The role of the clinical nurse specialist in stoma care: a modified Delphi consensus

Abstract

Introduction: The role of the Clinical Nurse Specialist is complex but is defined differently across the world. The role of Clinical Nurse Specialist Stoma Care is undefined and it is uncertain what aspects of the role are included in the general day-to-day working role.

Aim: The aim was to gain consensus opinion to answer the research question: "What is the role of the clinical nurse specialist in stoma care?"

Design: Delphi Consensus

Methods: Previous data gained from a scoping review and expert consultation was utilised to form role statements. At a United Kingdom conference, 13 statements and 173 sub-categories were voted upon. Consensus was agreed if 75% of voters voted agree or strongly agree. Two stages of voting occurred with results from the first vote being shared in the second voting session.

Results: All 13 statement and most (150/193) statement sub-categories reached consensus, with 20 sub-categories added during voting session one.

Conclusions: The four pillars of advanced practice were met by the 13 statements with clinical and education reaching higher consensus and agreement than leadership/management and research. The results of the consensus study provide a clearer articulation of the Clinical Nurse Specialist Stoma Care role, which is complex and multifaceted which has not been described previously.

Implications for the profession: Consideration of role evolution is made possible, to gain a greater expertise in the scope of practice it is necessary to include prescribing, management and research which could improve service delivery and optimise patient outcomes.

Impact: The study addressed uncertainties about the roles of the Clinical Nurse Specialist Stoma Care. The findings show the role reflects the four pillars of advanced practice. The findings are relevant to Clinical Nurse Specialists Stoma Care working in the UK and may also relate in part to similar nurses working internationally.

KEYWORDS

Nurse, nursing, stoma, ostomy, role, modified Delphi consensus, advanced practice, clinical nurse specialist, research, role descriptor.

INTRODUCTION & BACKGROUND

The exact role of the Clinical Nurse Specialist (CNS) in Stoma Care is complex and multifaceted, with many practitioners working across primary and secondary care settings, and providing pre-operative and immediate post-operative care, as well as expert guidance and support for those experiencing ongoing care needs. The CNS role developed in the 1970s and increased in popularity in the 1980s and 1990s, with the CNS Stoma Care being one of the earliest (Black, 2000). However, the development of the advanced practitioner role over the past two decades has blurred the role boundaries for specialist

practitioners, with many specialist nurses in the UK working at or towards an advanced level of practice but without advanced practitioner status, even when they are leading services and working as independent and supplementary prescribers (Osborne and Gunning, 2023). A further blurring of role boundaries and capabilities has developed, both within nursing in general and stoma care specifically, with the appointment of non-qualified nurses who specialise in stoma care, such as registered nursing associates (RCN, 2022) and healthcare support workers, who work within a defined, and often extended, scope of practice, which can overlap with the role of the CNS.

The confusion in role boundaries between specialist and advanced practitioners can also be seen when comparing the role of the CNS in the UK with how it is defined in other countries. In America, a CNS is considered as an advanced practice registered nurse who has "graduate preparation (Master's or Doctorate) in nursing" (NACNS, 2022), which resonates with the definition of a CNS by the International Council of Nurses (ICN, 2020). However, in Australia, a CNS is defined as "a nurse who provides direct clinical care and is considered a clinical expert in their particular area of nursing," without reference to underlying educational qualifications (James Cook University, 2022). In the UK, the Royal College of Nursing state that the CNS undertakes advanced-level practice underpinned by specialist skills, competencies and experience, as well as post-registration degree or Master's level qualifications relevant to their specialist area, whereas an advanced practitioner remit extends beyond this to diagnosis, treatment and prescribing, underpinned definitively by Master's level education and an independent prescribing qualification (RCN, 2023).

The RCN (2023) explanation suggests that CNS role development can be a continuum from novice specialist to expert specialist, requiring experience, the development of clinical expertise and underpinning education before a practitioner can be called a CNS, although the exact nature of these components of role development appear to be quite fluid, depending on the nature of the exact role to which they are applied. Although the RCN highlight that the CNS works at an advanced level of practice, this appears to be in relation to clinical practice only, rather than across the four pillars of advanced practice (clinical, education, leadership/management, research) which are the bedrock of the advanced practitioner role (Health Education England, 2017) and form part of many CNS stoma care roles.

