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Building research capacity in Lancashire: lessons learned from the LINCS initiative

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EXECUTIVE SUMMARY

The Lancashire Initiative for Nursing and Caring research in Stroke (LINCS) was set up in 2011 as a partnership between academic researchers from the Clinical Practice Research Unit (CPRU), the School of Medicine and Dentistry at the University of Central Lancashire (UCLan) and staff from Lancashire Teaching Hospitals NHS Foundation Trust (LTHTR). The aim was to build research capability and capacity by supporting research opportunities for nurses, allied health professionals and other clinicians.

During 2012-13 four research interns were recruited from LTHTR, and flexibility and sustainability funds were used to buy out their time for two days each week to support a LINCS project exploring changes in oral flora after a stroke.

This largely qualitative evaluation was undertaken to capture the benefits and lessons learned from the LINCS project and use this to build on achievements and guide the development of similar initiatives in the future.

On obtaining ethical committee approval, those involved with the project were interviewed to ascertain their views on achievements and any lessons learned. The transcripts were analysed using a thematic framework to identify the key benefits and identify any issues.

The main benefits from the project derived from the increased knowledge and understanding of research gained by the interns. The project served to dispel misconceptions and increase understanding of the complexities of practical field based research. The interns appreciated the opportunity to be involved and displayed increased confidence in their own research abilities and taking on a leadership role.

For the institutions, improved communication and understanding of each other's culture was cited as one of the most valuable outcomes from the project.

One of the significant risks was the use of funding to support a health care assistant who was not on a research career pathway. The success of this strategy proved to be one of the most important achievements of the project. By being more fully involved in all stages of design and delivery, the health care assistant not only carried out research duties such as taking observations or other measurements more efficiently and effectively, but also took a leadership role and acted as a grass roots advocate for research in the wider hospital environment.

The main problem related to interns being asked to undertake clinical duties when they were scheduled to do research activities. This caused frustration, but did not have a significant impact on the project outcomes; and the flexibility of the interns and the UCLan staff was appreciated.

There were also some communication issues and confusion about management responsibilities when the interns were scheduled to be on a research day, but again these did not appear to have a major impact on outcomes.

As well as these benefits and issues identified around building research capacity for the individuals and organisations involved, some key learning points emerged about the practicalities of running a similar scheme in future:

1. Clear but flexible service level agreements between all partners that specify the release of clinical staff, funding and the time required to undertake research duties will help to increase the likelihood that staff will deliver outcomes successfully.
2. The inclusion of clear project plans and each partner's roles and responsibilities in the service level agreement will help achieve a common understanding, and reduce the risk of frustration, miscommunication or other unforeseen problems.
3. Clear reporting lines so that interns understand what they are supposed to be doing, what they are expected to produce with clear time scales, where they are expected to be, who they report to and who they can go to for help will improve chances of success and ensures value from the investment in research. The risk of misunderstanding and confusion is reduced if arrangements around this can be agreed between line managers and university staff beforehand and included as part of the service level agreement.
4. Clear research and learning agreements that are agreed by all parties and include outcomes and time frames for each intern will help to ensure that line managers are involved and aware of what the interns are doing and that projects result in outputs that are of benefit to the host organisation and the university. They will also facilitate the inclusion of a review of their performance and learning from the research into each intern's appraisal and personal development plan.
5. Having a system or process for monitoring progress and deadlines for each intern and each project will increase the likelihood that agreed outputs will be delivered on time. The transparent use of support funding to provide replacement staffing for the interns involved in research projects and who are removed from clinical duties will increase the acceptance of research activity among the wider workforce within the organisation.
6. The creation of a group identity for those involved in a research initiative can provide a source of inspiration and sense of pride. If managed well can facilitate mutually supportive relationships, so is encouraged.
7. The transparent use of support funding to provide replacement staffing for the interns involved in research projects and who are removed from clinical duties will increase the acceptability of research activity among the wider workforce within the organisation. The perception that the workload of colleagues not involved in the research will increase whenever there is a research project on the ward can lead to antagonism and a lack of cooperation from other staff.

