An Unknown Source Qualitative Research with Medical Research.mp3

[00:00:00] Thank you very much for joining us today and welcome to the Explorathon Lunch Bytes podcast, a chance for you to hear about some of the latest research projects coming from the University of Aberdeen while you enjoy your lunch break. Explorathon 2020 is a weeklong programme of events being brought to you by the University of Aberdeen and other Scottish universities as part of European Researchers' Night, which this year takes place on the 27th of November. European Researchers' Night is a Europe wide public event which tries to bring researchers closer to the public and this week, amongst other events, the University of Aberdeen is bringing you a daily podcast, giving you the opportunity to hear from some of our local researchers about their projects in a range of different disciplines. All events being run as part of the Explorathon 2020 programme can be found on the website at www.explorathon.co.uk and the programme is being funded by the European Union's Horizon 2020 Research and Innovation Programme under the Marie Skłodowska-Curie Actions Grants Agreement 955376. After listening to today's podcast, please let us know any comments or feedback by contacting us on Twitter or Facebook @ernscot or use the hashtag #explorathon20. You can also put any questions or comments to us by email, by contacting the university's Public Engagement with Research Unit at peru, and that's spelt P-E-R-U, @abdn.ac.uk.

[00:01:41] Now, I'm joined today by Dr. Kim Walker from the University of Aberdeen's Centre for Health Care Education Research and Innovation. She's going to be talking today about qualitative research and its role as a research methodology. She'll also be talking about her latest project, which is seeking to come up with interventions which will improve the well-being and resilience of doctors during the COVID-19 pandemic. This work is funded by the Scottish government's chief scientist office. Dr Kim Walker, thank you for joining me.

[00:02:16] Hi. Good to be here, great to have this opportunity to chat with you.

[00:02:20] Thanks very much. So when conducting research that are two main forms, quantitative research and qualitative research. What's the difference between those two methods of research?

[00:02:40] Quantitative research is basically, probably the research that everybody thinks and knows about, is where basically you're looking at numbers. So quantity, and that's how you get quantitative. So it's the quantity. So this would be classically if you were doing things like studies and you ask people to tick a box. Did you like this? Yes or no. On a scale of one to five say how much you appreciated that. And so at the end of the day what you do is get a series of numbers and what you can do then is use those numbers to say very simply, it could be 20% like this, or overall most people either really enjoyed or very much enjoyed this because what you're doing is you're taking the numbers, you're crunching them together and allowing you to come up with some figures and people like figures and it's easy to say 20% or 80%. What it also allows you to do is when you get into more sophisticated quantitative research, you're doing the analysis, it allows you the opportunity to do statistics, what they call statistics on it. So there are various sophisticated statistical tests that you can do to show whether something that if you got a result of 20.5 compared to 13.5, whether that is statistically significant or whether in fact it's just the variation. So quantitative research is all about numbers and you can look at it from that point of view. Or else you can do terms of quantitative research you could have a look at a big data, so if you were looking at something like a medical school and all the entrance and how they did in their exams you would look at all the numbers and you could work

things out and say, well actually this demographic did this or whatever. And when you report, you report all about numbers. Qualitative research on the other hand is very much about speaking to people. So I suppose the shorthand for this is quality, so it's quality over quantity. So in qualitative research, which many people don't really understand, is when you have a conversation and you meet with people and you discuss with them. So really what you're recording is text and words. So, for example, an interview like we're having today, you could look at a series of those and then if everybody's asking the same question, you can try and work out themes and work out what people are saying. The big difference about qualitative research is that you tend to have much smaller numbers and that's what everybody finds quite difficult, because in quantitative research you tend to have large numbers and you can do the calculation to see whether you've got enough numbers to show a difference. Whereas in qualitative research you might even have numbers as small as 10, which is very difficult for people to understand but if you've only interviewed 10, how can you draw any conclusions? But because you're looking very closely at the text and you're doing an enquiry into what people said and looking at themes and following that, it is possible to get an idea about what's happening and to be able to feedback and inform. So qualitative research tends to be much more is very much more descriptive, you don't have the large, on the whole you tend not to have the large numbers. But it does allow you, the big advantage of a qualitative research, is that it does allow you to go into much more depth and you get absolutely what people feel and say, where's quantitative you're only hearing numbers because they've just ticked a box. Does that explain it to some extent?

