Using messy map interviews to describe and analyze elements pertinent to interviewees

Abstract

In this article, I introduce and evaluate the use of messy map interviews (MMI). Based on messy situational maps, MMI is an interview tool I have developed to facilitate understanding of elements pertinent to interviewees. I present and evaluate how the tool contributes to interview studies that aim to describe and analyze elements pertinent to interviewees. This is done by use of an exemplar of working with MMI, exploring parental decision-making about HPV vaccination. Based on the results, the study shows that MMI can help keep qualitative research loyal to what interviewees ascribe relevance to. Furthermore, the tool can potentially help nuance the analysis of how elements are understood by interviewees. The article concludes that MMI can be a useful mapping tool that keeps interviewees’ perspectives in focus in interview studies.

Introduction: Mapping in qualitative research

In this article, I explore how mapping can contribute to interview studies that prioritize interviewees’ perspectives on a situation. I do this by introducing messy map interviews (MMI) as an interview technique that can be added to the toolbox of research methods that use mapping. MMI is an interview tool in which the interviewee is asked to map relevant elements in a situation. ‘Elements’ is understood here as everything that constitutes, matters, or makes a difference in a situation (Clarke et al., 2018). MMI mapping is done to give the interviewer a notion of what is salient to the interviewees. In this article, I thus ask the following research question: How does MMI contribute to interview studies prioritizing the interviewees’ perspectives on a situation?

I explore this question by use of an exemplar. The exemplar in question is the situation of the human papillomavirus (HPV) vaccination in Denmark. The HPV vaccine has been the subject of media coverage correlating with low vaccination uptake in Denmark (Suppli et al., 2018). Parents have met with conflicting advice regarding whether or not to vaccinate their children, leaving them in a complex situation. This situation is thus interesting to explore from the parents’ perspective.

Before introducing MMI, I will provide an overview of how mapping has previously enhanced the generation of qualitative interview data. To explore this, I conducted a literature search in the database Scopus for: map* AND interview AND (“research method*” OR “research tool*” OR “interview tool*”) AND
(“qualitative research” OR “qualitative method*”). Of the 102 results the search yielded on 23 April 2020, I identified twelve kinds of interviewee-created mapping tools that have been applied in qualitative interviews. The different kinds of maps include occupational mapping (Huot and Laliberte Rudman, 2015), body mapping (Hartman et al., 2011; Lys et al., 2018), concept mapping (Forbes, 1999; Péladeau et al., 2017), community mapping (Deng et al., 2007; Olumide and Ojengbede, 2016; Yu et al., 2019), transportation disadvantage maps (Shay et al., 2016), cognitive maps (Scherp, 2013; Sharman, 2017), egocentric sociograms (Dobbie et al., 2017), minimal maps of personal social networks (Carlos et al., 2019), emotional map of the home interview method (Sallay et al., 2019), life grid (Wilson et al., 2007), mind mapping (Sümen and Çalisici, 2016; Webber, 2015; Webber, 2017), and shared situational mapping (Mills et al., 2008). The different mapping tools enhance the generation of data in different ways that I will briefly present below.

First, maps can help enhance interviews in terms of communicative advantages. Interviewee-created maps can enhance the generation of data as they often let interviewees ‘show and tell’ differently than through qualitative interviews alone. For instance, interviewees can be asked to create maps of their bodies (Hartman et al., 2011; Lys et al., 2018), their communities (Deng et al., 2007; Olumide and Ojengbede, 2016; Yu et al., 2019), or the people in their lives (Sallay et al., 2019). Depending on the mapping approach, interviewees can be asked about what they map or have mapped either during or after the mapping process. Furthermore, using mapping as a starting point in interviews can help explore topics or emotions that are difficult to communicate verbally (Hartman et al., 2011; Lys et al., 2018), and it may help break the ice during interviews or help address sensitive issues in a non-confrontational way (Wilson et al., 2007). Moreover, mapping can help elicit discussions, reflections, and narratives (Dobbie et al., 2017; Wilson et al., 2007).

