# ORIGINAL ARTICLE



WORLDVIEWS ON **EVIDENCE-BASED NURSING** 

# Consensus on the definition and attributes of person-centered teamwork: An e-Delphi study

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# Abstract

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Background: Effective health care relies on person-centeredness and teamwork, which are known to improve outcomes. These two concepts have been defined individually, but we could not find a definition of the combined concept. A preliminary definition was developed through a concept analysis; however, consensus on the concept has not been reached.

Aim: The aim of this study was to reach consensus on the definition and attributes of person-centered teamwork.

Methods: A consensus design allowed experts to collaborate and share their experience and wisdom to refine and reach consensus on the definition and attributes of person-centered teamwork. An e-Delphi was used to engage the experts.

Results: Three rounds of online engagement with 12 experts were needed to reach consensus on the definition and attributes of person-centered teamwork. The attributes reached consensus of 82% after the first round. The definition had 82% consensus after the three rounds. The definition had been adjusted and refined according to the expert input. The newly adjusted definition was established.

Linking Evidence to Action: We successfully used the e-Delphi method to obtain consensus on the attributes and definition of person-centered teamwork. The definition of person-centered teamwork can be further developed and included in clinical practice to guide improved clinical outcomes. The consensus definition of personcentered teamwork provides a clear understanding of the meaning thereof, which may in turn enrich the usability thereof in clinical practice. Person-centered teams improve outcomes for persons receiving care in hospitals. Building person-centered teams are now better understood and the foundation of building these teams defined. We engaged with 12 experts in the academic and clinical field of person-centeredness and teamwork. The use and value of the Delphi method to obtain consensus is now better understood and can assist future research development.

#### **KEYWORDS**

defining, e-Delphi, person-centered teamwork, person-centeredness, teamwork

Details regarding NCPD can be found following the References section.

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# INTRODUCTION

"You cannot control what you cannot measure, and you cannot measure what you cannot define" (Fenton & Pfleeger, 1997, p. 14). Person-centeredness and teamwork have been well defined as individual concepts (Kalisch & Begeny, 2005; McCormack & McCance, 2017; Rosen et al., 2018; Rydenfält et al., 2018; Salas & Cannon-Bowers, 2001; Xyrichis & Ream, 2008). However, to our knowledge, the concept *person-centered teamwork* has not been defined. Defining the concept of person-centered teamwork will facilitate future research as well as enable the implementation and assessment of the realization thereof in clinical practice. Following a concept analysis (Viljoen, 2023), we conducted a Delphi study to obtain consensus on the attributes and definition of personcentered teamwork.

# BACKGROUND

Person-centered teamwork represents the combination of two connected concepts often used in health care (Dellenborg, 2020) that are known to improve outcomes in healthcare settings (Donovan et al., 2018; Naldemirci et al., 2017; World Health Organization [WHO], 2018). Person-centeredness is an established way of doing and thinking that creates a culture of trust, respect, and mutual goals in the working environment (McCormack & McCance, 2017). McCormack and McCance (2017) proposed four core components of person-centeredness: (1) being in a relationship with those in your direct environment, (2) being part of a social world, (3) being in place, and (4) being with yourself. Thus, person-centered care is about all individuals in the care team having a common purpose and cultural value system. The WHO (2018) defined person-centered as "...an approach to care that consciously adopts the perspectives of individuals, families, and communities, and sees them as participants as well as beneficiaries of trusted health systems that respond to their needs and preferences in humane and holistic ways." The WHO definition of person-centeredness is supported by McCormack et al. (2006), who defined person-centeredness in 2006 and then refined the concept in 2010 (McCormack et al., 2010), 2015 (McCormack et al., 2015), and 2017 (McCormack & McCance, 2017). Person-centeredness is enabled through a culture of empowerment that fosters continuous practice development (McCormack & McCance, 2017).

