Valorisation
1. Social Relevance:

The results from this research could have significant implications for the social and cultural climate of medical schools and postgraduate training programs. We have extended the findings of other educators who began the conversation that feedback exchanges are complex social interactions, greatly influenced by the learning culture at institutions. Our findings move the field further away from a focus on ‘providing’ feedback and place culture and relationships at the heart of such conversations. As described in Chapter 3, residents spontaneously raised the institutional culture as a major influence on the quality of feedback provided to them by clinical supervisors. Though politeness concepts have been discussed with respect to faculty narratives on evaluation, the link to feedback conversations is new. Our participants’ opinions, regarding ‘niceness or politeness’ being a barrier rather than a facilitator to meaningful feedback, was not an isolated or insignificant perception.

In Chapter 4, further exploration of the institutional feedback culture showed that both faculty and residents agreed that the existing culture of politeness provided a ‘warm and fuzzy cocoon’ for residents. However, they indicated that this same culture prevented honest constructive conversations between faculty and residents; and emphasised that vague and nice language will not promote professional growth. While time and space constraints and lack of skills or training in providing feedback were also described as challenges, the concept of ‘culture’ overshadowed all other factors that influence the impact of feedback conversations. Further dissection of the elements of culture, in Chapter 4, showed that faculty and residents defined it as how institutions establish expectations for feedback, provide training in giving and accepting feedback, normalise constructive feedback, encourage bidirectional feedback and emphasise a growth-oriented mindset. Besides the culture of politeness, a culture of assumed excellence was perceived to be a deterrent to constructive feedback conversations. The implications of such a culture is that learners’ performance is not observed, their competence and/or excellence is assumed, their deficiencies are not detected and specific growth-enhancing constructive feedback is not given. This may be a bigger problem at prestigious institutions where incoming learners have a ‘pedigree’ of excellence.

Besides institutional culture, the teacher-learner relationship was another factor considered to significantly influence feedback culture, as noted in Chapter 6. Faculty felt that a congenial longitudinal relationship made it easier to observe, provide constructive feedback and help residents make action plans for improvement. Similarly, residents stated that they perceived an attitude of beneficence from those faculty with whom they had longitudinal relationships; this made it easier to seek feedback, accept and incorporate the feedback into performance. Thus, despite an overall perception that meaningful constructive feedback was exchanged infrequently, faculty-resident pairs in continuity clinics seemed to be more comfortable doing so. For accurate performance calibration, feedback acceptance and assimilation, we believe that self-awareness is essential. In Chapter
5, we discuss the importance of self-awareness in feedback seeking, acceptance, disclosure of limitations and discovery of performance strengths and deficiencies and once again reiterate how relationships can foster this sense of curiosity and discovery.

To summarise the social relevance of our research, institutions have an essential obligation to train medical students and residents to be reflective practitioners with a responsibility to the society they serve. In order to fulfil that important societal obligation, learners need to reach or excel in many competency domains, but more importantly they need to be aware of their strengths and weaknesses, be willing to recognise and acknowledge own limitations, and seek and accept help from others in providing outstanding healthcare. The concept of positive and negative face, which can be correlated with self-esteem and autonomy respectively, are very relevant to competency-based assessment and feedback in medical education. Overemphasis on learners’ self-esteem can result in inaccurate calibration of competence and premature autonomy can have adverse impact on patient care. Balancing support and challenge, with supervision and autonomy would be critical in educating clinical professionals. Institutions should focus on these important goals, establish a climate where their teachers and learners learn to be self-aware, have a growth mind-set and focus on the end goal: uncompromising patient care. The economic relevance is then readily evident: competent and socially responsible future doctors who seek to constantly grow and improve.

2. Target groups who will benefit from the research

An important target group that would benefit from this research would be members of the society whose healthcare needs are attended to by motivated and reflective teachers and learners. Patient care can only be enhanced by training physicians to be self-aware, self-reflective, open to seeking help when needed, who possess a growth mindset which would allow them to be lifelong learners. This can be reinforced by clinical teachers and learners working collaboratively in a conducive work and learning environment, where direct observation and targeted feedback occurs consistently.

Beyond the context of medical education, these results would be applicable to all educational settings. Feedback is an integral aspect of development of learners at any level—school, college and professional training. Ultimately, all those in training have competencies that they need to achieve and/or master, and formative feedback is essential to help in this growth trajectory. Feedback is also not exclusive to educational settings, our findings are fully applicable to performance appraisal and professional development of staff in any workplace.

Another important target group to benefit from this research would be resident trainees. Exploring their perspectives on feedback, we concluded that the learning culture at institutions is an important factor in driving learning and professional growth. ‘Culture’ is a term often bandied about, but our residents were able to convey their definition of a
learning culture especially as it relates to feedback in Chapter 4. Although experts have defined this term in the past, residents’ perspectives are crucial for institutions to set expectations and actively engage residents in designing conducive learning environments. The more residents are engaged, the more likely they are to reflect, seek and accept feedback, incorporate it into their performance and have a growth mindset.