Clearly articulating the role of the CNS Stoma Care in current UK healthcare practice is necessary for the CNS Stoma Care, the team and the organisation in which they work and the patients for whom they care, to highlight the scope of their practice and autonomous decision-making ability and to justify their value. It is also possible findings will relate to CNS stoma care roles worldwide, but more evidence would be needed to determine this. To help capture current UK CNS Stoma Care practice and to reach agreement about the core elements of the CNS Stoma Care role, it was decided to ascertain the views of as many as possible of the 600 nurses (Hodges, 2022) practising within the specialism of stoma care in the UK using a modified Delphi consensus study design.

THE STUDY

Aim

The study aim was to gain consensus opinion to determine if agreement exists about the role of the Clinical Nurse Specialist in Stoma Care.

Objectives

The objectives were to determine the level of consensus about the nature and scope of the CNS Stoma Care role between those working in a CNS Stoma Care role and the existing evidence base defining the CNS Stoma Care role, and to identify additional role components not identified within the existing evidence base.

Research Question

The research question was: “What is the role of the clinical nurse specialist in stoma care?”

METHODS

Design

A Delphi consensus is useful when there is scarce empirical evidence but varies in design and undertaking. What is consistent within Delphi consensus methodology is that experts are consulted through several rounds of questioning and anonymous feedback (Barrios et al., 2021). The benefits of a Delphi consensus study are that anonymity can reduce bias as people feel more comfortable expressing their true views and the influence of dominant individuals is reduced (Keeney et al., 2006). Furthermore, feedback enables experts to reassess their initial judgements based on the scrutiny of answers to questions provided by all experts involved (Niederberger & Spranger, 2020). It is important to describe the voting expert participants (Trevelyan & Robinson, 2015) in this modified Delphi consensus, who were CNS stoma care attending the Association of Stoma Care Nurses UK conference in 2022. When carefully and clearly designed, a Delphi consensus can contribute to the evidence base using the knowledge and expertise of expert practitioners such as CNS stoma care (Barrett & Heale, 2020).

The consensus was guided by the five stage ACCORD (ACcurate COnsensus Reporting Document) guidance (Gattrell et al., 2022). The authors formed a study team (stage one). A scoping review was undertaken (stage two), expert opinions were gathered (stage three) and a modified Delphi consensus study (stage four) with this manuscript being stage five. The scoping review determined how the role of the CNS Stoma Care is described and understood in the UK within the published evidence base (Bird et al., in press). Although the review findings were summarised into four main themes, reflecting the four pillars of advanced practice (Health Education England, 2017), there was a predominant focus on clinical practice, clear consideration of education and a more limited focus on leadership/management and research. The four main themes were divided into 13 sub-themes and 173 sub-categories. Stage two elicited further perspectives from expert opinion derived from the committee members and area representatives of the Association of Stoma Care Nurses UK (ASCN, UK), who were deemed to have a high level of expertise through many years of experience working in the field of stoma care. Although the 13 sub-themes remained unchanged, the experts identified three additional categories: education of self, communication with significant others and collaboration with industry.

Data derived from stages one and two were used to formulate 13 statements. These statements described key components of the role of the CNS Stoma Care, to be used as the basis for voting in stage three.

Study setting

The setting of stage three was the annual conference of the Association of Stoma Care Nurses UK in Harrogate on 9-11 October 2022, with participation sought from CNS Stoma Care from across the UK who attended the conference. The conference presented an ideal opportunity for a greater response rate than other possible consensus methods, e.g., online voting, although it was acknowledged that this potentially left less time for respondents to deliberate on responses and meant that only two voting rounds would be feasible. However, a short time between voting rounds enables maintenance of interest and reduction in participant attrition (Trevelyan & Robinson, 2015).

Data collection

CNS Stoma Care conference delegates were invited to participate in the modified Delphi consensus, which included three rounds of voting over two days using the voting software Slido® to gain in the moment responses related to the statements and sub-categories. The same voting software also collected demographic data, including length of time working in stoma care and whether the nurse was based in the hospital and/or the community.

Round one involved an initial brief explanation of the process and testing of connectivity with the Slido® software, which was accessed by respondents using a QR Code on their smartphones. For each of the 13 statements, a PowerPoint slide was used to explain the statement and sub-categories (Figure 1) at the same time as the respective voting information appearing on Slido®. To ensure that sufficient time was allocated to capture all respondents' votes, a member of the study team indicated when the expected number of votes for all respondents was reached, based on the number of responses to the initial statement. Voting for each of the 13 theme statements was undertaken using a five-point Likert scale (strongly disagree, disagree, neither agree or disagree, agree, strongly agree), with opportunity to add free text comments for topics that were not included already but were considered important. If 75% or above of respondents voted agree or strongly agree the statement was deemed to have achieved consensus. Respondents were encouraged to consider the general role of the CNS Stoma Care in their responses, rather than their own day-to-day practice, in case the context of their role and setting meant that they were unable to exercise all components of the CNS Stoma Care role. Agreement was also sought for each of the sub-categories related to each statement, with free text comments invited to identify any additional sub-categories that respondents considered missing. If 75% or above agreement was achieved for each sub-category it was deemed to have achieved consensus. The value of 75% was chosen as it was within the ranges discussed by Hasson et al., (2000) of 51%-80% agreement.

