The ecomap: a tool for extending understanding in hermeneutic phenomenological research

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ABSTRACT

Background

Ecomaps are tools used in nursing practice to assess families' social support systems. Whilst ecomaps have previously been used effectively within qualitative research, little attention has been given to them as a tool within the methodological approach of hermeneutic phenomenology.

Aim

To demonstrate that the use of ecomaps is congruent with the Heideggerian philosophical foundations associated with hermeneutic phenomenology. This paper demonstrates how ecomaps can illuminate nurses' understanding about the experiences of patients and families by reflecting on a study where ecomaps were used to explore how parents of children with cancer are supported with decision-making about their child's care.

Discussion

Exploration of the Heideggerian concepts of 'being-in-the-world', 'being-with', and 'temporality' prompted reflections about how constructing ecomaps furthers understanding about participants' unique contexts. Using an ecomap within an in-depth interview enabled participants to return to their experiences of being supported with decision-making, and further developed the researcher's understanding about how each participant's experience was situated within their evolving relationships with others.

Conclusion

Constructing ecomaps within hermeneutic phenomenology is in tune with Heideggerian philosophical concepts. Ecomaps can open a door to participants' experiences and, combined with understanding of philosophical concepts, deepen the researcher's understanding and find further meaning in participants' experiences.

Implications for practice

Ecomaps are a useful tool in shining a light on the lifeworld of research participants in hermeneutic phenomenological research. Practical tips are provided to optimise their use in future research.

INTRODUCTION

An ecomap is a valuable tool that is used in children's nursing practice to assess and understand a family's social support system (Hemphill and Dearmun 2010). It creates a visual representation of how the family interacts with its self-identified community and can help health and social care professionals to identify sources of support and stressful relationships that may impact the family (McCormick et al 2008).

In more recent years, the ecomap has also been used as a research tool (Early et al 2000, Ray and Street 2005, Baumgartner et al 2012). Although not commonly used, in qualitative research an ecomap can enhance understanding of families' experiences of social support (Rempel et al 2007). Manja et al (2021) present a useful overview of how ecomaps have been used in qualitative health research. Their integrative review identified that, in line with Rempel et al's (2007) position, the ecomap can shed light on social interactions and relationships which can act as a catalyst for further lines of enquiry. The review also identified other benefits such as enhancing rapport with research participants. Although Moules et al (2015) proposed that ecomaps may be a useful aid within a hermeneutic interview, little attention has previously been given to how the ecomap may be congruent with the philosophical foundations of hermeneutic phenomenology.

In this article, we will reflect on the first author's experiences of using an ecomap within hermeneutic phenomenological interviews and will discuss how the ecomap is consistent with this approach. Key underpinning philosophical perspectives within Heideggerian hermeneutic phenomenology that we draw on to facilitate this reflection are 'being-in-the-world', 'being-with', and 'temporality'. Through exploring these reflections within the context of Heideggerian concepts, we will demonstrate that using ecomaps within hermeneutic phenomenology can shed light on the experiences of patients and families.

HERMENEUTIC PHENOMENOLOGY

The aim of hermeneutic phenomenology is to illuminate a phenomenon and develop understanding of the way that we experience and exist in the world (Van Manen 2016). Heidegger is credited as being one of the most important philosophers of the twentieth century who significantly influenced the philosophical movement of hermeneutic phenomenology (Van Manen 2016). He was fundamentally concerned with ontology: 'what does it mean to Be?' considering it inadequate to view 'being' as a self-sufficient entity with describable properties (Heidegger 1962). Using the hammer as an example, Heidegger (1962) explained that the hammer exists and can be described in terms of its attributes such as its weight, dimensions, and colour. Heidegger proposed that the hammer does not exist in isolation: it exists because it has a use, and a meaning. The hammer is not a hammer until it interacts with other beings (such as nails, wood, and the carpenter). These interactions define its purpose, and this meaning is integral to the hammer's existence. Meaning and existence are inseparable: we attach meaning to everything we experience, and this is how we come to understand the world (Heidegger 1962). Our experiences are situated in a particular time and experienced within our relationships with others (Smythe et al 2008).