Yet another group who will benefit are clinical supervisors responsible for supervision, teaching and assessment of residents. Faculty development programs have traditionally provided training in a static unidirectional approach with the teacher as the ‘giver’ and the learner as the ‘recipient’. With findings from recent research, including our own, the landscape of feedback has been redefined. Consequently, future faculty development initiatives should showcase feedback as a dynamic, bidirectional process. Our research has implications beyond the scope of feedback conversations. It has messages for teachers to focus on establishing a positive learning environment, engage in relationship-centred communication with their learners, address learner self-esteem while providing constructive feedback, provide autonomy appropriate to learner level and ability rather than at the end of a defined training period, role-model admission of own limitations, and always encourage a growth mindset. These strategies are described in detail in Chapters 6 and 7.

Our research findings will be very useful to teaching institutions which train medical students, residents and fellows. In Chapter 3, we describe our resident perceptions that institutional culture plays a major role in the quality and impact of feedback. In Chapter 4, we further explore what faculty and residents believe are essential elements of this culture. Both groups stated that institutional culture can be defined by explicit and implicit expectations for ongoing feedback conversations, normalising strengths and weaknesses among all professionals thereby setting the stage for meaningful constructive feedback, facilitating longitudinal relationships between teachers and learners, provide training to teachers and learners in seeking and accepting feedback, and encouraging growth mindset by showcasing ongoing learning rather than performance and appearance. These recommendations are described in Chapters 6 and 7. Institutions also need to address the three levels of culture and ensure that all levels (assumptions, espoused values and behaviours) are consistent. Finally, institutions should allow for participatory design of learning environments where leaders, teachers and learners are all engaged in establishing expectations for mindset, performance, learning and feedback; designing learning opportunities that foster self-awareness, reflection, ongoing performance improvement and behaviour change; thus setting the stage for bidirectional feedback.

3. Translation of result into activities/products:

Local impact: Our findings, along with recommendations from Chapter 7 and the discussion section, can immediately be translated into feedback initiatives at our residency program, as a demonstration of local impact. Although there are sporadic workshops on
feedback offered at the institution and medical school, there is no requirement that faculty who attend on inpatient services or precept residents in clinics participate in faculty development. There is a “resident as teacher” initiative, but this consists of a one-time workshop on teaching and feedback. Thus, residents who supervise and teach medical students and faculty who supervise and teach residents and students are given little guidance in fulfilling these obligations effectively. By their own admission, in Chapters 3 and 4, residents and faculty desire such training and some raised the point that training was needed in seeking and receiving feedback also. Almost all workshops offered are limited to traditional feedback models (the sandwich or other similar models) which focus solely on the skills for providing feedback. Given our results, I would like to design initiatives that increase direct observation of residents and provide training in feedback seeking, receiving and promote behaviour change. If such initiatives are impactful, other training programs can adopt and adapt them to their own context. Many of the principles reported in our research are applicable to other training programs, be it undergraduate or postgraduate.

In my role as the Director of Evaluation for my internal medicine residency program, I was charged with redesigning the evaluation system for the program. Through this research work, I have concluded that even the best evaluation tools, whether milestones or EPA-based, will not lead to behaviour change. Ongoing and meaningful feedback is the key to professional development at any level. It is this area that I wish to focus on in my future initiatives, particularly in addressing the feedback culture, promoting feedback seeking, relationships, direct observation, feedback acceptance, ensuring that there are opportunities for implementation of action plans and inculcating a growth mindset.

National and international impact: The Harvard Macy Institute, where I serve as a core faculty, organises annual programs for educators and leaders in health professions education. The aim of these programs is to transform the mindset and develop innovators of education. For the last five years, I have been presenting a large group session on feedback, since feedback is a popular topic among educators most of whom find it challenging in real practice. In the tradition of best evidence medical education, my presentations over the last two years have no similarity to those before. They now lean heavily towards ‘culture’ and its influence on feedback (Chapter 3), the importance of positive and negative face (Chapters 3 and 4), and include an exercise on self-awareness using the Johari window (Chapter 5). Based on recommendations from Chapter 7 and the discussion, next year I plan to introduce mindsets into the presentation as I believe a growth mindset is essential to inculcate among trainees and even more important for teachers to model. This program is attended by about 100 North American and international educators, who would take these concepts to their own institutions and potentially disseminate key principles from their discoveries. In addition, this topic has also been presented as an AMEE webinar in 2017.

