

# Using a Nominal Group Technique to Inform a Curriculum of a Short Learning Programme for Peer Mentor Training in a Health Sciences Context

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## ABSTRACT


**Background:** The purpose of this study was to explore the use of a modified nominal group technique (mNGT) to inform the curriculum of a Short Learning Programme for peer mentors in the Bachelor of Clinical Medical Practice (BCMP) program. **Methods:** An mNGT was used to achieve group consensus. Research participants included academic staff and students of the BCMP program called clinical associate (ClinA) students. Two sessions of the nominal group techniques (NGTs) were conducted. Two questions were presented: (1) what should be the learning outcomes of a Short Learning Programme for peer mentors for ClinA students? and (2) what learning activities should be included to achieve the intended learning outcomes? **Results:** mNGT groups were both concluded in < 2 h and the costs involved were minimal. The priority outcomes of academic staff were to promote and encourage a positive, inclusive environment to enhance student morale; and to provide insight into the roles that peer mentors should fulfill. The primary objectives of academic staff were to foster and support a welcoming, inclusive atmosphere to boost student morale, as well as to offer guidance on the responsibilities that peer mentors should undertake. The top priorities of students were to provide insight into the role of a ClinA and the personal development of peer mentors. Learning activities suggested included time management and personal growth of peer mentors, “how to be an effective mentor,” and leadership skills. The outcomes formulated by research participants reflected the graduate attributes listed by the University of Pretoria as well as generic attributes described by international scholars. **Discussion:** A common NGT was an inexpensive and time-saving way to obtain rank-ordered data from research participants. This modified method ensured an equitable and inclusive approach, ensuring buy-in from all stakeholders, and is useful in the development of a curriculum for Short Learning Programmes. Both staff and students converged on common outcomes related to academic, psychosocial, and ClinA role support MeSH Terms: Consensus; Curriculum; Humans; Leadership; Mentors; Students.

**Keywords:** Clinical associates, graduate attributes, health sciences education, mentor training, nominal group technique, peer mentor, Short Learning Programme

## Background

The major shortage of health-care workers in South Africa negatively impacts the level of patient care.<sup>[1]</sup> This compounds

the work burden of health-care workers when they are unable to provide adequate care to patients due to workload. The purpose of introducing the Bachelor of Clinical Medical Practice (BCMP) program in South Africa was to increase the number of skilled mid-level health-care providers, especially in underserved rural areas.<sup>[2]</sup>

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The BCMP program is a 3-year qualification offered at three universities in South Africa, namely the Walter Sisulu University, the University of the Witwatersrand, and the University of Pretoria. A national curriculum framework was developed to ensure common standards but allows for local differences at each university. Students are either recruited by provincial departments of health with a special emphasis on identifying students from rural and disadvantaged areas or they can apply during the open enrolment period. Some students are offered provincial bursaries and successful candidates must work for a specified period in the province after graduating.<sup>[3]</sup>

Students in the BCMP program are called clinical associate (ClinA) students. After graduating, they work as ClinAs, under the supervision of a qualified medical practitioner. ClinAs work as part of the health-care team in district hospitals and clinics in the public sector and with doctors in the private sector. Their scope of practice includes assessment and management of emergency cases as well as performing routine procedures and managing patients in the maternity wards, pediatric wards, as well as mental health wards. Similarly, they can assist in theater and perform routine surgical procedures.<sup>[4]</sup>

ClinAs are educated, apart from on-campus contact sessions, in health-care facilities, predominantly in rural areas. In authentic real-life settings such as health-care facilities, they gain skills and a concrete understanding of the fundamental challenges of providing health services in remote and poverty-stricken districts in South Africa.<sup>[2,5]</sup> During their 3 years of study, ClinA students at the University of Pretoria spend more than 60% of their time at a designated clinical learning center (CLC).<sup>[6]</sup> A CLC is a selected district hospital or clinic where students do their clinical work-integrated learning (WIL). A decentralized model of WIL is followed.<sup>[7]</sup> During their 3 years of study, they are supervised by health-care staff (e.g. family physicians or ClinAs) at the CLCs. The reasons for this decentralization are a strong emphasis on problem-based learning and the need for early and prolonged clinical exposure.<sup>[2]</sup> Traditional support structures offered by the university, e.g. tutors, student advisors, clinical psychologists, or administrative support (financial aid, bursary inquiries, and registration issues), are not available at all the rural remote CLCs, making it difficult for students to access these support services.

