

# A Qualitative Evaluation of an Interprofessional Collaboration between an Academic Organization and Hospital Foundation Trust

**Christine Tapson, Senior Researcher; David M. Walters, Senior Research Manager in Arts and Wellbeing; Norma Daykin, Professor in New Social Research**

*University of Winchester, UK*

## Abstract

*Background:* Research recognizes that collaborative working between academic organizations and clinical institutions may help realize the effective delivery of patient care. Yet, few studies report on the processes required to effect the necessary changes. This article reports on a research process that was delivered by a team of academics and clinicians that aimed to illuminate processes of interprofessional collaboration.

*Methods and findings:* Semi-structured interviews were conducted with eight participants selected from both a university and a foundation trust. Data were analyzed using thematic analysis.

*Conclusions:* The fruits of interprofessional practice and collaboration have beneficial effects, especially for the patient. These are realized through the collegial efforts of stakeholders from each organization, where consistent effort, cooperative and inclusive actions facilitate participative agency, resulting in rich relationships.

*Keywords:* Interprofessional; Collaboration; Academic organizations; Clinical institutions

## Introduction

In 2013, the research department at a National Health Service (NHS) foundation trust in the southwest United Kingdom and the faculty of education at a nearby university formed a collaboration with the intention of developing clinical research. The main aims of this alliance were to share expertise across the academic and health sectors, thereby developing interprofessional relationships; promoting and supporting training; and enabling research activity within both environments.

In 2015, two years following this collaboration, the hospital foundation trust and the university jointly conceived of and delivered a project in which a musician provided a musical intervention to people with dementia.

In 2016, the current study was undertaken to evaluate the collaborative relationships underpinning the delivery of the music project. In this sense, it is not possible

to separate the music project from the collaboration, as the purpose of the former was to pilot the latter and it was through the music project that interprofessional working was developed.

Therefore, to provide both a prospective and retrospective overview of the interprofessional relationships, data from focus groups and interviews, and observations gathered from the original music project in 2015 are presented alongside data gathered from the interviews evaluating the collaboration in 2016. It is important to acknowledge that the one-year gap between the music project and the evaluation may have distorted memories and experiences of the original research, thereby affecting participant recall.

The importance of interprofessional practice has emerged from high-profile failures in practice resulting in recommendations for greater emphasis upon teamwork [1,2]. Lord Laming [3], the author of two seminal reports, concluded that the delivery of effective healthcare cannot be achieved by a single agency but is rather a multidisciplinary task ultimately impacting educational curricula in universities.

While effective multidisciplinary and collaborative approaches now underpin the national service frameworks for the delivery of care, which recognizes the contribution of different professional groups [3,4], theory to support such changes, providing evidence of the effectiveness of collaboration, remain lacking [5], a significant omission according to Owen and Schmitt [6]. Knowledge gained from the current evaluation is therefore of importance for patient well-being.

The fields of research and healthcare share similar goals [7], since research informs clinical practice and the needs of practitioners, and patients inform what research may be needed. This cyclical alliance, according to Green and Johnson [7], improves outcomes for patients. Such contemporary shifts in the provision of care are captured within the contemporary term “interprofessional practice and education” [6, p. 128], a characterization intended to reflect the cooperation it implies [8,9] “when two, or more professions work together to achieve common goals” [7, p.1]. Importantly, while the term “interprofessional” is representative of collaboration, it is not intended to replace other professional categorizations, for example, multidisciplinary teamwork, a description with a specific meaning in certain contexts such as the NHS.

Knowledge about the values and structures needed to sustain collaboration between clinical and non-clinical organizations is essential in order to conceptualize a framework for future use, maximize the delivery of patient-centred care, and enhance the capacity for mutual benefit and the pursuit of shared objectives [10,11.] Facilitating such mutual authority and accountability, however, requires commitment to common goals, shared responsibility, and common language, resources, and rewards [12,13], aims that are sometimes challenging to achieve [8]. An example is managing professional barriers [14], particularly when research organizations with few resources or limited reputation compete with more established institutes. Equally, healthcare providers with little knowledge of research may feel excluded from the collaboration by their lack of understanding of research protocols and practices [14,15]. Yet building the collaborative structure demands trust to prevent

the withholding of ideas and assistance, a value that relies upon open communication and receptivity rather than caution and defensiveness [16,17]. A quest for a greater understanding of the values and relationship-building strategies between academia and clinical organizations, with an emphasis on collaborative and transformative partnerships, informs the current evaluation; this quest underscores the aims of the current NHS long-term plan [18], adding contemporary relevance to the current research.

