

Consideration of methodological issues when using photo-elicitation in qualitative research

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Abstract

Background The use of photo-elicitation interviews (PEI) have increased in popularity across a range of disciplines including healthcare. Whilst qualitative researchers have embraced the use of photographs as a creative means to explore people's experiences of their lives and environments, the methodological and practical aspects of using photographs have received little attention in the literature.

Aim

This paper is intended to discuss the use of photo-elicitation interview techniques, including some of the methodological issues relating to sourcing and using photographs.

Discussion

The paper discusses definitions of photo-elicitation as well as exploring the value and difference between the use of researcher versus participant generated photographs. Methodological issues associated with the use of photographs in research are considered in the context of a small scale focus group study using a photo-elicitation technique to explore young women's conceptualisations of teenage and older motherhood.

Conclusion

The use of photographs in research is far more complex than providing participants with cameras or presenting them with a series of photographs. Reflecting on the experience of using photo-elicitation techniques within qualitative research, this paper emphasises the need for researchers to be aware of the potential bias in the choice, selection and sequencing of photographs and the methodological considerations associated with this approach.

Implications for practice

This paper highlights the value of using photographs in qualitative research and presents some of the methodological issues which need to be considered by researchers across nursing and healthcare in the design and conduct of research using photographs.

Key words: 6 key words

Photographs, photo-elicitation, older mothers, selection and sourcing, bias

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Introduction

During recent decades, researchers have enriched qualitative research by embracing developments using digital technology and social media, adapting and integrating different methods to address numerous and varied research questions. Whilst research has traditionally adopted a 'textcentric research approach' (Balomenou and Garrod, 2019:201) preferring the use of words rather than visual methods, the use of photographs has increased in popularity across a range of disciplines.

The use of a photograph within an individual or group interview, not only acts as a stimulus or a tool to elicit information; it is also considered to add another dimension to a qualitative interview. Photographs, according to Norman (1991), are both iconic and symbolic; Oware (2007) considered photographs as symbols, the meaning of which people must explain to others. Carlsson (1999) considered the use of photographs to help our understanding of people's experiences for five benefits. Firstly, photos enable people to express experiences that words alone might miss. Secondly, photos serve to keep conversations on something concrete and visible. Thirdly, they help stimulate conversations about context since a photo is about a place in time and space. Fourth, the photo represents something of the photographer's values since decisions and judgements have to be made about what photo is taken, when and where. Finally she argued that photos enhance the possibility of an expression of feelings about place. Photographs serve as the means to encourage and express reflections, assist in keeping a conversation going, and represent the photographers' values, decisions, and judgments (Alerby & Hornqvist 2005).

Whilst we do not intend to present a lengthy analysis of photo-elicitation in this paper, our aim is to draw on our experience of planning and conducting a small scale study of students' perceptions of teenage and older motherhood, to consider some of the issues related to the use of photo-elicitation. We begin by considering definitions; offer reflections on methodological and practical considerations of using photo-elicitation within research and end with a conclusion.

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Definition of photo-elicitation techniques

The use of photography originally discussed by Collier (1957) as photo interviewing was later described as photo-elicitation (Harper 1986, 2002). Photo-elicitation has emerged as a popular term to describe an approach in which photographs, film or visual images; are used to evoke comments, memory and discussion within a semi-structured interview (Banks 2001; Harper 2002). Visual methods has a long history in sociology and anthropology, where methods of using photographs as a market research tool have been described as a process of auto-driving (Heisley and Levy 1991), in which the interview whether individual or in a group, is driven by the use of photographs rather than the use of an interview guide. Another description is photo-novella (Wang and Burris 1994), more recently known as photo-voice (Wang 1999; Edmondson and Pini 2019) in which photographs are used to encourage the discussion of daily activities, or present a story about individuals' social circumstances. Richard and Lahman (2015) suggested that overtime researchers have come to embrace; '...photography as a way to gain emotional and cognitive information or as a way to explore the intriguing subjectivity brought forth through visual metaphors' (p 4).

The discussion thus far has illustrated that photo-elicitation techniques are variously described in the literature and that related terms are used interchangeably. Table 1 offers definitions of key terms. Due to the lack of consistency, Tishelman et al (2016) call for more clarity in the description of methods used in research. For this reason, in this paper, variations of photo-elicitation are discussed further in relation to researcher-generated photographs and participant-generated photographs.