ClinA students face unique academic and psychosocial challenges associated with learning predominantly off-campus. The absence of institutional support at decentralised CLCs leads to challenges identified by the researchers in an earlier study.<sup>[8]</sup> A peer mentor program has provided academic and psychosocial support in other settings, especially to 1<sup>st</sup>-year students.<sup>[9,10]</sup> At the University of Pretoria the ClinA students have the same mentor program as other health-care science

students with access to a wide range of onsite student support services. The peer mentor program that is followed at present focuses on peer mentors and mentees (1<sup>st</sup>-year students) developing a strong relationship by meeting in person regularly. With the BCMP program, in-person meetings are not always possible. The need for training these peer mentors was identified by the authors<sup>[8]</sup> as these mentors have to address the needs of 1<sup>st</sup>-year students, who are often of rural origin and first-generation graduates, and who mostly learn in settings far from the university.<sup>[7]</sup>

Several qualitative research techniques or tools can be used to gather information. A classic nominal group technique (NGT) is valuable in generating issues for group discussion, but it can also take up to 3 h to reach a consensus. Dobbie *et al.* simplified the classic NGT to a modified NGT (mNGT) where questions for discussion are provided to the group and then can result in semi-quantitative, rank-ordered feedback data in a shorter time (about 90 min).<sup>[11]</sup> The decision was made to use a mNGT as it is cost-effective and saves time while still allowing the opportunity to collect rich data that provide an in-depth understanding of the perceptions and priorities of the participants.<sup>[12,13]</sup>

### Aim of the study

The aim of this study was to explore the use of a mNGT as a means to inform the curriculum of a training program for peer mentors in the BCMP program.

## Methods

### Setting

The study was conducted at the University of Pretoria, one of the three universities that offer this program in South Africa.

### Sample size and sampling

Students and academic staff in the BCMP program at the University of Pretoria were recruited as participants for this study. Purposive sampling was used; the ClinA students from all 3 years were selected due to their qualities (experience as a mentor, mentee or tutor) and academic staff was selected based on their experience in student support and/or their involvement in the BCMP program. This nonrandom technique was chosen in line with the approach suggested by Etikan *et al.*,<sup>[14]</sup> because the researchers needed information from individuals with sufficient knowledge and experience of student support. Invitations were extended to potential participants through E-mail, accompanied by an information document detailing the study's objectives, procedures, and participant expectations. The sample size for the first nominal group was six and for the second nominal group it was ten. In both cases, data saturation occurred during Step 3 of the study.

## Method of data collection

The researchers employed the mNGT as a research method to achieve group consensus on the learning outcomes and activities that should be included in the planned peer mentor training program. A mNGT was used and the steps, as suggested by Dobbie *et al.*,<sup>[11]</sup> were followed. These steps are (1) present questions to the group of participants, (2) silent phase, (3) round-robin phase, (4) discussion or item clarification, (5) voting phase, (6) small-group data gathering, (7) large-group data combining, and (8) large-group discussion around dominant themes.

Two mNGT sessions were conducted due to the COVID-related restrictions on large gatherings: one with the students and one with academic staff. These restrictions meant that Step 7 (large-group data combining) was not followed, as the two groups were done in separate sessions. Both sessions were conducted following the same steps and using the same questions. The first author facilitated the mNGT process with the support of an administrative assistant (a postgraduate student who volunteered to assist in taking field notes and capturing the data into Excel). Detailed information on each of the steps followed is discussed next.

### *Step 1 present questions for discussion to groups*

Two questions were presented to the participants, namely

- What should be the learning outcomes of a peer mentor training program for ClinA students?
- What learning activities should be included so that peer mentors-in-training can achieve the intended learning outcomes?

### *Step 2 silent phase*

Each participant was issued with two different colors of “sticky note.” The participants were invited to record a single learning outcome (question one) on a yellow note, without conferring or discussing with other group members. Participants could use as many notes as they wish, but each note recorded only one outcome. The same method was followed for the second question, using green notes.