Prior to the study onset, the research proposal for the current evaluation of the collaboration between the hospital foundation trust and the university was submitted to the university ethics committee and received favourable ethical approval as a stand-alone project.

### **Aim**

The aim of the following evaluation was to investigate the interprofessional collaborative practice between a hospital foundation trust and a university in relation to a research project on music and dementia.

### **Methods**

This study draws upon the data of both the original music and dementia research and that of the qualitative evaluation of the collaboration between the university and hospital trust.

In the summer of 2016, an independent researcher from the university who was not involved in the musical intervention or the collaboration undertook eight post hoc semi-structured interviews with a selection of stakeholders involved in the original study to explore how their interprofessional relationships had functioned within the collaboration. These eight interviews included one senior research advisor to the collaboration, one senior academic researcher, the principal investigator overseeing the research, four clinical nurse specialists in dementia, and one musician.

Data from the music and dementia study were gathered using interviews, focus groups, field notes, recorded minutes, and stakeholder meetings. Full details of this study can be accessed through the publications of Daykin et al. [19], in which the data were analyzed fully and inductively as an integral part of the methodology. These data have been interwoven with quotes from the evaluation data to demonstrate how the interprofessional alliance had benefitted the patients and also to document the developing relationship between the two collaborators who worked cooperatively over the three-year period. The quotes from these data sets are labelled “interview with” followed by a four-digit participant number.

Quotes labelled “summary of scheduled planning,” “2015,” “focus group 1,” “healthcare professionals,” and “shared learning group” represent data from the music and dementia research.

The participants were selected from a purposive sample and contacted by email and telephone. After giving their consent, they took part in semi-structured interviews lasting between 30–60 minutes. The interview questions were derived from extant literature, discussion with fellow colleagues, and previous data regarding collaboration between the university and the hospital trust. Where possible, the inter-

view data were audio recorded; however, due to timetabling challenges for hospital staff, four of the eight interviews were conducted by telephone and supporting field notes were taken as data. The transcripts were analyzed using Braun and Clarke’s thematic analysis [20] and taking a semantic approach. Compared to latent approaches, which examine the *underlying* ideas, assumptions, conceptualizations, and ideologies within the text, in a semantic-level approach, themes are identified within the explicit surface meaning of the data and discussed in relation to other literature, taking the reader to the point of interpretation [20].

Transcripts from the data were read through twice before the researcher highlighted initial themes. On a third reading, these initial themes were amalgamated into subordinate themes that were thought to broadly represent the participant’s narratives. Finally, following a fourth reading of the data, these subordinate themes were refined into superordinate themes that the researcher considered as embodying the essence of the overarching topics. This process of thematic analysis is a recognized methodology for reducing and categorizing qualitative data [20].

Finally, the data were manually entered into tables listing the subordinate themes, excerpts from the text highlighting and in support of each theme, an interpretation of the content, and the corresponding superordinate theme.

As can be seen in Table 1, the process of thematic analysis gave rise to seventeen subordinate and five superordinate themes.

**Table 1: Showing the subordinate themes characterising the superordinate themes**

| Subordinate themes   | Superordinate themes                            |
|--|---|
| <ul style="list-style-type: none"> <li>• Shared benefits</li> <li>• Cohesive and cooperative practice the values needed to sustain collaboration</li> <li>• Accommodating diverse agendas</li> <li>• Nurse disempowerment</li> <li>• Lack of equivalent understanding regarding the main beneficiaries of the collaboration</li> </ul> | Understanding of collaboration                  |
| <ul style="list-style-type: none"> <li>• Research versus clinical</li> <li>• Gaining consent</li> <li>• The barrier of data protection</li> <li>• Support from senior management</li> <li>• Underdeveloped research culture</li> <li>• Aspirations unequal to ability</li> </ul>   | Barriers to collaboration                       |
| <ul style="list-style-type: none"> <li>• Positive outcomes both practical and process related</li> </ul>   | Main strengths of the collaboration             |
| <ul style="list-style-type: none"> <li>• Feedback as essential to good communication</li> <li>• Inspirational and visionary thinking</li> <li>• The professional structure of collaboration</li> </ul>   | Leadership qualities to guide the collaboration |
| <ul style="list-style-type: none"> <li>• Practical and theoretical mechanisms</li> <li>• Participative research</li> </ul>   | The ideal collaborative framework               |

## Findings

### Understanding of collaboration

This superordinate theme represented six subordinate themes: shared benefits, cohesive and cooperative practice, the values needed to sustain collaboration, accommodating diverse agendas, nurse disempowerment, and a lack of equivalent understanding regarding the main beneficiaries of the collaboration.