Teamwork is a clearly defined concept, often described as a cohesive group of people striving toward common goals (Rydenfält et al., 2018; Salas & Cannon-Bowers, 2001). Effective teamwork creates an environment where the workload is shared and made more manageable (Kaiser & Websters, 2018; Kendall-Gallagher et al., 2017). Teamwork creates a sense of belonging among team members and promotes positive relationships and job satisfaction, which increases staff retention, staff productivity, and quality of care (Kaiser & Websters, 2018; Kendall-Gallagher et al., 2017). Good teamwork improves patient outcomes, subsequently improving patient satisfaction (Dahlke et al., 2018). High functioning teams that continuously improve the quality of care and patient outcomes take time to develop (Stocker et al., 2016). The concept of teamwork in healthcare settings has been comprehensively defined by Xyrichis and Ream (2008; 238) as "a dynamic process involving two or more health professionals with complementary backgrounds and skills, sharing common health goals and exercising concerted physical and mental effort in assessing, planning, or evaluating patient care."

Person-centered care and teamwork share similar attributes and focus areas (McCormack & McCance, 2017). Effective health care relies on person-centeredness and teamwork, which are known to improve outcomes. Teamwork is essential to the success of person-centeredness, as teamwork creates an environment that allows the multi-disciplinary team, patient, and community to share in the care process (Li et al., 2018). Person-centeredness within a team has the potential to improve job satisfaction and staff retention, where retention of staff is imperative to ensure continuity of care and continuity of care leads to improved patient outcomes and experiences of care delivery (Nowaskie et al., 2018). Should either person-centeredness or teamwork break down, the outcomes of both aspects grow weaker (Dellenborg, 2020). Person-centered teamwork as a concept is not defined, nor is it explained as a measurable concept. To understand, develop, and improve any concept, it needs to be defined to measure it. We conducted a concept analysis to develop a preliminary definition of person-centered teamwork (Viljoen, 2023), but consensus has not been reached.

#### The study

Reaching consensus is an inclusive process where experienced and knowledgeable participants must agree on a concept (Zhang et al., 2019). Reaching consensus on the definition of personcentered teamwork is important for conceptual clarity, integration into the healthcare continuum, and outcome assessment. Consensus methodology requires the consideration of all participants, which in turn creates a sense of inclusivity and belonging. In this article, we report on a Delphi study that was conducted to reach agreement on the attributes and definition of person-centered teamwork.

## **METHODS**

#### Study design

We used a consensus design to allow experts to collaborate and share their experience and wisdom to refine and reach consensus on the definition (Fink-Hafner et al., 2019; Nasa et al., 2021; Ogbeifun et al., 2016) and attributes of person-centered teamwork. We used electronic-Delphi (e-Delphi) to engage the experts. The data underwent content analysis with a focus on word frequency and thematic suggestion. Quantitative analysis was used to determine consensus.

#### Preparation for data collection

Data collection of the e-Delphi was preceded by a concept analysis using the Walker and Avant model for concept analysis (Walker & Avant, 2019). The Walker and Avant model uses eight steps to analyze a concept. The Walker and Avant model was used to determine the four attributes and definition of person-centered teamwork (Viljoen, 2023; Walker & Avant, 2019). The attributes were relationship reliant, recognizing the uniqueness of the individual, inclusivity, and synergy. The definition of person-centered teamwork was:

> Person-centered teamwork is a dynamic approach where healthcare professionals, patients and their significant others collaborate to meet the healthcare needs of the patient. Embedded in synergy, inclusivity and healthful relationships, the members recognize the uniqueness of each individual, allowing each team member to flourish and strive to attain optimal outcomes for all.

> > (Viljoen, 2023; 72)

### The Delphi panel

Experts were invited to participate in an e-Delphi panel. We defined an expert as someone with knowledge and experience of a specific subject (Nasa et al., 2021; Niederberger & Spranger, 2020). The experts were selected using pre-set, clear, and precise criteria (Fink-Hafner et al., 2019; Nasa et al., 2021; Niederberger & Spranger, 2020). The inclusion criteria were (1) English speaking, (2) a specific interest in person-centeredness = or teamwork, (3) a recognized authority on person-centeredness or teamwork as evidenced by publications in peer-reviewed journals, and (4) clinical or academic expertise in the field of person-centeredness or teamwork.