Second, collecting data through maps can help nuance understandings of the topic in question. This is because maps can provide insights and graphical representations that interviews alone cannot provide and may help with visualization of complex information (e.g. Carlos et al., 2019; Dobbie et al., 2017; Huot and Laliberte Rudman, 2015; Sallay et al., 2019; Scherp, 2013; Sümen and Çalisici, 2016; Webber, 2015). Consequently, maps can enrich the quality of the collected data. Furthermore, creating maps can result in interviewees explicating aspects of the topic in question that they may have found too mundane to mention in an interview (Huot and Laliberte Rudman, 2015). However, though maps can be understood as visual data in their own right (Dobbie et al., 2017), they are not necessarily a replacement for interview data but often rather supplement it (e.g. Carlos et al., 2019; Dobbie et al., 2017; Hartman et al., 2011; Lys et al., 2018; Sallay et al., 2019; Sharman, 2017; Wilson et al., 2007).
Lastly, the use of maps in qualitative data collection can help shift power dynamics between the interviewer and the interviewee. For instance, mapping can be used to help interviewees point to concerns or viewpoints that are salient to them (Lys et al., 2018), and researchers can use mapping to help keep their analyses participant-focused (Forbes, 1999).

In conclusion, mapping can enhance qualitative research, and adding to the methodological toolbox of mapping tools can help advance qualitative research. In the following section, I will introduce MMI as such a mapping tool, present how it adds value to qualitative data gathering, and describe its roots in situational analysis.

Messy map interviews (MMI)

I had the idea of MMI after using (messy) situational maps as presented in the qualitative situational analysis approach developed by Adele Clarke and colleagues (Clarke et al., 2018). In situational analysis, different kinds of maps are used to analyze complex situations (Fosket, 2015), and situational maps are the first of three kinds of maps that together comprise the situation (Clarke et al., 2018). The other two kinds of maps are social worlds/arenas maps, and positional maps (Clarke et al., 2018). Clarke and colleagues describe the core goal of the situational map as “to descriptively lay out all the human and nonhuman elements in the situation of inquiry” (Clarke et al., 2018: 127). As such, when creating situational maps, all elements in the situation should be mapped. Situational maps are initially messy, and as such the researcher will typically start making messy versions of the maps, followed by ordered versions of them in which the elements are categorized (Clarke et al., 2018). Clarke and colleagues occasionally refer to the messy versions of situational maps as ‘messy maps’ (Clarke et al., 2018), which is the basis for my naming of MMI.

However, Clarke’s situational maps differ from MMI. In MMI, it is the interviewees who create the messy maps, and it is not the goal of the research process to include all potential elements on the map. Thereby, the output of the MMI tool differs from Clarke’s situational maps. First, through there are at least one instance of interviewees being included in the researcher’s creation of maps through shared situational mapping (Mills et al., 2008), Clarke’s situational maps are typically created by the researcher, based on interviews (e.g. Aldrich and Rudman, 2016; Clarke et al., 2018). In MMI, on the other hand, interviewees are asked to map relevant elements in a given situation and it is the interviewees alone who map. MMI mapping is conducted by giving the interviewees a piece of paper and a pen and asking them to write down elements relevant to the situation in question. As the word ‘element’ is not necessarily self-evident, questions can be asked in terms such as:

- Could you please write down what you consider relevant for [the situation in question]?
• Could you please write what you find of importance when...?
• Which opportunities do you have in terms of...?

The interviewees should be told that they do not have to arrange the elements in any particular order. The maps may thus be considered ‘messy’, which led me to call it messy map interviews. After the interviewees have mapped the elements, the interviewer can ask the interviewees to explain each element and why it is relevant for the situation in question. The interview should be based at least partially on this map, and the interviewer will therefore not know in advance which elements will (or will not) be discussed. MMI thus asks open-ended questions that will elicit a situation from the interviewee’s perspective. The open-ended questions can help interviewers attempt to avoid “preconceived notions about what is happening in the field” (Charmaz, 2006: 29). Thereby, interviewers are able to learn from interviewees. The MMI questions may suffice for the whole interview. However, it may be favorable to supplement the part of the interview relating to the maps with other questions, for instance, from a semi-structured interview guide, in order to conduct a rich interview. Moreover, the conversation that may emerge from MMI can depend on the interviewee (and interviewer) in question.

