



“Some Seniors Still Care About Us”: Impact of Sociocultural Factors on Near-Peer Teaching in a Hong Kong Medical School

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ABSTRACT

This paper reports on a small qualitative study exploring sociocultural factors and their impact on a student-led, near-peer teaching (NPT) initiative at the early stages of its implementation in a medical school in Hong Kong. Near-peer teaching—whereby students teach their junior peers in the same course—is recognized as an effective pedagogical approach in medical education. However, few studies have explored the pedagogical perceptions of students being taught by their peers.

A qualitative study was conducted involving second-year and fifth-year medical students from a single institution in Hong Kong, who participated as peer learners and peer teachers respectively in a student-initiated NPT program spanning five months. Nine peer learners and three peer teachers were interviewed.

This study brings to light three major themes regarding NPT and how this teaching approach impacts students' learning, namely (1) students' learning priorities, (2) students' perceived extent of knowledge in their near peers, and (3) individualistic learning approaches. Peer learners' specific learning contexts seem to shape their learning priorities in terms of whether they are exam-oriented or clinical-oriented. Students' perceptions of their near peers' level of expertise is manifested in doubt regarding NPT's pedagogical legitimacy, while their individualistic approaches to learning—amid a competitive educational environment lacking adequate support systems—leads students to perceive NPT as serving a social role beyond its academic purpose.

This study highlights the need to consider the specific sociocultural context in which NPT programs are being developed, given its direct impact on NPT's feasibility, efficacy, and sustainability.

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In 2020, the world's universities moved online due to COVID-19. It was a global phenomenon and a huge challenge that was met with remarkable resilience and adaptability from both teaching staff and students. Suddenly, everybody was learning online, together but in separate locations, and providing a sense of belonging—so central to an effective learning environment—became paramount (Delahunty et al., 2014). The informal, social learning taking place in corridors, coffee shops, and sports centers where students discuss readings and lectures—crucial to the university experience—disappeared overnight. In Hong Kong, the shift from face-to-face to online learning happened even earlier than the rest of the world. Already in November 2019, universities in Hong Kong closed down following social unrest (Jung et al., 2021), and all teaching was moved online with immediate effect. Not only did students have to adapt to a new learning environment, but their social support and networking also changed significantly. In response to this situation, a group of medical students at the Li Ka Shing Faculty of Medicine at the University of Hong Kong took the initiative to provide an NPT service to their junior colleagues. The initiative was entirely student-led but with strong support from faculty.

This paper is an account of the student-led, near-peer teaching initiative and the sociocultural factors that emerged as being decisive in shaping an effective and sustainable learning environment.

LITERATURE REVIEW

Near-peer teaching (NPT) is increasingly recognized as an effective pedagogical approach to supplement formal medical education. This approach—in which senior students, “near peers” defined as “one or more years senior in training on the same level of the medical education spectrum” (Bulte et al., 2007, p. 583), teach junior students—has gained attention internationally in recent years, with many institutions formalizing and evaluating the impact of NPT programs as documented in published literature (Yu et al., 2011; Iqbal et al., 2020). Within the Hong Kong context, the professional regulatory body, namely the Medical Council of Hong Kong, has identified one of the key aims of undergraduate medical education as preparing graduates to fill the role of “educator” (Medical Council of Hong Kong, 2017). Yet, the formal medical curriculum lacks mechanisms specifically targeted toward preparing students to teach. While teaching by senior medical students frequently takes place informally on an ad-hoc basis, NPT has not yet been formally recognized and incorporated into medical education (Tong & See, 2020). However, nursing students have participated in a faculty-led NPT program in the past, which was found to be a predominantly positive experience for peer teachers and learners (Loke & Chow, 2007).

The benefits of NPT on students are underpinned by social and cognitive congruence theory, which purports that similarities between peer teachers and learners in terms of knowledge base (cognitive congruence) and social roles (social congruence) facilitate effective learning (Lockspeiser et al., 2008). Because of the phenomenon of the “curse of knowledge” or the “curse of expertise,” peer teachers are better positioned to teach junior students at an appropriate difficulty level, understand and empathize with their students, and reframe knowledge in more accessible ways than many of the more experienced lecturers (Wieman, 2007). In practice, NPT has been widely reported to benefit peer teachers and peer learners alike across several domains. It has been shown to advance subjective educational outcomes, such as students’ understanding of course material (Gottlieb et al., 2017), confidence in their knowledge (Iqbal et al., 2020), and professional qualities including teaching and facilitation skills, leadership qualities, confidence, and motivation to further contribute to others’ learning (Burgess et al., 2014). Additionally, participants of NPT in a medical context demonstrate improved performance in clinical examination, reasoning, and decision-making skills as reflected by increased academic attainment in formal assessments (Yu et al., 2011; Jackson & Evans, 2012).

However, few studies have described in detail attitudes and perceptions of students and peer teachers toward NPT programs in their earliest phase of implementation. The literature also largely evaluates NPT in terms of the individual learner, without considering the learning environment in which NPT operates. Yet, a clear understanding of the sociocultural context in which learning

occurs is a necessary precursor to making meaningful improvements to medical education (Watling et al., 2013). The development of an effective NPT program therefore demands insight into not only the perspectives of individual learners, but also the learning culture that shapes its learners' attitudes and perceptions.