Using purposive sampling, we identified 13 experts who met the inclusion criteria. The experts were e-mailed a formal invitation letter, stating the aim and value of the study, and were asked whether they were interested and willing to participate. Once the experts

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agreed to participate in the e-Delphi panel, a participant information, informed consent document, and demographic information questionnaire were e-mailed to them. Additionally, the experts were asked whether they knew other experts who met the inclusion criteria (snowball sampling) and who could contribute to the e-Delphi panel. Snowball sampling allowed experts to identify six additional potential participants, which provided access to a larger sample who would have otherwise been hidden (Etikan et al., 2016; Naderifar et al., 2017; Polit & Beck, 2020). In total, 19 experts were invited and 12 accepted the invitation (Table 1). The 19 experts consisted of 12 experts in person-centeredness and seven in teamwork. Once the signed consent forms and demographic questionnaires were received, round one of the e-Delphi was initiated.

# **Data collection**

The e-Delphi survey was uploaded on Google Forms. During each round, experts were asked to indicate (1) do you agree that the attributes are relevant and (2) do you agree with the proposed definition of person-centered teamwork. Experts indicated their agreement on a 5-point Likert scale:  $1=strongly \ disagree$ , 2=disagree, 3=neutral, 4=agree, and  $5=strongly \ agree$ . Additionally, experts were asked to justify their ratings, and space was provided for additional comments. Before data collection, the e-Delphi survey was piloted. Two experts, who did not participate in the study, were asked to provide feedback on language, layout, clarity, and utility of the survey (Mallah et al., 2021).

Data were collected during three rounds. Each of the first two rounds was completed within 14 days and the third in 5 days to ensure that experts did not lose interest (Niederberger et al., 2021). Experts were reminded weekly to complete the e-Delphi, as recommended by Fink-Hafner et al. (2019). Data were collected anonymously.

During the first round of the e-Delphi, the experts were emailed a summary of the concept analysis, detailed instructions on what was expected during the survey, and a link to the Google Forms. During the second round, the experts received a summary

Number of participants	Count (%)	Profession	Area of speciality
Developed countries			
Australia	1 (8)	Academic: Social work	Person-centeredness
England	2 (16)	Academic: Nursing (1) Academic: Radiography (1)	Teamwork Person-centeredness
Ireland	2 (16)	Academic: Nursing	Person-centeredness
Netherlands	1 (8)	Academic: Nursing	Person-centeredness
Scotland	1 (8)	Academic: Nursing	Person-centeredness
Sweden	1 (8)	Academic: Nursing	Person-centeredness
Developing countries			
South Africa	4 (33)	Academic: Nursing (3) Clinical practice: Nursing (1)	Person-centeredness Teamwork

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of results from round one, instructions on what was expected during round two, and a link to the adapted Google Forms. The summary of the round two results was e-mailed to the experts for final feedback.

#### Data analysis

The e-Delphi data were quantitatively and qualitatively analyzed, which occurred concomitantly during data collection (Heuzenroeder et al., 2022). The qualitative data were analyzed using content analysis. Content analysis entailed the viewing of the written comments of each participant. The comments were analyzed by searching for similarities in content feedback. Suggested changes were evaluated for relevance against what was found in literature and discussed by the authors. If found relevant, the changes were made (Fink-Hafner et al., 2019; Ogbeifun et al., 2016). The quantitative data were analyzed using count data and proportions. Consensus was established at 75% agreement in alignment with previous studies (Belton et al., 2019; Heuzenroeder et al., 2022; Hong et al., 2019; Humphrey-Murto et al., 2016). The scores of strongly disagree, disagree, and neutral were combined into the disagree category, while strongly agree and agree were combined into an agree category.

