feel able to share… [one member] she was saying, these meetings are like therapy."

Members described the immediacy of the safe feeling:

"it felt like, people felt it was quite a safe environment straight away." and that there was little judgement: *"…there's not that feeling of it being a judgemental forum…"*

One convener described the CoP as providing head space:

> *"when you think about burnout in the NHS…giving clinicians head space, social head space where they can talk about what is meaningful to them, I think that has a lot of weight."*

> Suggesting further that the time out from the member's normal routine may also be an additional benefit of the space.

The creative space

Furthermore, conveners described different elements of the space such as creativity that were deemed important. One convener described the lack of creative spaces prior to convening the CoP:

> *"there wasn't that forum that I was aware of that allowed that creative space, so I was very, very excited at the opportunity of being able to put out an invitation"* and another convener mentioned the unique quality space in relation to creativity: *"it's a space that doesn't exist anywhere else so it's a unique space where people feel free to think quite creatively."*

Potential value

The potential value considers the value from knowledge capital that has potential to be realised. This theme has been divided into sub themes based on the types of knowledge capital that were produced (according to Wengers definitions); human, social, tangible, reputational and learning. Human, social and reputational capital were more dominant within the narratives.

Human capital

This subtheme explores the personal assets created such as new insight, perspectives or personal growth. One convener described their experience of finding new insight from their CoP:

> *"I know a lot about diabetes, I don't really know anything about maternity, so I've learnt a lot in that respect…."*

One service user member recalls their contribution to a creating new insight into processes via their review of patient passports for a CoP:

> *"…I think being able to put forward the patient's experience of that, I can add something extra to it…"*

In terms of personal growth, increased confidence was mentioned by several participants. From a member's perspective, one participant described their increased confidence to initiate change and challenge at a local level:

> *"it's given me the confidence to make a change…to do something different. So, it's given me confidence to say, look actually I would like to do this…I don't have a lot of evidence for what I'm doing but there are people within London that are doing it like this and I think this would better fit for the staff we have available."*

One convener commented on their increased professional confidence:

> *"It's given me more confidence, professionally. I feel that the things that we've discussed in the community, I can speak about and engage with others with more authority, because it's not just my perspective."*

Both participants refer to a collective influence for change at an organisational level as a result of their increased confidence.

In addition, one convener disclosed:

> *"I think my community is part of my identity."*

Furthermore, one member discussed their experience of personal growth through empowerment:

> *"I felt quite empowered by the first event because I was amongst a group of people who clearly valued what I had to say…it gave me legitimacy to what I think."*

Social capital

This sub theme looks at the relationships and connections created and the utilisation of these connections. One convener described the formation of stronger relationships through the informal nature of the CoP:

"I've got to know a lot more people at a social level. Because of the informal nature of communities of practice, it tends to break down barriers, in my opinion. And I think it's really helped me in taking forward my particular objectives, because I know who to contact, and they know me. And people will answer your emails if they know you. People will agree to meet you if they know you."

The participant went on to describe the active nature of these connections, just by knowing members better. This suggests a more personal relationship, however, one member from another community when asked about what their CoP meant to them responded by saying:

"Look, I could live quite happily without it, I don't have a personal relationship with the community, it is a welcome addition to my life."

This suggests that this personal or social connection may differ amongst members.

Another convener recalled their experience of calling on their core group of members to gain more membership in primary care:

"…this next session we're like, how do we get GPs in the room?...it's us asking our core group, being like, OK, who knows any GPs?... I've got diabetologists now writing a paragraph or a sentence or two that would engage GPs."

In this example, the core group was specifically selected as their responses are valued and they demonstrate commitment to responding in a timely manner. One member added to this idea of commitment from members, they described their views on the influence that members have on engagement with tasks at a local level:

"If you sent a questionnaire to somebody by email and you never met them and they weren't interested, they're not going to reply…what you've got [in a CoP] is a captive audience of people that will take it back to their service and get those things filled in..."