Based on the definition of organizational perspectives of culture by Watling, Ajjawi, and Bearman (2020), a learning culture can be said to be the shared assumptions, beliefs, and values that characterize an institution's learning environment. Such learning cultures are highly complex. The learning culture of medical students in a higher education institution would be shaped by the university's teaching and learning strategy, as well as by historical relationships between individual departments within the medical faculty. In addition, the learning culture would be influenced by expectations of staff and students alike, and these are likely to change as students progress throughout their education. This paper focuses on the early implementation of an NPT initiative and explores the attitudes, values, and priorities displayed by some of the students involved.

THE NPT INITIATIVE AT THE LI KA SHING FACULTY OF MEDICINE

The NPT program was initiated and implemented by fifth-year medical students in support of second-year students enrolled in the Bachelor of Medicine and Bachelor of Surgery (MBBS) program at the University of Hong Kong's Li Ka Shing Faculty of Medicine (HKUMed). MBBS Year 2 has historically been regarded as the most challenging year of study for students pursuing medical studies at the University of Hong Kong. This challenge was further compounded by the abrupt transition to online learning in November 2019 as a result of social unrest in Hong Kong, shortly followed by the COVID-19 pandemic. In the past, medical students had benefited from informal small-group teaching from their seniors, but this had been delivered on an ad hoc, tutor-centric basis.

The program was implemented according to the six-step approach to curriculum development in medical education developed by Kern et al. (1998):

First, the problem identification, which was the challenging situation for Year 2 students and the reduced social interaction resulting from the switch to online learning.

Second, a needs assessment was undertaken. The student organizers reviewed the Year 1–2 curriculum with faculty curriculum coordinators to identify areas where students historically tended to perform less successfully. In addition, Year 2 and 3 students were surveyed to collect their opinions on specific topics that they would like to reinforce, which were selected as topics to be addressed by NPT.

Third, goals and objectives for the teaching sessions were identified according to the needs assessments.

Fourth, the educational strategy chosen was the outcomes-based approach to learning (generally adopted by the University of Hong Kong), which became the framework for structuring the program content. Learning outcomes were developed from the key topics identified from the needs assessment. Peer teachers (PTs) prepared materials incorporating a variety of teaching strategies and modalities to engage learners in online small-group interactive tutorials.

Fifth, implementation of the initiative happened through recruiting and training PTs and inviting peer learners (PLs) to participate in the initiative. Year 5 MBBS students were recruited as PTs via a sign-up form distributed to the entire cohort. PTs were self-selected, with no prerequisite selection criteria. Twenty-five PTs participated in the program. Six were male and 19 were female, and 10 had previous teaching experience (e.g., private tutoring). The student organizers held a briefing session and created a handbook to introduce the NPT program, teaching training options and resources, PT roles and responsibilities, and logistical details. PT training included a certificate course on teaching and learning in higher education with a strong focus on peer learning and

small group facilitation, including in an online setting, and a teaching skills workshop delivered by faculty members. PTs scheduled tutorials on the selected topics throughout the second semester of the 2020–21 academic year, based on their availability. The tutorial schedule was published on a biweekly basis in advance of the sessions via a social media platform accessible by the Year 2 MBBS cohort. Students registered for teaching sessions on a first-come-first-served rolling basis. Over the five-month-long teaching period, 84 PLs participated in the program; among them, 38 were male and 46 were female. Tutorials were held over Zoom in a small-group interactive format, involving one or two PTs leading a session with five to 10 PLs. Each session lasted approximately between one and two hours.

Finally, sixth, for evaluation and feedback, PLs were invited to provide feedback for the PTs and the program overall via an anonymous survey after each teaching session. Their responses were relayed back to PTs and formed the basis of adjustments to the content and format of subsequent teaching sessions.

The feedback from students on the NPT sessions was overwhelmingly positive, but the team wanted to explore more deeply the impact these sessions had on participants. Participation in the sessions was voluntary, and students—already with a packed schedule—had selected to add to their workload by participating. Similarly, senior students had volunteered to give up their own time for training, preparation, and delivery of teaching sessions. The team wanted to explore further the lived experiences, attitudes, and perceptions of both PTs and PLs.

METHODS

Study participants were recruited through purposive sampling after the NPT program was completed, whereby all PLs were invited to participate in semi-structured interviews over Zoom. Prior to data collection, ethical approval was obtained from the university's Human Research Ethics Committee (HREC Reference No.: EA200224). An information sheet and consent form were provided to participants. Nine PLs were interviewed for approximately 20 minutes each. Interviews explored perceptions and attitudes toward NPT, reasons for joining NPT, demand or importance of NPT, effectiveness of NPT, feasibility of incorporating NPT in the formal curriculum, and general NPT experience sharing.

The research questions related to the near-peer learners were

- What are the barriers and facilitators for participating in NPT?
- How does NPT benefit individual learning?
- How is the quality of NPT perceived by learners?

Interviews were audio-recorded and transcribed verbatim by a third party with no vested interest in the project. The data were anonymized. The team adopted thematic analyses, this being a recognized approach to identify and analyze themes within a data set (Braun & Clarke, 2006). The data were coded by two researchers who independently applied inductive coding over several readings to identify themes and subthemes, finally agreeing on three main themes (Linneberg & Korsgaard, 2019). Once the major themes had been agreed on, associated quotations were extracted from the data to serve as illustration.

RESULTS

The interviews revealed three key aspects of the learning culture of medical students at HKUMed that influenced their attitudes and perceptions toward NPT. Students' learning priorities, perceived extent of knowledge in their near peers, and individualistic learning approaches shaped their views of the NPT program's academic purpose, pedagogical legitimacy, and social role, respectively.

Differential learning priorities of students, namely whether they focused on preparing for summative examinations in the short term or advancing their knowledge for their future clinical practice in the long term, had an impact on their perception of the benefit of NPT to their personal learning.