The participants agreed that the essence of collaboration, and one that benefited the delivery and receipt of care, necessitated cohesive and cooperative practice:

Working together. It gets the best outcomes for patients and carers. Using each other's resources and knowledge. Having the same goals to achieve and awareness of those goals ... a clear understanding of the outcomes and benefits. An understanding of how each other works. Communication, teamwork, and mutual agreement. Clear plans that are well supported and multidisciplinary team. (Interview with 0908)

According to one participant, however, such joint objectives could not be achieved without equivalent commitment, in other words, "individuals are willing to take a similar amount of ownership over [the] work to contribute an equivalent amount" (Interview with 0056).

Ensuring an equal contribution from both organizations necessitated that expert stakeholders from each brought shared passion and knowledge that most ably characterized their interests and investments and paved the way for future research. "Trying to identify and contact the right people, whether it's in institutions or various healthcare settings, to try and develop those opportunities to continue, hopefully, high-quality research" (Interview with 0056).

Nonetheless, the findings hinted at tension between the underlying values of the collaboration since individual stakeholders were, understandably, motivated by their own standpoint. For example, front-line clinical staff were focused on day-to-day patient care and perceived the university as being motivated purely by the collection of data and the accumulation of knowledge:

I think the biggest thing was patient focus for me, and I suppose for all of us clinicians, was about ensuring that this was patient focused. So, this wasn't about the university trying to get data, this was about us really looking to deliver something for patients that would benefit patients. (Interview with 0055)

Equally, front-line clinical staff had to accommodate research tasks into workloads that were already busy, and felt that the research proposal had not adequately accommodated the clinical setting. The context was a healthcare setting with relatively little history of delivering clinical research; more consideration of practical challenges, such as obtaining consent from participants and contributing to data collection, would have alleviated some difficulties. "An accurate representation between

research protocols and the reality of patient care and the ward environment. Collaborators must ensure that the protocol is relevant to the setting” (Interview with 0208).

One participant considered that a designated health supporter on the research team may help focus and solidify progress, “Someone on the side of the university to act as a champion of health research, to liaise with and draw together strands of health research as there is currently a diverse spread across different faculties” (Interview with 0808).

### Barriers to collaboration

This superordinate theme was comprised of six subordinate themes: research versus clinical, gaining consent, the barrier of data protection, support from senior management, underdeveloped research culture, and aspirations unequal to ability.

The participants offered several recommendations to overcome any potential knowledge gaps between the hospital and the university and to advance the collaboration, including earlier engagement between these two organizations and identifying senior research champions within the healthcare setting, “So for me, the major hiccup was not having the right involvement from the start, the way in” (Interview with 0055).

A general consensus from clinical staff was that they had limited understanding of quantitative and qualitative methods, including how these were realized in the research environment. Although they were included as co-applicants and oversaw the protocol as it developed, as with the previous theme, “an understanding of collaboration,” they considered that the greater engagement of clinical staff at the protocol-writing stage may have enabled greater investment in the process. From this viewpoint, the staff felt disadvantaged because their roles did not allow time for full research engagement. According to a participant from the hospital, this problem could be overcome using honorary contracts, such that academics could gain an authentic perspective of the research in context:

Honorary contracts. So that’s allowed us to actually immerse ourselves within the ward environment ... that gives us a much better perspective in terms of not just coming up with this fantastic research idea but trying to come up with a research idea that works within the real world ... a better perspective of how you might want to frame or design your research based on those time constraints. (Interview with 0056)

For some clinicians, given the irregular nature of their work, good communication was considered to be essential for advancing the collaboration, since unpredictable schedules meant they were often unable to attend meetings. As far as the front-line staff were concerned, the communication skills of university staff were beyond reproach:

We met with people from the university who were leading ... We sat down with them and looked at how we could deliver what the outcomes were. I think it was that kind of close working because we were involved in all of it, not just saying, “We [the university] want

to deliver this and use [the hospital] as the base that we deliver. It was actually a joint, or it felt like a joint project, that we were working on together.” (Interview with 0055)

The quote supports the notion of shared knowledge as supporting cooperative partnerships [10,11], a concept, according to the data, that could be realized in collaboration between universities and hospitals if an intermediary communicated research knowledge to the clinicians and the clinicians communicated medical knowledge to the researchers, “What would help would be someone to communicate research knowledge, a mediator between [the hospital] and the university but with clinical knowledge” (interview with 0908).