INTRODUCTION AND BACKGROUND

The Lancashire Initiative for Nursing and Caring research in Stroke (LINCS) was set up in 2011 as a partnership between academic research staff from the Clinical Practice Research Unit (CPRU), the School of Medicine and Dentistry at the University of Central Lancashire (UCLan) and Lancashire Teaching Hospitals NHS Foundation Trust (LTHTR). Flexibility and sustainability funds awarded to LTHTR were used to second staff and facilitate their participation in the LINCS initiative. The aim was to build research capacity and capability by creating and supporting research opportunities for nurses, midwives and allied health professionals (AHPs).

During 2012 and continuing into 2013, the LINCS research project to explore changes in oral flora in patients during the first two weeks after experiencing a stroke took place in the stroke unit at LTHTR. The outline for the LINCS project was agreed between research support staff at LTHTR and academic staff from UCLan. The 'oral flora' topic provided opportunities for interested NHS staff from a range of disciplines to participate and further develop their research knowledge and skills. The project was advertised widely and clinical staff at LTHTR were initially encouraged to express an interest. Having made contact and found out more, staff were then required to discuss with and seek agreement from their line manager and submit an application to participate in the project. Funding was used to release four clinicians (1 x nurse, 1 x health care assistant (HCA) and 2 x speech and language therapists) to become interns for two days per week and undertake the research. The seconded clinical interns took responsibility for all aspects of the research and were supported throughout by academic staff from the University. The work included writing a proposal and obtaining ethics committee approval; developing inclusion and exclusion criteria; applying this in practice by recruiting participants to the research project; taking swabs and sending them off for laboratory analysis. Field work is now complete and results are being collated and analysed. The project involved screening large numbers of patients, and the collection of complete data on fifty patients. The research was not directly linked to patient benefit, but was intended to be a preliminary study to provide the baseline evidence to support a range of future research studies that could explore improvements in mouth care, possibly linked to decreased risk of chest and other infections, and increased comfort for people who have had a stroke.

As part of the overall evaluation of the LINCS initiative, we felt that it was important to document successes, issues and lessons learned from the project. This evaluation therefore examines perceptions of those involved in the LINCS initiative, to identify and document lessons learned. Achievements as well as barriers to successful implementation of the LINCS initiative will be identified and recommendations made that will increase the effectiveness and sustainability of similar projects in the future.

AIM

To evaluate and learn lessons from the LINCS project by exploring perceptions of the wider impact of the project on building research capacity in an acute hospital setting.

OBJECTIVES

1. Examine perceptions of the impact of the LINCS initiative on staff involved in the research as well as other staff who work with them in the clinical setting, including the impact on the personal professional development of the staff involved.

2. Explore perceptions of the benefits of the LINCS initiative from the viewpoint of all stakeholders.

3. Identify barriers to successful implementation and make recommendations to increase the effectiveness and sustainability of future projects.

METHODS

RESEARCH TEAM

A research team largely formed from individuals involved in the original LINCS initiative was set up. However, the principal investigator (PI) was a relatively new female senior research fellow, based in the Clinical Practice Research Unit at UCLan, who had not been involved previously and was therefore less biased than those who had developed and delivered the LINCS initiative. The PI was an experienced researcher with a Master's degree in public health, trained in both qualitative and quantitative research methods and had been the PI or involved in a wide range of qualitative and quantitative research projects in the past.

The PI had recently taken over responsibility for the LINCS project at UCLan, had met several of those involved, and was keen to establish the benefits and any lessons learned from the capacity building work already completed before seeking additional funding or undertaking further work in this area. The PI did not know any of the participants prior to undertaking this evaluation.

Other members of the research team included two highly experienced post-doctoral researchers, a research nurse and one member of clinical staff, engaging with a formal research project for the first time.

STUDY DESIGN

Since the aim of the evaluation was to explore the benefits of the LINCS project and understand its impact on building research capacity so that similar projects could be improved in future, a qualitative research design based on content analysis of individual interviews was used. A research protocol was submitted and approved by those responsible for research governance at the hospital and the University ethics committee.