FIGURE 1 Representation of the voting slides.

The Specialist Stoma Care Nurse DELIVERS CARE

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

This includes (tick all that apply):

Who	When	Where	What	
Neonates	Preoperative	Hospital	Holistic	Cultural
Babies	Postoperative	Clinic	Physical	Individual
Children	Post discharge	Community	Social	Adaptable
Adolescents	Life long	Patient's home	Lifestyle	Specialist
Adults	Regularly	Flexible	Sexual	Competent

Round two was conducted over two sessions, due to the limitations of the conference programme. Round two included re-voting on statements and sub-categories not achieving 75% consensus in round one. In addition, extra statements and sub-categories suggested by the respondents in round one using free-text comments were added to the round two voting session. A similar approach to round one was used with PowerPoint slides and corresponding voting using Slido® as well as inclusion of the voting results from round one.

Data analysis

Following round one, the results from Slido® were imported into an Excel spreadsheet, where they were analysed by the study team (JB, AB, GT) to determine if consensus had been reached for each of the 13 statements and subcategories. Results from voting round one were then used to adjust both the Slido® components and the accompanying PowerPoint presentation, with additional categories added as suggested by respondents in round one and any statements achieving consensus in round one removed. The level of consensus achieved for the remaining statements was displayed in the presentation to inform respondents voting decisions in round two. Following round two, data were again imported into Excel and analysed using descriptive statistics.

Ethical considerations

Hasson et al., (2000) in their research guidelines for using a Delphi consensus describe the importance of ethical consideration when keeping participants views and identities anonymous. The modified Delphi consensus was deemed not to require ethical approval because the intention of the conversations was considered as non-sensitive to stakeholders as it reflected their day-to-day work life. Additionally, stakeholders were not vulnerable and it was considered that voting in the consensus would not induce psychological stress or anxiety greater than was encountered in daily work life; therefore, no risk or harm was anticipated (Scott *et al.* 2020). Furthermore, results were presented anonymously and in a way that it was impossible to identify stakeholders. Moreover, the respondents all had capacity to consent and choose not to vote the authors were not in a position of power or influence over the respondents or their healthcare roles.

RESULTS

Demographic questions were answered at any time during the conference. Most respondents completing the demographic questions worked in both the hospital and community, preferred the term ostomate to describe a person with a stoma, preferred the term CNS Stoma Care when describing the nursing title and were in post for over ten years (see Table 1).

TABLE 1 Demographic questions.

Topic	**Four most common responses**			
Workplace of respondent	Hospital and community (n=122)	Hospital only (n=54)	Community only (n=43)	No longer CNS Stoma Care (n=7)
Preferred terms for people with a stoma	Ostomate (n=50)	Person living with a stoma (n=46)	Patient (n=21)	Ostomist (n=15)
Preferred term for registered stoma nurse	CNS Stoma Care (n=49)	Stoma care nurse specialist (n=31)	Stoma care CNS (n=23)	Specialist stoma care nurse (n=15)
Time working in stoma care	Over 10 years (n=58)	Five to 10 years (n=25)	Two or less years (n=25)	Between 2-5 years (n=20)

To gain consensus in the first voting round, a minimum of 204 respondents needed to agree, from the total of 272 respondents who voted in that session. In round two, 179/239 responders were needed to reach consensus and in round three, 202/269 responders. All 13 statements reached consensus, seven statements in the first round and six in the subsequent voting rounds, with 77-96% of respondents agreeing or strongly agreeing with the statements (see Table 2). In Table 2, the final column (-2 to +2 mean) displays a number from -2 to +2 (-2=strongly disagree; -1=disagree; 0=neutral; 1=agree;2=strongly agree), this is used to denote the strength of agreement with each statement. The strongest agreement was 1.79/2 and the weakest agreement 0.99/2.

TABLE 2 Summary of the consensus votes.