There was also recognition that the methodology to be used for research could go some way toward bridging the gaps between the clinical and academic worlds, in that a mixture of both quantitative and qualitative approaches would embrace the diverse perspectives of academia and medicine.

Holistic mixed methods approach—incorporating quantitative and qualitative as you try and identify the most suitable outcome is really important the importance of the patient perspectives and the patient benefits, what they actually gain, rather than it just being an academic in their office coming up with an idea. (Interview with 0056)

Aspirational and long-term solutions to overcome barriers to collaboration were summarized by observing that building collaboration required a well-established base, with a history of shared learning supported by a well-developed research infrastructure.

### Main strengths of the collaboration

While the findings implied practical and process-related challenges to implementing the intervention, the narrative also revealed positive outcomes that were valued by the participants. An interview with the musician executing the intervention revealed how quickly the staff accommodated the intervention within the hospital setting and the value placed on the sessions.

The main thing that’s gone really well is the speed at which and the regularity of the development of the music group here. The regularity of people attending, so the ability of staff and the organization for them to attend, the regularity of it, the protection of the space, the way the staff—the dementia staff particularly value the session. That’s always very—slightly overwhelming when somebody tells you that this is kind of the highlight of their week, and when we’ve had doctors who have sort of rounds or something, the staff have worked really hard to work with the doctors to protect the time and protect the space, and they’re only taken back to the ward as almost like a medium or last resort, rather than the first resort. (Interview with 0043)

Enthusiasm for the intervention seemed to have cascaded throughout the healthcare professionals, both galvanizing interest and commitment.

The staff were all very enthusiastic and friendly and said how they have been inviting patients to come along to the music group. It was wonderful to be greeted by the enthusiasm and keenness of the staff. We found out that many have wanted especially to work on the day that the music is to occur. (Summary of scheduled planning, 2015)

The interviewee's narrative spoke of how the music intervention had altered the hospital ambience, liberating the patients with dementia from their clinical environment to a more festive setting, and that this, combined with the interactive music sessions, had engendered communication and integration among them.

*Healthcare professional:* To me it's like a sense of freedom, it's like not being in hospital, it's like they're at a concert or a show.

*Interviewer:* I mean what about group interaction during the sessions, is that something that—I just was in for one session and I noticed that people were interacting with each other a little bit. I don't know how normal that is or whether they do that in other ...

*Healthcare professional:* I think the fact that [the musician] uses these instruments and they pass them to one another kind of breaks the ice, so by the time an instrument has gone round and another one has started they start talking to each other ...

*Healthcare professional:* I think because they're not on a ward with beds and nurses and uniforms, shall we say, it's quite a relaxed atmosphere. (Focus group 1, Healthcare professionals)

There were also plentiful suggestions from the data of how the music sessions had contributed to changes in behaviour for the patients with dementia.

The project seems effective for patients with particular needs. For example, one patient who was considered aggressive and another who has a tendency to wander were reported as being able to participate calmly with no behavioural issues observed. Patients who have found it has been difficult to engage in other talking based activities seem able to respond to the music session. (Shared learning group)

As for the collaboration, the participants were in agreement that its success was attributable to the concentrated effort and unfailing commitment of one particular research champion at the hospital who had consistently updated both the university and clinical staff about the project. In addition, they had acted as a mediator in communicating important information and offering support to the nurses.

The participants also voiced how the university had acted cooperatively, arranging regular sessions in order to update collaborators about the research arm of the project, "The researchers who came to the group sessions were very good at updating the research side" (Interview with 0908).

As for actually initiating the intervention, there was recognition of the effort of the hospital staff in enabling the music sessions for the people with dementia, "The

hospital staff were amazing in supporting the sessions with [the musician]” (Interview with 0908).

While hospital routines occasionally intruded on the project, the commitment and dedication of the staff in escorting patients to the music sessions and supporting them, once there was evidence of their positivity toward the music project and desire to support it. In the early days, such enthusiasm for the project did not immediately translate as enthusiasm for the research, however, this changed over time, manifested by the front-line staffs’ keenness to be involved in the dissemination of events and publications.

### Leadership qualities to guide the collaboration

The importance of communication emerged as a priority throughout the data. When asked what skills were essential to lead collaboration, there was consensus among the participants that chief among these was good communication. However, there was also agreement that communication was more effective when coupled with feedback, an essential mechanism that acknowledged the listener as an interactive participant rather than a passive recipient:

Another important component is feedback, even if this is critical, as it is only through feedback that you know you have been heard. Feedback is also helpful as often, I come to research from a position of ignorance. (Interview with 0208)

Seemingly, feedback offered an informative tool for those who were less knowledgeable about research.