Researcher-generated photographs

Traditionally, the researcher has controlled the visual media used in their studies (Padgett et al, 2013). Copeland et al (2014) in a study of midwives' interpretation of childbirth, suggested that photo-elicitation is a powerful tool, in which '...choosing a specific image...affords the researcher a certain level of control in stimulating particular responses more relevant to the aims of the study' (p127). Furthermore, Firth and Harcourt (2007) noted that photographs produced by the researcher are especially useful for theory-driven research; examples of this

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approach can be seen in Brand and McMurray (2009), who used photo-elicitation in a qualitative descriptive pilot study exploring first year nursing students' perceptions of older adults. In individual interviews, the student was shown pre-existing photographs of older adult patients receiving nursing care and asked to comment on them. Similarly, Longoria and Marini (2006) used photo-elicitation in a descriptive mixed methods study using a survey tool and open ended questions in order to explore the perceptions of children's attitudes towards peers with a severe physical disability. The children were shown photographs of children with physical disabilities and asked to comment on them. Jenkins et al (2008) caution that it is not simply about adding photos to a research interview but that it involves issues around analyzing of data, reflexivity and the collaborative interaction.

Participant-generated photographs

The process of generating photographs and being part of research can be an empowering experience for people, especially when the research is focused on marginalized groups who may not readily be involved in research (Marsh et al 2016). Glaw et al (2017) discussed auto-photography, an ethnographic approach which has emerged as a significant approach in qualitative research since its use to support the participation of marginalized groups in research, enable participants to communicate through photographs rather than words.

Sebastião et al (2016) considered photo-elicitation in the context of participatory research; when participants are active in aspects of the research rather than being the subjects of research. Described as a participatory research technique (PRTs), participants are required to produce their own photographs (O'Hara and Higgins 2019); in which cameras are given to the participants to photograph their activities from which meaning can be derived through their discussion. Similarly, Harrington and Lindy (1998) described this approach as 'reflexive photography,' whilst Miller & Happell (2006) used the term 'participant photography.' Pictures enable individuals to engage with their surroundings reflecting the socio-cultural aspect of their experiences (Giritli-Nygren and Schmauch 2012).

Photo-voice has emerged as a way in which people can identify and represent their communities by engaging in taking their own photographs. The technique has also been found useful in examining cross-cultural issues as identified by both

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Ziller (1990) and Douglas (1998), whose students reported that during subsequent interviews that using photographs enabled them to reflect at a deeper level than by interviews alone. Frith and Harcourt (2007) suggested that in using photo-elicitation to capture women's experiences of chemotherapy for breast cancer, photographs were seen as a record of their experiences and a visual reminder of significant events; for example, one participant's photo of her sofa reflected the amount of time she spent lying on it due to tiredness and exhaustion during her chemotherapy treatment.

We now continue the discussion by reflecting on our experience of planning and conducting a small scale study to explore young women's conceptualisations of teenage and older motherhood. Box 1 presents an overview of our study.

To position ourselves in relation to this discussion, having spent the majority of our careers in nursing and midwifery, we have both developed a personal and professional interest in the changing face of motherhood in contemporary society. Specifically, we are interested in how the use of assisted reproductive techniques has influenced the issue of reproductive choice and broadened the capacity for biological reproduction to beyond the menopause. One key aspect which has led to the development of this paper is how the media portray mothers and how these visual images of women can influence societal views of motherhood.

Personal reflections of the use of photo-elicitation techniques

Our small scale study used pilot focus groups utilising photo elicitation techniques (Harper 2002) namely research-generated photographs. This approach was selected in order to '...challenge participants, provide nuances, trigger memories, lead to new perspectives and explanations, and help to avoid researcher misinterpretation' (Hurworth 2003:1).

Since the discussion of motherhood is included within the midwifery curriculum, participants in this study were students from other schools across the university. As a result this was their first opportunity to discuss issues around motherhood and for this reason offered us the chance to test the use of images from the media and to explore their ideas of motherhood as young women under 25 years of age. Each participant was given a pseudonym.