Five PLs demonstrated an exam-oriented approach to learning, as evidenced by their interest in examination tips and memorization strategies offered by PTs. For these students, the value of NPT lay in potential help with improving their upcoming summative examination performance:

“[I thought NPT] may be a really good way to help me prepare for revision of the summative exam. [The NPT sessions] will help us to better memorize all the stuff” (PL 2).

“I [thought] it might be good to attend and see what the seniors do to recite [all the cranial nerves], [...] they really shared some tips that will help me to recite this better. [They taught] me how to remember it, how to use it, and how to really do the past paper, [...] so I think [it] is more useful [than lectures]” (PL 4).

“[I joined NPT] just for exam tips. I think exam tips are the most important [thing gained from NPT]” (PL 9).

Three PLs voiced the view that NPT, particularly senior students' sharing of their own personal experiences, helped them to contextualize their preclinical knowledge within real-life clinical situations and apply it beyond the theoretical setting of examinations. Furthermore, NPT enabled PLs to integrate their knowledge across subjects previously formally taught in a compartmentalized manner.

“[One] thing that [worked] well [in NPT was PTs] integrating the preclinical and clinical stuff because I think bridging that gap right now would really help us study during preclinical years. Sometimes we need to really know why [we are] learning all those things because we don't really [know] the clinical aspect, and so I think that's really helpful” (PL 5).

“They really connect different parts of different lectures together in one session. Usually, when we get taught, [the subjects are] separated ... but in their session, they combine it for us, and they also add a bit of their clinical experience and let us know what [is] more important ... during clinical years” (PL 5).

“They have some experience about what will happen in the clinical years. It's not about knowledge. ... It's more about how you deal with problems, what you will be facing, what we need to be careful of or more aware of when we are in preclinical or clinical year, so they are sharing their actual experience. I think it's also something very different from normal lectures” (PL 6).

STUDENTS' PERCEIVED EXTENT OF KNOWLEDGE: PEDAGOGICAL LEGITIMACY OF NPT

Medical students interviewed in this project displayed a tendency to evaluate both themselves and their peers based on the apparent extent of their medical knowledge, which ultimately affected how they assessed the quality of NPT sessions and legitimacy of NPT as a pedagogical tool.

PLs expressed anxiety about their self-perceived knowledge deficit, and their concerns about not having the correct answers to questions hindered them from actively participating and interacting with other students during tutorials:

“[Although] the gap between us [and PTs] is less [compared to lecturers], like you won't feel like a superior [is] trying to teach you [but] it's more like a friend teaching ... some people are still afraid of having their answers on the chat publicly wrong” (PL 5).

Students' low academic self-efficacy formed the basis of how they evaluated students-as-educators in general. One element that seemed to determine students' assessment of the quality

of the teaching was the perceived extent of the teacher's knowledge. As a result, PLs expressed apprehension about incorporating NPT into the formal medical curriculum and believed in the need for "quality assurance" of NPT by practicing clinicians or official lecturers. Seven out of nine PLs lacked trust in the competency of senior students to teach in formal classes, but they were even more doubtful of the potential for learning from their immediate peers within the same cohort.

"If it's [a] peer teacher replacing [the] formal doctor that we have, then probably there's some doubt there" (PL 1).

"We know that [professors or] lecturers are very qualified [and] know what they're talking about ... but the peer teachers [are] still students so [I'm not sure if that would] really benefit the students" (PL 7).

"The tutors may not be [as] sophisticated as those lecturers to guide us through [problem-based learning and practicals]. ... I think that they may not have such [specialist] knowledge, and it will be better that those lecturers guide us" (PL 8).

INDIVIDUALISTIC LEARNING APPROACH: SOCIAL ROLE OF NPT

Some students recognized the individualistic learning culture of medical school and a lack of support systems among students, particularly between cohorts. They saw NPT as having an important social role beyond its academic benefits, by serving as a platform enabling cross-cohort engagement and cultivation of a collaborative learning culture.

Two PLs suggested that students' preferences for independent learning were barriers to continued participation in the NPT program, yet acknowledged that they hoped for more support from and opportunities to build friendships with other students, especially their seniors.

"Some of my colleagues will think they would like to save time and do the revision on their own, instead of [being] led by some other students" (PL 2).

"I'm very busy with my revision, so I didn't join [more sessions]" (PL 3).

"It's really hard for us to make friends with seniors because there's currently no such activities in HKUMed and ... it's not only about study ... we would like to know more about what would happen in clinical years or things regarding our career, future. ... [If] we could have a senior to turn to, that would be great, but currently there is no access to that. [It would be great if they] could give me some advice ... or just have a coffee meetup" (PL 3).

"Even without the pandemic, there's no such activities ... for us to make friends in general. Not only for seniors but also for people in our junior year" (PL 3).

Students ultimately reported that NPT offered non-academic benefits in terms of enhancing emotional support between senior and junior students and helping to alleviate feelings of loneliness that students may experience throughout the course of medical school, and in particular, from the social isolation precipitated by the pandemic. Junior students also received indirect support from PTs by gaining inspiration from them as role models.

"I think what makes it really meaningful especially is that we know we're not alone in our study. There are some seniors that still care about us, and would like to offer help to us—I think that sort of provides an emotional support to us indirectly" (PL 3).

"It's a good opportunity for me [to] communicate with other senior students and to know ... how maybe in the future, I will be in my clinical study. ... Being taught by a senior [is] not only academically inspiring, but also mentally very encouraging ... seeing [how] they can really give us a good presentation of [their] knowledge" (PL 2).