Some participants discussed not just the opportunity to make new connection but the ability to reconnect with existing contacts, one member described:

"I have a colleague whom I worked with…she was there, and it was, we reignited…realising that we're doing something quite similar and that we have similar areas of, that was, it was a useful reconnection."

Another member similarly mentioned:

> *"I met people at the first meeting who I already knew but hadn't seen for a while and it's really good to reconnect."*

The companionship when faced with complex challenges was evident within narratives. One convener discussed the validation of concerns creating a sense of unity:

> *"… the mutual validation of realising that either if they're facing a number of challenges, that they're not alone in that…"*

The other convener of this CoP also discussed connections leading to a feeling of belonging:

> *"you feel connected to people and you have that…sense of belonging…"*

One member went on to say:

> *"…there is that camaraderie, that network, that knowing that you're not on your own…"*

Tangible capital

This sub theme identifies the resources that members can access, for example: documents, tools, procedures, information sources etc. One member lists some of the things they have had access to as a result of membership:

> *"So, it might be things like a thought paper, maybe a publication, maybe a position statement…"*

Many participants discussed the resources that were planned and underway, for example one convener when asked the goals of the CoP mentioned:

> *"we want to develop a document on troubleshooting catheter issues, standardise that at a national level..."*

Another example being developed in a CoP was an audit to help inform future research questions, one participant said:

> *"…a good example of that would be this post 34-week audit which will be, essentially, a service evaluation dataset."*

Furthermore, to promote the active sharing of documents, communities are looking towards supporting the use of technology, one convener described:

> *"We've also just started to encourage people to use the NHS futures Kahootz platform, which is a collaboration portal, people can share documents"*

Facilitation tools such as the use of flip charts and mapping also helped facilitate access to information. One convener described the use of flip charts at the start of their CoP:

> *"we now have a flip chart of ideas, suggestions, but more understanding of the problems for each of these areas…those then have formed the basis for the work that we're doing for the next year."*

One member recalls the use of a mapping to help highlight areas of improvement within a technology workshop:

> *"One used one make of pump and one used another as their favourite...they started to say right, you map yours…then map what you would like ideally…"*

Participants also discusses tools use to draw out tacit knowledge. For example, one convener recalled when discussing sharing of tacit knowledge:

> *"…we use techniques like fishbowls, so someone can tell a story and then people can come and ask clarifying questions, and then people can come and join in the conversation and either add their perspective or inquire a bit deeper."*

Another convener also used this method, they said:

> *"…we did the fishbowl…it created a very different atmosphere where people, it just felt like a very honest way of sharing information."*

Reputational capital

This sub theme explores the collective intangible assets present such as reputation, status, recognition of a domain and presence of a collective voice. One convener commented on the increased awareness of the CoP and collective authority from a collective voice:

> *"I think we're becoming known as a Community of Practice…it just gives you that collective authority, that voice that generally most of us don't have."*

Another convener comments on the positive reputation of their CoP amongst national organisations:

> *"they know who we are, and they know what we're doing and they know we're doing a good job."*

Another convener reveals the subsequent result of the reputation of their CoP:

> *"I actually had people contact me because they knew that the project was going on…So, I think, yeah, we are quite well established."*

In terms of increased awareness of a domain, one convener described the raising of the profile of a topic relating to their domain as a result of the work of the CoP:

> *"our conversations seem to have infiltrated the system…The fact that the community has taken such an interest in that aspect of care…people going out and through their various organisation and networks starting discussions…"*

Most participants mention the collective voice of the community. One member discussed how shared views lead to a collective voice:

> *"if you feel that you're the only one with a view…you might be reticent about sharing that view, whereas if you know that that's being shared, it's that kind of strength in numbers that you might feel."*

One convener spoke of greater confidence to use a collective voice to influence locally and nationally:

> *"…I think it's given me the confidence to raise the issues that we've been talking about within the community strategically and to try and influence, certainly, the local agenda and, now that we're a bit more established, even a way into the national agenda because of something about that collective voice…it gives us a certain amount of power I don't think I would have had if it was just me saying, this is a real big issue…"*