PARTICIPANTS

A purposive sampling technique was used and 18 potential participants who were all members of staff involved either directly or indirectly in the LINCS project were identified by the research team and invited to participate. Participants came from;

- Seconded clinical staff who became interns and participated in the research
- Other clinical staff who were affected by the project, but not directly involved (such as line mangers and other ward staff).
- Research staff from the School of Medicine and Dentistry, including research staff involved in the project
- Research staff from the Clinical Practice Research Unit in the School of Health who supported the seconded project staff

Line managers of the participants were informed of this further development of the original LINCS initiative and were asked to support staff so that they could contribute to the interviews. Patients were not interviewed, since any follow up was precluded in the ethics approval for the original LINCS initiative.

An information sheet was included with the invitation letter and participants were asked to let the PI know either by email or phone whether or not they were willing to be interviewed. Members of the research team also assisted by reminding those who had been invited to respond. A follow up email or phone call was made to any participant who failed to respond by the deadline. Following agreement, the PI arranged a date and time for interview.

SETTING AND DATA COLLECTION

After obtaining informed consent, participants from UCLan and LTHTR were interviewed to explore their perceptions of any benefits and issues associated with the LINCS initiative. Fourteen participants were interviewed. Those who had been invited but were not interviewed were all clinical staff who had not been directly involved with the project; and although several had agreed in principle to be interviewed, work pressure precluded involvement in the time period allocated for this work. Twelve participants were female and two were male and all were employees of UCLan or LTHTR.

An interview guide based on open-ended questions that differed slightly depending on the role of each participant was developed and piloted with a couple of work colleagues before use. Questions were designed to facilitate discussion and reduce the risk of the researcher influencing the outcomes. Topics were based on validated questionnaires from similar research conducted elsewhere (Rowley, 2012). Questions were asked about whether the participants felt satisfied that they had met their own learning outcomes and what this might empower them to do in future. Views were sought about any problems encountered and the perceived value derived from the LINCS initiative. Opinions were explored about how maximum benefit could be achieved from similar initiatives in the future. In order to ensure that all important issues were captured, at the end of each interview, participants were asked if they would like to say anything more about the LINCS project that had not been asked about.

Interviews lasted about twenty minutes and in an effort to maximise reliability the PI conducted them all. The PI undertook most interviews in the participant's place of work. One interview was undertaken at a participant's home as this was more convenient.

Interviews were audio recorded and then transcribed verbatim. The PI also took field notes during each interview. The research team felt that there would be delay and no benefit in returning transcripts to participants for checking, since they were transcribed verbatim.
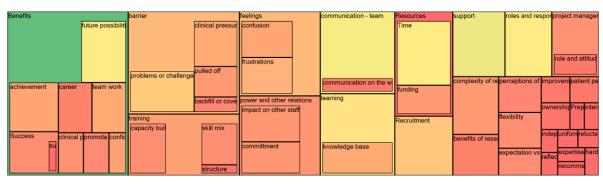
ANALYSIS

There is always a risk of bias in the coding and interpretation of qualitative data which cannot be totally eliminated. However, to reduce the risk, the PI and three other researchers coded all transcripts independently (Mays & Pope, 1995). Each transcript was coded by the PI and at least one other researcher. Transcripts were entered into QSR NVivo10 software to facilitate coding and analysis. A series of nodes derived from the data were created and these were then chunked together to create a thematic framework. Themes were not identified in advance, but followed the topics created by the questions asked during the interviews. The level of agreement between researchers was good, and any differences in interpretation were discussed by the researchers and the PI. The researchers searched for the meaning behind the words, rather than simply noting the words used by the participants. For example, one participant took pride in describing her lack of fear and what she could now do that she could not or would not have done previously. This was interpreted by the researchers as an expression of increased confidence, although the word itself was never used by the participant.

FINDINGS AND DISCUSSION

MAIN THEMES

FIGURE 1: TREE MAP OF MAINTHEMES EMERGING FROM THE DATA

Nodes compared by number of items coded

BENEFITS

Overall the findings from this qualitative research suggest that the LINCS project had a positive impact at the individual as well as institutional level.

FOR THE ORGANISATIONS INVOLVED

The main benefits for the NHS trust as an organisation came from the improved attitude towards research in general; and the positive cultural change the project engendered. The evaluation was not specifically designed to explore whether research capacity had been increased or improved, but the generally positive comments from the senior staff suggest that this was the case. Going forward, the lessons learned from the LINCS initiative will also help to inform the research strategy for nurses in the trust.

