

Title page
Submitted to Nurse Researcher

Title: Perspectives on reporting non-verbal interactions from the contemporary research focus group

Iseult M Wilson¹, Nicola Daniels², Patricia Gillen², Karen Casson²

1. School of Nursing and Midwifery, Queen's University Belfast
2. Institute of Nursing and Health Research, Ulster University

Corresponding author:

Iseult M Wilson

School of Nursing and Midwifery

Queen's University Belfast

97 Lisburn Road

Belfast

BT9 7BL

i.wilson@qub.ac.uk

+44 28 9097 2492

Abstract:

Background

The key defining attribute which delineates focus groups from other methods is that data are generated through the process of group interaction with participants communicating with each other as opposed to solely with the group moderator.

Aim

Technological advancements have prompted us to reflect on how focus groups are adopted and reported.

Discussion

We recognise that the term 'focus group' is sometimes used synonymously with 'group interview' but think now this practice must be challenged.

The way in which interactions take place across group interviews and focus groups varies. Yet all are referred to as a focus group, both virtual and in-person, resulting in a broad umbrella term for its numerous manifestations. The use of the term 'focus group' does not accurately describe these newly emerging forms and the range of options currently employed by qualitative researchers. We suggest using terms which clearly indicate the type of space and synchronicity pre-fixed with *in-person* or *conventional* to identify the traditional focus groups, and we suggest separating group interviews in the virtual space into *synchronous* and *asynchronous* interviews, based on whether the participants and researchers have the opportunity to engage with each other in real time, or not

Conclusion

There is a need for qualitative researchers to reach a consensus about the nature of focus groups and group interviews and where their differences and similarities lie.

Implications for practice

We hope to encourage health researchers to give thought to these issues when labelling, planning, analysing and reporting a focus group study.

Word count 250

Key words:

focus group, synchronous group interview, asynchronous group interview, in-person focus group

Title: Perspectives on reporting non-verbal interactions from the contemporary research focus group

Introduction

Within health research, the focus group is a popular method of qualitative data collection. Focus groups are beneficial to the researcher who wishes to explore diverse perspectives by offering participants the opportunity to share and discuss their points of view, elicit a range of opinions or illuminate consensus and division on a particular topic (Barbour 2005; Parahoo 2014; Morgan 2019). The key defining attribute which delineates the focus group from other methods is that data are generated through the process of group interaction (Morgan 2019), with participants communicating with each other as opposed to solely with the group moderator (Jung 2018). Importantly, the focus group environment allows those who take part to hear and see the contributions of others which subsequently may influence the ensuing discussion (Stewart et al 2007).

Commonly, this interaction has been enabled by bringing participants together in a shared physical space, typically the same room, to discuss a topic in real time (*synchronous*). Technological advancements, however, have removed the need for a shared physical space, offering opportunities to overcome some of the logistical and geographical barriers associated with focus group research through virtual solutions (Daniels et al 2019). The notion of a shared space has, therefore, evolved substantially as researchers now make use of the range of tools available which allow participants to come together, not only from geographically distanced spaces, but at different times. An increase in the use of these technologies to support qualitative research is now anticipated as a result of recent global events (Lobe et al 2020).

This changing landscape has prompted us as health researchers with experience of designing, conducting and teaching focus group methodology to reflect on how this method is now adopted and reported. Specifically, the concepts of space and synchronicity have caused us to question if a focus group is always what it seems. It is not our intention to address methodological considerations *per se*, but to prompt critical consideration of if and how we are ensuring authentic use of the focus group method, both in in-person and virtual environments. We hope to raise questions for wider consideration and to encourage health researchers to give thought to these issues when labelling, planning, analysing and reporting a focus group study.

Focus group interactions in a modern world

Although interaction between participants is the unique hallmark of the focus group (Belzile and Oberg 2012; Morgan 2019), data collection is centered on the topic as opposed to the process (Carey and Ashbury 2016) and so interaction is seen as a means to an end (Belzile and Öberg 2012). However, what is being said and how it is said cannot be separated (Morgan 2019). Poyatos (1983) identified that interaction is not merely the spoken word, but a complex system which includes gestures, facial expressions, postures, tone and silences and can be influenced by accompanying emotions. Systems or cues of non-verbal communication consist of paralanguage (the different modifications of vocal sound and silences); kinesic (the accompanying gestures, facial expressions and postures); pacing and length of speech and silences (chronemic); interpersonal space (proxemic) and touch (haptics).