From Heidegger's philosophy, hermeneutic phenomenology as a research approach has been developed as a way of seeing the world through interpreting and searching for meaning (hermeneutics) in our everyday experiences (phenomenology) (Crowther and Thomson 2020). The application of Heideggerian philosophy within hermeneutic phenomenological research has provided valuable insights into nursing practice (Wilson 2014, Chesterton and Jack 2021). A defining feature of hermeneutic phenomenology is that there is no prescribed method for approaching a

research project (Smythe et al 2008). As every participant's story and experience is unique, so too is the way that we come to understand their stories; this permits novel methodological approaches.

BACKGROUND TO THE STUDY

The first author (EJ) is a PhD student undertaking a hermeneutic phenomenological study exploring experiences of support by parents of children with cancer from their network of 'significant others' when faced with making decisions about their child. The study design has been influenced by the philosophy of Heidegger. Ethics approval was granted [NHS REC 21/LO/0121] and pseudonyms created.

Influenced by the literature review (Jestico et al 2022), it was important to allow participants to self-define their 'significant others' rather than make assumptions about these roles on the basis of pre-defined groups. Drawing a distinction between groups of 'significant others' and 'similar others' (Gage 2013), the group of 'significant others' in this study could have been assumed by extended family and friends, and the group of 'similar others' assumed by other parents of children with cancer whom the participants had developed relationships with since their child's cancer diagnosis. However, to impose a pre-determined framework like this would conflict with the ethos of hermeneutic phenomenology, where participants are encouraged to talk freely about the experiences that are important to them, rather than the researcher directing or guiding them to talk about particular topics or relationships. It was felt that spending time within the research interview to co-create an ecomap would support a person-centred research approach, a position that Chesterton and Jack (2021) argue is important in nursing research and can be achieved through Heideggerian hermeneutic phenomenology. It was hoped that this process would enable the researcher to visualise each participant's support network and help to direct questions in seeking to understand the evolving relationships as parents talked about their experiences.

A fundamental aspect of hermeneutic phenomenology is acknowledging the researcher's pre-understandings about a topic (Smythe 2011). Often the researcher will participate in a pre-understandings interview to help uncover their thoughts and feelings about the research topic. In line with this reflexive approach, EJ created her own ecomap at the start of the study to help understand her own social support system. Two years later, this process was repeated, creating a new ecomap, which helped to really understand how fluid and temporal social support networks can be.

EJ also undertook four pilot interviews with fellow PhD students with the intention of refining her eco-mapping skills. From conversations following these pilot interviews, valuable insight into participants' experiences of constructing an ecomap was gained. This article includes reflections on constructing ecomaps in the pilot and formal study interviews within the context of Heideggerian philosophy and discusses how ecomaps are not only a helpful tool in furthering understanding of participants' experiences, but are also in tune with the methodology of hermeneutic phenomenology.

USING ECOMAPS WITHIN THE RESEARCH INTERVIEWS

Following the pilot interviews, six parents of children with cancer took part in a one-to-one, in-depth interview conducted using an online video platform. The interviews started with an open-ended question, giving participants the opportunity to tell the story of their child's cancer diagnosis and care. Time was spent listing decisions they had faced (these included treatment decisions, supportive care decisions, and social decisions). Each participant was then shown an example of an ecomap and the various symbols were explained. With EJ using the whiteboard function of the

online video platform, each participant created their own ecomap (an example is shown in Figure 1). Once the first draft was finished, the ecomap was left on the screen and questions were asked along the lines of "Can you tell me a little more about one of the decisions that you mentioned?" "What was that experience like?" "What role, if any, did the people on the ecomap play in your decision-making process?" The interviews adopted an iterative process: as the decisions were talked about in greater depth, participants modified their ecomap, and also added to the list of decisions they felt they had made.

Figure 1

REFLECTIONS INFORMED BY KEY HEIDEGGERIAN CONCEPTS

Consistent with the need for congruence between the methodology and the method, there is an interplay between Heidegger's philosophy and our interpretations of the participants' experiences. We have therefore interwoven key Heideggerian concepts with extracts from the pilot interviews and research interviews throughout this discussion to more clearly illustrate our reflections.