# Rigor

The Conducting and REporting DElphi Studies (CREDES) checklist (Jünger et al., 2017) was used to increase the quality of this study (Supplementary material). We selected a panel of international experts from different geographical settings (Table 1), which allowed for a rich data source (McPherson et al., 2018; Niederberger & Spranger, 2020). The e-Delphi reduced the opportunity for direct confrontation between experts, reducing any potential intimidation. Experts were able to participate from their own environment. The experts remained anonymous to each other and were able to participate without having to conform to the most dominant opinion (Fink-Hafner et al., 2019; Nasa et al., 2021; Trevelyan & Robinson, 2015). Experts could be creative, honest, and give input based on their expertise. Additionally, e-Delphis are cost-effective and time-saving (Fink-Hafner et al., 2019; Waggoner et al., 2016). Time was saved as experts had 2 weeks to complete each round (Jünger et al., 2017; Niederberger & Spranger, 2020) at their own convenience (Fink-Hafner et al., 2019; Nasa et al., 2021). Keeping to a specified timeline improved the attrition rate, and only one expert withdrew after round one, representing an attrition rate of 8%, which is acceptable considering that some studies have reported attrition rates of up to 44% (Ogbeifun et al., 2016; Stokes-Parish et al., 2019; Tyler et al., 2023). Participating in the e-Delphi was also an enriching experience for experts and they were able to view their own contribution in the context of the whole group, which allowed them to expand and grow their knowledge and views of the concept as well as adapt their response (Fink-Hafner et al., 2019; Jünger et al., 2017; Niederberger & Spranger, 2020; Ogbeifun et al., 2016). The e-Delphi process gave the researcher an opportunity to check responses and collate and incorporate the suggested changes swiftly before initiating the next round. Figure 1 indicates the process followed during the e-Delphi study, which is in line with the CREDES guidelines.

#### **Ethical approval**

This study was approved by the Faculty of Health Sciences, Research Ethics Committee (University of Pretoria; 11/2021). The expert participants were informed about the study and signed informed consent forms before data collection. Experts were contacted via e-mail and asked to give permission for their names to be used in the acknowledgment section of the report.

# RESULTS

Between May and June 2022, 12 experts participated in the three rounds of the e-Delphi. During round one, 100% of participants responded, of whom the majority were academics (92%) and experts in person-centeredness (84%). During rounds two and three, 91% of participants responded.

# Round 1: Consensus regarding attributes and definition

Among the participants, the level of consensus was 83% on the four attributes of person-centered teamwork (Table 2).

Participants did not reach consensus on the definition after round one, at only 66% (Table 3).

Experts agreed on the attributes of person-centered teamwork as shown in the following statements: "Recognising the uniqueness of an individual is the fundamental underpinning of a personcentered approach," and "If uniqueness of an individual is not recognized. S/he will not feel that they are understood and will not enter in a meaningful relationships," and "Without this you have teams that expect everyone to act the same and have a rule based rather than value-based way of working that does not enable persons to flourish."

Being relationship orientated elicited a similar response. The experts made the following statements in support of being relationship orientated: "As persons we exist in relationships and being in relation is a key component of personhood. This is again fundamental for effective team working" and "In relationship orientation the health professional who will begin the relationship must be fully aware of the role it plays in person- centeredness and links with the above attribute of uniqueness."

Synergy was supported by 10 of the 12 experts. The statements in support were "I really support this notion of synergy and it is well articulated in the concept analysis" and "Optimal outcomes depend





#### FIGURE 1 Summary of e-Delphi process.

#### TABLE 2 Level of agreement on the attribute of person-centered teamwork (N = 12).

Attributes	Strongly agree  Count (%)	Agree Count (%)	Neutral Count (%)	Disagree Count (%)	Strongly disagree Count (%)	Consensus (%)
Recognize uniqueness of individuals	9 (75%)	2 (16.7%)	1 (8.3%)	0 (0%)	0 (0%)	91
Relationship orientated	10 (83.3%)	2 (16.7%)	0 (0%)	0 (0%)	0 (0%)	100
Synergy	7 (58.3%)	3 (25%)	1 (8.3%)	1 (8.3%)	0 (0%)	83
Inclusivity	6 (50%)	4 (33.3%)	1 (8.3%)	1 (8.3%)	0 (0%)	83

#### TABLE 3 Level of agreement regarding the definition of person-centered teamwork (n = 12).

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	
	Count (%)	Count (%)	Count (%)	Count (%)	Count (%)	Consensus (%)
Definition	3 (25%)	5 (41%)	3 (25%)	1 (9%)	0	66

on synergy." Two experts indicated that synergy overlapped with being relationship orientated. The statements were "I wonder how this differentiate with previous attribute" and "Not sure synergy means the same as combined effort." Inclusivity was supported by 10 experts, who stated that inclusivity played an important and foundational role in person-centered teamwork. The statement was "Relationships cannot occur without communication and therefore deems inclusivity essential." Two 482

experts indicated that inclusivity should be combined with synergy as they were synonymous. The statement was "...Overlaps my concern with Synergy."

The high level of agreement (82%) on the attributes meant that we did not include attributes in the second round.