[00:06:22] Yeah. So you've mentioned interviews and text be counted as qualitative research, is there any other methods that are qualitative?

[00:06:35] So qualitative is, one of the beauties of qualitative research is that there's many different kinds. So you might have an interview with somebody, it might be completely unstructured, so you just have a chat with them. More commonly, you tend to use things what are called semi structured interviews so you know what your overall research questions are, so you might have three or four, so what do you think about this or how would you like to improve this in the future? Or what particular thing would you suggest to anybody going underneath this? So you're asking the same questions, but obviously the responses will be very different and will be, and can be sometimes quite long. So that's what they call semi structured. Qualitative research can also be in terms of people who have like focus groups. So if you wanted to get a whole group of people together and find out their views say about a particular course, so you could have different focus groups with them and then what you do again is you would tape the focus group, get it transcribed, and then again you look through about what people have said and look for themes. So 1-2-1 interviews, a semi structured type interviews or focus groups are usually the main ways in which people do qualitative research.

[00:07:58] And how common is qualitative research within the area of medical research?

[00:08:02] Qualitative research is actually probably more important in medical education research because I think everybody thinks about medical research as being something different. But in medical education where you're looking at education, you're looking at training, there is quite a lot of theory behind what we might want to do and where we might want to go. And actually, if you use qualitative research in that, because it is much more detailed and you can get much more from it, that medical education is probably one of the lead exponents around qualitative research.

[00:08:44] And what are the benefits and challenges associated with undertaking a qualitative approach to the research?

[00:08:52] The benefits are you get some really, really rich data, some really rich information, because the other thing as well is that you can maybe ask a question and then they say something and you can carry on probing and asking further questions. So you kind of, if you're thinking about something specific, so if I think about something like, why did you not go, why did you not carry on training? For example. Why did you not carry on training? And somebody might respond because I didn't feel like I wanted to. You can then ask another question. So what was it that made you didn't want to? What were the positives? What were the negatives? And then when they answer that you can ask them another question and another question so you can get some really in-depth views and comments from the people and get some really rich data and so that's one of the benefits. The drawbacks, perhaps, is that you don't have so many, you tend not to use so many people and some people find that quite difficult to say, well, how can you draw a conclusion? But if you really looked at it and enquired in the analysis then, and the other thing you can do is when you report on qualitative research if you say, for example, I use the example of training, you can actually put people's quotes in when you're reporting the results. So they could put the reason was I decided to follow, like, you know, have a career break or I wanted to get off the treadmill. So very short quotes can then be put into your results or your report and it makes it feel much more real because that's what people have actually told you.

[00:10:30] Great, thank you. So in your area of health care education research, what projects have you been involved in the past that have taken a qualitative approach to gathering information?

[00:10:41] I've been involved in quite a few so just thinking about some of these, so just thinking the one about training. So for example, it become apparent that people when they had finished what is called their foundation programme, they then go into what's called specialty training and normally you just move from one to the other. But as time has progressed, less and less people are going directly into specialty training and to taking a year out so this was an area where the quantitative research had told us that less than 50% of people were going straight into taking a year out. Quantitative research told us where they were going or what they were doing, so they were having a career break, they were going abroad, they were doing another degree. So we knew all of that. But what we didn't know is why and what actually had helped them make that decision. So therefore, we used qualitative research by contacting people, some who had applied to go into specialty training, but equally, some that had not and then ask them why did you decide to go into training or why did you not decide to go into training? What were your key influences around that decision? And then that way we will be able to find out what actually was influencing their decision. So if we wanted to change it to get more people to go in to training, we would know exactly what areas we had to target. So if, for example, everybody says, I just need, I just wanted to have a career break or I wanted to be able to do something else no matter what you do and change in the system if that's their reason for doing something, then it's not going to change. So that's an example where qualitative research is actually enhanced and answer some questions from the quantitative research. Other projects perhaps which I would say more likely to be qualitative. So, for example, if you are changing a curriculum or if you have brought things into change. So one of the areas we're looking at in our department is widening access to medicine in terms of people who've done a course before they study medicine. So we've been holding focus groups with them so they feel more comfortable in a group and telling us what it was like and what