A second way MMI differs from Clarke’s situational maps is that when conducting MMI, the situation will be analyzed with a focus on the interviewees’ perspectives. Consequently, the maps resulting from MMI will likely not contain everything that might matter in the situation. This raises the point that some elements may appear as ‘missing’ as they do not appear on any maps. This could be an analytical point in its own right. The non-presence of some elements on some or all maps in a study may cause difficulty for the researcher to prompt interviewees’ positions and considerations relating to these elements. However, the point of MMI is not to obtain a thorough explanation of all elements by all interviewees. Rather, the goal is to understand which elements are present and pertinent to the interviewees. MMI thus differs from Clarke’s situational maps in that situational maps ideally contain everything in a situation and not ‘just’ that which is pertinent to the interviewees. According to Clarke, creating a separate map focusing on a distinctive set of actors can work in a situational analysis study, but only as long as a main situational map is also created (Clarke et al., 2018). But why can it then be an advantage to create MMI rather than or to supplement traditional situational maps?

The answer is that conducting MMI can help researchers look beyond what they see as significant in a situation and focus instead on what is pertinent to the interviewees. This can be an advantage when analyzing, for instance, by coding, as researchers risk imputing their own “motives, fears, or unresolved personal issues” (Charmaz, 2006: 54) to the data if coding is not done carefully. Although coding is not a prerequisite for doing situation analysis but merely an option (Clarke et al., 2018), the benefits of doing careful coding are compatible with conducting MMI. While in coding we as researchers
construct our codes, the elements put down on the maps conducted during MMI are put down in black and white by the interviewees. As such, the visual representation forces researchers to stay loyal to what interviewees have ascribed relevance to, thereby empowering the interviewees’ perspectives. In this way, MMI favors a bottom-up approach to research that places interviewees and their concerns, statements or positions at the center of the research.

In the following section, I will present an example of how to use MMI as part of qualitative data gathering by presenting an exemplar of conducting MMI. Based on this exemplar, I present how MMI contributes to interview studies that prioritize interviewees’ perspectives on a situation. Before presenting the exemplar, I offer an overview of the project of which the exemplar is a part.

Project overview

The aim of the study that the exemplar is based on is to understand parental decision-making on the topic of HPV vaccination. The study focuses on parents living in Denmark, where HPV vaccination has been a set part of the child vaccination program since 2009 (Skorstengaard, 2017). During the first ten years when the vaccination was available, it was primarily offered free of charge to girls from the age of twelve. In September 2019, the vaccine was also made free of charge for boys turning twelve years old (SSI.dk, 2019). The vaccine has been the subject of controversy, and media coverage about the vaccine has coincided with a decline in vaccination uptake (Suppli et al., 2018). Parents making a decision about HPV vaccination in Denmark are thus left in a complex situation.

Interviewees

The parents (n=13) included in this study were interviewed from September 2018 to June 2019. As such, all interviews were conducted while HPV vaccination was primarily offered free of charge to Danish girls only. For this reason, the parents interviewed were all parents of girls aged ten to thirteen years old. Parents were made aware of the study through information sheets on schools’ intranets and through snowball-sampling (Halkier, 2008). Since the study focuses on decision-making, I specifically searched for parents who were in the process of deciding or had recently decided on HPV vaccination. Four of the parents I interviewed turned out not to have decided on the vaccine recently but several years ago. Their maps and statements have nevertheless been included in the study to provide further nuance.

The interviews

The interviewees decided when and where I would interview them. I briefly presented myself and the project and asked the interviewees to introduce themselves. Following the interviewees’ introductions, I asked them to produce a map by saying a variation of the following:
Messy map question 1: I would like to understand the situation you are in in order to make this decision, so I am going to ask you some general questions and some more specific questions. To begin with: If I say HPV vaccination, could you write down everything that somehow matters in relation to that?

The interviewees were then handed a piece of paper and a pen. When the interviewees were done writing, they were asked to talk about the different elements they had written down. In one of the interviews, this part of the interview went as follows:

[Messy map question 1]
Interviewee: Sure. ((Writes on paper)). More?
Interviewer: That’s completely up to you.
Interviewee: Is that fine? Yeah, I think so.
Interviewer: Could you tell me about those items?