### *Step 3 round-robin phase*

Participants were instructed to stick their sticky notes on the flip chart without comment or discussion. The first author of this article who acted as the facilitator and an administrative assistant grouped items (outcomes or learning activities) that were similar together.

### *Step 4 discussion/item clarification*

During this phase, the respective groups discussed and clarified items that were unclear. This discussion continued until all participants agreed on the meaning of each item.

### *Step 5 voting phase*

Participants were asked to rank their suggestions. The maximum number of points were awarded (depending on the number of outcomes identified by the group) to the highest priority item and one point was allocated to the lowest priority item.

### *Step 6 group data gathering*

The facilitator and the assistant gathered the data, recorded it on an Excel spreadsheet, and kept the lists as part of the audit trail. The final lists (with weightings after the voting results) were presented to the groups during their respective sessions.

### *Step 8 discussion around items*

The final step was a discussion around the items to be able to reach consensus. The assistant made notes and recorded the verbal discussion for auditing purposes.

## Data analysis

Analyzing data from a mNGT involves a blend of qualitative and quantitative approaches. The gathered data encompasses the contents of flipcharts adorned with “sticky notes,” which participants contributed during the round-robin phase. In addition, field notes were taken during the ensuing discussions.

During the discussion phase, items were clarified and similar or overlapping items were grouped together. The discussions persisted until a consensus was achieved regarding the interpretation and categorization of these items. To ensure objectivity and mitigate potential researcher bias arising from theoretical inclinations or preconceived notions, a conventional content and thematic analysis approach was used to analyze qualitative data. This approach, as demonstrated in prior studies, effectively minimizes such biases.<sup>[15]</sup>

The quantitative data emerged from the scoring and ranking methods employed to conclude the meeting process and ascertain group priorities. Following the discussion phase, a revised list of items was presented to the participants. Each participant was tasked with selecting the most crucial statement and assigning marks accordingly: 5 points for the most important statement, 4 points for the second-most important, descending to 1 point for the fifth-most important statement. Items were ranked based on the number of votes received by each item. The cumulative points for each item were computed to create a rank-ordered, weighted list of the group’s responses to the two questions, utilizing Excel worksheets to ensure precision and ease of interpretation.

## Ethical considerations

The study was approved by the University of Pretoria Faculty of Health Sciences Research Ethics Committee (657/2020). Emphasis was placed on maintaining the confidentiality

of all shared information. Written informed consent was obtained from each participant before participation and participants had the right to not participate or to withdraw at any time.

## Results

The participants of the first group [Table 1] were six academic staff members, including the program coordinators of the BCMP program. The second group [Table 2] had ten student participants representing 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> year ClinA students.

For both groups, the facilitator of the sessions allocated 3 h per group; however, the mNGT process was finalized in <2 h. The time taken for each step for Group 1 was as follows: the introduction and Step 1 took 10 min, Step 2 was given 15 min, Step 3 took 15 min, and the discussion (Step 4) took another 20 min. The voting (Step 5) and the discussion (Step 6) were done, and consensus was reached after an additional 30 min, giving Group 1 a total of 90 min. Group 2 had more discussion time during Steps 4 and 6, but reached consensus after 110 min. The costs for conducting this method were minimal – a lecture hall at the university was used, and the voice recording was done with the facilitator’s cell phone. The materials used (e.g. sticky notes and writing materials) were

either paid for by the researcher or supplied by the university. The total costs, including catering, were around R. 500.00.

### Outcomes of the peer mentor training program

During data collection, the staff members formulated eight outcomes, while the students formulated nine. Both groups ranked (1) providing academic support; (2) guidance and insight into the role of a ClinA, and (3) providing psychosocial support under the top five outcomes [Tables 2 and 3].

The top priority of academic staff was to promote and encourage a positive and inclusive environment to enhance the morale of students [Table 2]. The students did not mention the environment specifically, but their outcome number three stated “to help build confidence in ClinA students” [Table 3]. Although these two outcomes were worded differently, the underlying sentiment is similar – If confidence is built, self-esteem will also be boosted.<sup>[15]</sup> Self-esteem is defined as “the most dominant and powerful predictor of happiness.”<sup>[16]</sup> If students are feeling happy, their morale will probably also improve.