was good and what was bad, what was supportive and what wasn't. And again, we then have the very rich data to be able to change things. This is a very small group so actually quantitative methods probably wouldn't have worked in that case, so qualitative can give us some feedback. Other things I like when there's particular changes to specialty so broad based training is another example where we're using focus groups to find out what people feel about the course so because again, if you did the quantitative research with me, how do you find the course? It can be good or bad or a scale of one to five, lots of people would pick three. Whereas if you're doing a qualitative stuff, you actually get to the key factors about why it was good or why it was bad or why it was overall. And probably the most interesting once I did recently was when I was, people usually representatives of an organisation. So when I was working for NHS Education for Scotland, we interviewed all the people that had been on the, lay people who had served on the committees and helped in the quality assurance and said, what did it feel like being a lay person? What helped you? What was difficult? How did you feel about moving around? And then as a result of that by getting to find out what people were actually saying rather than just evaluating once they'd left, we were then able to change the induction and the support we provided to the new lay reps because the old ones have told us what was happening. So, again, that was 1-2-1's looking at. So I hope that gives a bit of breath about some of the areas you can look at and why you might use them. So the important thing to think about is that sometimes it's on, its own standalone research, but sometimes it's answering a question that can't be answered from quantitative research.

[00:14:51] And you touched on the work that you've done in widening access into medicine. I would imagine that's been groups of young people, perhaps teenagers that you've interviewed because they are the ones that are making the decision to go and study medicine. Is there a difference in how you work with children and young people when conducting qualitative research as how you work with adults?

[00:15:18] Yeah, and I don't think it's just an age thing. I think it's, you know, who is your audience? Because quite often it's a qualitative researcher you may not have, although you'll be aware of the subject that you're researching, you're not intimately involved if you know what I mean. And so, for example, it's important to understand that it's not just the age but maybe the language that you use. So, for example, if you're speaking to people don't necessarily always use acronyms or medical terms or whatever. And so it is important to make sure that they feel comfortable when they're speaking to you as well. So sometimes you might do a little icebreaker at the beginning just to sort of introduce yourself and talk about it so that people don't feel self-conscious. So you not only have to think about age, but who you're speaking to, the language, whether they used to speaking to somebody. So all those things. So actually being a qualitative researcher is quite a skill. And now with the way we're doing qualitative research, it's mostly either through videos or on the phone. So you can't even meet them, you're not meeting them face to face, probably with somebody you've never met before. And if somebody isn't perhaps saying that much, you have to try and make them feel a bit more comfortable and probe and get more out to them. So actually it's a skill in itself being a qualitative researcher.

[00:16:42] Definitely. Now moving on to some of your other research projects, earlier this year you were successful in securing a grant to research an important issue linked to the COVID-19 outbreak which is the resilience and mental wellbeing of doctors themselves. Can you tell us more about this work?

[00:17:00] Yeah, this was a very important piece of work because we felt it was important to hear what the doctors said. So this is a qualitative study and this is quite an interesting

one because this is using, also using what I would call an extension of qualitative research which is also becoming much more common in medical education now. So we have recruited doctors at all levels, from those who have just come out of medical school to those who actually had retired and come back to work. So we've recruited them for an initial interview which was talking about, and we were actually particularly keen on looking at four domains: physical, i.e. physical safety; organisational, how they felt working within that organisation; psychological in terms of their mental health and wellbeing, and also social because how you act or behave at work is obviously, is sometimes, is often impacted by your personal life. But when you have that interview with somebody, that's just a snapshot at what is it like at that period of time. So what we've actually asked these individuals to do, and over 80% of the people who we have interviewed have done what's called audio diaries. And this is an extension of some of the qualitative data, qualitative methods that I mentioned before, because the ones I mentioned before were very much one offs like a focus group or, you know, a 1-2-1 interview or a group of people. Whereas now a lot of people are doing things called these audio diaries or longitudinal studies. So basically what happens is, so in our study what we did was we asked people on a regular basis we would hope to get weekly, some of them weren't weekly, some of them were a bit less often than that. But on a weekly basis, just tell us their thoughts, how things were going, if something major had happened at work that had impacted on them or what was working well or what was not working so well. So that every week, or every couple of weeks, they would send in this audio diary to us. Sometimes they would just literally, two or three minutes, nothing very much. They can just record them on the phone and send them to us as an audio file, we would then get it transcribed and what that allowed us to do was follow from their initial interview, was follow how things were changing. So because we were doing it during COVID and beyond, although I don't there's a beyond at the moment, we were getting the views of these individuals about how perhaps things have changed. So, for example, just at the beginning of COVID a lot of elective work had stopped but now elective work and other clinics and everything are now coming back into being and how that's affected them. So what that does is give you a long-term view about what's happening and then actually we've just completed what we call second interviews where we're re-interviewing them again and it's interesting noting the sort of, the changes and talking about how things have done. So for these individuals, we've got a huge amount of data from when we first interview them, during the time and now. So that gives you a whole different level of complexity, you could look at it from different angles. And also what you get is a sort of story or journey that they've been through. So it's a different way of looking at qualitative data. So you do still do the analysis, you still do coding and analysis. But what is interesting here is that rather than just saying at this time it was like this, what we're actually doing is be able to tell a story and say at the beginning most people felt like this, these were the key themes. And then as time progresses, these were the key themes or these were the important external influences and now we can say this. So we've used this in this particular study, but audio diaries or what they call longitudinal diaries and studies are becoming more and more common. So just thinking about the widening access, we could, for example, follow people from when they get into medical school all the way through and once or twice a year, say, just give us our views. So it is an area that is sort of the latest development, if you like, in qualitative research.