The interviewee then started talking about the different elements. What we discussed was thus led by the informants’ maps, and as an interviewer I did not decide what I thought might matter during this part of the interview. During some interviews, a few of the parents mapped new elements as they were talking. These elements were then included in the interview. This task might have sufficed for the entire interview. However, I had a semi-structured interview guide ready to supplement the mapping part of the interview.

The semi-structured interview questions were developed a priori, which is why my researcher assumptions may have appeared in these questions. The use of MMI can thereby be made to fit the study in question, and it is thus a flexible tool.

After having talked to the interviewee for a while, I asked another messy map question:

Messy map question 2: Which opportunities do you have to get information about HPV vaccination?

The interviewees were handed a new piece of paper and created a map based on this new question. As with the previous messy map, the interviewees were asked to elaborate on the elements they had written when they were done writing. The interviewees were not prompted to include any specific elements on their maps. Rather, the interviewees themselves interpreted what elements could be categorized as something that might “matter” or something that could be considered an “opportunity”. Consequently, the interviewees included a range of different elements such as political elements, nonhuman elements, collective human elements, related discourses, and other kinds of elements (Clarke et al., 2018).
Analyses
Following the interviews, I transcribed all interviews. After that, I merged the different elements from the two mapping exercises done with the 13 interviewees to create one map I would then use for analysis. The one map is shown in Figure 1:

[Insert Figure 1 here]

During the analysis, some elements were merged to create one element if they were analytically comparable. For instance, ‘general practitioner’ and ‘doctor’ were merged into ‘health professional’. In another example, several elements were merged into one: ‘family’, ‘friends’, ‘acquaintances’, ‘colleagues’, and ‘social circle’ merged into the element ‘the parents’ social circle (families, friends, colleagues, and acquaintances’).

Based on the map shown in Figure 1, I was able to analyze the relations between the elements by doing relational maps. When doing relational maps in situational analysis, researchers specify the relationship between one element and another (Clarke et al., 2018). To analyze these relations systematically, I used the computer assisted qualitative data analysis software NVivo. I imported the transcribed interviews to NVivo. In NVivo, I then created nodes (codes) equivalent to the elements from Figure 1, and I coded the transcribed interviews according to these codes. The information prompted by the semi-structured interview questions was also coded. These questions naturally triggered information that exceeded the information prompted by the interviewee-driven maps. To keep the analysis loyal to what the interviewees ascribe relevance to, however, the information was coded according to the codes equivalent to the elements from Figure 1. Having coded all the interviews, I could then run queries in NVivo to show when different elements were coded in the same entities in the interviews. This could then give me an overview of possible relations. Subsequently, I could determine actual relations. In Figure 2, an example can be seen of how a relational map has been conducted based on the element ‘health professionals’. I ran queries in NVivo between the element ‘health professionals’ and all the other elements to find relationships between them. A line in Figure 2 indicates that there is a relationship between the elements on either side of the line.

[Insert Figure 2 here]

Figure 2 shows the different relations between the element ‘health professionals’ and other elements. Based on the entities from the interviews relating to health professionals and other elements, I was then
able to analyze the different relationships. The analysis of each relationship is beyond the scope of this article. However, to provide an example I will present a short summary of the relationship between the element ‘health professionals’ and the element ‘Being a responsible parent’:

The parents express different approaches as to how one might be a responsible parent in relation to health professionals and HPV vaccination. Three overall distinctions appear from the maps. In the first approach, parents perceive themselves to be acting responsibly if they ask health professionals for advice on the vaccine. In the second approach, the responsible parent – and not health professionals – is in charge of finding out what is best. In the third approach, parents perceive that the responsible thing to do is to talk to your general practitioner alongside getting information from other information sources.

Doing relational maps can thus help understand the relationships between the elements the interviewees mapped. Consequently, based on the relations between the elements mapped by the interviewees, I was able to decide which relations and stories to pursue in the further analysis (Clarke et al., 2018).