STATEMENT The Specialist Stoma Care Nurse:	Order of voting	Round consensus achieved	Agree & Strongly agree (%)	-2 to +2 mean
has SPECIALIST KNOWLEDGE and SKILLS	2	2	96	1.79
ASSESSES, PLANS, DOCUMENTS and EVALUATES CARE	3	2	96	1.78
is a SUPPORT PROVIDER	1	2	95	1.67
is an EDUCATOR	6	1	95	1.63
DELIVERS CARE	4	1	92	1.59
is a SKILLED COMMUNICATOR with PATIENTS and their SIGNIFICANT OTHERS	5	1	91	1.54
is a STEWARD of the NHS/HEALTHCARE ORGANISATIONS	11	2	88	1.33
is both AUTONOMOUS and COLLABORATIVE	12	1	86	1.42
is a LEADER	9	2	85	1.33
USES and CONTRIBUTES to a SPECIALIST EVIDENCE BASE	13	1	85	1.22
is a SPECIALIST POINT OF CONTACT for INFORMATION and ADVICE	7	1	83	1.32
is an ADVOCATE and ROLE MODEL	8	1	82	1.26
is a MANAGER	10	2	77	0.99

Table 3 shows in detail the results for the sub-category voting session for 'the Specialist Stoma Care Nurse has specialist knowledge and skills' statement, which received the highest level of agreement and is provided here to illustrate how results were organised and analysed (other sub-category voting results are summarised subsequently). The blue sections in Table 3 indicate consensus achieved in voting round one, green denotes consensus achieved in voting round two and the red section indicates no consensus achievement.

TABLE 3 Sub-category results for 'Specialist Stoma Care Nurse has specialist knowledge and skills.'

When consensus achieved	Sub-category title	Agreement
Consensus achieved at vote 2	**Clinical effectiveness**	**87%**

	Promoting health	**85%**
Consensus achieved at vote 1	**Stoma issues**	**85%**
	Skin issues	**84%**
	Products	**83%**
	High output stoma management	**83%**
	Stoma siting	**81%**
Consensus achieved at vote 2	**Standards**	**81%**
	Performance products	**81%**
Consensus achieved at vote 1	**Improving confidence**	**79%**
Consensus achieved at vote 2	**Psychological issues**	**78%**
Consensus achieved at vote 1	**Postoperative complications**	**78%**
	Diet	**77%**
	Improving quality of life	**76%**
	Fistula care	**76%**
Consensus achieved at vote 2	**Medication**	**75%**
Consensus achieved at vote 1	**Maximising independence**	**75%**
Consensus not achieved at either vote	**Wound care**	68%
	Goal setting	65%
	Academic qualification	64%
	Ileoanal pouch care	64%
	Prescribing	54%
	ACE care	45%
	Koch pouch care	42%
	Barnett continent intestinal reservoir care	18%

The modified Delphi consensus results are presented below for each individual statement, presented in descending order with those achieving the highest agreement presented first. The levels of consensus are presented as very high consensus (>95%), high consensus (85-94%) and consensus (75-

84%). The subcategories identified against each consensus statement are included beneath the main statement and divided as above into those achieving very high consensus, high consensus or consensus. Results are presented with the highest consensus scores first and the lowest last. The mean score is from the Likert scale of -2 for strongly disagree to +2 for strongly agree (see summary in Table 2). Additionally, results presented in italics are the 17 sub-categories that were added by respondents during voting session one.

Consensus statement 1: The CNS Stoma Care has specialist knowledge and skills

A very high consensus of agreement for the statement: the CNS Stoma Care has specialist knowledge and skills, was achieved (96%) on voting round two with a mean score of 1.79.

Three sub-categories achieved high consensus:

- Clinical effectiveness, stoma issues and promoting health (85-87%)

Fourteen sub-categories achieved consensus:

- Skin issues, stoma products, high output stoma management, stoma siting, standards, and performance of products (81-84%)
- Improving patient confidence, psychological issues, postoperative complications, diet, improving quality of life, fistula care, medication, and maximising independence (75-79%)

Eight sub-categories did not reach consensus:

- Wound care, goal setting, academic qualification, ileoanal pouch and prescribing (54-68%)
- ACE care, Koch pouch care and Barnett continent intestinal reservoir care (18-45%)

Consensus statement 2: The CNS Stoma Care assesses, plans, documents and evaluates care

A very high consensus of agreement for the statement: the CNS Stoma Care assesses, plans, documents and evaluates care, was achieved (96%) on voting round two with a mean score of 1.78.

Four sub-categories achieved high consensus:

- Physical needs, support needs, quality of life and product needs (85-86%)

Eleven sub-categories achieved consensus:

- Psychological needs, general stoma-related issues, psychological distress, stoma reversal, hospital discharge, patient consent, holistic, social needs, care records, adaptation and risks (76-83%)

All sub-categories relating to this statement achieved consensus.