This perceived social role of NPT and its contribution to a broader culture of collaborative learning among medical students turned out to be a serendipitous outcome of the NPT initiative.

This study—focusing on the attitude of PLs toward an NPT approach—found that learning culture influenced medical students' perceptions toward NPT in terms of the academic benefits it offers, its legitimacy as a teaching modality, and its social role within a medical school. Our findings have important implications regarding the sustainability and potential roles of student-initiated NPT programs in medical education and curriculum design. Our exploratory research identified differences in learning priorities of students, and hence, in the perceived academic value of NPT. The tendency for PLs in their preclinical years to adopt a more exam-oriented appraisal of NPT, in contrast to senior students' more clinically-oriented approach to learning, is supported by Ooi, Tan, and Frambach (2021). Our findings further corroborate research showing that medical students in early years adopt a study strategy focusing on reproduction and memorization, which in contrast, is least preferred among final clinical year students who prioritize meaning-construction and sense-making (Weurlander et al., 2009; Mirghani et al., 2014).

Such variation in learning strategies between students at different phases of their medical education may have multifactorial explanations, including differences in teaching approaches, workload, assessment methods, and expected competencies of students at various stages of the curriculum (Mirghani et al., 2014). As is typical in undergraduate medical education, preclinical students at HKUMed are mainly assessed by a single high-stakes knowledge-based summative examination at the end of each academic year, with a shift toward more clinical skills-based assessments in clinical years. Students' exam-oriented focus is unsurprising considering the cultural context. Against the backdrop of Hong Kong's meritocratic society (Zhang, 2024), most students admitted to HKUMed are graduates of Hong Kong's secondary school education system that emphasizes rote learning to pass examinations (Frambach et al., 2012), which may carry over into early tertiary education (Mirghani et al., 2014).

Alternatively, this discrepancy between preclinical and clinical students' learning priorities may reflect an underlying gap in the current medical curriculum, wherein the preclinical-to-clinical transition remains poorly facilitated, as was also suggested by some study participants. The stress and anxiety associated with this transition is well documented in literature (Radcliffe & Lester 2003; Prince et al., 2005; Sarikaya & Kalaca, 2006). Students would therefore benefit from earlier, more robust integration of preclinical and clinical learning. NPT is one tool that seems effective in enhancing students' self-efficacy during this challenging period (Knobloch et al., 2018). Our study provides further evidence that NPT can facilitate both vertical and horizontal knowledge integration (i.e., integration across disciplines, such as basic and clinical sciences, and integration across content areas, such as pathology and anatomy, respectively) in medical education (Kulasegaram et al., 2013).

However, the extent to which NPT can successfully and sustainably fulfill its potential academic role cannot be guaranteed. Students' tendency to evaluate themselves and their peers or seniors based on their perceived extent of knowledge may significantly impact students' perceptions of the legitimacy of NPT and students-as-educators generally, ultimately hindering their participation in student-directed learning initiatives. Concerns by PLs about student teachers having less knowledge than lecturers, especially in the setting of informal NPT programs, have been reported in literature before (Bulte et al., 2007; Bowyer & Shaw, 2021). Yet, PLs' self-perceived knowledge deficit, and the effects of this mentality by PLs on their perceptions and experiences of NPT, have not been explicitly documented in research. Our finding that PLs demonstrated reduced engagement during NPT sessions due to anxieties about revealing their knowledge deficits by answering questions incorrectly is essential to note, as PLs' learning experience in NPT may be negatively affected. Similarly, some students expressed hesitation to become PTs in the future because of their low academic self-efficacy; this has important implications for the sustainability of NPT programs. The phenomenon of impostorism among students, defined as a "distrust [in one's] abilities and accomplishments despite evidence of success and competence" (Levant et al., 2020, p. 83), could be a further barrier to participation in NPT. While it has been demonstrated in medical students (Levant et al., 2020), no studies have elucidated the nature of impostorism in NPT specifically.

It is also possible to interpret these attitudes towards NPT—from the perspectives of both the PLs and PTs—as a result of particular expectations of traditional teaching practices. Tsai-Hung Chen (2014) points out how the teacher-centered transmission model is prevalent in East Asia, where the teacher is the respectable authority delivering fact-based knowledge (Tsai-Hung Chen, 2014, p. 27). With this kind of internalized model of effective teaching, a paradigm shift needs to happen for both PLs and PTs. PLs need to acknowledge that their own interaction and engagement with the cases presented form a significant part of the learning and are an opportunity for them to bridge theory to clinical practice. Similarly, the PTs must realize that their clinical experience makes them more knowledgeable than their juniors and, as a consequence, a useful learning resource. Being a good teacher is not about knowing everything—it is about helping students to understand.

Students' evaluation of the quality of NPT through the same lens, focusing on the apparent extent of the teachers' knowledge, led some to doubt the legitimacy of NPT as a pedagogical tool if employed within the formal curriculum. Concern about teaching quality in NPT has been reported internationally (Stephens et al., 2016; Vaughan & Macfarlane, 2015). In Hong Kong, although NPT itself has not been previously studied in the context of medical education, research on students' attitudes toward problem-based learning tutorials have revealed similar sentiments: students valued tutorials that were facilitated by expert clinicians over non-experts, and they were hesitant to trust their peers' input (Frambach et al., 2012). However, the actual teaching quality and long-term outcomes of NPT delivered by PTs and medical faculty tutors are comparable, as demonstrated by several studies (Colaco et al., 2006; Hughes et al., 2010; Knobe et al., 2010; Nestel & Kidd, 2003; Tolsgaard et al., 2007). Students' preference for teachers presumed to be more knowledgeable may reflect their underlying belief that teaching is merely a matter of knowledge transmission, while learning is the passive receiving of this knowledge. This belief may be influenced by the teacher-centered nature of secondary education in Hong Kong and the underlying hierarchical culture, where experts as individuals of higher status are the expected sources of knowledge and "truth" (Frambach et al., 2012). Yet, teaching as knowledge transmission does not result in meaningful learning (Weurlander et al., 2009). There is hence a critical need for medical curricula to shift away from this philosophy and highlight the nature and merits of both problem-based learning and NPT as student-centered teaching and learning modalities.

