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* Seeking consensus on subjective terms: using consensus from experts to inform a shared understanding.

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# Abstract

**Background** Consensus methods such as Delphi Studies or the Group Nominal Method have long been used in healthcare research. Uses include service development, process, or policy development and inform further research within healthcare. Consensus methods are used less frequently to seek collective understanding on subjective terms used within healthcare research. More frequently, concept analysis and meta-synthesis tools are used to deepen the understanding of subjective terms.

**Aim** To examine the use of consensus methods for the development of linguistic clarity in healthcare research.

**Discussion** We argue that consensus methods offer an appropriate research design for determining linguistic clarity when researching subjective terms. A sample research design which incorporates this approach is included. Consensus methods, supported with interpretive synthesis of the concept and field research, can enrich understanding of subjective terms used in healthcare research.

**Conclusion** Understanding the importance of linguistic clarity is an important step for researchers working within the healthcare domain. Consensus methods, if managed effectively, and conducted in line with the appropriate research guidelines, can bring a richer understanding to concepts.

**Implications for practice** This paper presents a research example that incorporates the use of a consensus method which health researchers can use to reduce the potential ambiguity of subjective terms within their research.

**Keywords** Consensus methods, Research design, research methods, qualitative research, healthcare, linguistic clarity, definition,

# Background

Human beings have a long history and a fascination with trying to find meaning in language. Plato’s *Cratylus* looked at the correctness of names (Smith, 2014) while Aristotle’s *Organon* outlined his views on language (Qiu, 2014). The 19th century saw the birth of historical-philological semantics (Luca & Diego, 2015) and Heidegger considered language overused and worn out, calling for specialized vocabulary and linguistic style to construct meaning (Watts, 2014).

Efforts to deconstruct the language we use and provide clarity to both the researcher and the reader are evident within healthcare research. We see concept analysis and meta-synthesis applied to such terms as empathy (Wiseman, 1996), compassion (Shantz, 2007; Van Der Cingel, 2009), and grief (Cowles & Rodgers, 1991). These processes, necessary to clarify the defining attributes of terms (Walker & Avant, 2005), assist to clarify meaning. The need for linguistic precision in research is paramount to a successful outcome. We discuss how consensus methods may be used to aid the development of this precision prior to field research. Consensus methods have long been used to establish investment or resources, research priorities, and guidelines for clinical practice in healthcare (Goodman, 2016; Green & Thorogood, 2018). However, their use in determining linguistic clarity is limited to date.

Consensus is useful to aid decision making (Keeney, McKenna, & Hasson, 2010) and policy development within healthcare (Goodman, 2016). It is also used to clarify pressing issues and reduce uncertainty, for example, aiding design of staff training, projection of long term care needs for patients and defining professional roles within health departments (Goodman, 2016; Jones & Hunter, 1995; Keeney, Hasson, & McKenna, 2006). There is some evidence of the use of consensus methods to provide clarity of subjective terms, but predominantly researchers have used the approach to seek conceptual clarity through literature reviews. In light of the proven effectiveness and flexible approach of consensus methods, and the need for linguistic precision when researching subjective terms, we advocate for researchers to consider including consensus methods within their research design.

# Linguistic clarity in healthcare research

Linguistic clarity is often sought when explicating concepts used within research. Utilising the existing knowledge of experts, operational definitions of the concepts were defined from expert consensus. There is some evidence of consensus methods being used to provide linguistic and conceptual clarity in healthcare research, but the studies are not as prevalent as the use of literature reviews and concept analyses. For example, resilience was the subject of a research study utilising consensus methods to extrapolate the essential features of the concept (Joling et al., 2017), a modified Delphi study was used to explore the key components of ‘Fundamentals of care’ (Feo et al., 2018), and an operational definition was designed to be employed as a blueprint for the development of objective measures of altruism(McGaghie, Mytko, Brown, & Cameron, 2002).

Without adequate measures of a concept prior to research, it is not possible to evaluate or determine the effectiveness of any measure (Strauss et al., 2016), and limits the ability to compare results across studies (Giese & Cote, 2000). Unexamined terms can also become a proxy for other constructs. This was evident when Hendry and Mc Vittie (2004) reviewed the term ‘quality of life’ which they found was often confused with other concepts such as health or wellbeing.