This section has presented how to go about doing MMI and how to potentially analyze data created when using this approach. In the next section I will present my reflections of using MMI in my study as well as some of the advantages and disadvantages of the approach when gathering data for qualitative studies.

Reflections, advantages and challenges of using MMI

The interview situation

In the situation of interviewing the respondents, I experienced three overall advantages of MMI. First, when they are introduced in the interview, messy map questions get the conversation going. As shown in the introduction of this article, using maps has previously been found to stimulate conversations (e.g. Dobbie et al., 2017; Wilson et al., 2007). Furthermore, the task of creating a map gives interviewees time to consider which elements they find important as they are given time to write them down. Some interviewees in my study were quiet for several minutes while completing the task of writing down the elements. MMI can thereby be a less confrontational way of asking a question, as interviewees are not ‘put on the spot’ by having to answer the question straight away.

Second, since I am studying something with which I am largely unfamiliar (I do not have daughters to vaccinate), as a researcher I am ‘ignorant’, whereas the interviewee is in an expert position (Berger, 2013). Being ‘ignorant’, it can be challenging to develop good questions (Berger, 2013). However,
the open nature of MMI lets the interviewees – as experts – help point to what should be discussed. This can then elicit possibly unexpected stories. This is also consistent with other types of mapping such as body mapping (Lys et al., 2018) and occupational mapping (Huot and Laliberte Rudman, 2015). As an interviewer, however, the open nature demands a keen focus on what the interviewee is saying to be able to ask questions about the elements put down by the interviewees.

The third advantage I experienced using MMI was having the interviewees write down elements on a piece of paper. Quite simply, the fact that these were written down helped me go back to interesting points during the interviews. I could make certain that I did not forget to have the interviewees discuss all the elements they had deemed relevant, since I could see them in writing.

However, MMI offers some challenges as well. First of all, the researcher risks having to decipher tricky handwriting. However, if the interview is recorded, the tape can most likely help decode the writing as the discussion will be based upon what is written.

Second, decoding can be difficult if the interviewees tap the paper instead of articulating what they mean. This may be a problem when transcribing the interview, as the tap alone does not reveal what the interviewee is referring to. I experienced this in four of the thirteen interviews using the MMI tool. I solved this problem differently, depending on the situation in question. The easiest way to solve the problem of interviewees tapping the paper was if they did so at the end of a sentence. That could be solved like this:

Interviewee: [...] I think, well, but where would you be able to find serious information? Why, you should be able to find that there ((tapped the paper)), I think so.

Interviewer: The Danish Health Authority.

As an interviewer, I realized this tapping could be problematic for me when transcribing, so I confirmed what the interviewee tapped. It was more difficult if a paper was tapped as a part of a lengthy sentence, as I was not interested in interrupting the interviewees to confirm what they were pointing to. For instance, in one situation I attempted to solve the problem as follows:

Interviewee: Well, so, maybe, actually, I might start there ((laughs and taps paper. While the interviewee taps the paper, I quietly say ‘start with the social circle’)), and then, yes, but as a starting point, it is, it is there, surely. [...]

Using a low voice to inform my future transcribing self of what the interviewee pointed at helped me in my transcribing work and did not significantly interrupt the interviewee. However, the interviewee did say ‘yes’ as if to confirm what I was saying.
A third challenge of MMI that could potentially occur, although it did not in my study, is interviewees being uncomfortable with writing, which has also been the case with other kinds of maps (e.g. Wilson et al., 2007). Being uncomfortable with writing may also occur with MMI. An advantage of MMI, however, is that the maps need only consist of single words and not full sentences. Thus, should interviewees be uncomfortable with or unable to write down these words, the researcher would be able to do so without using his or her own sentence constructions.