For the students, providing guidance and insight into the role of a ClinA and the identity of a ClinA student was their top priority [Table 3]. They mentioned equipping peer mentors to

**Table 1: Demographic data of participants of both nominal groups**

Nominal group 1: Staff members				
Participant	Gender	Role	Highest academic qualification	Years of employment at University of Pretoria
1	Male	Program coordinator	PhD degree	>10
2	Female	Program coordinator	Master's degree	>10
3	Female	Facilitator/lecturer	Master's degree	Between 6 and 9
4	Female	Facilitator/lecturer	Bachelor's degree	Between 6 and 9
5	Female	Facilitator/lecturer	Bachelor's degree	Between 3 and 5
6	Male	Facilitator/lecturer	Bachelor's degree	2
Total 6	Male=33.3% Female=66.6%	Program coordinators=33.3% Facilitators=66.6%	Bachelors=50% Masters=33.3% PhD=16.6%	0–2 years=16.6% 3–5 years=16.6% 6–9 years=33.3% <10 years=33.3%
Nominal group 2: Students				
Participant	Gender	Are/were you a peer mentor?	Years of study	
1	Female	No	1	
2	Female	No	1	
3	Choose not to say	No	2	
4	Male	Yes	2	
5	Female	Yes	2	
6	Female	Yes	2	
7	Female	Yes	2	
8	Male	No	2	
9	Female	Yes	3	
10	Female	Yes	3	
Total 10	Male=20% Female=70% Choose not to say=10%	Peer mentors=60% Mentees=40%	1 <sup>st</sup> years=20% 2 <sup>nd</sup> years=60% 3 <sup>rd</sup> years=20%	

**Table 2: Results of modified nominal group technique 1**

	Individual participants' score						Total	Rank
Question 1. Learning outcomes of a peer mentorship training program for ClinA students								
To promote and encourage a positive and inclusive environment to enhance the morale of students	7	8	7	8	6	8	44	1
To provide academic support and guidance	4	5	7	7	8	3	34	2
To provide insight into the role of ClinA and develop into role models for junior students	8	8	5	5	2	1	29	3
To provide connection opportunities and encourage engagement between first year students and faculty members	5	2	4	2	6	6	25	4
To provide psychosocial support	3	6	6	4	1	2	22	5
To provide information and resources: Support services (academic, financial, physical and mental health referrals) as well as IT support	6	1	4	5	2	4	22	5
To provide clinical skills support (traditional learning versus. peer mentorship)	2	1	4	3	2	5	17	6
To provide information and give guidance on financial management	1	3	3	1	2	7	17	6
Question 2. Learning activities to be included								
Time management practical application	15	13	14	13	11	13	79	1
Personal growth – strengths and weaknesses; self-awareness; role playing	12	14	14	6	15	14	75	2
Team building activities – involve staff members, peer mentors and mentees	15	13	9	2	5	9	53	3
Communication skills – listening skills, conflict management	1	1	14	11	8	15	50	4
How to be an effective mentor – role and responsibilities	15	8	6	4	11	3	47	5
Revision of first year clinical skills	10	10	8	9	7	2	46	6
Lifelong learners – definition, practical applications	9	7	9	3	11	6	45	7
Resources (lists) of support available	3	6	10	13	12	1	45	7
My body is a temple – gender, sexuality, anti-discrimination policy	2	11	12	1	5	14	45	7
Basic counselling skills – models, theory, practical examples an role playing	10	12	6	1	3	12	44	8
Mental health – awareness, signs, referral process	5	4	8	11	8	7	43	9
The scope of practice and role of a clinical associate in South Africa	4	15	7	9	3	3	41	10
Leadership skills	9	4	12	1	5	2	33	11
Financial education – budgeting, accommodation options, how to be wise with money	2	2	10	7	4	6	31	12
IT support – clickUP*, online learning platforms, social media ethics	8	4	3	5	7	1	28	13

\*ClickUP is an acronym referring to the distinct Learning platform UP uses, namely Blackboard