Consensus statement 3: The CNS Stoma Care is a support provider

A very high consensus of agreement for the statement: the CNS Stoma Care is a support provider, was achieved (95%) on voting round two with a mean score of 1.67.

One sub-category achieved very high consensus:

- *Explaining terminology* (95%)

Fourteen sub-categories achieved high consensus:

- To: patients and significant others (89-93%)
- About: quality of life, anxieties, body image, *providing counselling*, nutrition, *supporting palliative care*, social, adjustment, and distress (85-92%)
- When: Preoperatively, postoperatively, and in the long term (89-91%)

Six sub-categories did not reach consensus:
- Diagnosis, cultural, support groups and 'as a counsellor' (68-71%)
- Spiritual and palliation (61-64%)

Consensus statement 4: The CNS Stoma Care is an educator

A very high consensus of agreement for the statement: the CNS Stoma Care is an educator, was achieved (95%) on voting round one with a mean score of 1.63.

Seven sub-categories achieved very high consensus:
- Of: patients, healthcare professionals and significant others (99-100%)
- About: *diet*, *hernia prevention*, *high output stoma* and stoma (95-97%)

Nine sub-categories achieved high consensus:
- Practical stoma care, obtaining supplies, lifestyle, identifying problems, education of self, how to seek help, risks, exercise, and colorectal disease (85-93%)

Three sub-categories achieved consensus:
- *Operative procedures* and options, public sector, and diagnostic skills (76-84%)

Four sub-categories did not reach consensus:
- *Ileoanal pouch*, *urology*, *religious issues* and *sarcoma* (15-71%)

Consensus statement 5: The CNS Stoma Care delivers care

A high consensus of agreement for the statement: the CNS Stoma Care is an educator was achieved (92%) on voting round one with a mean score of 1.59.

Two sub-categories achieved very high consensus:
- By *telephone* and to adults (97-98%)

Fourteen sub-categories achieved high consensus:
- Specialist, holistic, physical, lifestyle individual, social, competent, to adolescents (85-94%)
- When: preoperatively, in hospital, postoperatively, post discharge, in clinic and life-long (86-89%)

Nine sub-categories achieved consensus:
- Adaptable, cultural, flexible, sexual, regularly, to babies, in the community, *virtually* and in the patient's home (75-84%)

One sub-category did not reach consensus:
- Neonates (70%)

Consensus statement 6: The CNS Stoma Care is a skilled communicator with patients and their significant others

A high consensus of agreement for the statement: the CNS Stoma Care is a skilled communicator with patients and their significant others, was achieved (91%) on voting round one with a mean score of 1.54.

Five sub-categories achieved very high consensus:

- Building rapport, with empathy, with compassion, through meaningful conversation and providing support (97-99%)
- By forming partnerships, with diplomacy, and by ensuring patient choice (87-94%)

One sub-category did not reach consensus:

- Breaking bad news (67%).

Consensus statement 7: The CNS Stoma Care is a steward of the NHS/healthcare organisations

A high consensus of agreement for the statement: the CNS Stoma Care is a steward of the NHS/healthcare organisations, was achieved (88%) on voting round two with a mean score of 1.33.

Two sub-categories achieved a high consensus:

- Preventing hospital admissions and unnecessary referral (90-93%)

Nine further sub-categories achieved consensus:

- Resource management, preventing hospital readmissions, preventing product misuse, being efficient, adhering to formularies, appropriate stock management, working with medicines management, preventing GP visits, and identifying cost savings (76-84%)

Three sub-categories did not reach consensus:

- Being involved in procurement, creating formularies and being involved in budgeting (63-66%)

Consensus statement 8: The CNS Stoma Care is both autonomous and collaborative

A high consensus of agreement for the statement: the CNS Stoma Care is both autonomous and collaborative was achieved (86%) on voting round one with a mean score of 1.42.

Six sub-categories achieved high consensus:

- Collaborating with, signposting and referring to: nurses, multi-disciplinary team, General Practitioners, other healthcare professionals, dieticians and support groups (86-93%)

Three subcategories did not reach consensus:

- Collaborating with, signposting and referring to: other organisations, sexual health services and financial services (52-69%)

Consensus statement 9: The CNS Stoma Care is a leader

A high consensus of agreement for the statement: the CNS Stoma Care is a leader was achieved (85%) on voting round two with a mean score of 1.33.