# Consensus as a genre

Consensus methods have a long history of use within health research (Waggoner, Carline, & Durning, 2016) and continue to play a role in clinical and service development areas. They are used when the answer to the question posed must be known and there is no better methodology available to garner consensus (Keeney et al., 2006). Using a consensus method is considered appropriate where a study aims to gain the agreement of the group and present results reflecting this agreement (Diamond et al., 2014). Types of consensus methods used in healthcare include (i) Delphi Studies, (ii) Nominal Group methods, and (iii) Consensus panels, also known as consensus conferences. The planned model of participant interaction and the research question generally determines the method chosen by the researcher (Halcomb, Davidson, & Hardaker, 2008)

## Delphi Studies

The technique uses several rounds of questionnaires with little or no interaction between participants (Keeney et al., 2010; Waggoner et al., 2016). Delphi studies should ensure participant anonymity, restatement of responses and controlled feedback to participants over the series of ‘rounds’ (Jones & Hunter, 1995). Delphi Studies, range from classic Delphi to modified Delphi which demonstrates the flexibility of the approach of studies (Keeney et al., 2010). Participants often remain anonymous as studies are completed via post or online (McMillan, King, & Tully, 2016).

## Nominal Group process

This technique involves experts often formulating and discussing healthcare priorities or as guideline development (Bowling, 2014). Stages include the individual generation of ideas prior to meeting other experts to discuss, debate and rank the collective contributions of the group in a highly structured environment (McMillan et al., 2016). The method is credited as useful in diverse idea generation from participants with facilitation of the group found to promote equal contributions from group members (Manera, Hanson, Gutman, & Tong, 2018) and often instantaneous results for the research team (Bowling, 2014).

## Consensus panels or conferences

This technique involves generating expert opinion from a range of stakeholders in a conference or panel setting. Experts are brought together in a meeting or conference setting to synthesise ideas with the view of developing a consensus (Halcomb et al., 2008; Waggoner et al., 2016). A consensus panel or conference can often be used in conjunction with or is preceded by the use of another consensus tool such as a Delphi study (Puchalski, Vitillo, Hull, & Reller, 2014). The conference setting of the approach allows for and values the discussion and debate that occurs between participants when together (Halcomb et al., 2008).

# Expert selection

Consensus methods recognise the value of expert opinion (Yousuf, 2007). Who and how a person is determined to be an expert is often open to critique. These range from concerns that expert selection is scientifically unsound to concerns that experts interest in the topic under investigation may cause bias in response (Hasson, Keeney, & McKenna, 2000). When reviewing membership of a consensus group, it is those who are informed or closely associated with the problem under investigation that should be included (Keeney et al., 2010). Determining suitability to fulfil the role of an ‘expert’ is heavily contested in consensus methodology literature (Keeney et al., 2010). It is largely based on the expert’s ability to answer the question under investigation (Hasson et al., 2000), coupled with their interest in the topic under investigation (Goodman, 2016). The credibility of experts in a consensus group determines, in part, whether the study’s results will be considered reliable (Jones & Hunter, 1995) and as such, expert selection is an important step for researchers to consider.

However, over-reliance on the priorities of health professionals and funders over the priorities of patients and families has been identified as a criticism of expert selection in a consensus group (Burnam, 2005). This is considered particularly important when considering changes to clinical services and/or clinical programmes with contributions from service users considered vital (Burnell et al., 2015)

# Consensus, decision making, and limitations

When seeking consensus from a group, regardless of the method employed, it is useful for the researcher to understand the interplay that occurs when groups of people make decisions. This understanding can aid in the selection of an appropriate consensus method, support robust method design and allow researcher to mitigate for weaknesses identified with previous use of the chosen technique.

Group decision making permeates the behavioural sciences and organisational behaviour science literature (Hauer et al., 2016; Jabeur & Martel, 2007; Scholten, Van Knippenberg, Nijstad, & De Dreu, 2007). The process by which a group will move from individual preferences to a group consensus can be understood as Social Decision Scheme Theory which looks at how group members aggregate responses through different processes, for example majority rule (Stasser, 1999).

Behaviours of group members impact decision making. Status within groups was found to have an impact on consensus with ‘high status’ members, forcing ‘low status’ members into conformity (Andre'L & Kaplan, 1968). Group members who portray aggressive, confronting behaviours has been found to alienate ‘professionals’ which leads to domination of opinions (Van De & Delbecq, 1971). Group cohesion can also have an impact with high cohesion one of the reasons for ‘group think’. Group think involves a cohesive group reaching consensus without realistic critical evaluation, often leading to poor decision choices (Janis, 1972; Parks, 2018). Group members can also be influenced by concepts such as *social loafing*; where individual group members were found to reduce effort towards the achievement of a goal when working in groups (Karau & Williams, 1993).