Learning capital

This sub theme looks at changes in a member's way of learning, for example the use learning from the CoP or transferring of learning from the CoP to other contexts. One

convener summarises the contextual changes in the healthcare system that requires a new form of learning that is provided by CoP:

> *"…our world is getting increasingly complex, and our learning has to change with that. We can no longer read about the things we need to do, we need to talk to colleagues and peers and get the different perspectives to really gain the knowledge that will allow us to innovate… to do things differently to improve patient care really rather quickly."*

One member whose role is in academia wrote of their personal experience of using learning they had gained from their CoP:

> "*I'm currently writing up my PhD by publication…one of my chapters is around polypharmacy and I am sure that the work that we've done in the communities informed my thinking…"*

They went on to describe a further example of using learning from testing a new tool and applying it to a teaching context:

> *"...it armed me and got me thinking about how I might use it for teaching."*

One convener outlined the transfer of learning and experience from their CoP at a national platform:

> *"one of the diabetes specialist nurses presented at a national conference about some work they've done in [a CoP session]. And she was up on stage and I was at the back of the room, and she was just like, 'oh we went to this fantastic thing that the Health Innovation Network put on… if you're interested talk to [the convener] at the back'…loads of people came up to me at the end it was just like, 'this is a problem for us too. How can we get involved? What are you doing? Can we do this in our area too?"*

The information presented resulted in recognition and interest from other services outside of the CoP.

Applied value

Unlike potential value where knowledge capital may not be realised at a later date, this theme explores the practical application of this knowledge within the CoPs. One convener said of their experience of practice changing from a reactive to a more proactive approach:

> *"…when I started the catheter problem was huge and nobody knows what to do with them. They're very reactive but now I think with training, you talk to people, managing complex patients together, they are becoming more proactive…"*

When describing one of their events with a technology focus, one convener recalled:

> *"…we had five companies who each have a product that may be helpful to some services and basically did a five to ten minute pitch. And then the community members all asked questions to all of the companies, find out more information, then all the companies left, and we had a discussion about what people felt would add most value in their trusts and which products maybe they wanted to explore further…that felt like a really efficient way of introducing clinicians to a carefully curated selection of products…it's up for individual trusts to decide what, if anything, they want to invest in."*

This was a way to provide staff with information on products that could be implemented. Another convener from this CoP expanded further by disclosing:

> *"…a few of them have then taken up the offer, we're now supporting them in building business cases and sharing experiences..."*

A member also reflected about sessions relating to technology saying:

> *"[CoPs] actually made people from the NHS sit down in their teams, look at pathways, look at where things weren't working and facilitate change…"*

One convener described one example of a CoPs experience of developing a screening tool:

> *"…we invited the academics into our community and we got to work with [a professor], who has spent his career studying adherence. And he came to talk to us about his research findings… they decided to develop a screening tool to be used with patients and an intervention tool…to help us to help patients with intentional non adherence.*

And then he came back to the community and we co designed them and we pressure tested them, and now they're out in practice."

A member of the same community commented about the value to the academics that attended saying:

"they found it enormously helpful and it did directly impact the development of that tool."

One member described a policy change across a partnership of hospitals as result of the CoPs work on gestational diabetes:

"the thing for me was glucose tolerance tests…at [the members site] they're only done up to 34 weeks. It became clear in our first session…that everybody did things very differently…I noticed that some people did GTTs up to 38 weeks in term, others 32, didn't know if there was any evidence, didn't know why we did it that way…So, we've changed our policy basically…I wanted some evidence to change our policy of which there's very little but what there is is subjectivity and loose agreement that we could perhaps try."

The policy was changed to make Glucose Tolerance Tests (GTTs) up to 36 weeks having previously been 34 weeks.

Realised value

This theme focuses on improved performance and the effects of knowledge application on what matters to stakeholders. One example of realised value was a group of diabetic specialist midwives who met through a CoP, one convener described:

"…these are relatively new roles and not every trust has them…The diabetes specialist midwives didn't know each other at all so they've been introduced through this and they're now getting together just as a small group of seven or eight of them…separate to the main community…they've shared all their job descriptions because there are some issues like some of them are on different bands. And in some places, there's lobbying going on within trusts who invest in a diabetes specialist midwife…by all

coming together to agree some consistency and a consistent approach about what the role actually contains, I think they've found that very helpful and it's also been helpful from a resource advocacy point of view."