While the right skills were recognized as key to effective leadership, one participant also vocalized a need for inspirational and visionary thinking so as to move collaboration from the ingrained to the pioneering, “Innovative thinking to create something out of nothing. Blue sky thinking instead of entrenched views, someone with broad skills and a wide range of disciplines” (Interview with 0808).

From a research perspective, the professional structure of collaboration was considered an important requisite to providing recognized leadership, “Having a designated PI [principal investigator] that keeps everyone on track, everyone on target through regular formal meetings and informal conversations” (Interview with 0056).

### The ideal collaborative framework

Within this superordinate category, the themes were defined by two groupings: practical and theoretical mechanisms, and participative research. For one participant, the academic status of an institution represented an essential theoretical platform for collaborative growth, with recognized infrastructures and strategies in place to support it. This necessitated registering research with the Clinical Research Networks Portfolio (n.d) [21], thereby contributing to an accepted academic body as a support mechanism and standard regulator. According to the interviewee, this would combat other practical considerations raised, such as a lack of funding for nurses undertaking research.

Clinicians identified more contextual concerns. For example, for the nurses, the ideal collaborative framework would account for the difficulties of hosting research in

a hospital: “A different environment to hold the music sessions in—people with dementia often have wheelchairs or lack coordination, we need a place that is uncluttered” (Telephone interview with participant number 0908). In fact, gaining and respecting the perspectives of every collaborator was considered important with relation to engaging all parties, representing diversity, and equal empowerment and meant:

Trying to gain the perspective of the consultants, of the nurses, of the people who work on the coal face in terms of what they think needs to be done and what could be done better ... then they've got more of a vested interest. (Interview with 0056)

While the need for inclusion was viewed as important, the data spoke of an equal need for shared motivation and commitment to a project.

A group of individuals who have a similar drive or perspective in terms of wanting to find out a given research question but that those individuals are willing to take a similar amount of ownership over that work so you're not carrying people on a research team. (Interview with 0056)

For others, the structure of the collaborative framework would be founded on the exchange of reliable and informative knowledge on both the university's behalf and that of the hospital, “Clinicians who know their subject, researchers who know their topic, working together. A practical knowing of the job ... meeting and discussing the aims” (Interview with 0208).

### Discussion

An undoubted limitation of the current research is the small sample size and a relatively “thin” data set, meaning generalizations to other settings can at best be done with caution. The current researchers are addressing this concern by recruiting from a larger geographical area and from more hospital trusts. This approach also increases the potential for generalizability. Nonetheless, findings from the current study emphasized the importance of shared goals, agendas, and resources as prerequisites for cooperative, interprofessional working, along with effective leadership and organizational support. Misunderstanding these tenets could result in the erection of unhelpful boundaries that obscure values essential to collaboration, such as trust. An additional limitation was the short-term perspective afforded by the duration of the project, since many of the challenges captured by the data may have worked themselves out over time, hence the increased engagement of staff in dissemination activities.

Interprofessional practice has been described as “the provision of comprehensive health services to patients by multiple caregivers who work collaboratively to deliver quality care within and across settings” [22, p. 131]. A strength among participants was their common understanding that collaboration implied sharing knowledge, a mutual understanding of each organization's needs, cooperation, teamwork, and good communication. They recognized such advantages as opportunities to benefit

patients by using their collective knowledge. These advantages are recognized in research [23,24].

In practice the data suggested there was some misunderstanding as to what collaboration entailed, leading to the erection of boundaries and issues with trust. For example, there was recognition from both organizations that implementing a research protocol created challenges in working environments where there is no significant history of research practice. While some clinical staff welcomed the opportunity to be engaged in a research project, they also faced challenging expectations arising from research requirements, including workload pressures and practical difficulties in environments that were not suited to facilitating research, affirming the concerns of Reeves [8] and Gilbert [9] outlined above, regarding the fundamental but crucial use of the language surrounding interprofessional collaboration. This flags foundational challenges in the language of collaboration between academia and healthcare systems, with academia speaking of its competencies as they relate to healthcare, and healthcare systems speaking of how their competencies relate to practice. Such disparity resulted in slightly different views regarding the expectations and understandings of delivering care and also of managing research, which in this case hindered the development of a truly collaborative view.