There were no sub-categories associated with this statement.

Consensus statement 10: The CNS Stoma Care uses and contributes to a specialist evidence base

A high consensus of agreement for the statement: the CNS Stoma Care uses and contributes to a specialist evidence base, was achieved (85%) on voting round one with a mean score of 1.22.

Ten sub-categories achieved high consensus:

- Working to professional standards, conducting service audits, changing practice/service in response to evidence, work to local guidelines/pathways, keeping updated with best practice, collecting data, improving standards, implementing research findings, attending study sessions and working to national guidelines (85-89%).

Four sub-categories achieved consensus:

- Attending ASCN UK conference and participating in product trials, research to improve quality of care and research to improve quality of resources (81-84%)

Two sub-categories did not achieve consensus:

- Monitoring incidents/near misses and contributing to ASCN UK conference (74%)

Consensus statement 11: The CNS Stoma Care is a specialist point of contact for information and advice

Consensus of agreement for the statement: the CNS Stoma Care is a specialist point of contact for information and advice, was achieved (83%) on voting round one with a mean score of 1.32.

Fourteen sub-categories achieved high consensus:

- For: patients, significant others and healthcare professionals (90-92%)
- Preoperatively, postoperative, in the hospital and community (87-91%)
- Both: written and verbally (88-90%)
- About: complications, products promoting independence, lifestyle, travel, exercise, work diet and intimacy (85-91%)

Five other sub-categories achieved consensus:

- By being a resource, a mentor and developing others and about sexual health and dexterity (78-82%)

Six sub-categories did not achieve consensus:

- For the public sector, through social media, or digitally, acting as a consultant or preceptor and about religion (42-73%)

Consensus statement 12: The CNS Stoma Care is an advocate and role model

Consensus of agreement for the statement: the CNS Stoma Care is an advocate and role model was achieved (82%) on voting round one with a mean score of 1.26.

Eight sub-categories achieved high consensus:

- For patients by acting in their best interests and enabling informed choices (90-91%)

- For the stoma care specialism by improving the service, being visible and passionate, promoting the value of the service, being accountable and developing the profession (85-90%)

Six sub-categories achieved consensus:

- Advancing practice, generating enthusiasm, being innovative, opposing stigma, developing protocols and policies, and raising public awareness (78-84%)

Four sub-categories did not achieve consensus:

- *Liaise with pharmacists, being an advocate for other healthcare professionals, participating in ASCN UK functions* and *implementing innovation* (70-72%)

Consensus statement 13: The CNS Stoma Care is a manager

Consensus of agreement for the statement: the CNS Stoma Care is a manager, was achieved (77%) on voting round two with a mean score of 0.99.

All five sub-categories failed to achieved consensus:

- Facilitating revalidation, creating annual reports, managing staff, conducting appraisals and creating job plans (56-69%)

DISCUSSION

This modified Delphi consensus study was successful in determining key components of the CNS Stoma Care role. However, it is important to acknowledge that gaining consensus does not mean that all respondents agreed with each statement about their nursing role, rather that the population of respondents as a group, actively supported the statement.

All 13 statements proposed, derived from phase one and two of the study, achieved consensus. Although the consensus statements broadly align to the four pillars of advanced practice, most consensus statements relate directly to the clinical pillar of practice and the highest percentage of agreement (91-96%) during the consensus was for statements related to clinical practice (consensus statements 1, 2, 3, 5, 6). This result demonstrates that the clear focus on expert clinical practice in the description of the CNS role outlined by the RCN (2023) is supported by the existing evidence base into the CNS Stoma Care role and confirmed in this study by those working within stoma care in the UK. However, by identifying the various components of expert clinical practice that achieved consensus (67 sub-categories), the findings of this study also highlight the vast scope of clinical practice for the CNS Stoma Care and, therefore, the extensive knowledge, understanding and skill required to undertake this role. Moreover, this study extends existing understanding of the scope of the CNS role, adding new areas of recognised practice, such as remote consultation (consensus statement 5), and explaining terminology, providing counselling and supporting palliative care (consensus statement 3). Some specialist areas of clinical practice did not reach consensus, indicating that expertise in these areas constitutes an extension of practice, rather than being part of the general role of the CNS Stoma Care: wound care, ileoanal pouch, prescribing, ACE care, Koch pouch care and Barnett continent intestinal reservoir care and breaking bad news. Consensus statement 8 also clearly indicates that autonomy is a central component of practice for the CNS Stoma Care, supporting the argument that the CNS Stoma Care works at an advanced level of practice (Health Education England, 2017).