With the support of each other and the collective influence of the CoP they were able to address issues that were important to them like consistency in job roles and advocate for changes.

One member described the impact of a policy change following work on gestational diabetes:

"So, we changed ours within a week of the thing…we've actually done a poster for the [a national conference] and we presented it…then we've done a poster for [an NHS Trust] for an improvement initiative, hasn't got accepted yet but we're still working on that and we think that we've shown a much better pathway for our women for the whole thing, not just for GTTs, but for after 34 weeks. We've got them to be diagnosed much quicker. So, from an average of something that might take two weeks to get into clinic by the time you've done your diagnosis, we've got it down to under a week. We haven't yet done a patient satisfaction survey, but we will be. So, we've really got a big piece of work out of this and we've shown a real improvement, but that's what I wanted to do."

As a result, this service was able to reduce clinic waiting times and improve diagnosis. Furthermore, it was aligned to the needs of the group and this member, in particular as there was a lack of evidence supporting the previous process.

Incomplete evaluation

Some participants described application of knowledge but were unable to comment on improved performance. For some CoPs this was due to where they were in their journey at the time of interview and others it was conflicting thoughts around what was the best way to collect this information. One convener mentioned with regards to implementation of a tool:

"…it's currently being evaluated…if the evaluation proves successful, which I hope it will be, then that kind of thing will be ready for national adoption because it's new knowledge that's been created that we didn't really know before."

One convener went on to describe difficulty in identifying implementation of technology and challenges around collecting information on implementation:

"…I know that several trusts are pursuing some of the different technologies for example. But I don't have an accurate sense of at what stage they're at and any local implementations. And as much as part of me would like to, I don't think it's really my role to chase them up..."

Reframing value

This theme looks at how the criteria for success of the CoP might be redefined at a collective or organisation level, with the consideration of new strategies, new metrics for performance and new approaches.

Collective success

This sub theme looks at examples to redefine success at a collective i.e. community level. One member commented how their community could redefine success by broadening its membership:

"…one thing I think probably is missing…at the moment is…a health economist or somebody who's a manager or somebody who's from a CCG or somebody who pays for this…there is an economic importance of treating people in some areas that may not be treated in others, and there isn't a bottomless pit…put an economic argument in as well as a clinical argument."

This suggestion was in relation to changes in practice around blood glucose testing, this member highlights ways of exploring strategic relevance going forward with the use of new metrics around economic evaluation. Another convener reflected on strategies to share successes to drive uptake:

"…we need to do more sharing experiences around this, we need to do more with picking up where there's been success within the community and sort of supporting that wider."

Some conveners of CoPs have commented on the size and growth of CoP membership and expressed concerns on how to sustain the value created going forward. One convener explained:

"I would like us to meet more regularly. Unfortunately, I think we've been a bit victim of our success. Because we have such a strong membership…every Community convening is a bit more like an event and that takes time and resources to organise…I guess what I'm going to do is maybe focus the bigger Community a bit more and have smaller, more focused convenings with less people because whilst it's really great when you have a big crowd to have the range of perspectives, there is no doubt that you lose some of the depth of the conversation. So, it's finding that balance."

This outlines a strategic way to cope and manage this growth in the future. This restructure in approach was also echoed by another convener who expressed the want to:

"*…empower people to set up their own group in their community to share the practice"*

The introduction of technology based social platforms was discussed in one CoP:

"…we're working on is trying to knit (sessions) together…build more of the community outside of the meetings. So, we've got like an online space…Kahootz platform…It's like a chat forum where they can share documents as well..."

The platform could provide an opportunity to capture further metrics around implementation. The concept of virtual meetings was mentioned by a few participants, one member expressed their views on changing to a virtual format:

"… it might be by webinar, by Skype…there is no such thing as the perfect community…if you're committed to belonging and you feel there's a place for you, that perhaps give you the freedom to experiment and take some risks."