So, while the clinicians and nurses generally welcomed the music project, there was less acceptance of the value of the research for all parties. Hence, anxiety was expressed that research imperatives would override those of clinical care. These concerns manifested as confusion and, at times, created some tension. The researchers attempted to navigate these boundaries by balancing data-collection tasks with regular interaction between the professional groups, which contributed somewhat to restoring the authority and understanding of the clinician's roles, considered essential to interprofessional collaboration [8,9]. In achieving these aims, one mentor was successful in motivating and supporting both researchers and clinicians. As evidenced in the literature [25,26,27], the implications for practice suggest that overcoming intrusive barriers can be aided through mentorship and also through the support of senior staff championing the research and negotiating relationships.

Overall, these events raise questions about levels of collaboration. For example, agreements made between senior representatives of institutions do not necessarily transpose to front-line staff. Time needs to be taken to make sure they understand the collaboration and that senior staff address any concerns about workload, inclusion, and shared values early in the process. If this does not happen, front-line clinical staff and researchers are left to negotiate tasks when they do not necessarily have all the information or authority they need.

When working effectively, the participant's narrative suggested that both university researchers and clinicians sought common goals, making use of their skills and knowledge to enhance care delivery. Such findings reinforce existing knowledge by highlighting that, while adherence to particular standpoints was understandable, coherent interprofessional practice floundered when the standpoints gave rise to protectionist boundaries. Such protective mechanisms have been found capable of engendering resistance, manipulation, exclusion, suspicion, and insecurity [28,29,30,31].

Overcoming such challenges may be achieved by using moments of collegiality and cooperation, of which the data provided many examples, as a foundation for growth and for the betterment of care delivery. For instance, certain staff at the hospital exhibited consistent effort and commitment in overseeing the research, and the inclusive actions of the university ensured that clinicians were participative agents in the research and regularly updated. Such findings resonate with the work undertaken by Zinn et al. [32] about engaging hospital staff and a university in collaborative research. They found that nurses recognized the importance of their involvement in research to improve patient care and were more effective at care delivery when better informed as to the outcomes of their practice, based on research evidence. In this sense, collaboration with the university offered an opportunity not just to enable practice but also to facilitate the shared goals of each organization in conducting valid, clinically relevant research. According to the data, this would fulfil the participants' consensual aims of better outcomes for staff and patients and go some way toward bridging the practice-theory gap.

The data highlighted frustrations voiced by clinicians and researchers alike relating to the practical barriers imposed by the clinical setting. These challenges aside, the participants spoke of the musical intervention as a successful project that had genuinely improved the well-being of patients in the dementia wards, leading to valued outcomes that have contributed to the case for more music in hospitals. Over time, frustrations gave way to pride and enthusiasm, demonstrated in the eagerness of clinical staff to participate in a future research project and their contribution to the authorship of an academic article. In this project, a commitment to shared authorship by the team helped to reduce perceived inequalities between clinicians and researchers that could serve as barriers to future research.

From the findings, it seems that advancing collaboration requires providing opportunities for team members from each participant organization to understand what Hall [33] refers to as each other's cognitive maps. Such views indicate that in order to nurture and sustain collaboration, it is important to understand the different typologies of each specific group, their common features, purpose, and organizational climate [34,35]. This was simply phrased by the participants as "equality and equal empowerment." Certainly, this sense of participation, and the investment and exchange of knowledge was prevalent in the data concerning an ideal and generalizable collaborative framework. Possibly, it is in this way that the differing perspectives of the university and the hospital trust could have been reconciled.

The findings have been presented with five superordinate themes, the last of which is entitled "the ideal collaborative framework." While this theme acknowledges a need to gain and respect the perspectives of every collaborator, these goals were not explicitly iterated by the participants in the final theme, despite the fact that they recognized them in the preceding four themes. This would suggest that to successfully recognize the key elements of an interprofessional alliance, the expectations and practice of collaboration must exist prior to the introduction of innovative collaborative ventures, something which, to the author's best knowledge, did not happen. This finding therefore represents a significant point of learning for both research and clinical professionals.

Furthermore, it seems that to nurture interprofessional practice, the ideal collaborative framework should account for the contextual difficulties typifying each organization. Such thinking could usefully be realized in collaborative relationships between academic organizations and hospital trusts through standard operating procedures and maps of the collaboration, detailing how roles and responsibilities will be operationalized in future research. These findings confirm that research cultures take time to establish; new structures and knowledge cannot be inserted but must grow in harmony with the alliance. Enabling the flow of knowledge across professional boundaries necessitates the erection of a platform where collaborators can share experiences and insights and facilitate exchanges that provide improved understanding of their individual cognitive maps. It also requires commitment and proactive leadership from senior staff in both organizations. Future research is needed to better understand how, in relation to interprofessional alliances between academia and hospital trusts, competing agendas can be reconciled to provide a non-confrontational space where productive and cooperative work can be done. Understanding these processes in relation to patient care and discussing an ideal collaborative framework can be used to inform policy and training models for prospective healthcare providers. Therefore, the relationship between academia and hospital trusts is crucial to the development of educational courses and care strategies.