**Table 3: Results of modified nominal group technique 2**

	Individual participants' score						Total	Rank			
Question 1. Learning outcomes of a peer mentorship training program for ClinA students											
To provide insight into the role of ClinAs and the identity of a clinical associate student	9	6	9	4	9	5	9	8	7	66	1
To provide academic support and advice	6	8	8	6	4	8	9	4	4	57	2
To provide support to mentees in clinical skills	6	9	9	6	6	9	5	4	3	57	2
To help build confidence in a ClinA students	5	8	7	1	7	5	7	5	8	53	3
To provide psychosocial support	4	3	1	7	5	9	8	3	7	47	4
To equip peer mentors to be able to encourage teamwork	1	7	3	4	3	8	2	8	4	40	5
To assist peer mentors to develop to their maximum personal and academic potential – self awareness	3	2	2	3	6	2	5	7	4	34	6
To encourage building a strong relationship between peer mentor and mentee	3	6	5	2	3	3	1	7	3	33	7
To equip peer mentors to develop interpersonal communication skills	5	1	1	1	3	1	2	1	2	17	8
Question 2. Learning activities to be included											
Take a mentee to work day	7	12	10	10	10	8	12	11	12	92	1
Role of ClinA student, scope of practice	1	10	12	5	11	1	12	12	11	75	2
Encourage/teach how to do group discussions between mentors and mentees	8	7	8	6	8	5	8	3	7	60	3
Teach leadership skills	10	4	7	2	12	3	10	4	7	59	4
Time management and study skills	2	9	6	5	11	3	9	6	8	59	4
How to be an effective mentor	10	5	2	10	4	1	8	10	6	56	5
Mentor/mentee activities and events; Regular meetings	2	9	4	9	2	2	6	9	11	54	6
Teambuilding activities	4	7	5	12	3	4	7	4	7	53	7
Share resources and list of resources	11	12	3	1	9	1	4	9	3	53	7
Teach communication skills	1	2	9	1	6	9	7	6	5	46	8
Psychosocial support skills	6	11	8	1	1	5	6	2	5	45	9
Support system for mentors	3	7	3	5	2	2	4	5	6	37	10



be able to encourage teamwork (ranked number five), while the academic staff were more focused on the importance of engagement between 1<sup>st</sup>-year students and faculty members (rank number four). Staff members felt that the peer mentors might be able to provide connection opportunities between the students and staff members that might lead to improved engagement in class or at the CLCs [Table 2]. For the students, outcomes ranked six to eight focused on the personal development of the peer mentors – to assist them to develop to their maximum personal and academic potential and to develop interpersonal communication skills in order to build a strong mentor-mentee relationship [Table 3].

The academic staff focused more on the roles that the peer mentor should fulfill. Their outcomes (ranked 6–9) stated that the peer mentor should be able to provide clinical skills support, provide information and resources regarding psychological and academic support services, and provide guidance on financial management [Table 2].

### Learning activities

The academic staff identified 15 learning activities that were deemed important to include in a training program for peer mentors [Table 2]. The top ranked topics were time management and self-awareness/personal growth of the peer mentors. Team building activities, communication skills, and “how to be an effective mentor” were ranked third to fifth on the list.

Something noteworthy is the fact that the highest-ranked activity mentioned by the academic staff, namely the practical application of time management, was only ranked fifth by the students and it was combined with study skills. The students identified 12 learning activities, ranked “Take a mentee to work” day as their highest priority [Table 3]. Their top-ranked activities also included teaching leadership skills and encourage/teach peer mentors how to do group discussions between mentors and mentees.

Activities mentioned by academic staff, but not by the students, included information on basic counseling skills; definitions and practical applications of being lifelong learners; and information/workshop on antidiscrimination policies, gender-based violence, and gender and sexual identity. Unique to the students’ list of activities was the inclusion of regular mentor/mentee activities and meetings and the establishment of a support system for the peer mentors.