Organisational success

At an organisational level, a leadership development programme has been introduced to support conveners, one convener explains:

> *"…I am now running a community of practice leadership development programme…So in a way, it feels like we're starting a social movement"*

Following the successes of CoPs the HIN have invested in the programme to support its leaders. The programme supports conveners to share their experiences with those in a similar position and develop key skills to support their CoPs going forward.

Furthermore, one convener defined their CoP at an organisational level from the start of their CoP, they described:

> *"…I have also included this group in more of a structure that we have for South East London for patient involvement, so it's actually part of a more formal structure."*

This incorporation in an organisational structure acted as a method to legitimise the work the CoP prior to convening. However, the convener goes on to say of the organisations understanding:

> *"I'm not sure they all still know what a community of practice fully is…"*

Challenges

Service user membership

All of the CoPs covered in the research involved service user involvement at some stage, but there was a lack of clarity around the nature of the involvement. Many participants commented on the need for greater representation of patients. One member described of an example where patients were not represented intentionally:

> *"The patients weren't represented at the last one here, but I think that that was a good thing because I think if you were a pregnant woman, and you realise that no one agrees, everyone's doing it differently… I think that would be really terrifying…I think a mix is always important. What that mix is, I think sometimes has to change depending on what you are debating."*

In this situation the CoP did not want to cause stress to a pregnant patient as a result of the lack of consensus around a topic. They go on to mention membership changing depending on the topic, suggesting that service users may not be included consistently.

When asked about their experience of a CoP, one service member said of their first experience of designing an event:

> *"I didn't even realise it was a community of practice event…I hadn't heard, since then, [the convener] and I keep in contact, but I don't feel as though I'm actually part of a community of practice"*

They went on to say of what needs to happen for service users:

> *"I think people have got to contact us and involve us because you've actually got to feel safe and have an on-going conversation with those people."*

One CoP made a strategic choice to invite a service user as a convener, one convener explains their rationale in doing this:

> *"…so one of the reasons, because you're communicated with by someone who's your peer…the other thing was that I think it felt wrong to me to go to these meetings or whatever, events, and talk about working together with patients…"*

This CoP has a service user focus within their domain, the domain centres around patient involvement. Therefore, the service user convener role supports with active engagement of the membership of the CoP.

Lack of time

Many participants vocalised the lack of time as a challenge, whether that be conveners for organising or members in terms of attendance. For example, one convener said:

> *"…it takes time to convene a community of practice event and make it worthwhile. A lot of thought and a lot of creativity needs to go into it…"* and they go to say *"all our members work in really high-pressured environments and often it's very difficult for individuals to make the case to their line managers that this is a worthwhile thing to do..."*

One member described the professional conflict when there are clashes in scheduling:

> *"I mean challenging to actually attend…quite often they're done on the days that we have our multi-disciplinary clinic…that's the main focus of my job…"*

Adjusting to a different way of working

From a convener's perspective there is a challenge of how to support learning within the CoP, one convener said their challenges are:

> *"…balancing content and discussion because when you get a topic…you feel like the agenda gets fuller…for me the challenge is about protecting the discussion space and making sure that we stay true to the spirit of the community"*

One member of the same group went on to discuss the importance of choosing the right topic for CoP meetings, when discussing their next topic for their next meeting they explained:

> *" it's done to death…is discussed all the time…nothing ever changes…to be honest, people like me, we're bored"*

This highlights the importance of the event topic for engagement of members.

Another convener expressed their personal challenge with the CoP approach for knowledge management and improvement work and how it conflicted with their personal inherent ways of working in their professional life. When discussing their relationship with targets and desire for outcomes, they say:

> *"…I can't switch that off, I can't feel like that because I still want to achieve something…"* and they go on to say *"…I'm worried that I'm not going to be able to provide that information…around what's really happened."*

One member when asked about what they found challenging said:

> *"…the pace of change…actually successfully changing anything or successfully bringing new practice in or getting rid of old practice it take so much time…"*

This suggests that outcomes and change is important to conveners and members.