Morgan (2010) suggests that reporting focus group findings can include not only the use of quotations from individuals, but also text to give insight into the group interactions and present sequences of interactions where they best illustrate the point. In our own focus group research, we have included detailed reporting of both verbal and non-verbal interactions (Russell et al 2018; Daniels et al 2021). Doing so provided transparency on how participants interacted and how interactions generated data. Interpreting kinesic interactions such as gestures and postures alongside verbal data, gave greater depth to the findings. In Russell et al's work (2018), the non-verbal interactions not only reinforced the verbal interactions, but also gave deeper insight into the main theme: a lack of understanding by others, of their (the participants') situation. The non-verbal interactions demonstrated that the participants saw themselves as members of a mis-understood community, whereby they understood each other, but those not in the community, did not understand their situation. Non-verbal data has also been shown to allow the true meaning of participants' statements to be understood, as demonstrated by Morrison-Beady et al, (2001), where the non-verbal cues demonstrated the strength of feeling, sarcasm, and also the shared understanding that the participants had, which was different to that of the researchers.

Liamputtong (2012, p175) emphasises the necessity for analysing non-verbal data, as these can "inform the strength of perspectives...the levels of agreement...and how the agreement or disagreement is derived". In spite of the key role that interaction plays in generating data, interaction appears to be rarely addressed in focus group reporting in this way (Belzile and Oberg 2012; Liamputtong 2012). Often, reporting of focus group methods fails to address how social interactions were analysed and any subsequent consequences of these interactions on the

data (Halkier 2010). Reasons may include challenges associated with collecting, transcribing, analysing and interpreting such interactions, coupled with the limitations placed by publications on word limits.

In addition, we believe that the wide variety of interfaces now used to host focus groups compounds further the need for interaction to be assured and the types of interactions which take place acknowledged. The combination of spaces and synchronicity available to researchers are varied; in addition to the conventional in-person scenario, verbal communication with the use of video in real time can be facilitated by audiovisual, video conferencing software. Similarly, synchronous, verbal interfaces without video can be achieved through phone conferencing or using audiovisual platforms with visual functions disabled. Discussion forums and social media platforms allow for text based only interaction, often used asynchronously, affording participants the flexibility to contribute at their convenience whilst allowing time to consider their responses (Ferrante et al 2016; Medley-Rath 2019). Combinations of these interfaces are also possible within one focus group, for example, should individual participants choose not to use their video in an audiovisual group or when software includes a function which enables text-based commentary during audio and/or visual discussions. Examples are also emerging of researchers choosing to use both virtual and in-person focus groups within one study (Woodyatt et al 2016).

All options enable the facilitator and study participants to communicate in a shared space. But does the way in which this communication takes place ensure that interactions are optimised? It is suggested that video conferencing options have the potential to mirror face to face interactions in qualitative research (Sullivan 2012; Kite and Phongsavan 2017). However, when in-person communications have been compared to virtual, audio-visual alternatives in various contexts, the use of video conferencing is thought to lead to reduced outputs due to the limits placed on interpreting non-verbal communications, a perceived negative impact on dialogue flow (Andres 2002; Taylor 2011) and barriers to building rapport (Iacono et al 2016; Weller 2017). Typically, a participant's head and shoulders can only be viewed, potentially missing non-verbal cues from the rest of the body (Iacono et al 2016; Weller 2017). But in some studies, no adverse effects on data richness using video conferencing as an alternative to in-person communication was perceived (Kite and Phongsavan 2017; Flynn et al 2018; Matthews et al 2018). Text only based options can be conducted both synchronously (Wettergren et al 2016; Woodyatt et al 2016) and asynchronously (Ferrante et al 2016; Medley-Rath 2019). Such formats rely heavily on the written word, though actions such as the use of

emojis and writing in capitals can help to convey some element of paralanguage and kinesic communication. But these text-based discussions remove the researcher's ability to observe some interaction systems and so restrict actions such as the ability to probe based on visual cues (Woodyatt et al 2016). Examples of text-based approaches have shown that participants tend to keep responses more succinct and to the point than their in-person counterparts but yet the data they generate can be comparable in terms of thematic codes (Woodyatt et al 2016). Evidence of conflicts in text-based examples suggests an increased confidence in speaking more liberally when anonymous and so potentially enriching data (Woodyatt et al 2016). But reporting of data generated in this way must instill confidence that text is not just a series of responses to the questions posed by the facilitator, but that interaction between participants to generate the data is clear.

Terminology

We recognise that the term 'focus group' is sometimes used synonymously with 'group interview' (Kook et al 2019; Morgan 2019) but think now this practice must be challenged.