Doing the analysis

Doing MMI nuances the analysis in two overall ways. First, the maps can be used to supplement the interview data. The maps make clear what the interviewees found relevant to map as opposed to what they may have mentioned or discussed but not mapped. The interviewees thus ascribe relevance to the elements they choose to map. It can be important to keep these mapped elements in the center of the analysis in order to avoid exaggerating or excluding specific content (Berger, 2013). For instance, being a media scholar myself, I tend to heavily emphasize media’s importance in a situation. However, by using MMI, I am forced to give media only the importance attributed to it by those I interview in the situation. Thereby, this approach ensures that I remain loyal to what the interviewees have mapped. Even if information prompted by further semi-structured interview questions may exceed and give relevance to topics aside from those to which the interviewees ascribe relevance when mapping, by using MMI, researchers are able to ensure that the elements the interviewees ascribe relevance to are kept at the center of the analysis. This was also the case with my research project on HPV vaccination. This points to the most salient advantage of MMI in terms of foregrounding interviewees’ perspectives: Though other kinds of researcher-driven maps can also focus on interviewees’ perspectives, analytically focusing only on elements mapped by interviewees, MMI is sure to keep the analysis loyal to the elements interviewees ascribe relevance to. However, though researchers should ideally approach the interview situation with an open mind, the researcher and the study of which the interview is a part may have an influence on what the interviewee maps. The mere fact that I introduce myself as a media scholar may, for instance, influence what is mapped. Nevertheless, limiting the initial amount of information about the study or the researcher may help reduce the influence these have on the mapping.

Second, the maps may produce nuances about certain elements that may be unclear to the researcher, or elements that the researcher understands emically but which need to be understood based on interviewees’ statements. MMI can thus help point to how different elements are understood. In my study, the understanding of ‘the internet’, for instance, is nuanced by the maps. The interviewees put down a wide range of internet-based elements including some which are neither purely internet-based nor non-internet-based: The Danish Health Authority is an institution with a physical address, but it also has a
website and a Twitter account; health professionals can be consulted physically and digitally (Hansen et al., 2014). From the analysis of the maps, it becomes clear that in relation to HPV vaccination, the internet is not just one thing. It is Facebook, it is the Danish Cancer Society’s website, it is Google and much more. It is complex and nuanced, and parents approach the internet and its sources differently. By allowing the interviewees to put down the elements on the map, the complexity of the elements in the situation are made visible and are therefore not based on my own presumptions about them.

It is possible to argue that a challenge of MMI is that neither the interviewees nor I as an interviewer consider the entire situation. Just as “not everything that can be photographed is photographed” (Smith et al., 2012: 377) in photo-elicited interviews, not everything that can be written is written. There is also a risk that the interviewees omit mapping elements that might appear as self-evident (Huot and Laliberte Rudman, 2015). However, using MMI the attempt is not to reach an understanding of everything in a situation, and this is where MMI differs from Clarke’s situational maps. MMI focuses on the interviewees’ perspectives and prioritizes the elements they put at the center of attention and keeps these elements salient in the analysis.

Conclusions

This study has introduced MMI as a qualitative interview tool to describe and analyze elements pertinent to the interviewees in an interview study. MMI can widen the research toolbox for qualitative researchers prioritizing interviewees’ perspectives on a situation.

The exemplar from the decision-making study showed different benefits and challenges of MMI. As regards to the interview situation, the study found three overall advantages, including: getting the conversation going; having interviewees help point to what should be discussed; and making it easier to maintain an overview of the situation when information provided by interviewees is put in writing. Three challenges that arose in the interview situation were: the potential difficulties in reading tricky handwriting; having difficulties transcribing when interviewees tap the maps; and interviewees being uncomfortable writing. As regards doing the analysis, the exemplar showed that MMI can nuance the analysis in two overall ways. First, MMI maps supplement interview data, as they show which elements interviewees ascribe relevance to. Thereby, the interviewees’ perspectives are empowered. Second, MMI may help nuance elements that are previously unknown or unclear to the researcher. The approach includes a heightened focus on which elements matter to the interviewees as opposed to determining as many elements relevant to the situation as possible. As such, the goal is not to explore the situation in its entirety, as is the case with Clarke’s situational maps, but rather to explore what matters to the
interviewees. Furthermore, the MMI tool can help researchers identify and understand the complexity of the situation in question, thus advancing and nuancing the analysis of situations.

The list of advantages and challenges of MMI may not be complete, and future research may valuably describe these further and extend the understanding of the approach.

Figures
Figure 1 (page 7): Messy situational map based on both messy map interview questions.
Figure 2 (page 7): Relational map based on the element ‘health professionals’.

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