Delphi critics found participants may conform to the opinions of the group throughout the rounds despite the anonymous nature of the technique. Delphi cynics say that panel members change their minds due to a pressure to conform to others experts opinions which can result in second guessing their own expertise (Keeney et al., 2006). However, controlled, anonymous Delphi feedback is designed to reduce such issues between participants (Bowling, 2014; Hsu & Sandford, 2007).

There are limitations for using consensus methods. It is important that researchers follow appropriate guidelines when using consensus studies (Hasson et al., 2000), and keep up to date with methodological reviews of recommended criteria for studies (Diamond et al., 2014; Jünger, Payne, Brine, Radbruch, & Brearley, 2017). Being aware of, and accounting for the interplay that occurs when groups of people make decisions is important in ensuring consensus is based on group members’ knowledge and expertise. Further, the interpretation of consensus results should be treated cautiously with further *testing* of consensus results advised (Bowling, 2014).

# Including consensus tools within your research

## Considering paradigm

When including consensus as part of your research, the research paradigm is continually evolving (Creswell, 2016) and can in part be determined by what the data is used for and how the results are interpreted (Hanafin, 2004; Keeney et al., 2006; Keeney, Hasson, & McKenna, 2011). If the objective of the application of the consensus tool is to determine a single measurement, the approach may sit within a positivist paradigm (Hanafin, 2004; Keeney et al., 2006, 2011). If the consensus tool aims to explore difference of views or to identify a range of possibilities to support decision making then consensus tool may sit within an interpretative paradigm (Hanafin, 2004; Keeney et al., 2010).

## Research Design

As discussed, there are opportunities for researchers to consider utilising consensus methods when working with subjective terms. In addition to a review of current literature there is a period of interpretive synthesis that follows often in the form of a literature review, concept analysis, or meta-synthesis. Following this, we advocate for a consensus tool to be employed prior to conducting field research. Figure 1 outlines how consensus can be used to enhance qualitative research outcomes involving subjective terms.

Figure 1: Using consensus to enhance qualitative research outcomes.

## Reducing ambiguity surrounding compassion in healthcare

With our recent research on compassion in a hospital setting, we appropriated a consensus method to reduce ambiguity with the term compassion. The literature on compassion in healthcare was reviewed providing a more comprehensive understanding of what is known about the concept (Broome, 2000). Interpretive synthesis of the concept was guided, in part, by Noblit and Hare’s (1988) meta-ethnographic approach to support the systematic comparison and translation of the studies together. To determine consensus from experts on key components of the concept of compassion in healthcare, a modified Delphi study was designed, which sought consensus from researchers who have previously conducted studies relating to compassion in healthcare.

Using the resulting interpretive synthesis and operational definition, we plan to undertake field research, namely narrative inquiry. Narrative inquiry will allow participants to share their stories of their experiences of receiving and expressing compassion in healthcare.Following this, the resulting research will be published with a view to reduce ambiguity of the concept and aid further research.

# Conclusion

In conclusion, linguistic clarity is an important step for researchers working within the healthcare domain. This is of importance when researching subjective terms. Without adequate understanding of a concept, or linguistic precision with a subjective term, researchers face numerous challenges. These include challenges in comparing results across studies and the evaluation of any measures identified within subsequent research. Testing and discussing theory requires we explicate the conceptual domain, part of which is defining the constructs. Failure to define constructs can lead to ambiguity, and unexamined terms can become a proxy for other constructs leading to confusion for researcher and reader.

Consensus methods, with their long history of use in healthcare research, have increased in popularity. They have long been used to establish clinical research priorities, aid workforce planning, and inform healthcare interventions. There is less evidence of consensus methods being used to provide linguistic clarity on subjective terms. We provide a research framework for the inclusion of consensus methods within research design. Focussed consensus studies are considered timely and economical, making them an attractive option for researchers to incorporate into their research design. Collective judgements are considered more credible than individual judgements and can increase content validity of findings. If managed effectively, and conducted in line with the appropriate research guidelines, consensus methods can bring a richer understanding to subjective terms.

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