A senior NHS manager said:

> "It will be a very effective precursor for us being able to understand how we will be able to implement a nurse research strategy and actually get some real outputs from that. I think it's been very good in the ward environment where it took place; educating the staff around that weren't necessarily researchers on the project, but that had become a lot more research friendly … and working maybe in a different way and having a different approach to accepting research activity on the ward."

A senior academic from UCLan agreed and said:

> "I think we have a much closer relationship with the Teaching Hospital than we would have done if we hadn't have started the LINCS thing. I think the LINCS starting has really cemented the relationship, because although we've done research with them

before, so we've had research projects being managed through their systems, I think it's only this where they've really felt that we've invested a lot of time in doing something that probably they're more likely to benefit from it."

There was a sense of pride in what had been achieved, expressed by NHS and UCLan staff; especially because the LINCS initiative provided an opportunity for those NHS staff who are rarely included, to get involved in clinical research.

A senior academic said:

"And then for the individuals involved … them having the time to participate in research is a good thing. … A lot of their posts often have the promise offering first time for research … but it doesn't materialise, so they end up spending all their time doing clinical work and not being given the opportunity to do it."

An NHS manager said:

"But now I think every member of staff, apart from some of the very new staff, would be able to, if challenged, to tell you that we're actively involved in research and they'd be able to give you some examples of how it's benefited the wards, so there's definitely a massive increase in awareness of the importance of research, and definite increase in a conception of the benefits of research … I think staff in general are becoming more receptive to their role and involvement in research."

An NHS employee who had worked on the project said:

"In terms of the actual project I think in some ways it almost exceeded its expectations. It's been good in terms of that mentoring thing, and also working with people of different grades and abilities. I do think getting the different grades involved has been a really good thing."

Since several of the NHS staff undertaking the research were working in the hospital, they decided that to distinguish between the times when they were acting as researchers from when they were undertaking regular duties, they would wear a LINCS shirt. This proved to be very popular with the LINCS researchers and acted as an effective advertisement for the project. When talking about wearing the LINCS shirt, one of the NHS staff involved commented that it generated questions from other staff:

"Which means you can promote the research right across the hospital to different people. I think the uniform's excellent; I think that has shown quite a few things up [laughs]. It separates you, so if you're working on that ward and you've got the allocated time you're in a different uniform, then it does make a difference. But it also makes a difference to the way some people see you, and it has been the one thing that has stood out. It doesn't matter where I've been in the hospital, I could have been in the staff canteen, I could have been anywhere and people have actually, I suppose it's different. [They asked] *What's the uniform?"*

One of the individuals involved in the research was a band two healthcare assistant (HCA). This individual engaged in complex aspects of the project such as organising and preparing papers for ethical approval as well as taking on a leadership role in ensuring that field work was carried out accurately on the ward. This strategy was regarded as unusual and innovative and its perceived success served as another source of pride about what was achieved.

With encouragement and support from UCLan staff, one of the interns wrote a paper about her experience that was published in the British Journal of Healthcare Assistants (Loughlin, 2013). The HCA's contribution to the project was much appreciated and she became a highly effective grass roots advocate for clinical research. Engaging a health care assistant so fully in a research project was considered highly innovative but risky, and there was clear pride that the risk had paid off, not only for the individual involved, but also for the organisation. Given that there are few prospects for staff working as healthcare assistants (HCAs) to progress onto a research career pathway, it could have been argued that funding should not be used to support their inclusion. The counter argument was that HCAs are often asked to undertake field work for research projects and by providing them with knowledge and understanding of research methods they will work more effectively, take greater pride in their work and act as advocates for research within the organisation and wider.