Gaining understanding within the context of our experiences: 'Being-in-the-world'

At the foundation of Heidegger's (1962) philosophy is the question 'What is it to 'be' in the world'? Heidegger used the word 'Dasein' to express this concept, which translated from German means 'being there' and is referred to as 'being-in-the-world' *[in-der-Welt-sein]* (Heidegger 1962). Heidegger argued that we exist as part of a world where we attach meaning, thoughts, and interpretation to all of our experiences. It is through these interpretations that we come to understand the world as we experience it. The use of the term 'Dasein' gave Heidegger the opportunity to emphasise our unique context as we live through our experiences, rather than simply observing and describing the world that had previously been conceptualised as separate to us (Smythe 2011).

In order to understand our experiences of 'being-in-the-world' we need to first reflect back to those experiences and, as Heidegger emphasised, return and stay close to the experience itself (Smythe 2011). Research participants may not be attuned to reflection, so it should not be assumed that the process of returning to the experience will come easily to them. Several conversations during the pilot interviews demonstrated that the construction of the ecomap helped people reflect on a particular decision and enabled them to talk in more depth about that experience. For example, one person said:

> I didn't think I would have anything to say about this – but once I saw my ecomap, I realised that there was more to making the decision than I had thought. I'd forgotten about the people who I'd talked to about this.

During the research interview with one mother (Kerry), it was evident that she initially felt alone in making all of the decisions about her son's care. However, as the conversation focused more on specific decisions, EJ used the ecomap to ask probing questions about others in her world. For example, "Was anybody on the ecomap with you when you made this decision?" "Did you talk to anybody on your ecomap about this decision?"

This prompted Kerry to reflect that, when faced with making a decision about whether her son should have a nasogastric tube inserted or not, her mother was with her at that time and was supportive of Kerry's decision. On another occasion, when deciding whether to remove her son from nursery, it was her sister who helped to facilitate her decision-making.

The ecomap proved a valuable tool in providing access to participants' unique experiences, enabling them to reflect, and at the same time allowing the researcher to gain insights into their worlds.

Gaining understanding within the context of our relationships: 'Being-with'

Heidegger (1962, 156-7) explains that whilst as Dasein, each of us experiences our world in a unique way, we also inhabit and share our world with others:

> *Being-with is an existential characteristic of Dasein even when factually no Other is present-at-hand or perceived. Even Dasein's Being-alone is Being-with in the world.*

The world of Dasein is therefore inevitably a social world (Mulhall 2005). This does not necessarily mean that we are in the physical presence of others, but that the existence of other people in the world, other Daseins, affects our own experiences of our world (Blattner 2006) and the interpretations we make. Heidegger (1962) uses the expression 'Being-with' *[Mitsein]* to emphasise the fundamental influence that other people have on our own existence.

Heidegger proposed that our relationships with others (past and present) fundamentally influences who we are. The ecomap provided an illustration of these relationships. As well as identifying who these relationships are with, the use of arrows and symbols on the ecomap to demonstrate direction and strength of support also helped to understand how each relationship functions (Figure 1). Providing this detail led participants to reflect on what those relationships felt like and how they impacted decision-making.

As well as illustrating unique social support networks, the method of creating an ecomap is individual. When EJ explained to one mother that people usually put their household into the central circle (in her case, this would be herself, her husband, Tony, her oldest son, Rory, and her younger son, Harry, who has cancer), Kerry explained that the symbols presented did not accurately represent her relationships:

> *Does it have to be like that? Because, based on what you just said, I would put me and Harry in the middle. Rory and Tony are like people who are coming out of our circle. Like, I don't know if this sounds harsh, but it has been me and Harry who have been through the journey.*

Describing the relationship with her husband's parents, Kerry said:

> *It's a two way. But it's almost like on one we put like a dotted line, it's not so strong.*

Unsure how to represent this dotted line using the on-line package, EJ proposed using a wavy line, Kerry responded:

> *Yeah. I wouldn't really say it's changed that much since cancer, like they've always been supportive and I've always been, but like sort of at a distance, like physically and emotionally.*

Suspecting that the wavy line did not fully represent Kerry's description of her experience, EJ suggested:

> *How about if I indicate something like that (inserting lines across the wavy line) to say it's kind of there but it's not, it's not a kind of close relationship?*

Kerry confirmed that this accurately represented her experience of that relationship.