Nonetheless, students' emphasis on the teacher's status as a measure of teaching quality may eventually decrease over time with increasing familiarity of the nature of NPT. Tayler et al. (2015) found that first-year students new to medical training preferred teachers with legitimate clinical or academic pedigree, while second-year students preferred NPT and had become more accepting of effective teaching irrespective of the teacher's status. As this study was conducted in the first five months of a newly implemented NPT program, students' impression of the legitimacy of their peer teachers and NPT as a whole may evolve over time. Furthermore, as Bulte et al. (2007) suggested, the positive responses of PLs toward NPT in this study may suggest that student teachers' level of knowledge is a less important factor for participant satisfaction in informal NPT compared to NPT incorporated in formal medical curricula.

Our study also found that the individualistic learning culture of medical school and subjective inadequacy of social support mechanisms among students, contributing to a reduction in student wellbeing, can be addressed through NPT. Students' engagement in isolated learning may be explained by the competitive nature of Hong Kong society at large and of local medical students, who had to meet the highest admission score requirement among all local undergraduate degree programs to enter the MBBS program, and who then had to continue striving to be the best in medical school (Frambach et al., 2012; JUPAS, 2020). As such, previous research has suggested that there is little opportunity for self-directed peer-learning among Hong Kong medical students who still largely depend on teachers and lectures in their learning (Frambach et al., 2012).

Considering this, it is unsurprising that medical students expressed loneliness and difficulty forming interpersonal relationships, both within and between cohorts, which may increase students' vulnerability to stress. Literature has repeatedly demonstrated higher levels of depression, anxiety, and psychological distress among medical students worldwide (Dyrbye et al., 2006; Dyrbye et al., 2008; Stewart et al., 1999). Hong Kong medical students are no exception, and they reportedly

exhibit very high levels of burnout (Lee et al., 2020), disengagement (Molodynski et al., 2020), psychological distress, and morbidity (Chau et al., 2019). The implementation of the NPT program amid the COVID-19 pandemic, with its associated shift to virtual distance learning, likely further exacerbated the psychosocial distress reported by students (Labrague et al., 2020; Zheng et al., 2021). Social support is a recognized protective factor against emotional loneliness (Labrague et al., 2020), and our study highlights that students desired opportunities to build social support networks. To this end, they found NPT an effective method for making connections between juniors and seniors. PLs further gained encouragement and inspiration from their peer tutors, whom some considered role models. This social role of NPT in cultivating a cooperative learning environment within tertiary education in Hong Kong corroborates the findings by Loke and Chow (2007) that nursing students developed nurturing tutor-tutee relationships through NPT, which served as important sources of support. Such non-academic benefits constitute part of the “hidden curriculum” of NPT proposed by McKenna and Williams (2017), critical to students’ professional socialization and development of professional values and cultural competence (Karimi et al., 2014; Paul et al., 2014). Michalec (2012) further highlighted the role of NPT in initiating the development of professionalization among junior students even before the commencement of clinical teaching, which is largely considered the main mechanism of students’ professional socialization. Thus, NPT can ease the preclinical-to-clinical transition not only academically but also psychosocially by alleviating anxieties associated with the process. That senior students are intrinsically motivated to contribute to the development of a collaborative peer learning culture through NPT suggests the potential for student-initiated NPT programs to gain traction even within an individualistic, competitive learning environment.

Our experience of developing a student-led NPT initiative led us to several recommendations for NPT in medical education. One potential barrier to the successful implementation of NPT programs identified in our study is students’ concern about the legitimacy of students-as-educators in general. This belief is a potentially important factor hindering students’ participation in NPT whether as learners or teachers, and it should be identified and addressed early to ensure the sustainability of NPT initiatives. Confidence in student teachers could be improved by incorporating structured opportunities for critical reflection to encourage reflective teaching practices, and also by establishing mentoring support systems between PTs and experienced faculty teaching staff (van de Mortel et al., 2016). Training for PTs that includes opportunities to practice teaching should be encouraged to help students feel more prepared for their roles. A structured teaching course can also help standardize teaching quality, which is particularly important if considering formally involving NPT in medical curricula to supplement traditional teaching and is consistent with our experience (Cumberworth et al., 2020; Johansson et al., 2018).

Greater recognition of the value of peer learning among students is necessary to cultivate a more collaborative learning culture at medical school. Both informal and formal peer learning opportunities, including NPT, should be introduced early in medical school to promote the acceptability of peers as reliable teachers. The principles and aims of NPT as well as roles and expectations for participating students, particularly regarding PLs’ expected level of engagement during tutorials, should be clearly communicated, especially if NPT is a novel concept to students. Specifically for student-initiated NPT programs, strengthening promotions by faculty who are seen as figures of authority may help encourage participation and alleviate concerns regarding NPT’s legitimacy. Furthermore, the inadequacy of support mechanisms for students and their desire to forge connections with peers from different cohorts calls for more structured opportunities for cross-cohort collaborations. While NPT itself facilitates this, it is imperative to consider how the program can be specifically designed to meet such needs in addition to other possible faculty-led means of enabling inter-cohort interactions.