A senior NHS manager said:

> *"I know that the health care assistant was very enthusiastic and had a very good approach towards it, and that's been impressive and that's been very beneficial. It's also shown … there may be an area that we need to tap into there from a clinical research perspective."*

One of the UCLan academic staff who had been involved in the LINCS project said:

> *"I think it was great actually having the health care assistant, and actually she has come along in confidence. She's very capable and she's learnt an awful lot through the process."*

A senior NHS manager said:

> *"Probably one of the biggest successes for me is the involvement of xxx as a HCA and really creating in xxx an advocate for staff within the trust that aren't necessarily required to be professionally registered to carry out their roles, but being able to access this kind of experience.*
>
> *Absolutely yes definitely, and whenever I've talked about LINCS to any of my counterparts across the region, and I mention that we had an HCA who really drove things forward and was really involved, they're very impressed and a little bit surprised that we were able to do that, and that there was a willingness on the part of xxx to want to do that, so for me that's the major success.*
>
> *I mean for me it's been a very, very positive experience and anybody that I talk to outside of the LINCS project about it is very, very interested to hear more and I think*

taking it to the next level we could have a real impact, a sustained impact on the professionals and other staff within the trust that we can involve and engage."

FOR THE INDIVIDUALS

Although this is presented separately, many of the benefits for the individuals also advanced the position of the trust as a supportive organisation, working to develop a research culture among its staff.

Project participants reported that the main benefit for themselves was the learning, with improved knowledge and understanding of research and especially the complexities of the process. Managers also noticed a difference and felt that the improved knowledge of those involved had impacted positively on the wider workforce. This project removed some of the mystery and normalised research.

In response to questions about whether the project had succeeded, one of the UCLan research staff who had been involved said:

> *"I think personally it will have achieved what it set out to plus more. I have learnt a hell of a lot more about the clinical aspect, and I think that has helped me enormously to develop the research that I do which is not linked to the LINCS project, but it's really broadened my mind. I think it's been fantastic, and of course working with clinicians, all aspects of clinical professionalism has been absolutely great."*

One of the NHS staff who had been involved in the LINCS project commented that:

> *"Just more appreciative I would say of the research staff that we have on the ward, try not to be as obstructive I suppose you would say [laughs] cos now we know what it's all about. I've been on both sides … being part of the setup with the information sheets and going to the boards and having to do our own consents and stuff, that's been good for me, cos now I understand why everything has to be done the way it is, and I sort of enjoyed all that sort of bit."*

Another member of the NHS staff involved in the LINCs project was able to describe in detail how the experience had developed their learning and how the opportunity had been valuable:

> *"From my perspective, I just learnt so much, I really learnt a lot about the background to research … it's really interesting from my point of view to learn the amount of work that has to go into it, the phraseology all of that kind of stuff, the things around consent, cos we do consent within our professional work, but it's slightly different for research and how you do it, and how you document it and produce those forms, so I really learnt a lot about the background to actually doing research and how much is involved in just trying to make it very formalised. Because I think as professionals we do a lot of audits, but research is very slightly different to that, and actually to make it formalised is quite a lot of work that goes on behind the scenes and that, so from my perspective I learnt that. I also I think I developed a lot of skills within myself … just in terms of even sort of IT skills and that kind of stuff."*

One of the NHS team involved in the research said that:

"For many individuals, their involvement served as an 'eye-opener' and helped them understand what field work was all about. For some it was the first time they realised that research involved more than walking around the ward with a clipboard.

I've got a bit of a different perspective now on research when I'm reading about it, because I've known what's gone in to get it to that point and I can analyse it a bit more around the ethics side of it and that kind of element to it."

For the more senior NHS staff involved, the project provided very welcome additional research experience that could enhance career prospects. For staff with less clinical responsibility, involvement had significant benefits in improving their understanding of how they could contribute more effectively to other research projects. For example, one individual reported how she now understood how important it was to chart observations clearly, accurately and consistently. This resulted in her taking on more of a leadership role and encouraging other staff to do the same.

For many of the research inexperienced NHS staff, another key benefit was the increased confidence coming from being part of a research team and given responsibility. One said:

"I felt I did a lot of teaching to the other people as well which was good for building my confidence as well; that I do know what I'm talking about [laughs]."

In relation to skills and confidence gained from the LINCS project and the possibility of being involved in another research project, one of the NHS researchers said:

"I would probably be more confident and I'd be happy. I mean I took a student round with me for a couple of days last week … and introduced her to the ward cos she'd got no medical knowledge at all. So I showed her around the ward, and around Chorley … and I was happy to talk to her and show her and tell her about the research, which is probably not something that I would have done."