Leadership and sustainability

The HIN provide varying levels of support to CoPs, some administrative and some more involved project support. One convener described:

> *"we used to have a project manager from the HIN …but I think now the project manager is not only focusing on one…so it's very difficult to take their time…"*

Within their interview, this convenor also expressed concerns over their personal capacity to lead and ability to maintain membership. Another convener said size and leadership are important when considering input:

"Other communities I think are fine doing things by themselves without our input, I think size makes a difference. I think leadership makes a difference…"

One convener discussed the support requirements to continue on their own:

> *" …even if it's something that continues to run without the HIN, it would be nice to have somewhere…as convenors…to just seek advice or just support around some of the challenges that you might be facing…"*

Looking at previous themes, suggests that increased specialised support from the HiN has potentially led to achievement of more applied and realised value. For those CoPs with more resource from the HiN, there is a conflict between the level of support required from a member and what is sustainable from a convener perspective. One member described the support from the HIN:

> *"…I find them very supportive…we came up with the ideas and they did most of the work which was fantastic…"*

However, one convener expressed their concerns over the level of support provided:

> *"I think the most challenging thing for me is we want the community to be led by the community…we've not had consistent engagement in that core group…I do just worry that the driving of the organisation of it is still being done by us at HIN and it's not really owned and led by community members..."*

This raises questions about long term sustainability of CoPs or the same level of outcomes without consistent resource input.

The VCM for all the four CoPs supported by the HIN can be seen in Figure 1.

The Value Creation Matrix

Figure 1. The Value Creation Matrix for the CoPs supported by the HiN

Cycle 1 Immediate Value	Cycle 2 Potential Value	Cycle 3 Applied Value	Cycle 4 Realised Value	Cycle 5 Reframing Value
It's a safe space	New found perspectives in other clinical areas and from academia	Staff were reactive and now more proactive by using social networks	Clinicians with new roles (not in every trust) able to connect via the CoP, group able to leverage influence for consistency in roles	Addition of a health economist to membership to assess economic argument to the new knowledge produced
It's a fun and inspiring	Members have Increased confidence	Unique dragons den style method to share information about technologies available in an interactive setting with community members	Following policy change, waiting times to clinic reduced and are diagnosis is quicker	Restructuring CoPs with small more focused groups feeding into a bigger community
People help each other with problems	Members feel empowered	Session with an academic, resulted in a collaborative piece of work in producing a screening tool	Screening tool still under evaluation	Use of technology to communicate and share with members outside of the CoP
Creative conflict	Members can and know who to contact for help	Cross organisation policy changes following discussions at the CoP	Unsure of how many trusts are pursuing new technologies following Dragons Den Event	Leadership development programme
People share their experiences	Documents like guidance being developed, tools and audits			CoP included in organisational structure
Continuous contact outside of events	Collective voice and authority			
Members trust	Presentations at national conferences of new knowledge			
It's unique				
There is an energy that recharges you				
People are passionate about the domain				

Discussion

This research looked into the experiences of members and conveners who belong to four different CoPs in South London. The research aim was to explore whether value was created within their respective CoPs and if so what kind of value was created. Analysis of the interviews indicated value was created by all of the CoPs. Value created was well reflected using the VCF, with key examples found for each of the value cycles from the participant narratives. The most dominant themes that emerged were immediate and potential value, with fewer examples offered by participants for applied, realised and reframing value. A value creation matrix has also been populated using the findings from this study (please see Figure 1).

Immediate value

Help and support to resolve issues and problems was discussed amongst a number of the interviews and this was similar to findings of other studies in a healthcare context. One participant's narrative provided an insight as to why this help may be valued by members within the context of their CoPs; they highlighted that for healthcare professionals there are often existing professional barriers in place preventing this exchange of help. However, their CoP was therefore able to break down these barriers so members could freely disclose. Furthermore, this links with the safe environment discussed later in this chapter, as a safe space is suggested to lead to more readily disclosure between members.