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Participants acknowledged that the photographs prompted them to reflect on issues which they had not considered previously; responses included 'I didn't know that' and 'never thought of that.' For this reason the use of photo elicitation was considered to have been a more creative way of exploring issues with this group of young women than focus groups alone, where the visual stimulus was influential in generating discussion. Participants felt comfortable in asking questions which also extended their knowledge; for example they asked about the specifics of In vitro fertilisation and aspects of older motherhood. As a result participants were very enthusiastic and the flow of the discussion continued smoothly but the depth of discussion at times was limited as a result.

Images of mothers from different age groups however, promoted participants to discuss how they represented stereotypical attitudes and this was particularly relevant to teenage mothers. The inclusion of an image of a pregnant girl in school uniform prompted the participants to question the definition of the teenage mother especially in relation to age. One participant said:

'...when you hear about teen mums you think under 16...'
[Judy, Focus group 2]

Two participants disclosed that they were themselves teenage mothers but the image did not reflect their experience;

I think the first one [set of photos] looks like what people think a typical teenage pregnancy looks like, it looks very stereotypical of young teenagers... I had my baby in my late teens and I don't relate to none of these pictures, none of them display my life [Kate, Focus group 2]

Another participant disclosed that the image did not represent her situation either and she reflected on the attitudes of other mothers and how they made her feel;

I was 22 when I had my daughter and I was frowned upon...and excluded from all the mum groups in my area...I had to go further afield...they were much more welcoming...than the older mums that had excluded me and stereotyped me at 22 as a young mum [Eva, focus groups 2]

All participants felt that the photographs of teenage mothers were very emotive and reflected society's general disapproval of pregnancy and motherhood in such young women.

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I think they just provoke quite a lot of emotion; they look quite intimidated by the situation...I think they portray teenage mothers as not ready or quite immature and unable to deal with the situation

[Sue, Focus group 1]

Overall the findings of the study were similar to those previously reported (Church and Ekberg, 2013), which focused on the issues in relation to the welfare of the child and the older mother, and the use of artificial reproductive technology to support pregnancy, especially in the post-menopausal woman. The images of older mothers prompted participants to explore their motives for being mothers beyond the menopause and the ethics of older motherhood. One participant said;

There is something morally wrong and we've seen it in papers, how old is too old to be a mother and at 65 should you be having children? Your body clock says no so why should you be allowed after that to have an egg implanted, it is wrong in every sense of the word [Eva, Focus group 2]

As mothers approached retirement the discussion focused on their ability to physically care for a child.

After the menopause I don't think it should be accepted, personally...If I was that child...I'd miss out on so much ... [Judy, Focus group 2]

Photographs of women in their forties were considered acceptable as mothers appeared much younger in which they had makeup and were very fashionable. Participants emphasised how elderly women looked when the images of high profile post-menopausal women in their 60's and 70's were shown. They focused on the women's wrinkles and the fact they looked like grandmothers; participants considered their physical vulnerabilities focusing the discussion on broken hips and osteoporosis.

Throughout this research we adopted a reflexive approach in which individual thoughts and experiences encountered throughout the process were documented (Jenkins et al 2008; Phelan and Kinsella 2013). Drawing on these reflections, a number of methodological issues which related to sourcing and selection of photographs, and preparation and conduct of interviews were identified.

Methodological issues

The use of photos within interviews whether participant or researcher driven can raise concerns such as the questions posed, the photos selected and consent

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(Bates et al 2017). Whilst ethical approval was granted by the School of Health Ethics Committee, specific issues were encountered during the planning stage of this research.

Sourcing and selection of photographs

In our study, a series of images were selected from the general media. This was a lengthy process as we were aware that the choice of image may influence the responses from the participants and therefore influence the quality of the data generated. Furthermore, it was notable that the range and type of images depicting mothers were limited. Using these images was considered to be the most appropriate as these were available to the wider public therefore ensuring that we were eliciting responses to publicly available material which would reflect the representation of motherhood within contemporary society (Happer and Philo 2013).

Since the concept of the older mother is considered to be a controversial one (Walker and Thornton 2016), we were aware that images available in the media could be considered biased towards white middle-class mothers; images relating to high profile cases representing the extreme in terms of age and circumstance. For example, the images available of older mothers, in particular 'post-menopausal mothers' were constructed to reflect the age of the individual woman in which photographs were close ups focused on facial wrinkles; other images of older mothers portrayed the physical aspects of being a mother such as carrying a baby in slings and pushing buggies.