A senior academic from UCLan commented on the benefits to UCLan and the academic researchers involved. Saying that although they probably could have done the work far more quickly themselves, having to slow down and explain everything to research inexperienced clinical staff had helped them understand the process better.

"It's good for researchers to actually have to go through all those steps and think about it, and explain it to other people … and get their views, and take them on board, and think carefully about the principles, actually it ended up being a better project than it would have been if we'd just gone, 'Oh let's get these researchers to do it'. But I think taking the time to think it through more carefully and having to explain it means that you actually have a better understanding yourself. So I think that's a good thing, and obviously the people that have been seconded have been, you know, they have a wealth of experience and knowledge as well that's all gone in there and has been shared with the researchers. Kept people's feet on the ground. They, you know, are reminded about the practicalities of it."

Individual interns appreciated the support provided by the academic staff and the funding to release clinical staff so they could genuinely devote the required time to the project.

A senior academic noted that:

> *"Having the funding to be able to pay for backfill so that it would release people's time, that was a good thing, so it would allow them to feel comfortable about taking that time to do the research themselves, and for obviously for the manager's to feel okay about it as well, so it really didn't feel like it was putting undue burden on the rest of the team, or disadvantaging the patients."*

A member of NHS staff involved in the research said:

> *"I'm not sure that people feel that there's the time to do that without the support and without the secondment that occurred, cos that was very vital. Without that there wouldn't have been any option to have done it at all, so it was brilliant from that point of view."*

Another of the NHS researchers involved said:

> *"I have enjoyed it and I've enjoyed the support … so if the opportunity came about and it was something that interested me then I would probably do something similar with a group or with that support again."*

POWER AND OTHER RELATIONS

Having a group of people involved and able to contribute effectively at a variety of levels appeared to be helpful and provided those involved with a much clearer understanding of each person's contribution in a multidisciplinary setting.

One of the NHS interns involved in the research said:

> *"I think it was really good to have a mixture of skill, I very much do, and I actually think that people outside might look at it and go, someone who's maybe not as qualified academically might not be as strong for the project, but actually looking at the team we had, I think the person who was least academically qualified worked the hardest on it, she might say differently, but I think she worked really hard and I think she was incredibly valuable to the team, so I think having that mixture of skill was very valuable."*

Especially for some of the more junior NHS staff, being involved in the research project provided an opportunity to engage with other and often more senior staff in a professional capacity. Staff involved in day to day caring can sometimes feel invisible and being involved in the research project made them feel valued and important. As one said:

> *"You get involved with the other staff members more as well like the doctors on the ward, the physio's, the OT's and things … you can actually talk to them."*

Several members of the research team commented on the support received from being part of a wider group. As one said:

> *"It built some strong relationships, which then helped in the ward environment too."*

COMMUNICATION AND JOINT WORKING

One of the major benefits of the LINCS project was improved communication and relations between UCLan and LTHTR.

A senior academic said:

> *"In terms of the organisations deciding to actually do the LINCS and discussing how we were going to set it up has been a useful information sharing exercise, and also a sort of meeting of minds in a way about our joint aspirations for developing clinical academics. Because I think that's where it kind of started from really, discussing what we could do to encourage and facilitate staff, sort of clinical staff's engagement in research, and obviously that, the end point is a useful thing that actually discussing it with teaching and the R&D department and the nursing directorate and the managers from therapy and what have you, that in itself was very useful thing because again it got us talking about yes why you, why people would want it."*

ISSUES AND THEIR IMPACT

One of the most commonly mentioned issues identified by all participants was the difficulties in ensuring that LINCS participants were provided with the scheduled time away from clinical work to undertake the research project.