The way in which interactions will take place across group interviews and focus groups vary. Yet all are referred to as a focus group, both virtual and in-person, resulting in a broad umbrella term for its numerous manifestations (Morgan 2019). Although the term 'online focus group' has now been adopted, it too is used variously to reference synchronous text-based (Wettergren et al 2016; Woodyatt 2016), asynchronous text-based (Reisner et al. 2018), use of synchronous audio-video conferencing (Daniels et al 2019) and audio based only (Strout et al 2017). Some researchers have started to distinguish the specific tools used by labelling this data collection method more specifically such as 'video enabled focus groups' (Matthew et al 2018) 'real time focus groups online' (Kite and Phongsavan 2017), 'online asynchronous discussion forum' (Ferrante et al. 2018), technology-enhanced focus groups (Strout et al 2017) and 'focus groups using audio visual technology' (Daniels et al 2019). But, this plethora of variations creates inconsistency.

The use of the term 'focus group' is, therefore, perhaps, not sufficient to accurately describe these newly emerging forms and the range of options currently employed by qualitative researchers (Strout et al 2017). Although it is considered an umbrella term, the increasing number of manifestations of a 'focus group' means it is timely to ensure these are not confused with other methods such as the group interview.

We suggest the use of terms which clearly indicate the type of space and synchronicity prefixed with *in-person* or *conventional* to identify the traditional focus groups.

We further suggest separating group interviews in the virtual space into *synchronous* and *asynchronous* interviews, based on whether the participants and researchers have the opportunity to engage with each other in real time, or not.

[Table 1 here]

Conclusion

This paper presents two topics for discussion: the importance of recognizing and reporting non-verbal interactions in focus groups, and the need to consider the current environments (physical and virtual) in which interviews take place, with special emphasis on interviews of three or more people. Non-verbal interactions can add considerable depth to our understanding of qualitative data. It is vital therefore that the complex human interactions that are the essence of focus groups discussions (both synchronous and non-synchronous; online and in-person) are reported more completely through the inclusion of verbal and non-verbal cues. When planning focus groups or group interviews, researchers should plan for which non-verbal data they will gather, and the analysis of these data.

We argue that the term ‘focus group’ is not generic, and does not apply to all interviews of three or more people, so there is a need to reach a consensus about the nature of focus groups and group interviews and where their differences and similarities lie. Researchers naturally continue to innovate in order to answer their increasingly novel research questions and reach their required population. The nature of interviews should therefore be more clearly identified, and we have suggested three terms: Focus groups, synchronous group interviews and asynchronous group interviews.

Word count 1907

References

- Andres HP (2002) A comparison of face-to-face and virtual software development teams. *Team Performance Management: An International Journal*. 8,1/2, 39-48.
- Barbour RS (2005) Making sense of focus groups. *Medical Education*. 39, 7, 742-750.
- Belzile JA, Öberg G (2012) Where to begin? Grappling with how to use participant interaction in focus group design. *Qualitative Research*. 12, 459-472. DOI: 10.1177/1468794111433089.
- Carey MA, Ashbury J (2016) *Focus Group Research*. Routledge, New York
- Daniels N, Gillen P, Casson K, et al (2019) STEER: Factors to consider when designing online focus groups using audiovisual technology in health research. *International Journal of Qualitative Methods*. 18, 1-11. DOI: 10.1177/1609406919885786.
- Daniels N, Gillen P, Casson K. (2021) Researcher practitioner engagement in health research: The development of a new concept. *Research in Nursing & Health*, 44, 3, 534-547.
- Ferrante J.M, Friedman A, Shaw EK et al (2016) Lessons learned designing and using an online discussion forum for care coordinators in primary care. *Qualitative Health Research*. 26,13, 1851-1861. DOI: 10.1177/1049732315609567.
- Flynn R, Albrecht L, Scott SD (2018) Two approaches to focus group data collection for qualitative health research: maximizing resources and data quality. *International Journal of Qualitative Methods*. 17,1, DOI: 10.1177/1609406917750781.
- Halkier B (2010) Focus groups as social enactments: integrating interaction and content in the analysis of focus group data. *Qualitative Research*. 10,1, 71-89. DOI: 10.1177/1468794109348683.
- Iacono VL, Symonds, P, Brown, DH (2016) Skype as a tool for qualitative research interviews. *Sociological Research Online*. 21,2, 12.
- Jung H (2018) Focus group interaction in evaluation research. *Applied Linguistics Review*. 9,4, 563-587. DOI 10.1515/applirev-2017-0023.
- Kite J, Phongsavan P (2017) Insights for conducting real-time focus groups online using a web conferencing service. *F1000Research* 6, 122.
<https://doi.org/10.12688/f1000research.10427.2>.
- Kook R, Harel-Shalev A, Yuval F (2019) Focus groups and the collective construction of meaning: Listening to minority women. *Women's Studies International Forum*. 72, 87-94.
<https://doi.org/10.1016/j.wsif.2018.12.004>.
- Liamputtong P 2012 *Focus Group Methodology: Principles and Practice*. SAGE Publications, London. ISBN 978-1-84787-909-7.