The form and content of the images were also considered in terms of the broader aims of the study. We were careful not to include images which included too many additional details such as; other people, places or activities, which could lead the participant to discuss additional issues which detracted from the focus of the study. Therefore we maintained sensitivity to the context of the image (Richard and Lahman 2015). The composition of photographs and how they related to each other was also important especially when we used more than one image at a time.

Preparation and conduct of interviews

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During the planning stage of the research, we considered a number of issues in relation to the integration of images within the focus groups interviews. The sequencing of photographs was important to enable participants to understand the broad focus of the interview and to facilitate their engagement. Whilst few researchers have discussed the sequencing of their photographs, Epstein et al (2006) proposed that using different sequences in presenting the photographs could contribute to the notion of 'breaking the frame' (Harper 2002), in which photographs are presented at different angles and perspectives, to help create a greater dialogue.

As an introduction to the focus groups, we discussed the aim of the research, clarified consent and confidentiality and explained how we would display the images to support our questions and discussion. We considered the sequencing of images in relation to motherhood and life course, choosing to focus on teenage mothers first, followed by a range of images of mothers from different age groups. We also used images of menopause and assisted reproductive technology (ART), specifically In vitro fertilisation (IVF), to explore issues around the biological nature of reproduction. A semi structured interview guide was constructed to ensure that the focus was maintained and specific questions were asked to reflect the sequence of images. For example when exploring motherhood, three different sets of photos were shown to illustrate teenage mothers, mothers 20-40 years and mothers 40 + of age and was followed by the opening question 'Which set of photographs represents the ideal age to be a mother?'

The use of single and multiple photographs was significant in terms of the focus being examined. Methods of displaying photographs either on screen via power point or hand held formats, may elicit different responses due to the ease of engagement. However, the use of multiple photographs must be considered in relation to the concept of visual overload (Hand 2017).

Collier and Collier (1986) argued that photographs can enable researchers and informants to work together to explore and understand their content. Moreover, Harper (2002) suggested that photo-elicitation may in part help to overcome challenges of in-depth interviews because it is anchored in an image that is understood, at least in part, by both parties. However, Banks (2001) argues that

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using photographs that have not been generated by either the researcher or the participant but are merely arbitrary choices taken from one context and deployed in another; do not provide the intimacy of the interview relationship and therefore should not be used. This is supported in part by Bates et al (2017) who state that whilst presenting pre-selected photographs one at a time might not be as empowering, it is still likely to generate rich and interesting data due to the power of the photo in the interview. The use of photographs spurred meaning that otherwise might have remained dormant in a face-to-face interview (Clark-Ibáñez 2004).

Adopting a reflexive approach, we were in a position to gain valuable insight into the issue of visual representation of motherhood from our experiences of sourcing and selecting images. We concluded that the images of older mothers available in the media and post-menopausal mothers in particular, were taken to make the women look repulsive. Furthermore, these photographs appeared to provide a biased view of white middle-class mothers. As Clark-Ibáñez (2004) highlighted, researchers must be cautious of the tendency to capture the visually dramatic images rather than what might be meaningful for the interview participants. Equally, Pink (2013) identified, that photo-elicitation could be a somewhat problematic term because it suggested that photographs were used to provoke a response or draw out an answer from a person and that the facts are in the picture. This was not our intention but rather to use the photos as a trigger for memories, thoughts and discussion of the topic area.

Copyright issues

Specific advice was sought during the planning of the research to ensure that the use of photographs from the media did not breach copyright law (Intellectual Property Office 2014). Limited extracts of work can be used for non-profit research and private study and any work reproduced should be supported by sufficient acknowledgment. Therefore, all photographs used were taken from media sources and fully acknowledged as such, with a corresponding reference to the source with a [http link](#) (Edmondson & Pini, 2019).

Bias

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It is acknowledged that where researchers select photographs in a research-generated approach, the photographs can direct or challenge participants in relation to the focus of the research. Jenkins et al (2008) reflecting on their research state that one of the questions commonly asked in PEI was why a particular photograph was chosen. This can apply whether the photographs have been generated by the researcher or the participant. In Jenkins et al's (2008) research they provide an example of why the participant had chosen a particular photograph; however we recognized that the same could be asked of us as the researchers. At all times during the selection of the photographs we were aware of our own potential bias in the selection and equally the impact that photographs may have on the participants. As Happer and Philo (2013) discussed, the media play a central role in communicating to the public what happens in the world and subsequently focusing public interest on particular subjects which may limit the debate. Murray and Nash (2017) stated that whilst pregnancy had been a fashionable topic in the media in recent decades, there was a gap in how pregnancy was remembered visually and the individual's actual experiences. This is particularly evident in media coverage of teenage and older motherhood and therefore the images available to select.