[00:21:25] And how did the doctors that were taking part in this work respond to that approach?

[00:21:29] It was interesting because some people were very up for it, certainly some of the trainees who are used to using their phones felt it was no problem at all and would easily do it. Some people needed a bit of instruction on how do I possibly record onto my

phone and send it to you? So that was purely a bit of a practical thing. I think one of the hardest things for people who are taking part in that sort of study is constantly providing the information. And although they were all very willing to do it and some of them, you know, were very focused about doing it, for quite a few people, you know, we used to send them reminders. And it was actually finding the time to do it even though it may only have been four minutes or five minutes, it is actually that physical action of getting it out, getting your phone out and recording it. And do you do it after a day? And sometimes when I sent reminders they would then just do it there then because I've sent them a reminder, other people were much more organised and they would give me every single day and then send it to me every week so I almost had a day by day account. And the other thing you have to remember is that some of them would maybe send us one or two diaries, some of them sent us 10 or 12 diaries over that period of time. But it doesn't really matter how often and how much they send us. And they also were in length for about a minute or a minute and a half to one that was about an hour long where obviously they wanted to tell us quite a lot. So it's very variable, but it's very interesting and you get a lot from it.

[00:23:01] And when those doctors were doing their interviews, were they focusing on the practical things that were going on within their hospitals or were they also talking about the emotional impact of what was going on on them personally?

[00:23:24] We looked at all aspects, so we looked about how they were, how they were doing in terms of working in the hospital or in general practice how they were working. But we also talked about their personal health and wellbeing, how they were coping in terms of their private life so, for example, some of them might have friends who were shielding, some might have partners who perhaps were perhaps BAME who were more likely to, you know, to get COVID. So we covered the whole range of things and obviously, you know, it was up to them what they told us. We would ask the questions, nobody … that's the other beauty about qualitative research you can ask the questions but if people don't want to answer it, they just say oh, I don't want to answer that, or I'd rather not talk about that. But all I would say is that usually you find that when people are having a conversation with somebody, especially if it's a 1-2-1 conversation, then it tends to flow and all the doctors were extremely, extremely open with us. And the other thing you find is that because you only, in terms of the audio diaries what we were doing with this particular project was when they sent in the audio diary, we were listening to it and then we fed back our views and thoughts about the key messages that they were sending us. So they actually got some feedback on what they were saying and quite a few of them said that they found that quite helpful, it was allowing them to reflect. They would just say something and we go, well, what about this? So have you thought about this? Not pointing them in any direction or telling them what they could do, but just reflecting back some of their thoughts. And obviously over a period of three, four months, you begin to build up a relationship with that individual because you're constantly emailing and so on and so forth. So when, by the time it came to the second interview, for some of them we'd been corresponding, you know, quite a lot over the last few months and so that relationship between the interviewee and the interviewer is particularly important. And I suppose goes back to what I was saying at the beginning about how the skills of the researcher are really, really important. Understanding the, you know, having some empathy, understanding where they're coming from, being supportive, and sometimes they can be very emotional and, you know, keeping them going through all of that. So it is, it is, it is very … you have to work very hard at it and it can be at times quite draining, but also it can be very fulfilling because of the richness of the data that you get from it.