This study illustrated the impact of medical students’ learning culture on their perceptions of NPT, but it has limitations. The study included a small group of students from a single institution in Hong Kong, and it relied on self-reporting by participants. There may also be self-selection bias, as students were enrolled in the NPT program voluntarily and might therefore be more enthusiastic about NPT. Students who chose not to participate in NPT are not represented, and more research

is required to examine their reasons for non-participation. As this study was based on a newly implemented NPT program, future research could explore how students' perceptions toward NPT change over time to elucidate their relationship with learning culture longitudinally as well as across disciplines and sociocultural contexts.

CONCLUSION

Medical students' perceptions of near-peer teaching are inextricably linked to the learning culture of the student body. The specific learning context in which NPT is situated is therefore a critical consideration in the early stages of designing and implementing an NPT program to mitigate the unique challenges of introducing NPT as a pedagogical tool. An understanding of how learning culture modulates students' NPT experience can offer valuable direction for defining the scope of students-as-partners and the role of NPT within medical education, establishing the legitimacy of NPT as an effective learning tool, determining the practical dimensions of the teaching interaction to best meet the needs of students at different stages of their learning, and ensuring sustainability of the program.

COMPETING INTERESTS

The authors have no competing interests to declare.

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REFERENCES

- Bowyer, E., & Shaw, S.** (2021). Informal near-peer teaching in medical education: A scoping review. *Education for Health*, 34(1), 29–33. https://doi.org/10.4103/efh.EfH_20_18
- Braun, V., & Clarke, V.** (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3, 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Bulte, C., Betts, A., Garner, K., & Durning, S.** (2007). Student teaching: Views of student near-peer teachers and learners. *Medical Teacher*, 29(6), 583–590. <https://doi.org/10.1080/01421590701583824>
- Burgess, A., McGregor, D., & Mellis, C.** (2014). Medical students as peer tutors: A systematic review. *BMC Medical Education*, 14, 115. <https://doi.org/10.1186/1472-6920-14-115>
- Chau, S., Lewis, T., Ng, R., Chen, J. Y., Farrell, S. M., Molodynski, A., & Bhugra, D.** (2019). Wellbeing and mental health amongst medical students from Hong Kong. *International Review of Psychiatry*, 31(7–8), 626–629. <https://doi.org/10.1080/09540261.2019.1679976>
- Colaco, S., Chou, C., & Hauer, K.** (2006). Near-peer teaching in a formative clinical skills examination. *Medical Education*, 40(11), 1129–1130. <https://doi.org/10.1111/j.1365-2929.2006.02593.x>
- Cumberworth, J., Apperley, H., & Francis, I.** (2020). Organising near-peer teaching programs for clinical professionals. *The Clinical Teacher*, 17(2), 122–125. <https://doi.org/10.1111/tct.12983>
- Delahunty, J., Verenikina, I., & Jones, P.** (2014). Socio-emotional connections: Identity, belonging and learning in online interaction. A literature review. *Technology, Pedagogy and Education*, 23(2), 243–265. <https://doi.org/10.1080/1475939X.2013.813405>
- Dyrbye, L. N., Thomas, M. R., Massie, F. S., Power, D. V., Eacker, A., Harper, W., Durning, S., Moutier, C., Szyldo, D. W., Novotny, P. J., Sloan, J. A., & Shanafelt, T. D.** (2008). Burnout and suicidal ideation among U.S. medical students. *Annals of Internal Medicine*, 149(5), 334–341. <https://doi.org/10.7326/0003-4819-149-5-200809020-00008>