Epstein et al (2006) raised the importance of ensuring that the environment and mode of presentation was suitable for conducting photo-elicitation interviews. This was an issue which became evident during the initial focus group when we became aware that showing the photographs via power point had limitations when participants needed to review a previous image. In hindsight it may have been more appropriate to have had hard copies of the images that could have been accessed more readily. However, Bugos et al (2014) advised that the interview location should be conducive to projecting images, whether via a projector or handheld device. Moreover, they found that for one group of interviewers, the use of a tablet in a group interview was advantageous as participants could pass the tablet around. A further consideration is the quality of the images in that if they are being used to understand complex processes then the images should be of sufficient quality. However, as in the case of our research, the images were being used primarily to evoke narratives (Copes et al 2018) so detailed viewing was less critical.

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Implications for nursing and healthcare research

Using photo-elicitation techniques can provide researchers with a powerful tool to enhance the conduct and quality of qualitative research; however researchers should consider if and how the use of photo elicitation can offer them an opportunity to enhance the depth of data with the use of individual interviews or focus groups. The decision to use photo-elicitation either in a theory-driven or participatory context is dependent on the focus of the research, and researchers should explore the most appropriate approach based on the aim and research question, together with the characteristics of the participants. To maintain the quality of research, researchers should plan the use of photographs carefully to avoid potential bias in the selection of photographs and also in the way in which photographs are used within the interview.

Photo-elicitation as a participatory and empowering approach affords researchers opportunities to develop innovative and creative research proposals which explore culturally focused issues and the experiences of marginalized groups and communities who rarely have an opportunity to express themselves. In addition, the use of photographs can be used to explore sensitive and personally meaningful experiences which may be challenging to express in an individual interview with the use of words alone. Researchers may find the use of photographs especially significant to support research conversations where language and communication difficulties as a result of personal, socio-cultural or medical reasons exist. The contribution of participants in this way does not only offer insight but is also an opportunity to contribute to the improvement of care and services focused on the needs of those participants and the wider community.

Conclusion

In this paper we have discussed the significance of photo-elicitation within qualitative research and established that the use of photographs in research is far more complex than providing participants with cameras or presenting them with a series of photographs in a focus group. We have discussed how photo-elicitation can be used by researchers to explore attitudes in theory-driven research and how it can be used with participants in a participatory context to explore experiences in a more meaningful way. By reflecting on our own experience of using photo-

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elicitation techniques, we have highlighted some methodological issues which researchers should consider in the development of creative research proposals.

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Table1: Definitions of terms used in photo-elicitation

Photo-elicitation	An approach in which photographs or visual images are used to evoke discussion within semi-structured interviews
Photo-novella, Photo-voice	Photographs used as a means to discuss daily activities or social circumstances
Researcher-generated photographs	A theory-driven approach in which photographs are selected and produced by the researcher

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Participant-generated photographs, Reflexive photography, Participant photography	A participatory approach in which participants are encouraged to take photographs as part of the research as a means to reflect their experiences
Auto-driving	Autodriving indicates that the interview is driven by the participant rather than the researcher
Auto-photography	An ethnographic approach in which marginalised groups communicate with the use of their own photographs
Participatory research technique	Describes a range of methodological approaches in which participants are active in aspects of research rather than being the subjects of research

Box 1: Overview of study

Research Question

How do young women perceive motherhood in relation to age and biological capability?

Aim of Study

To explore young women's conceptualisations of teenage and older motherhood

Objectives of the study

To explore the meaning of motherhood within contemporary society by engaging younger women in discussions about fertility and reproduction

To examine the attitudes of younger women of older motherhood and the use of assisted reproductive methods for postmenopausal women.

Ethics

Ethical approval was granted by the School of Health Ethics Committee

Data Collection

Two pilot study groups of young women from within a higher education institution

Sample comprised of five women: three mothers and two non-mothers between the ages of 18 – 25 years.