Ensuring an effective exchange of knowledge between academics and healthcare professionals in pursuit of improved patient outcomes means addressing potential power differentials. Stakeholders from each organization could combine forces from the outset and collaborate on ideas and potential new projects to ensure shared ownership and collective motivation. Given the exchange of new knowledge and the forming of new boundaries that characterize collaborations, each organization must be on firm footing before it can merge its identity. Therefore, discussion as to the most basic elements of collaboration are needed before the partnership can be put to work, in order to ensure that it can function in a solid framework of cooperation, authenticity, and trust.

### **Conclusion**

The fruits of interprofessional practice and collaboration have beneficial effects, especially for the patient. These are realized through the collegial efforts of stakeholders from each organization, where consistent effort and cooperative, inclusive actions facilitate participative agency and result in rich relationships. This also provides a supportive framework where activities can be enabled in future work together. Shared objectives form the context for working together in ways that improve patient well-being, the advantages of collaboration between universities and hospitals is, therefore, recognized as an opportunity to promote mutual benefit and improved health outcomes. To ensure success, everyone must work together to safeguard the processes and systems that support an interprofessional environment [36].

### **Acknowledgements**

The authors wish to thank all the participants for contributing their time to gathering data.

**Interviews**

Focus group 1: healthcare professionals

Participant number 0043

Participant number 0055

Participant number 0056

Participant number 0208

Participant number 0808

Participant number 0908

Shared learning group

**References**

- Francis, R. (2013). *Report of the Mid Staffordshire NHS Foundation Trust public inquiry*. URL: [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/279124/0947.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/279124/0947.pdf) [February 19, 2019].
- Borrill, C., West, M.A., Shapiro, D., & Rees, A. (2000). Team working and effectiveness in health-care. *British Journal of Healthcare Management* 6(8), 364–371.
- Department of Health. (2003). *The Victoria Climbié inquiry. Report of an inquiry by Lord Laming*. London, UK: The Stationery Office.
- Department of Health. (2001). *The removal, retention and use of human organs and tissue from post-mortem examination: Advice from the Chief Medical Officer*. London, UK: The Stationery Office.
- Milburn, P.C., & Colyer, H. (2008). Professional knowledge and interprofessional practice. *Radiography*, 14(4), 318–322.
- Owen, J.A., & Schmitt, M.H. (2013). Integrating interprofessional education into continuing education: A planning process for continuing interprofessional education programs. *Journal of Continuing Education Health Professionals*, 33(2), 109–117.
- Green, B.N., & Johnson, C.D. (2015). Interprofessional collaboration in research, education, and clinical practice: Working together for a better future. *Journal of Chiropractor Education*, 29(1), 1–10.
- Reeves, S., Pelone, F., Harrison, R., Goldman, J., & Zwarenstein, M. (2017). Interprofessional collaboration to improve professional practice and healthcare outcomes. *Cochrane Database of Systematic Reviews*, 6(CD000072), 1–38. doi: 10.1002/14651858.CD000072.pub3.
- Gilbert J.H.V. (2005, May). Interprofessional learning and higher education structural barriers. *Journal of Interprofessional Care*, (19 Suppl 1(s1)), 87–106.
- Huxham, C. (1996). *Creating collaborative advantage*. London, UK: Sage.
- Pitsis, T.S., Kornberger, M., & Clegg, S. (2004). The art of managing relationships in interorganizational collaborations. *Management*, 7(3), 1–51.
- Bartunek, J.M. (2007). Academic-practitioner collaboration need not require joint or relevant research: Towards a relational scholarship of integration. *Academy of Management Journal*, 50(6), 1323–1333.
- Supper, I., Catala, O., Lustman, M., Chemla, C., Bourgueil, Y., & Lettriliart, L. (2015). Interprofessional collaboration in primary healthcare: A review of facilitators and barriers perceived by involved actors. *Journal of Public Health*, 37(4), 716–727.
- D'Amour, D., Ferrada-Videla, M., San Martin Rodriguez, L., & Beaulieu, M.D. (2005). The conceptual basis for interprofessional collaboration: Core concepts and theoretical frameworks. *Journal of Interprofessional Care*, 19(Suppl 1), 116–131.
- Resnick, J.C. (2011). Increasing opportunity through interdisciplinary research: Climbing down and shattering a tower of babel. *Front Psychiatry*, 2(20), 1–3.
- Kumar, K.N., & van Dissel, H.G. (1996). Sustainable collaboration: Managing conflict and cooperation in interorganizational systems. *Management Information Systems Quarterly*, 20(3), 279–300.
- Van Rijnsoever, F.J., & Hessels, L.K. (2011). Factors associated with disciplinary and interdisciplinary research collaboration. *Research Policy*, 40(3), 463–472.
- National Health Service. (2019). *The NHS long-term plan*. URL: <https://www.longtermplan.nhs.uk/wp-content/uploads/2019/01/nhs-long-term-plan.pdf> [March 4, 2019].
- Daykin, N., Parry, B., Ball, K., Walter, D.M., Henry, A., Platten, B., & Hayden, R. (2017). The role of participatory music making in supporting people with dementia in hospital environments. *Dementia*, 17(6), 1–16. doi: 10.1177/1471301217739722
- Braun, V., & Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.