[00:25:56] And how many doctors were taking part in those interviews?

[00:26:00] Well in this particular study, I would say that this is probably one of the biggest qualitative studies there has ever been in that we actually had a hundred doctors who participated. Now if you remember at the beginning I said that most people talk about 10 or 11 or 12 for their results, we've got a hundred doctors who have participated which is a massive data set, will take us quite a long time to do it. We had a team of five interviewers so it was obviously shared out between all of them because you wouldn't have been able, one person wouldn't have been able to do all of those. So we had a large number. What was being really good is we've got the whole range from medical students who finished their medical degree, you know, graduated early and became what called interim FiY's they were called, you know, who went in early right the way through the foundation, doctors, junior senior trainees, consultants, staff grades and doctors who had retired and come back to work. They were all very, very open, they were all very much wanting to speak to us. And the other very pleasing factor was that in terms of general practitioners, over a quarter of our sample were general practitioners, and they're the ones who tend not to be involved so much in this type of research and yet we had a very high number of people who volunteered to do that, which was excellent. And the other great thing was we actually got somebody from every single health board in Scotland. So we've got the whole range from city to, you know, to the islands. So it's a very, very wide spread in terms of geography, in terms of age, in terms of where they are on the career continuum and so it's given us a huge amount of information. And of those a hundred, about 80 have provided us with audio diaries so that's another huge amount of work that we've got to work through. So in terms of a qualitative study, this is huge.

[00:28:04] It sounds it. So you've said that, you know, this work is still live, you've just conducted second interviews with the participants. What's the emerging findings? What key themes are coming out of this work?

[00:28:19] I think the key themes seem to be is that certainly at the beginning when we first interview which is when, you know, we were getting geared up for COVID and everything was, you know, everybody was in lockdown and all elective work had been cancelled and clinics have been cancelled. And there was this huge lot of people were redeployed. And everybody was geared up for this pandemic and, I won't say the adrenaline was there but, you know, everybody was, you know, we must do our job, we must, you know, deal with this. And everybody was geared up and ready for this. And then of course, luckily or fortunately, it wasn't as, you know, as large and as big up here in Scotland as it, you know, was elsewhere. So we didn't have, you know, quite the same number of cases or the same number of issues. I mean, there were some positives from this so people rethought about how they would work and so on and so forth. Then as time went on and we realised that we were coming out of this and maybe we weren't going to have so many then, and we started to, they started talking, you know, organisations were getting back to, you know, having, you know, getting people into hospital, being able to be referred then. So I won't say it's the new norm, but everybody's having to work in a different way. So although we're getting back to doing what you might call, I won't say routine work, but the sort of, the ordinary work is that but it's just not the same. So we haven't returned to normal and we don't think, the message is they don't think they are ever going to return to normal. So everybody's having to rethink about how they work, how they manage their lists. Even if you're operating, you can only operate on far less people because you have to allow time for between the operations, for cleaning. Everybody's in PPE, which means things take a lot longer. So that was quite stressful in terms of trying to think about how they would work in a new way with all these other restrictions. And now, of course, that the number of COVID cases are beginning to rise again and lots of people are now having to be treated

for that and yet we're still, we haven't stopped, the NHS hasn't stopped it's carried on, you know, quite rightly some people say. But then you've got intense pressure because you've got to carry on doing this but dealing with extra people who've gone to COVID. And one of the issues of being, of course, is that a lot of people didn't contact their GP or didn't contact, didn't get referred during that time and although there was lots of, you know, clapping for the NHS and the rainbows, now people are saying well, you know, I need to, they're going back to their GP but maybe with symptoms that they hadn't reported before even though GP surgeries are always open. People are now waiting to be referred but because there are so many people there is a bit of a backlog, you know, waiting lists are longer. So I think there's a bit of frustration from everybody about how we're going to manage patient expectations, how we're going to work in the future given that we've got all of the constraints and, you know, people are now having to self-isolate before they can come in, they still can't bring that many people. So the NHS is working but in a very different way. And that's not what a lot of people have trained to work in one way and suddenly they're having to work in another way and how they're dealing with that and uncertainty brings stress, that's the biggest stressor on life is uncertainty. And so while we've still got uncertainty that is quite stressful for everybody, not only in terms of how they work, but dealing with patient's perceptions and actually how they can go forward.