Education is a well-established part of the CNS Stoma Care role, with the only two statements achieving 100% consensus in the study relating to education: the CNS Stoma Care educates patients, and the CNS Stoma Care educates healthcare professionals. These findings not only support the argument that educating patients to become fully independent in the management of their stoma is of primary importance within the CNS Stoma Care role, but that facilitating professional development in others providing care for people with a stoma (including significant others) is also a central component of the role. Although education is not explicitly mentioned by the RCN (2023) in their account of the CNS role, it is clearly identified in this study an integral pillar of practice for the CNS Stoma Care. The Multi-professional Framework for Advanced Clinical Practice in England (Health Education England, 2017) explicitly identifies education of self, patients and other professionals as part of the education pillar of advanced practice, as well as collaborative working, aligned to consensus statement 8 in this study, and being a role model, aligned to statement 12 in this study. This suggests that the CNS Stoma Care is working at an advanced level of practice in the education pillar.

Although respondents considered being a leader to be a component of the CNS Stoma Care role, with 85% of responders agreeing or strongly agreeing to the statement, being a manager was the statement with the least consensus in the study (and only achieved consensus on the second vote at 77%). The mean Likert scale score for manager was below one (0.99), which also indicates a vote of *neutral* to *agree* (Table 2) and all subcategories relating to being a manager (facilitating revalidation, creating annual reports, managing staff, conducting appraisals and creating job plans) failed to achieve consensus. This could suggest that the CNS Stoma Care might associate being a manager with other aspects of the role, such as managing patient care. Health Education England (2017) associate management and leadership in advanced practice more broadly with partnership working, the ability to evaluate and challenge one's own practice and service, quality improvement, working within a defined scope of practice and organisational governance. None of these components of management or leadership were identified in the consensus study, although individual CNS Stoma Care may demonstrate them, suggesting that the general CNS Stoma Care role may not meet these all these advanced practice requirements.

However, building and maintaining effective relationships was highlighted as essential for the CNS Stoma Care and not just with patients, their significant others and other healthcare professionals, but also with industry (highlighted in phase two of the study and consequently added as a component in phase three). The need to manage relationships with industry is arguably unique to stoma care, requiring leadership skills to recognise role boundaries and the potential for complex ethical issues related to sponsorship and collaboration with representatives from stoma appliance manufacturers. Leadership in this context also extends to being a 'steward for the NHS or healthcare organisations,' to ensure that expensive stoma appliances and accessories are used effectively and efficiently. This component of the role would not have been articulated as a component of the CNS Stoma Care role when the role developed in the 1970s and is an indication of the changing context of stoma care practice and the need for the CNS Stoma Care to be contextually responsive.

Consensus statement 10 was the only statement that focussed on the research pillar of practice: the CNS Stoma Care uses and contributes to a specialist evidence base. Considering that research is generally recognised as the lowest pillar of advanced practice (Fothergill et al., 2022), and that it was not well described in the literature which informed the consensus statements for this study, a surprisingly high level of consensus was achieved for this statement (85%) on voting round one with a

mean score of 1.22. The capabilities supporting the research pillar of advanced practice (Health Education England, 2017) can be broadly divided into two areas: evidence appraisal and application, and conduct of evaluation, audit and research. These two areas resonate directly with statement 10 and with the fourteen sub-categories that achieved high consensus or consensus as part of this statement, demonstrating that the importance of research within the CNS Stoma Care role is recognised. The subcategory 'contributing to the ASCN UK conference' did not achieve consensus, however, which maybe suggests that research knowledge and skills are seen to be useful and applicable within individual services, rather than disseminated more widely. Although evidence-based practice is an expectation within nursing practice (NMC, 2018), most CNS Stoma Care job descriptions/plans do not include the conduct of research, rather they limit research skills to audit and other forms of quality improvement, which might also account for this finding. Degree-level education also confines teaching about research to evidence-based practice, whereas Master's-level programmes seek to develop a learner's research skills and apply them in practice. While degree-level education is accepted as a suitable educational level for the CNS Stoma Care, this is unlikely to change. Moreover, 'academic qualification' (consensus statement 1) failed to achieve consensus, suggesting a possible lack of connection and understanding between educational level and the ability to use and contribute to the specialist evidence-base among the CNS Stoma Care population, potentially limiting the development of this important pillar of practice. However, role-modelling is important, and research undertaken by nurses with a clinical background in stoma care demonstrates the value of research to improve practitioner knowledge and understanding and patient outcomes (Boucher, 2022; Williams, 2015, Thorpe, 2014).