As one of the NHS staff involved in the research said:

> *"Although I was given time* [to do the research work] *it was sometimes taken back … I'd arrive on the ward and because of the pressures on the ward I had to work. We did a bit of give and take there sometimes, and I would say well look you know, can I help you through the busiest time which was first thing in a morning and then go back to research. But that was further down the line, sometimes I had to do a full shift … but that was part of it."*

The request for staff to undertake clinical duties during scheduled research time happened on several occasions, usually when other staff were unexpectedly off sick or when there were other clinical pressures. However, whilst it was frustrating, there was a difference of opinion between those directly involved with the research project and managers about how often this happened. Managers felt this happened very rarely, whilst those involved said that it happened more frequently. Everyone appeared to accept that when there are significant pressures and patient care could be put at risk, the clinical work must take priority. For those involved, the frustration involved in being withdrawn was heightened when this was perceived to be caused by poor management rather than clinical need. Whenever seconded staff were recalled to clinical duties, alternate research time was usually provided and no major impact on the overall progress or outcomes of the LINCS initiative was reported. Appreciation of the flexibility of interns was

expressed by management. This is important, since rather than being a problem, the willingness of UCLan and trust staff to be flexible helped to secure a positive relationship, with good cooperation and ultimately the success of the project.

In many cases the trust had not actually been able to provide backfill, and line managers were left with the unenviable position of trying to cover the same amount of work with less staff. Although funding was provided to cover costs for the staff who had taken on a research role, the trust found it difficult if not impossible to actually find cover for staff in the specific clinical area where the staff had been removed. Replacement should be easier when it relates to generic staff roles, such as nurses and health care assistants, since there are bank or agency staff usually available, but this did not appear to happen and resulted in some resentment. There was a lack of transparency about how the funding had been used and how staff time was being replaced. The therapist manager tried, but found it impossible to recruit a locum for this limited period of time. Colleagues of those involved in the project often found that their workload increased or for those responsible for therapy services, fewer sessions could be provided.

A senior NHS manager who was aware of the issue explained how the new nurse research strategy would need to be stricter about protecting time for research.

> *"I think it had quite a demoralising effect on the team*, [referring to staff being withdrawn from the research project to undertake clinical duties] *it was a big frustration for me and for other senior managers within the trust, and an eye opener really to see that actually we need to be even more prescriptive and more structured and rigid around protecting that time, and it has, and it will feed into our nurse research strategy."*

The LINCS research was designed to describe the changes to the oral flora in patients who have had a stroke and to explore the feasibility of undertaking a larger project of this nature; but some disappointment was expressed about its inability to benefit patients directly. Although it may have been frustrating that the research did not answer all the questions those involved would have liked, it appeared to inspire them to want to undertake more research.

One of the NHS staff involved in the research said:

> *"That's my ultimate goal. We've done all this research and I want to know what happens to that research now. Has it proven anything and can we take it further and improve the patient care … and that's what I'd really like to do now."*

Another said:

> *"Well I've never had any results or anything, so I don't know sort of medically what's benefited from it. I mean personally it's given me the insight into research, and you know the outcomes we were sort of looking for."*

This indicates a common misunderstanding about cyclical nature of research and that is it unlikely that a relatively small study will provide all the answers.

There were several staff changes at UCLan and LTHTR during the course of the LINCS project, with some staff on both sides changing roles. This caused a few problems and the lack of clear roles, responsibilities and reporting lines caused some confusion about who was responsible for the NHS interns when they were undertaking the LINCS research. Practical details such as who to report to if an intern is off sick on a day they were seconded to the LINCS project was not clear. Holiday and sick leave entitlements and how the intern's performance could be incorporated into their appraisals was never discussed.

One of the key academic staff said:

> *"Lack of ownership of the whole project has been difficult. Because of the way it's funded, it's kind of not anyone's key responsibility … I've had other things and competing issues … but it does mean it's difficult when there's constant changes in who's involved with it, and that makes it really difficult for all the LINCS staff to know who to contact.*
>
> *I'm not sure it's been built into their performance reviews and I have no feedback to the managements either … If you had a student you would write a report at the end, but there isn't anything like that, so I think if you had something like that … and they knew that was going to happen that would be helpful."*

There were some 'behind the scenes' issues about funding for the laboratory work. Most people involved in the project were not aware of these and they were quickly resolved by the leadership. However, if communications had been better, then it is unlikely that these issues would have occurred, indicating the importance of the need for clear project proposals.