The researchers did not intentionally incorporate graduate attributes while formulating the program outcomes, but following the thematic analysis of the outcomes and learning activities, it became apparent that the emerging themes align with some graduate attributes of the university.<sup>[17]</sup>

The University of Pretoria aims to shape graduates with certain aspirational characteristics. These characteristics are divided in four main pillars: (1) basic values, skills, and orientation to the world; (2) social skills; (3) cognitive skills; and (4) career-related skills.<sup>[17]</sup> While analyzing the themes of the outcomes mentioned by both groups (students and staff members), it became clear that all four pillars are included. [Table 4] According to the list of graduate attributes,<sup>[17]</sup> “Basic values, skills, and orientation to the world” includes mention of ethical behavior, respect for humanity and the environment, eschewing all forms of discrimination and valuing diversity and transformation. Graduates should also be adaptable self-directed lifelong learners who function independently and confidently taking responsibility for their own development. The outcomes mentioned by the students which align with this were to help build confidence in ClinA students and to assist (The authors believe that, in taking problem-based learning into account, one shouldn’t assist someone, but rather create opportunities for them to maximize their own potential) peer mentors to develop to their maximum personal and academic potential, to develop self-awareness. The students identified outcomes that corresponded with this approach, including fostering confidence in ClinA students and assisting peer mentors in reaching their full personal and academic potential - although the authors believe that, in taking problem-based learning into account, one shouldn’t assist someone, but rather create opportunities for them to maximize their own potential. The staff members mentioned the promotion and encouragement of a positive and inclusive environment to enhance the morale of students. The learning activities the staff members identified that align with basic values and skills included sessions on personal growth and development (identifying strengths and weaknesses, self-awareness); define the term “Lifelong learner” with practical applications and sessions on anti-discrimination and transformation policies. The staff members pinpointed learning activities that align with “Basic values, skills, and orientation to the world”. These activities encompass sessions focused on personal growth and development, which involve recognizing one’s strengths and weaknesses and enhancing self-awareness and defining the concept of a “lifelong learner” and applying it in practical contexts. Furthermore, the identified activities encompass sessions dedicated to anti-discrimination and transformation policies. The students added an information session on how to be an effective mentor.

The “Social Skills” pillar described graduates who have good interpersonal skills; who are able to communicate competently with a range of people and communities in diverse social and cultural settings and are able to work collaboratively and cooperatively in teams.<sup>[17]</sup> The “Social Skills” pillar pertains to graduate attributes in relation to good interpersonal skills. These individuals are capable of communicating competently

**Table 4: Alignment of University of Pretoria graduate attributes and outcomes formulated**

Graduate attributes	University of Pretoria description	Objectives aligned with graduate attribute
Basic values, skills and orientation to the world	Behave ethically and with integrity Respect the humanity and dignity of others and eschew all forms of unfair discrimination Value cultural diversity, social equality, social justice and social responsibility Value transformation for the betterment of society Respect the environment and value the sustainable use of environmental resources Are adaptable self-directed lifelong learners who function autonomously and confidently as individuals and take responsibility for their own decisions and development Have an entrepreneurial orientation to life	To help build confidence in ClinA students To assist peer mentors to develop to their maximum personal and academic potential, to develop self-awareness To promote and encourage a positive and inclusive environment to enhance the morale of students
Social skills	Have good interpersonal skills Are able to communicate competently with a range of people and communities in diverse social and cultural settings Are able to work collaboratively and cooperatively in teams	To equip peer mentors to be able to encourage teamwork To encourage building a strong relationship between peer mentor and mentee To equip peer mentors to develop interpersonal communication skills To provide connection opportunities and encourage engagement between 1 <sup>st</sup> year students and faculty members
Cognitive skills	Are creative problem-solvers, displaying critical thinking and multi-disciplinary approaches in pursuit of solutions to problems Exhibit intellectual curiosity and an inquiry-led approach to knowledge Are cyber literate and able to find, evaluate and use information appropriately	To be able to provide psychosocial support To provide academic support and advice/guidance To provide information and resources: support services (academic, financial, physical and mental health referrals) To provide IT support/advice To give guidance on financial management
Career-related skills	Have a sound knowledge of their field of specialization Are able to use work related technology effectively and can efficiently adjust to and use new technologies Are able to assume leadership roles in the workplace when appropriate Can work productively under pressure Promote and adhere to high standards of professional conduct	To provide insight into the role of ClinAs and the identity of a clinical associate student To provide clinical skills support to mentees To develop into role models for junior students

across diverse social and cultural contexts, and they are adept at collaborating and cooperating within various team environments.<sup>[17]</sup> These characteristics were all mentioned as part of the outcomes, namely to equip peer mentors to be able to encourage teamwork; to encourage building a strong relationship between peer mentor and mentee; to equip peer mentors to develop interpersonal communication skills; and to provide connection opportunities and encourage engagement between 1<sup>st</sup>-year students and staff members. As mentioned in the previous paragraph, the participants' exact words and phrases were used, e.g. "to equip peer mentors" to formulate the outcomes. The authors believe that one cannot equip (or empower) someone else; however, educators can create opportunities for the person to equip or empower themselves.