Three experts agreed that our proposed definition was adequate. Three experts asked who was being referred to by *all* in the definition. Six further comments were considered when adapting the definition. The statements were "I think the definition is good, but trust should be added," "... strive to attain optimal outcomes for all - who is all? ...I do like the dynamic approach part and the collaboration part that prioritises the patient though," and "...Who is the all at the end of the definition?"

The definition attained a 66% level of agreement and was the focus of round two. The definition was adapted in accordance with experts' responses. The adapted definition was emailed to the experts with a link to the electronic response platform for further de-liberation in round two.

#### Round 2: Consensus on definition

Eleven experts responded and consensus was reached on the definition (81.8%) (Table 4).

The adapted definition for person-centered teamwork was strongly supported. Seven experts agreed with the new adapted definition; for example, "Based on the information provided during Round 1 and Round 2 the definition has been well described and now the constructs are well incorporated and understood." One expert strongly disagreed but did not suggest changes: "I wonder what your definition is of a person-centered practice. It is different, but to what degree?" Three of the experts suggested rephrasing words and improving sentence construction, such as "...The second sentence reads better, except the 'optimal outcomes' bit which is not the same thing as needs."

The definition was adapted with minor wording changes as suggested by the participants. The final definition was formalized and sent to the experts in round three. No further comments were received on the final definition.

# **Round 3: E-mail communication**

In the final e-Delphi round, the attributes and adapted definition of person-centered teamwork were distributed to the expert panel members for feedback. No further amendments were suggested, and consensus was achieved.

# DISCUSSION

Here, we describe the findings of an e-Delphi study that aimed to obtain consensus on the four attributes and definition of personcentered teamwork, as developed during a prior concept analysis (Viljoen, 2023). The experts who participated in the e-Delphi agreed on the four proposed attributes of person-centered teamwork. Being person-centered means recognizing the uniqueness of people as human beings with their own ideas and needs (Byrne et al., 2020). Being person-centered also means acknowledging individuals as experts in their own lives (Louw et al., 2017; Waters & Buchanan, 2017) and giving them an opportunity to participate and make choices (McCance & McCormack, 2016).

Being relationship orientated is an important attribute of personcentered teamwork and refers to the relationships between healthcare teams, patients, and patients' significant others. All individuals involved in healthcare relationships should focus on maintaining healthful relationships. Healthful relationships involve being sympathetically present and showing human kindness, showing compassion, trying to understand alternative viewpoints, and valuing both caregivers and receivers of care (Byrne et al., 2020; McCance & McCormack, 2020; Wilkinson & Reed, 2008).

Person-centered teamwork also requires synergy, which represents the combined efforts of teams to improve patient outcomes (Franklin et al., 2015). The level of synergy determines how collaboration, conflict management, and cohesiveness attribute to teamwork. Effective teamwork also requires that all the team members are included (Fong et al., 2018; Mayo, 2020; Rydenfält et al., 2018). Inclusivity encompasses communication, task interdependency, information sharing, and shared responsibility.

In our study, one expert mentioned that synergy and inclusivity were overlapping attributes. The literature and concept analysis, however, supports these two attributes as separate constructs. Synergy describes how collaboration, conflict management, and cohesiveness attribute to person-centered teamwork. Inclusivity encompasses communication, task interdependency, sharing information, and shared responsibility (Dietz et al., 2018; Mayo, 2020; Rydenfält et al., 2018; Sangaleti et al., 2017; Tremblay et al., 2017; Viljoen, 2023; WHO, 2011). Inclusivity is related to communication, interdependency, shared information, and responsibility (Dietz et al., 2018; Franklin et al., 2015; Rydenfält et al., 2018; Sangaleti et al., 2017), while synergy is a combination of collaboration, conflict management, cohesiveness, trust, respect, and autonomy (Dietz et al., 2018; Mayo, 2020; Rydenfält et al., 2018; Sangaleti et al., 2017; Tremblay et al., 2017). As consensus of 83% was reached, we accepted these attributes as separate attributes.