CONCLUSIONS

The main benefit attributed to the LINCS project was that it helped to create a stronger institutional research culture in LTHR and successfully increased knowledge and understanding of the research process for the interns involved and the wider NHS community. A strong research culture is considered essential for any organisation attempting to increase capacity (Cooke, 2005; Department of Health, 2000). Interviews with managers suggested that the impact of the project in raising research capacity and capability had extended beyond the interns themselves; but due to the absence of interviews among wider workforce this could not be corroborated.

The LINCS project served to strengthen the relationship between UCLan staff and the research and innovation team at LTHTR and improve understanding of each other's values and priorities.

It became very clear that key to the project's success was the support provided by the academic staff and the funding to release clinical staff so they could genuinely devote the required time to the project

One of the most controversial, yet successful aspects of the LINCS project was the use of funding to support the inclusion of a HCA in a research project. Although it was recognised that HCAs may not be on a personal journey to a clinical academic research career, their involvement increased capability overall and in particular improved grass roots involvement among a cadre of staff who felt that they had previously been ignored. In most clinical studies HCAs are required to collect data, but by including them as part of the team, they gain confidence, a sense of involvement and ownership of the project, an improved understanding of the complexities of the research process and their important role in it. As a result they undertake their research duties with greater enthusiasm, effectiveness and accuracy than they had done previously.

The main areas of good practice that were perceived as important to the success of the LINCS initiative were;

1. Good skill mix, with inclusion of HCAs as fully informed, integrated members of the research team and strong leadership from senior academics
2. Flexibility from all partners and a willingness to cooperate to get the research done without compromising clinical effectiveness or safety
3. Good balance of support and encouragement to drive engagement with the project and facilitate interns taking responsibility and acting independently where appropriate
4. Proactively working to maintain good communication channels between UCLan and staff at LTHTR
5. Developing a group identity as researchers, which encouraged members to gain self-confidence and support each other

Barriers identified included;

1. Lack of transparency around the use of funds to replace clinical staff who had been seconded to the research project
2. Frustration caused by clinical staff being required to undertake clinical duties when time was allocated to research, especially when this was perceived to be due to poor management rather than clinical pressures.
3. Although there was no evidence that the lack of any clear patient benefit affected the outcomes in relation to increasing capacity and capability for research, the feeling was expressed that a project with outcomes linked to patient benefit would have been more interesting and possibly successful.
4. Lack of clarity about roles and responsibilities, especially about management of interns whilst undertaking field work in the clinical areas.
5. Insufficient monitoring and evaluation linked to the need for a clearer project plan with time limited milestones and outputs.

PRACTICAL LEARNING POINTS

1. Clear but flexible service level agreements between all partners that specify the release of clinical staff, funding and the time required to undertake research duties will help to increase the likelihood that staff will deliver outcomes successfully.
2. The inclusion of clear project plans and each partner's roles and responsibilities in the service level agreement will help achieve a common understanding, and reduce the risk of frustration, miscommunication or other unforeseen problems.
3. Clear reporting lines so that interns understand what they are supposed to be doing, what they are expected to produce with clear time scales, where they are expected to be, who they report to and who they can go to for help will improve chances of success and ensures value from the investment in research. The risk of misunderstanding and confusion is reduced if arrangements around this can be agreed between line managers and university staff beforehand and included as part of the service level agreement.
4. Clear research and learning agreements that are agreed by all parties and include outcomes and time frames for each intern will help to ensure that line managers are involved and aware of what the interns are doing and that projects result in outputs that are of benefit to the host organisation and the university. They will also facilitate the inclusion of a review of their performance and learning from the research into each intern's appraisal and personal development plan.
5. Having a system or process for monitoring progress and deadlines for each intern and each project will increase the likelihood that agreed outputs will be delivered on time. The transparent use of support funding to provide replacement staffing for the interns involved in research projects and who are removed from clinical duties will increase the acceptance of research activity among the wider workforce within the organisation.
6. The creation of a group identity for those involved in a research initiative can provide a source of inspiration and sense of pride. If managed well can facilitate mutually supportive relationships, so is encouraged.
7. The transparent use of support funding to provide replacement staffing for the interns involved in research projects and who are removed from clinical duties will increase the

acceptability of research activity among the wider workforce within the organisation. The perception that the workload of colleagues not involved in the research will increase whenever there is a research project on the ward can lead to antagonism and a lack of cooperation from other staff.

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