21. Clinical Research Networks Portfolio. (n.d.). *National Institute for Health Research*. URL: <https://www.nihr.ac.uk/researchers/collaborations-services-and-support-for-your-research/run-your-study/crn-portfolio.htm> [February 20, 2020].
22. Nester, J. (2016). The importance of interprofessional practice and education in the era of accountable care. *North Carolina Medical Journal*, 77(2), 128–132.
23. Downie, J., Ogilvie, S., & Wichmann, H. (2005). A collaborative model of community health nursing practice. *Contemporary Nurse*, 20(2), 180–192.
24. Taylor, B., Kermode, S., & Roberts, K. (2007). *Research in nursing and health care: Evidence for practice* (3rd ed.). Thomson, AU: South Melbourne.
25. Eby, L.T., Allen, T.D., Evans, S.C., Ng, T., & Dubois, D. (2008). Does mentoring matter? A multidisciplinary meta-analysis comparing mentored and non-mentored individuals. *Journal of Vocational Behaviour*, 72(2), 254–267.
26. Greene, M.T., & Puetzer, M. (2002). The value of mentoring: A strategic approach to retention and recruitment. *Journal of Nursing Care Quality*, 17(1) 63–70.
27. Myall, M., Levett-Jones, T., & Lathlean, J.J. (2008). Mentorship in contemporary practice: The experiences of nursing students and practice mentors. *Clinical Nursing*, 17(14), 1834–1842.
28. Andrus, P., Morrison, P., Biggins, A., (2013). *Academia and hospital perspectives on collaborative research approaches to achieving quality in Practice*, *Working Papers in the Health Sciences*, 1(2), 1–5. URL: <http://www.southampton.ac.uk/assets/centresresearch/documents/wphs/Academic%20and%20hospital%20perspectives%20on%20collaborative.pdf> [October 17, 2016].
29. Daykin, N., & Clarke, B. (2000). They'll still get the bodily care. Discourses of care and relationships between nurses and health care assistants in the NHS. *Sociology of Health and Illness*, 22(3), 349–363.
30. Gaskill, D., Morrison, P., Sanders, F., Forster, E., Edwards, H., Fleming, R., & McClure, S. (2003). University and industry partnerships: Lessons learnt from collaborative research. *International Journal of Nursing Practice*, 9(6), 347–355.
31. Witz, A. (1992). *Professions and patriarchy*. London, UK: Routledge.
32. Zinn, J. (2011). Innovation in engaging hospital staff and university faculty in research. In J. Reinert, A. Bigelow, E. Waqiah, A.F. French, F. Milner, & S. Letvak (Eds.), *Clinical nurse specialist*, (pp. 455–463). doi: 10.1097/NUR.0b013e318221f2be
33. Hall, P. (2005). Interprofessional teamwork: Professional cultures as barriers. *Journal of Interprofessional Care*, 19(Suppl 1), 188–196.
34. Ahn, G.J., Zhang, L., Shin, D., & Chu, B. (2003). Authorization management for role-based collaboration. *IEEE International Conference on System, Man and Cybernetic* (pp. 4128–4214). Washington, DC.
35. Koh, J., & Kim, Y.G. (2004). Knowledge sharing in virtual communities: An e-business perspective. *Expert Systems with Applications*, 26(2), 155–166.
36. Green, B.N., & Johnson, C.D. (2015). Interprofessional collaboration in research, education, and clinical practice: *Working together for a better future*. *Journal of Chiropractic Education*, 21(1), 1–10.