Dissemination of research: A demonstration of how these findings have been translated into faculty development presentations lies in the drastic transformation of my own
presentations on feedback to other educators. The results of this research have caused a paradigm shift in my thinking about this topic. These presentations now incorporate the work on learning culture into these workshops and emphasise that feedback is a two-way interaction. They have moved away from skills of giving feedback to establishing relationships (chapter 6), encouraging self-awareness (chapter 5) and promoting a feedback culture with a growth mind-set (chapter 7). We hope that awareness of our research findings and their implications will lead to similar changes in other practices.

New research collaborations: My research supervisors have mentored and collaborated with other educators and educational researchers with expertise in the area of feedback. With their guidance, I have started communicating with the group that designed the R2C2 model. The hope is that these conversations gather momentum and lead to a fruitful collaboration and further discoveries which can be shared with the world of health professions educators. I have gained significant knowledge and skills in qualitative methodology and convinced that it is an important approach to further research to advance the field.

4. Innovation:

There has been a remarkable explosion in feedback research over the last decade. From newer definitions that place the learners front and centre, to work on learning cultures, relationships between teachers and learners shaping feedback conversations, and a coaching approach to these conversations, the landscape of feedback has been transformed. Our research findings are innovative and have added significant new information to this growing field.

First, politeness concepts with the focus on positive and negative face are critical to address to enhance the credibility of feedback. Second, we were able to apply Schein’s levels of organisational culture to the feedback culture and argue that the three levels (values, assumptions and behaviours) need to convey consistent messages. Our research, described in Chapters 3, 4 and 5, shows that there are often mixed messages which lead to ineffective conversations, rejection of feedback and lack of impact on professional development. In Chapter 4 we also raise a new challenge to the impact of feedback, a culture of assumed excellence where the ‘pedigree’ of the institution and its trainees leads to assumptions of universal excellence and avoidance of constructive feedback. Third, in Chapter 5 the findings demonstrated the importance of inculcating self-awareness among professionals and how the Johari window can be applied to framing feedback conversations. Fourth, we extended previous research recommendations on the importance of relationships in shaping feedback exchanges, through first-hand observations of feedback conversations between clinical supervisors and residents in continuity clinic (Chapter 6). Relationships appeared to be at the heart of these conversations and we discovered that constructive feedback was readily accepted by residents after observation of
their patient encounters and from preceptors with whom they had a longitudinal relationship. This has been emphasised by many investigators, but may be the first time such conversations were directly observed.

Finally, in Chapter 7 and the discussion section, we highlight the impact of mindset in feedback seeking, acceptance of constructive feedback, incorporation of feedback into performance and behaviour change. The balance of ‘self’ and ‘other’ factors in driving behaviour change is a unique concept that our research adds to the field. Change needs to begin from within, how teachers and institutions can help cultivate practices that can stimulate change and growth through facilitation of self-characteristics has been described in detail in the discussion section.

All our findings will have broad implications for any training program engaged in workplace assessment and feedback. The findings are applicable beyond the field of medical education to all health professions education, all educational settings and in any workplace where performance calibration and feedback are routinely done.

5. Schedule & Implementation:

Novel findings from the research performed as part of this thesis have begun to garner attention. Four chapters as well as the chapter on reflexivity have been published. The thesis book will be published and publicly available by the end of 2018. I have done oral presentations on this research at AMEE meetings and presented plenary sessions and workshops on this topic which incorporate the latest work on feedback. Other educators have communicated with me on the following areas: discussion of their own research; invitation to collaborate on presentations; invitation to collaborate on further research in this area; and invitation to serve as a co-author in publications. The finer details of our research protocol, beyond what is described in the publications, will be made available to any educator interested in the topic for them to replicate studies in their own context. In time, we hope that such studies will be carried out in other disciplines to open the door for further sociocultural discoveries. One investigator is already carrying out ethnographic studies at her institution in the Department of Paediatrics and we have exchanged ideas on the most effective research design.

Market opportunities and financial value are hard to anticipate at this stage. However, we see opportunities to redefine the area of performance appraisal where ongoing feedback is critical. Our recommendations prioritise the application of politeness, sociocultural and self-determination theories in feedback initiatives. Combining our recommendations with those from other researchers could result in new, innovative and personalised feedback training for clinical supervisors as well as clinical trainees. Throughout the thesis, especially in Chapter 7 and the discussion section, we have emphasised the importance of institutions focussing on mindset and goal orientation rather than appear-
ance of competence and excellence, and teacher-learner relationships rather than recipes for teaching, assessment and feedback. Furthermore, we have showcased the value of qualitative methodology in new discoveries and developing theoretic concepts even in topics that have been studied using quantitative approaches in the past. Open-mindedness and willingness to challenge existing assumptions are critical to new explorations. Ultimately, shifting the landscape of feedback towards relationships between providers and recipients, recipient behaviour change and growth and bidirectional exchanges can nurture reflective healthcare professionals with a growth mindset. Such changes can only benefit patients and society in the end.