- Lobe B, Morgan D, Hoffman KA (2020) Qualitative data collection in an era of social distancing. *International Journal of Qualitative Methods*. 19, 1-8. DOI: 10.1177/1609406920937875.
- Matthews KL, Baird M, Duchesne G (2018) Using online meeting software to facilitate geographically dispersed focus groups for health workforce research. *Qualitative Health Research*. 28,10, 1621-1628. DOI 1049732318782167.
- Medley-Rath S (2019) Using Facebook secret groups for qualitative data collection. *The Qualitative Report*, 24,7, 1765-1777. DOI: 10.46743/2160-3715/2019.3963.
- Morgan DL (2010) Reconsidering the role of interaction in analyzing and reporting focus groups. *Qualitative Health Research*. 20, 718-722. DOI: 10.1177/1049732310364627
- Morgan DL (2019) *Basic and Advanced Focus Groups*. SAGE Publications, Thousand Oaks, California
- Morrison-Beady D, Côté-Arsenault D, Feinstein NF (2001) Maximizing results with focus groups: Moderator and analysis issues. *Applied Nursing Research* 14, 1, 48-53. DOI:10.1053/apnr.2001.21081.
- Parahoo K (2014) *Nursing Research: Principles, Process and Issues*. Macmillan International Higher Education.
- Poyatos F (1983) Language and nonverbal systems in the structure of face-to-face interaction. *Language and Communication*. 3, 129-140.
- Reisner SL, Randazzo RK, White Hughto JM, et al (2018) Sensitive health topics with underserved patient populations: Methodological considerations for online focus group discussions. *Qualitative Health Research*. 28,10, 1658-1673. DOI: 10.1177/1049732317705355.
- Russell D, Gallardo IA, Wilson I, et al. (2018) “Exercise to me, is a scary word”: perceptions of fatigue, sleep dysfunction, and exercise in people with fibromyalgia syndrome – a focus group study. *Rheumatology International*. 38, 507-515. <https://doi.org/10.1007/s00296-018-3932-5>.
- Stewart D, Shamdasani P, Rook D (2007) *Focus groups: Theory and Practice*. Second edition. Sage Publications, Thousand Oaks CA.
- Strout TD, DiFazio R, Vessey JA (2017) Technology-enhanced focus groups as a component of instrument development. *Nurse Researcher*. 25,1, 16-23. DOI: 10.7748/nr.2017.e1458.
- Sullivan JR (2012) Skype: An appropriate method of data collection for qualitative interviews?. *The Hilltop Review*. 6,1, 10.
<https://scholarworks.wmich.edu/hilltopreview/vol6/iss1/10>.

Taylor T (2011) Video conferencing us talking face-to-face: is video suitable for supportive dialogue? *International Journal of Therapy and Rehabilitation*. 18(7), 392-402.
<https://doi.org/10.12968/ijtr.2011.18.7.392>.

Weller S (2017) Using internet video calls in qualitative (longitudinal) interviews: some implications for rapport, *International Journal of Social Research Methodology*. 20,6, 613-625. DOI: 10.1080/13645579.2016.1269505.

Wettergren L, Eriksson LE, Nilsson J, et al. (2016). Online focus group discussion is a valid and feasible mode when investigating sensitive topics among young persons with a cancer experience. *JMIR research protocols*. 5, 2, e86.

Woodyatt CR, Finneran CA, Stephenson R (2016) In-person versus online focus group discussions: a comparative analysis of data quality. *Qualitative Health Research*. 26, 741-749. DOI:10.1177/1049732316631510.

Table 1

Category	Characteristics	Available cueing systems
In-person focus group	<p>Individuals[§] are in the same physical space and engage with others in real time.</p> <p>Individuals have the opportunity to engage fully with non-verbal cues across all five cueing systems.</p>	<p>Chronemic</p> <p>Paralinguistic</p> <p>Kinesic</p> <p>Proxemic</p> <p>Haptic</p>
Synchronous on-line group interview	<p>Individuals are in the same virtual space, and are engaging with each other in real time, for example, interviews with a number of individuals using a technology such as Skype and Zoom.</p> <p>Depending on the type of technology being used (video, CMC¹, audio-only), individuals can engage with some, but not all of the non-verbal cueing systems.</p>	<p>Chronemic</p> <p>Paralinguistic</p> <p>Kinesic</p>
Asynchronous on-line group interview	<p>Individuals are in the same virtual space, but do not engage together in real time, for example, interviews using technologies such as discussion boards or social media platforms.</p>	<p>Chronemic</p>

§ 'Individuals' refers to both study participants and researchers

1. CMC: computer-mediated communication