Another sub theme that emerged was creative conflict, which in the context of this study relates to a deliberate and facilitated mechanism to draw out the different views of members. Energy was also mentioned by participants within this study, suggesting that conflict could be associated with creating energy within a CoP context.

The value of a safe space is mentioned numerous times by participants and was more dominant in terms of immediate value created. Other factors were mentioned that linked with creating a safe space for example showing vulnerability, the presence of trust and a lack of judgemental environment. This safe culture is the foundation of interactions within the CoP and therefore is indicative of its potential to produce outcomes.

A creative space was also identified as a sub theme but was less dominant than the safe space. This suggests this protected time, along with collective leadership without power issues, allow for a more creative environment to facilitate the creation of new knowledge.

Potential value

Firstly, it is important to note that tangible capital was being produced across the CoPs so in terms of identifiable products from the CoP these are present. For example, guidance documents, audits, screening tools and even flip charts containing ideas from a CoP meeting. However, the narratives exposed a greater emphasis on the intangible knowledge capital produced.

The more dominant sub themes in relation to this were; human, social and reputational capital. Specifically, there was a synergistic relationship observed between increased confidence, the collective voice and how this is leveraged through social connections for greater influence and authority outside of the CoP.

Furthermore, CoP members acknowledged that this collective voice benefited them when they were able to use its power to suggest and implement change in their own organisations. This suggests both the legitimacy and authority the CoP indirectly possesses. Collective voice was mentioned a number of times and was linked to the validation of thoughts and action, and was also linked to the leveraging of collective power. There were several narratives that reflected the presence of a collective identity, for example the sense of belonging and one CoP being referred to as a "social movement".

Applied, realised and reframing value

For applied, realised and reframing value participants gave examples of policy changes, tool production, technology implementation and reframing how CoPs are organised. However, overall during analysis there were significantly fewer examples of these types of value available when compared with immediate and potential value. One reason for this could be limitations with the VCF. However, within the current study, it was noted that there were a number of intangible knowledge capital examples. However, when looking at applied, realised and reframing value in the VCF it focuses more on the outcomes from the use of

tangible knowledge capital for these cycles. Therefore, key outcomes from intangible knowledge capital could have been reflected less.

Additionally, for realised value it was identified that there was limited evaluation for some of the knowledge that had been applied. One aspect of this could be the challenge of evaluating intangible knowledge, for example aspects like trust and tacit knowledge are significantly more difficult to measure). Therefore, these applications of knowledge are potentially considered less in terms of performance monitoring.

For some CoPs the challenge was the time taken to evaluate and the fact that data was still being collected meant that realised value was difficult to identify at the time of interviews. In line with time taken to evaluate, was mention of the slow pace of change in healthcare and the fact that long term benefits are harder to measure. Therefore, the fewer applied and realised examples could be a result of insufficient resource and capacity to apply knowledge and evaluate knowledge at pace.

Most of the CoPs had been running for at least a year and were reliant on a core group of members to drive change. It could be further argued that collective leadership from a core group is not strong enough to drive change at pace. This also ties in with the points raised in reframing value, where conveners suggested changing the current model of the CoP to increase capacity to support the CoP. Furthermore, this further links to points raised later in the discussion relating to leadership and sustainability of CoPs.

For some conveners the struggle with evaluation was more complex. They identified fundamental conflicts with their own preference of working in target based environments and the CoP approach itself (in terms of producing knowledge capital but not necessarily having to apply it). These conflicts for leaders can make their role as a convener challenging when it comes to assessing the performance of application of knowledge. For example, they may want to apply performance targets but hesitate around their role in this. Furthermore, there may be a lack of clarity around roles and responsibilities, Etienne Wenger and others, refer to four roles that contribute to effectiveness and sustainability of the CoP: the facilitator (used to encourage engagement), the social reporter (help generate a history of

what happens), the organisational broker (those who interface between the CoP and an organisation) and external messenger (those who are responsible for communicating with outside audiences). Whilst the conveners' role in the CoPs of this study mostly applies to the facilitator role, it is roles like the organisational broker that could help local implementation and application of knowledge. For example by, supporting organisations to have discussions locally with their organisations to support and implement change.