This modified Delphi consensus study provides a comprehensive and contemporary account of the core elements of the role of the CNS Stoma Care in the UK drawn from around a third of the UK CNS Stoma Care population. Consensus was achieved on all 13 role related statements relating to clinical practice, education, leadership/management and research. The level of agreement ranged from 77-96%; with most statements gaining a high or very high consensus. There were 150 sub-categories that were agreed by at least 75% of respondents from the 193 sub-categories identified in total.

The role of the CNS Stoma Care can be clearly aligned to the four pillars of advanced practice (Health Education England, 2017), but with greater emphasis – and therefore a more advanced level of practice – in relation to clinical practice and education than leadership/management and research. The CNS Stoma Care uses specialist knowledge and skills to assess, plan, document and evaluate care. The CNS Stoma Care provides support and delivers care as well as being a skilled communicator with patients and their significant others. The CNS Stoma Care facilitates education and learning by being an educator and specialist point of contact for information and advice. The CNS Stoma Care provides leadership by being a steward to the NHS or healthcare organisations and works both autonomously and collaboratively. The CNS Stoma Care is a leader, advocate, role model and manager. The CNS Stoma Care uses and contributes to a specialist evidence base.

The CNS Stoma Care role is complex, with a strong focus on clinical practice and education. For those wishing to advance their level of practice beyond a general CNS role, more emphasis within their role may be required on leadership/management and research. A clearer articulation of the CNS role, using the results of this consensus study, against the roles of other practitioners working in stoma care, would help to develop stoma care services to meet the care needs of people preparing for stoma formation or living with a stoma, and could inform the evolution of the advanced nurse practitioner

in stoma care, where a greater level of expertise in scope of practice (e.g. independent prescribing), management and research is recognised as important to optimise patient outcomes and service delivery.

Limitations

Consensus was not reached at first vote for all statements. This included the first three questions to be posed to the respondents, which may have occurred for several reasons. After round one, respondents reported that they had not been able to read the words well on their phones as they were small, resulting in them potentially misreading the information and voting in a way that did not reflect their opinion. There is also a possibility that experts may not have been familiar with the consensus process or the online Slido® tool and consequently did not follow the voting process accurately. It is also possible, as expected within the Delphi consensus process, that once results were seen by respondents, they altered their vote to be in line with the rest of the group.

Demographic information was not captured at the beginning of each voting session. This means that it was not available for all voters and it was also impossible to link responses to demographics and therefore analyse responses according to group subsets, such as experience CNS Stoma Care working for over 10 years versus less experienced colleagues in specific areas.

A conscious decision was made by the authors to avoid leading the audience with personal interpretations by only using the terms and definitions found in the literature and provided by the experts in phases one and two of the study. However, misinterpretation of the terms and definitions used may have affected results. For one statement, steward of the NHS/Healthcare organisations (consensus statement 7), consensus was only achieved in round two following clarification being sought by the respondents following round one. It is also possible that the explanation provided during round two may have inadvertently influenced participants to vote in a certain way.

CONCLUSION

This modified Delphi consensus study clearly defines the components that together comprise the CNS Stoma Care role, as well as deepening understanding of the layers of complexity that exist within the role. The findings can be used to explain the nature of the role and raise the profile of CNS Stoma Care within their organisation and within the wider nursing community within the UK. The findings of this study provide evidence to support the need for services to draw on the expertise of a CNS Stoma Care, rather than employing healthcare practitioners with a much lower level of knowledge, expertise and experience, and can be used to inform decisions about the balance of nursing banding within a service.

This study demonstrates that the CNS Stoma Care works to the four pillars of advanced practice, but that the clinical and education pillars are likely to be higher than leadership/management and research. The study also provides evidence for a general CNS Stoma Care role, which applies to nurses working in a range of contexts and includes newly identified areas of practice aligned to contemporary practice. It is important to recognise that some CNS Stoma Care roles will require extended expertise and experience in some areas of clinical practice, and that some practitioners are likely to be more advanced than others, not just in their clinical expertise but also in their leadership and research pillars.

It is recognised from the results of this consensus that the CNS Stoma Care is a complex role, including many different elements. It is recommended that the CNS Stoma Care needs to undertake activities within this role to meet the four pillars of advanced practice. This in general may require a greater need to pursue leadership, management and research to ensure that the CNS Stoma Care is undertaking the role effectively and meeting the requirements of advanced practice. Future research into the development of CNS roles could increase an understanding of how to appropriately advance practice as well as to determine if findings are relevant to CNS Stoma Care roles outside of the UK.

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