**TABLE 4** Definition: distribution of level of agreement responses (n = 11).

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	
	Count (%)	Count (%)	Count (%)	Count (%)	Count (%)	Consensus (%)
Definition	6 (54.5%)	3 (27.3%)	0 (0%)	1 (9.1%)	1 (9.1%)	81.8

During round one, a 66% consensus was reached regarding the definition of person-centered teamwork. The experts' comments were carefully considered, and we adapted the definition to reflect that the team included the healthcare team, family, and patient. The adapted definition was then sent to the experts for round two. The adapted definition was:

Person-centered teamwork is a dynamic approach where the team, including the healthcare professionals, patients, and their significant others, develop trust and connectedness to meet the healthcare needs of the patient. Embedded in synergy, inclusivity, and healthful relationships, the members of the team recognize the uniqueness of each individual, allowing mutual flourishing in striving to attain optimal outcomes through reflexivity in practice.

In round two, the definition obtained an 81% consensus. Although there was consensus, we still considered the comments and changes suggested by the experts, especially any dissenting views. We agreed that the dissenting comments would change the essence of the definition, and we could not find any evidence supporting these dissenting views. We made a few conclusive changes; for example, we changed *team*, which included the healthcare team, family, and patient to *person(s) giving and person(s) receiving care*. This change increased the applicability of the definition across various sectors. The word *embedded* was replaced by *underpinned*, and *reflection* was removed as it suggested an add on to the definition that did not add value. The final definition was sent back to the experts, who did not make any further comments. The final definition for personcentered teamwork is:

> Person-centered teamwork is a dynamic approach where the team, person(s) delivering care and person(s) receiving care, develop trust, and connectedness to meet the healthcare needs of the person. Underpinned in synergy, inclusivity, and healthful relationships, the members of the team recognize the uniqueness of each individual, allowing mutual flourishing in striving to attain optimal outcomes.

# **Relevance to practice**

This definition of person-centered teamwork establishes a basis for measuring person-centered teamwork, which is an important step to improve clinical practice. The definition and attributes provide clarity as to the development of measurable items for implementing person-centered teamwork in clinical practice.

The consensus definition of person-centered teamwork provides a clear understanding of the meaning thereof, which may in turn enrich the usability thereof in clinical practice. Person-centered teams improve outcomes for persons receiving care in hospitals. Building

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person-centered teams are now better understood and the foundation of building these teams defined.

We engaged with 12 experts in the academic and clinical field of person-centeredness and teamwork. The use and value of the Delphi method to obtain consensus in the definition can assist future research development.

# What does this contribute to larger global community

- Establishes a basis for measuring person-centered teamwork.
- Provides clarity on the development of items to measure personcentered teamwork.
- Person-centered teamwork will guide practice to improve patient outcomes.

#### Limitations

The e-Delphi as a technique is limited in that there is no formal guidance in the process of conducting an e-Delphi. This lack of guidance was overcome by following the CREDES guidelines (Fink-Hafner et al., 2019; McPherson et al., 2018; Nasa et al., 2021; Nienamber & Spranger, 2020). An e-Delphi does not allow opportunities for clarifying misunderstandings with the experts. Experts that accepted to participate in the study were predominant within the nursing profession. Experts identified did include the United States of America and Canadians, but the invitation was declined, or no response was received. Experts from Asia and South America were not included due to language barriers, that is, English was the communication language. The identification of Asian and South American participants was hampered due to our inability to communicate in the native languages of these continents. We only provided experts with a summary of the literature, which may have limited their understanding of the content and process. Notably, the teamwork experts did not have a full view of person-centeredness as a practice concept. The sample size was small, although we included experts from different nationalities. A bigger sample may have provided more reliable data.

#### Linking evidence to action

- The definition provides a clear understanding of the usability of person-centered teamwork.
- The definition establishes a basis for measuring person-centered teamwork.
- The results provide clarity on the development of items to measure person-centered teamwork.
- Person-centered teamwork will guide practice to improve patient outcomes.
- The use and value of the Delphi method to obtain consensus in the definition can assist future research development.

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# CONCLUSION

We successfully used the e-Delphi method to obtain consensus on the attributes and definition of person-centered teamwork. Experts engaged in three rounds, allowing for clarification and refinement of the definition. The inclusion of experts helped to reduce bias and clarify the definition. The newly established definition of personcentered teamwork can be further developed and included in clinical practice to improve clinical outcomes through the development of an instrument to measure person-centered teamwork.

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#### CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

# DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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