The co-creation of this new symbol is consistent with Heidegger's view that Dasein does not exist in isolation, and our everyday way of being-in-the-world is one of engagement and we are always in relation with other Daseins as well as other entities. However, when Dasein is absorbed in its

concern towards others, it becomes subsumed by *das Man* ('the they') and is no longer authentically itself. Heidegger (1962) called this 'inauthenticity' *[uneigentlichkeit]*. In this mode, Dasein is preoccupied with how it compares with other Daseins. The pull of 'the they' compels us to laugh because 'they' laugh and to clap because 'they' clap.

Moment by moment, we are inauthentic, with the ever-present potential for authenticity (Taylor and de Vocht 2011). As Scott (2010, 59) explained:

> *If I relate to myself as one is expected to do, if I see myself the way others see me, if I go along to get along, I make choices as though I were not my own life. I intend what they intend for me. We talk as one does.*

In inauthentic mode, Dasein might bathe their child before bed because that is what 'they' (other parents) do. Similarly, when asked 'how are you?' we might respond 'fine, thank you', even when we are not, because this cultural norm is what 'they' do. The everyday self of Dasein is subsumed into *das Man* (Heidegger 1962) and loses its authentic potential of choosing to choose. This was exemplified by Tom: as he constructed his ecomap, he talked emphatically about the supportive role that the church communities played in his life. As he talked about decision-making in more depth, he said:

> *All our lives we have been in the church, because we were born into the church. So, we know how our leaders would always say follow the best medical advice. They wouldn't ever encourage you to sort of paddle your own canoe and try something, unless it got really desperate.*

To make the transition to 'authenticity' *[Eigentlichkeit]*, a moment of disruption *[Angst]* is required to release Dasein from its fixed habits (Heidegger 1962). Fearful of the nurses' decision to allocate her son a bed in a communal bay rather than a side-room, and exemplifying that the family members who featured on her ecomap did not always play a supportive role, Kerry explained:

> *I would always speak up for Harry and I will always say "I don't care what you think of me, I'm not here to make friends, I am not putting Harry in the bay." And I know they [family] don't agree with me, they wouldn't have backed me up, which is kind of all the more reason why I will speak up in the moment because I know if I went home and said "oh, you never guess what happened at the hospital today" that people would fly off and say "oh well you should be grateful for the NHS" and "maybe it was just busy", and people would sort of try and talk me out of speaking up… I think I'm more inclined now to say it in the moment, because I know that then it's real and I haven't had anyone try and make me feel guilty about speaking up.*

Tom and Kerry demonstrated that our relationships may pull us away or push us towards a position of authenticity. Our actions and decisions as Dasein are situated within the context of our complex relationships with others and the ecomap can represent and facilitate rich conversation about the role these relationships play.

Gaining understanding within the context of time: 'Temporality'

Heidegger (1962) explains that it is Dasein's openness to time that enables its potential authenticity to be realised. The constraints and possibilities pre-determined by Dasein's cultural-historical past are seized by Dasein in the present, allowing it to project itself into the future in a completely authentic manner:

The future is not later than having been, and having been is not earlier than the Present.
Temporality temporalizes itself as a future which makes present in a process of having been.

(Heidegger 1962, 401)

In other words, whilst physically we exist in the present moment, Dasein has a unique ability to consider the past and the future as well as the present. We are able to reflect back on past experiences (both our own experiences and those that preceded our existence), and we are able to look to the future and consider the consequences of our present moment. Saira described the changing levels of support in the 'Cancer Mum' WhatsApp group she belonged to:

> *I think just time has changed, just you know, a couple of the kids have finished their treatment, a couple of us are still on it… you realise as well that everyone's got their own journey and that you have got an understanding that other people [outside the group] don't have, and so it's a place really, just, it is sometimes active it's sometimes not.*

Looking to the future, and considering how new relationships would become significant in the context of making the next treatment decision, Saira added:

> *I think this is probably the point at which we need to access some other kind of resources, I guess. And you know, maybe sort of spread the net a bit wider to help us.*

It is important to stress that the ecomap cannot definitively represent each participant's network. Heidegger (1962) makes it clear that, with every revealing, there is also concealing. As we make sense of people's experiences, we need to understand that people go through a constant process of revealing and concealing when they tell their stories (Davis 2010). This is not necessarily a conscious decision, as experiences that are omitted may feel less important to the person telling their story. People whom parents revealed as significant at the time of the interview were influenced by several factors, such as the context and topic of what was being discussed. Parents described people who played a role in their life during the process of their child receiving cancer treatment. Other people, who may have had significance at other times of life, or in other circumstances, did not appear on the ecomap, as exemplified by Kerry:

> *I have felt over the years that a lot of people haven't even acknowledged Harry has been through what he's been through. Like people who I would have thought would have cared more, haven't. And then people you think would never care, have. Like there's a friend that I was friends with about 10 years ago, I've like reconnected with because of Harry. He's reached out and said like you know "can't believe what you're going through" and then other people who I worked with for like, seven years, have never said a single word.*

Understanding the concept of temporality highlighted the importance of using the ecomap to reflect the evolving nature of relationships. The ecomap was therefore adapted to represent this in different colours, using red text to represent a new relationship that had emerged since the cancer diagnosis. As each interview progressed, it became apparent that participants' relationships were ever-changing, and whilst the different colours on the ecomap could represent a degree of evolution, they did not fully portray the dynamic and contextual nature of relationships:

> *It's funny because I think if you would have done this [drawn the ecomap] when we were having the bone marrow transplant, it probably would have been much more one way from them giving me support. But I feel like now we've kind of like balanced out again.*

Maggie

Combining the construction of the ecomap with an in-depth conversation around this therefore allowed a deeper appreciation of the subtle changes in relationships that were occurring over time.

DISCUSSION AND IMPLICATIONS FOR PRACTICE

Understanding our relationships with others (being-with) and how these evolve and are situated in time (temporality) can fundamentally enhance our understanding of individuals' unique existence in the world (being-in-the-world). Within this study, ecomaps provided a valuable opportunity to shed light on research participants' unique contexts.

The ecomaps that were completed within the study interviews varied significantly and demonstrated each participant's unique social network of support and tension. The purpose of the ecomaps was not to draw comparisons between participants or derive generalisations because this is not the purpose within a hermeneutic phenomenological study.

As we exist in time, and are defined by time, our relationships are also situated in time. Every relationship is shaped by past relationships, and we look to the future as we make decisions about how our relationships function. Whilst it is not always easy to visually represent the fluidity of relationships in time, the process of constructing each ecomap furthered conversation in all the interviews and contributed to a deeper understanding of the complexity of decision-making these parents experienced.

When using ecomaps in hermeneutic research, important considerations include:

- The value of undertaking a pre-understandings interview, whereby the researcher creates their own ecomap to understand the context in which they may come to interpret their participants' social support systems

- Whilst it can be helpful to show participants an example of an ecomap, it is important to stress the option of flexibility about the use of symbols and content when creating their own ecomap

- The process of creating an ecomap should be an iterative one. It is important to remain open to adding and removing people and changing symbols as the interview progresses

- As relationships are dynamic, each ecomap that is created will not be a definitive representation and is not generalisable.

Using ecomaps within hermeneutic phenomenological research can help illuminate people's experiences and the nature of their relationships. By enhancing this understanding, health care professionals can consider patient and family support needs and ensure that processes are in place to empower patients and provide patient and family centred care.

CONCLUSION

Ecomaps are a useful research tool to elicit the complexity of social relationships and provide participants with the opportunity to create a visual representation of their perceived stressors and support networks. As a standalone illustration, the ecomap does little to further understanding, but used as a tool within the context of an in-depth interview, an iterative dialogue can develop whereby participants provide deeper clarity about the ecomap's presentation. This process facilitates richer description of their experiences and their social network.

Ecomaps can help participants reflect and talk in depth about their lifeworld by opening a door to their experiences. Combined with an understanding of Heideggerian philosophical concepts, the

ecomap can help deepen the researcher's understanding in their search for meaning in the experiences of others. In the context of this study, the ecomap facilitated understanding of the temporal nature of relationships and how this informs participants' experiences of decision-making.

Exploring the use of ecomaps within a hermeneutic phenomenological study has demonstrated that using this approach is attuned with Heideggerian philosophical understandings. The ecomap can shine a light on our experiences by illustrating our unique context, situated through our relationships with others in a particular time, thus furthering our understanding and insight into phenomena.

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Figure 1: An example of an ecomap developed for the purpose of the online interviews.