- Dyrbye, L. N., Thomas, M. R., & Shanafelt, T. D. (2006). Systematic review of depression, anxiety, and other indicators of psychological distress among U.S. and Canadian medical students. *Academic Medicine*, 81(4), 354–373. <https://doi.org/10.1097/00001888-200604000-00009>
- Frambach, J., Driessen, E., Chan, L., & van der Vleuten, C. (2012). Rethinking the globalisation of problem-based learning: How culture challenges self-directed learning. *Medical Education*, 46(8), 738–747. <https://doi.org/10.1111/j.1365-2923.2012.04290.x>
- Gottlieb, Z., Epstein, S., & Richards, J. (2017). Near-peer teaching program for medical students. *Clinical Teacher*, 14(3), 164–169. <https://doi.org/10.1111/tct.12540>
- Hughes, T. C., Jiwaji, Z., Lally, K., Lloyd-Lavery, A., Lota, A., Dale, A., Janas, R., & Bulstrode, C. J. K. (2010). Advanced Cardiac Resuscitation Evaluation (ACRE): A randomised single-blind controlled trial of peer-led vs. expert-led advanced resuscitation training. *Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine*, 18(1), 1–6. <https://doi.org/10.1186/1757-7241-18-3>
- Iqbal, F., Gaffar, F., & Singh, H. (2020). The use of near-peer tutors to improve level of learning & confidence in areas of human physiology. *Journal of Biological Education*, 1–10. <https://doi.org/10.1080/00219266.2020.1756898>
- Jackson, T. A., & Evans, D. J. (2012). Can medical students teach? A near-peer-led teaching program for year 1 students. *Advances in Physiology Education*, 36(3), 192–196. <https://doi.org/10.1152/advan.00035.2012>
- Johansson, E., Holmin, T., Johansson, B., & Braide, M. (2018). Improving near-peer teaching quality in anatomy by educating teaching assistants: An example from Sweden. *Anatomical Sciences Education*, 11(4), 403–409. <https://doi.org/10.1002/ase.1775>
- Jung, J., Horta, H., & Postiglione, G. (2021). Living in uncertainty: The COVID-19 pandemic and higher education in Hong Kong. *Studies in Higher Education*, 46(1), 107–120. <https://doi.org/10.1080/03075079.2020.1859685>
- JUPAS. 2020 JUPAS admissions scores of 9 JUPAS participating-institutions (pp. 1–9). https://www.jupas.edu.hk/f/page/3667/af_2020_JUPAS.pdf
- Karimi, Z., Ashktorab, T., Mohammadi, E., & Abedi, H. A. (2014). Using the hidden curriculum to teach professionalism in nursing students. *Iranian Red Crescent Medical Journal*, 16(3), e15532. https://www.ircmj.com/article_199955_0ec789249f5e7d2cdb9da2b68a5cce9f.pdf
- Kern, D., Thomas, P., Howard, D., & Bass, E. (1998). *Curriculum Development for Medical Education: A Six-Step Approach*. The Johns Hopkins University Press.
- Knobe, M., Munker, R., Sellei, R. M., Holschen, M., Mooiji, S. C., Schmidt-Rohlfing, B., Niethard, F. U., & Pape, H. C. (2010). Peer teaching: A randomised controlled trial using student-teachers to teach musculoskeletal ultrasound. *Medical Education*, 44(2), 148–155. <https://doi.org/10.1111/j.1365-2923.2009.03557.x>
- Knobloch, A. C., Ledford, C. J. W., Wilkes, S., & Saperstein, A. K. (2018). The impact of near-peer teaching on medical students' transition to clerkships. *Family Medicine*, 50(1), 58–62. <https://doi.org/10.22454/FamMed.2018.745428>
- Kulasegaram, K., Martimianakis, M., Mylopoulos, M., Whitehead, C., & Woods, N. (2013). Cognition before curriculum: Rethinking the integration of basic science and clinical learning. *Academic Medicine*, 88(10), 1578–1585. <https://doi.org/10.1097/ACM.0b013e3182a45def>
- Labrague, L. J., De Los Santos, J. A. A., & Falguera, C. C. (2020). Social and emotional loneliness among college students during the COVID-19 pandemic: The predictive role of coping behaviors, social support, and personal resilience. *Perspectives in Psychiatric Care*, 57(4), 1578–1586. <https://doi.org/10.1111/ppc.12721>
- Lee, K. P., Yeung, N., Wong, C., Yip, B., Luk, L., & Wong, S. (2020). Prevalence of medical students' burnout and its associated demographics and lifestyle factors in Hong Kong. *PLOS ONE*, 15(7), e0235154. <https://doi.org/10.1371/journal.pone.0235154>
- Levant, B., Villwock, J., & Manzardo, A. (2020). Impostorism in third-year medical students: An item analysis using the Clance Impostor Phenomenon Scale. *Perspectives on Medical Education*, 9(2), 83–91. <https://doi.org/10.1007/s40037-020-00562-8>
- Linneberg, M. S., & Korsgaard, S. (2019). Coding qualitative data: A synthesis guiding the novice. *Qualitative Research Journal*, 19(3), 259–270. <https://doi.org/10.1108/QRJ-12-2018-0012>
- Lockspeiser, T. M., O'Sullivan, P., Teherani, A., & Muller, J. (2008). Understanding the experience of being taught by peers: The value of social and cognitive congruence. *Advances in Health Sciences Education: Theory and Practice*, 13(3), 361–372. <https://doi.org/10.1007/s10459-006-9049-8>
- Loke, A. J., & Chow, F. L. (2007). Learning partnership—the experience of peer tutoring among nursing students: A qualitative study. *International Journal of Nursing Studies*, 44(2), 237–244. <https://doi.org/10.1016/j.ijnurstu.2005.11.028>