Several of the learning activities mentioned by the participants align with social skills. The students added activities to teach peer mentors how to do group discussions between mentors and mentees, organizing mentor/mentee activities and events and to facilitate regular meetings between mentor and mentees. Teambuilding activities as well as opportunities to improve communication skills were mentioned by students and staff members.

"Cognitive skills" include being creative problem-solvers, displaying critical thinking and multidisciplinary approaches

in pursuit of solutions to problems as well as exhibiting intellectual curiosity and an inquiry-led approach to knowledge and being cyber literate.<sup>[17]</sup> The students and staff members had similar outcomes, namely peer mentors should be able to provide psychosocial support, academic support, and advice/guidance, provide information and resources: Support services (academic, financial, physical and mental health referrals), computer skills support and provide information and give guidance on financial management. Both students and staff members mentioned similar outcomes, specifically indicating that peer mentors should possess the ability to offer psychosocial and academic support/guidance, as well as provide information and access to resources. These resources encompass academic, financial, physical, and mental health referrals, assistance with computer skills, and offering guidance on financial management.

When looking at the learning activities, similar themes emerged. Both groups discussed the practical applications of time management and study skills, although their rankings of importance differed. In addition, both groups mentioned the importance of information on how to be an effective mentor. In order to offer effective psychosocial support, participants added that peer mentor training should include activities on mental health awareness (basic signs and referral process) and basic counseling skills. Staff members added

activities on financial education (basic budgeting) and online learning support, for instance guidance regarding navigating ClickUP. (ClickUP is the digital Blackboard Learner Management System used by the University of Pretoria) d) and information on social media ethics. Staff members included activities on financial education, covering fundamental budgeting skills, as well as guidance on navigating ClickUP, the University of Pretoria's digital Blackboard Learner Management System. Additionally, they included information on practicing social media ethics.

The final pillar is “career-related skills.”<sup>[17]</sup> A graduate of the University of Pretoria should “have a sound knowledge of their field of specialization; are able to use work-related technology effectively and can efficiently adjust to and use new technologies; are able to assume leadership roles in the workplace when appropriate; can work productively under pressure and promote and adhere to high standards of professional conduct”. Both groups (students and staff members) had similar outcomes, namely to provide insight into the role of ClinAs and the identity of a ClinA student and to develop into role models for junior students and to provide clinical skills support to mentees. The students came up with a “Take a mentee to work” learning activity to show the 1<sup>st</sup>-year students what they can expect when working at a CLC. Other career-related activities mentioned by both groups were information on the scope of practice and role of a ClinA in South Africa and training in leadership skills.

## Discussion

The purpose of this study was to explore the utility of a mNGT to inform the curriculum of a training program for peer mentors in the BCMP program. The mNGT technique was used to gain information and advice from members of staff and students in the BCMP program on the learning outcomes and activities that should be included in the envisaged training program.

The mNGT process is easily facilitated and inexpensive. The participants were encouraged to interact and to make their voices heard. When the different learning outcomes were discussed in the group, it happened more than once that the discussion led to an improved contribution – where comments from other participants clarified the proposed learning outcome. Consensus could be reached quickly in an uncomplicated and transparent way. The authors recommend that researchers allocate at least 2 to 3 h for a NGT, or even 2 h per question,<sup>[12,18,19]</sup> but with the mNGT used in the study in question it was concluded in under 2 h. Previously published research on utilizing NGT as a research method suggested that researchers should set aside a minimum of 2 to 3 hours per session or even allocating 2 hours per question.<sup>[12, 18, 19]</sup> However, in this specific study being discussed, the mNGT was completed in less than 2

hours, answering 2 questions. Staff members commented that, after participating in the mNGT, they realized that this method can be used in multiple settings, especially when conducting group discussions with their students.