Challenges

One of the more significant subthemes that emerged was service user membership and their challenges in identifying with the CoP. It is important to note that all CoPs included service users at some stage, however levels of involvement varied. The service users in the CoPs in the current study were often invited to events ad hoc. Sometimes this was to protect them from the sensitive nature of the content discussed and other times to protect the psychological space for staff. Regardless, the ad hoc nature meant that patients may not attend for months on end.

One of the subthemes related to the leadership challenges within CoPs, reviewing the impact of allocated project support from the HIN and related success of the CoP but also raising concerns over sustainability of allocated project support. Most CoPs discussed the presence of a core group in terms of collective leadership of CoPs. Therefore, it could be that engagement and work with the core group is required to allow for true collective leadership. Booth and Kellogg (2015) in their research found members suggested that opportunities for leadership were valuable. Members were then linked to a leadership training package to equip them for a leadership role in a CoP and encouraging ownership of the community. This may also be a useful consideration for the HiN if the leadership programme could be opened up to core group members for further development and potentially strengthening their commitment to the CoP. On one hand members are suffering with existing demanding workloads and challenges of time to participate, on the other hand a lack of clear roles and responsibilities established at early stages could have led to an over reliance on external project support. Furthermore, as discussed earlier there is a challenge conveners expressed when trying to be true to the CoP approach, but also having a personal desire to monitor performance and deliver outcomes.

Implications for practice

Recommendations for the HIN focus primarily on the wider collection of different data sources to broaden the understanding of the value created by their four CoPs. Examples of further data could include attendance records, survey data, feedback forms and collection of further VCS. In addition, the existing Value Creation Matrix (see Figure 1) could be populated further using the analysis of other data sources. Moreover, this compilation could be used interactively in a CoP setting as a tool to review and share a collective assessment of value. For example, if all new CoPs at the start of their journey using a blank VCF matrix and populate value along their journey. This could act a mechanism that steers the group to value creation.

One observation from the researcher was that participants commented that due the time that had passed since their CoPs last event, some participants struggled to recall their experiences within the event context. One way value could be captured by use post participation self- reported narratives. This would allow for communities to collate more detailed narratives and recollection of experiences.

Another recommendation focuses on capacity building via collective leadership development of the core group. By opening up the CoP leadership programme to more core group members, collective leaders can support with the commitment to and ownership of key work streams. Furthermore, establishing clear roles in the core groups could increase capacity for leadership. This in turn could improve future sustainability of CoPs.

Conclusion

The study highlights the ways in which members and conveners find value through the healthcare CoPs they are part of. Using the VCF, allowed the researcher to organise the ways in which knowledge was created, applied and realised to add value. Immediate and potential value were most dominant and key subthemes linked to more intangible processes and products such as; creative conflict, safe spaces, increased confidence and a collective voice. Furthermore, the study reviewed specific challenges around membership and

engagement, leadership, capacity and future sustainability. There were some interconnections of note between certain themes: trust, individual confidence, collective voice and power were all strongly linked to value.

Although there was a number of tangible products developed (or being developed), there was much less evidence of applications of knowledge created (applied value) or performance outcomes (realised value). This could reflect some of the challenges raised by participants regarding capacity and leadership. This then ties in with reframing value, where there were mainly examples from conveners having to rethink the structure and organisation of their CoPs due to their own capacity issues. The VCM (see Figure 1) highlights that value has been created across all value cycles in each of these CoPs, but also highlights potential areas for focused improvement and support to these CoPs.

An increased sample and mix of genders and roles in the CoP could improve the overall understanding of value created by the CoPs. The HIN in particular could add to the current VCM to increase their understanding of value created by utilising existing data collected by the CoPs. Furthermore, as an active core group was linked with the future sustainability of a CoP the HiN could support with the leadership development of core group members as a mechanism to up skill them in taking more active leadership role. Application of the VCF to evaluate value in a healthcare context was successful. Overall this research has been beneficial in providing insight into the value provided by CoPs in a healthcare context.