- McKenna, L., & Williams, B. (2017). The hidden curriculum in near-peer learning: An exploratory qualitative study. *Nurse Education Today*, 50, 77–81. <https://doi.org/10.1016/j.nedt.2016.12.010>
- Medical Council of Hong Kong. (2017). *Hong Kong Doctors* (p. 4). <https://www.mchk.org.hk/english/publications/files/HKDoctors.pdf>
- Michalec, B. (2012). The pursuit of medical knowledge and the potential consequences of the hidden curriculum. *Health (London)*, 16(3), 267–281. <https://doi.org/10.1177/1363459311403951>
- Mirghani, H., Ezimokhai, M., Shaban, S., & Berkel, H. (2014). Superficial and deep learning approaches among medical students in an interdisciplinary integrated curriculum. *Education for Health*, 27(1), 10–14. <https://doi.org/10.4103/1357-6283.134293>
- Molodynski, A., Lewis, T., Kadhum, M., Farrell, S. M., Lemtiri, C., Falcão De Almeida, T., Masri, R., Kar, A., Volpe, U., Moir, F., Torales, J., Castaldelli-Maia, J. M., Chau, S. W. H., Wilkes, C., & Bhugra, D. (2020). Cultural variations in wellbeing, burnout and substance use amongst medical students in twelve countries. *International Review of Psychiatry*, 33(1–2), 37–42. <https://doi.org/10.1080/09540261.2020.1738064>
- Nestel, D., & Kidd, J. (2003). Peer tutoring in patient-centred interviewing skills: Experience of a project for first-year students. *Medical Teacher*, 25(4), 398–403. <https://doi.org/10.1080/0142159031000136752>
- Ooi, S., Tan, C., & Frambach, J. (2021). Who is an effective clinical teacher from the perspectives of medical students and residents? *The Asia Pacific Scholar*, 6, 40–48. <https://doi.org/10.29060/TAPS.2021-6-1/OA2227>
- Paul, D., Ewen, S. C., & Jones, R. (2014). Cultural competence in medical education: Aligning the formal, informal and hidden curricula. *Advances in Health Sciences Education: Theory and Practice*, 19(5), 751–758. <https://doi.org/10.1007/s10459-014-9497-5>
- Prince, K., Boshuizen, H., Van Der Vleuten, C., & Scherpbier, A. (2005). Students' opinions about their preparation for clinical practice. *Medical Education*, 39(7), 704–712. <https://doi.org/10.1111/j.1365-2929.2005.02207.x>
- Radcliffe, C., & Lester, H. (2003). Perceived stress during undergraduate medical training: A qualitative study. *Medical Education*, 37(1), 32–38. <https://doi.org/10.1046/j.1365-2923.2003.01405.x>
- Sarikaya, O. C. M., & Kalaca, S. (2006). The anxieties of medical students related to clinical training. *International Journal of Clinical Practice*, 60(11), 1414–1418. <https://doi.org/10.1111/j.1742-1241.2006.00869.x>
- Stephens, J., Hall, S., Gesteira Andrade, M., & Border, S. (2016). Investigating the effect of distance between the teacher and learner on the student perception of a neuroanatomical near-peer teaching program. *Surgical and Radiologic Anatomy*, 38(10), 1217–1223. <https://doi.org/10.1007/s00276-016-1700-3>
- Stewart, S. M., Lam, T. H., Betson, C. L., Wong, C. M., & Wong, A. M. (1999). A prospective analysis of stress and academic performance in the first two years of medical school. *Medical Education*, 33(4), 243–250. <https://doi.org/10.1046/j.1365-2923.1999.00294.x>
- Taylor, N., Hall, S., Carr, N., Stephens, J., & Border, S. (2015). Near peer teaching in medical curricula: Integrating student teachers in pathology tutorials. *Medical Education Online*, 20(1), 27921. <https://doi.org/10.3402/meo.v20.27921>
- Tolsgaard, M., Gustafsson, A., Rasmussen, M., Hoiby, P., Müller, C., & Ringsted, C. (2007). Student teachers can be as good as associate professors in teaching clinical skills. *Medical Teacher*, 29(6), 553–557. <https://doi.org/10.1080/01421590701682550>
- Tong, A. H. K., & See, C. (2020). Informal and formal peer teaching in the medical school ecosystem: Perspectives from a student-teacher team. *JMIR Medical Education*, 6(2), e21869. <https://doi.org/10.2196/21869>
- Tsai-Hung Chen, R. (2014). East-Asian teaching practices through the eyes of Western learners. *Teaching in Higher Education*, 19(1), 26–37. <https://doi.org/10.1080/13562517.2013.827652>
- van de Mortel, T., Silberberg, P., Ahern, C., & Pit, S. (2016). Supporting near-peer teaching in general practice: A national survey. *BMC Medical Education*, 16(1), 143. <https://doi.org/10.1186/s12909-016-0662-9>
- Vaughan, B., & Macfarlane, C. (2015). Perceived teaching quality between near-peer and academic tutors in an osteopathic practical skills class. *International Journal of Osteopathic Medicine*, 18(3), 219–229. <https://doi.org/10.1016/j.ijosm.2015.04.013>
- Watling, C., Ajjawi, R., & Bearman, M. (2020). Approaching culture in medical education: Three perspectives. *Medical Education*, 54(4), 289–295. <https://doi.org/10.1111/medu.14037>
- Watling, C., Driessen, E., van der Vleuten, C., Vanstone, M., & Lingard, L. (2013). Music lessons: Revealing medicine's learning culture through a comparison with that of music. *Medical Education*, 47(8), 842–850. <https://doi.org/10.1111/medu.12235>
- Weurlander, M. M. I., Söderberg, M., & Wernerson, A. (2009). Meaningful learning: Students' perceptions of a new form of case seminar in pathology. *Medical Teacher*, 31(6), e248–e253. <https://doi.org/10.1080/01421590802637933>

- Wieman, C.** (2007). The “curse of knowledge,” or why intuition about teaching often fails. *American Physical Society News*, 16(10). <https://www.aps.org/publications/apsnews/200711/backpage.cfm>
- Yu, T. C., Wilson, N. C., Singh, P. P., Lemanu, D. P., Hawken, S. J., & Hill, A. G.** (2011). Medical students-as-teachers: A systematic review of peer-assisted teaching during medical school. *Advances in Medical Education and Practice*, 2, 157–172. <https://doi.org/10.2147/amep.S14383>
- Zhang, G.** (2024). A localized perspective in educational policy studies: Understanding actor interaction in a Hong Kong school through mohap. *International Studies in Sociology of Education*, 34(3), 314–336. <https://doi.org/10.1080/09620214.2024.2406456>
- Zheng, Q., Lin, X., He, L., Freudenreich, T., & Liu, T.** (2021). Impact of the perceived mental stress during the COVID-19 pandemic on medical students' loneliness feelings and future career choice: A preliminary survey study. *Frontiers in Psychiatry*, 12, 666588. <https://doi.org/10.3389/fpsy.2021.666588>

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