It is worth noting that both groups prioritized three common outcomes among their top five rankings. These outcomes were providing academic support; offering guidance and insight into the role of ClinA, and delivering psychosocial support. Staff members' highest priority was fostering a positive and inclusive environment to boost student morale. In contrast, the students placed greatest emphasis on providing guidance and insight into the role of ClinA and the identity of a ClinA student.

The staff identified a comprehensive list of 15 learning activities or topics essential for a peer mentor training module. The most popular topics were time management and self-awareness/personal growth of peer mentors. A difference was noted in the perceived importance of time management as the staff members placed it as top priority, while students ranked it fifth and combined with study skills. These topics, including defining the mentors' roles and responsibilities, leadership skills, and information on institutional resources, align with what has been reported by other authors discussing peer mentor training programs.<sup>[20-22]</sup> In contrast, the students' most popular activity was a “Take a Mentee to Work,” which was not mentioned by staff members. In addition, students highlighted teaching leadership skills and facilitating group discussions between mentors and mentees as crucial activities. There were certain activities listed by staff but not mentioned by students or other authors. These activities encompassed basic counseling skills, explanations and practical applications of lifelong learning, and workshops on antidiscrimination policies, gender-based violence, as well as gender and sexual identity.

A strength of the study was the unintentional alignment of the outcomes to graduate attributes. The researchers did not intentionally incorporate graduate attributes while formulating the program outcomes, but following the thematic analysis of the outcomes and learning activities, it became apparent that the emerging themes align with University of Pretoria's Graduate Attributes.<sup>[17]</sup> Graduate attributes go beyond academic knowledge and clinical skills required to complete a degree as they reflect the core values of the institution and prepare graduates to have a positive influence on the betterment of society.<sup>[23]</sup> The importance of constructive alignment of learning outcomes that is derived from graduate attributes are mentioned by Oliver.<sup>[24]</sup> One of the advantages of this alignment is the premise that the attainment of graduate attributes could increase chances of employment.<sup>[24]</sup>

The Covid pandemic was a limitation as it was not possible to repeat the mNGT at any of the distributed training sites



as the clinical staff were all involved in responding to the pandemic.

## Conclusion

This study utilized a mNGT to gather valuable input and insights from both staff and students in the BCMP program regarding the learning outcomes and activities that should be included in a Short Learning Programme for peer mentors. The mNGT process proved to be a practical and cost-effective method, promoting active participant engagement and facilitating transparent decision-making. The study revealed that the mNGT discussions often led to enhanced contributions, with participants offering clarifications and building upon each other's ideas. Although previous recommendations suggested allocating several hours for the NGT, this study demonstrated that the mNGT can be concluded within 2 h, highlighting its time-saving potential.

Both staff and students converged on common outcomes related to the academic, psychosocial, and ClinA role support. Both staff and students mentioned similar outcomes related to academic and psychosocial support as well as insight into the role of a ClinA. However, they exhibited differing priorities and perspectives in terms of fostering an inclusive environment, engaging students, and developing peer mentors. These variations extended to the selection and ranking of learning activities, showcasing distinct preferences and goals for the mentor training program.

A noteworthy outcome of the study was the unintended alignment of the identified outcomes with the graduate attributes of the institution. The researchers had not intentionally incorporated graduate attributes when formulating the program outcomes; however, through thematic analysis, it became evident that the emerging themes resonated with the institution's core values. This unintentional alignment reflects the holistic nature of the program, which aims to develop graduates who possess not only academic knowledge and clinical skills but also the qualities needed to positively impact society.

Furthermore, the participants, including staff members, recognized the broader applicability of the mNGT method beyond the scope of this study. They acknowledged its potential usefulness in facilitating group discussions with students, indicating the value of incorporating such techniques into various educational settings. After successfully concluding this phase of the study, the subsequent stage focused on developing and implementing a Short Learning Programme for peer mentors. It is highly advisable for future research endeavors to incorporate the assessment of this training program, utilizing the mNGT methodology. By adopting the mNGT methodology, valuable insights and perceptions can

systematically be gathered from all stakeholders involved in the training program. This approach will enable researchers to assess the training program's effectiveness, identify areas for improvement, and possibly measure its overall impact on the peer mentors' performance in the BCMP program

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## Conflicts of interest

There are no conflicts of interest.

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