[00:31:59] And what has been the feedback from the NHS health boards on your work? Have they had sight of your emerging themes and trends?

[00:32:10] At the moment we're just in the process of finalising it so we have come up with some ideas of interventions about what might help people. So, and we're piloting some of those. So some of those are things like making sure that staff have these R&R spaces where they can just go and have, you know, get away from the patients and staff and maybe just take 10 minutes to just, you know, regroup before they go back especially when things have been difficult about accessing informal psychological support, which was available a lot during COVID but perhaps isn't as freely available now because the people who were delivering it have gone back to their other jobs. About making the staff feel valued and that their voice counts and making sure that they know where the resources are. So we're just in the process of writing all that up and working all that out and so our results will be coming out very shortly. We have been very fortunate in that the chief scientist office has funded all of this research and obviously a report is going back to them in the first instance. But we will be going back to the boards in the next month or so with what people have told us, what our key messages are and hopefully they'll be able to take that on board and think about how they might be able to support their staff going forward.

[00:33:31] So you've touched on sharing your work for this stage of the work. Is there going to be any future stages of research linked to this project? Are you going to be doing further interviews or qualitative research?

[00:33:46] Well, the good news story is that we've managed to get some more money from through the Scottish Medical Education Research Consortium SMERC based at NES. So we've been given funding to support this research till the end of March. So what that means is that it'll give us a bit more time to analyse all the data that we have, because as you can understand, we've got so much data at the moment it's going to take us quite a while to get through all of that. And what we hope to do is to reinterview our participants in the spring of 2021 because then that will be a year since we first, COVID first started in the lockdown. And so what that will do is give us a massive database so we'll have the first interviews, we'll have the audio diaries, we'll have the second interview, and then we will have a third interview in the spring one year on saying, so what's the story now? Are things

the same? Are things different? Have you changed what you're doing? Has your work-life balance changed? How is your mental health? How is the work of things different? Have things changed? And that will give us a very good idea about what's happened because interestingly enough, when we looked at the literature to see what interventions have been used in the past in pandemics, the evidence base, in the literature, there was very little. There's some prospective studies but very little about how to, what to do, what interventions to do in a pandemic. So that's probably the most important thing from this, is that we have an evidence base saying this is what people have told us, this is what they've learnt, we've put in some interventions and this is what has helped. And therefore we have got an evidence base so if there's another pandemic or this one continues for a long period of time, that actually the interventions and what needs to help people is based on evidence rather than just people deciding for themselves what they think best.

[00:35:48] And what you hope the wider impact of this research will be?

[00:36:52] The wider impact we very much hope is that the staff, although we've done the the project on doctors because we had to contain it to some extent and as it is we've got a big data set, but a lot of the messages are true for all NHS staff and perhaps social care as well. And so we hope the messages are by showing what our findings are, the same that if you're going to have a happy and a workforce that feel valued, these are the things that need to be put in place to make sure that happens. And if you have a workforce that feel valued and feel that they've got a voice in that organisation and that people are listening, then those organisations will thrive. And that will ultimately lead to much better patient care.

[00:36:37] Exactly at the end of the day it always has to be about patient care.

[00:36:40] Correct. Ultimately that's what it's all about, is, you know, you have a good, happy workforce then obviously that leads to better patient care.

[00:36:48] Well thank you very much for this really interesting interview. Thank you very much for joining me Dr. Kim Walker and I wish you the best of luck for your research moving forward.

[00:36:58] Thank you very much it's been a pleasure.

[00:37:05] We hope you enjoyed today's podcast, but for now, thanks for joining us and keep an eye out for our other Explorathon Lunch Bytes podcasts. As I said at the beginning, we love to get your comments and feedback, so please use the hashtag #explorathon20 or tag us on Twitter or Facebook @ernscot. You can also email the university's Public Engagement with Research Unit by emailing peru@abdn.ac.uk. If you're interested in finding out about the other events taking place as part of Explorathon 2020, you can visit the website at www.explorathon.co.uk. Bye for now.