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Portfolio in undergraduate medical education: A medical student's perspective

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Portfolio has been used since the early 15th century to showcase designs, and folders of work for architectural, artistic and financial purposes. Though the method of delivering a portfolio has shifted over the years from a “folder of loose papers” to “electronic portfolios” with the advent of technology; the crux of portfolios has remained the same. The purpose of portfolio to allow for a personalised approach for each individual to showcase their knowledge, professional values and skills has remained constant over the past hundreds of years. (Buckley et al., 2009) The usage of portfolio in medical education has been thought to give students more responsibilities for their own learning and development and aid in stimulating the reflective thought process (Driessen et al., 2003). Moreover, portfolio has been considered being a more holistic approach to assessing students in medicine, which allows a broader method in assessment rather than a ‘snap-shot’ examination (Van Tartwijk & Driessen, 2009).

Portfolio was first introduced in the University of Dundee in 1997 and the first portfolio assessment occurred in 1999. Portfolios are formatively assessed from 1st to 4th year and are a summative assessment in 5th, the final year (Davis et al., 2009). As a final year Singaporean student from the University of Dundee, I was introduced to the new concept of portfolio during my medical course (MBChB) and its importance was emphasised from the very beginning in Year 1. Appendix 1 underlines the portfolio requirements for the respective years. These requirements are regularly updated in our portfolio section on Medblogs (medical school website

for students and staff), allowing us to check deadlines and ensure we are up to date with tasks required.

The portfolio in the University of Dundee and all universities in the United Kingdom is based on the 3 Outcomes of Graduates 2018 set by the General Medical Council (Outcome 1–Professional values and behaviours, Outcome 2–Professional skills, Outcome 3–Professional knowledge) (Monrouxe et al., 2018). All portfolios are uploaded on to the system known as “NHS e-portfolios” which provides a platform for all students throughout the nation to upload their works.

Four years ago, as a 1st year medical student, I found it hard to understand the importance of portfolio. The medical school organised lectures to inform us about the purpose of portfolio and its significance to aid our professional development. However, it appeared more of an abstract concept. Since the school gave information on what we needed to submit and when, it seemed more of a checklist of things we needed to finish. It was difficult to appreciate the holistic picture of portfolio and its purpose in our development as a medical professional.

Growing up in Singapore, practicing reflections was not part of our culture. A more difficult task-oriented environment is what most of us are used to during our schooling and work life in Singapore. The concept of reflections was new and seemed redundant, however as years went by and when I entered the clinical years of medicine (year 4 and year 5), I began to understand why the emphasis on reflection was so strong.

The reflective essays we add in our portfolio can be chosen from a list provided to us but also can be done on topics we choose ourselves to reflect on. This gives us freedom to decide what we felt was impactful during our placements and does not constrain us to write about certain issues, thus avoiding the 'checklist-like' feeling that can often be felt during the initial stages of developing a portfolio. The University of Dundee encourages the use of either Gibb's cycle, Rolfe et al, or John's model as reflective writing models to aid the reflection process.

Often my peers including myself would debate that reflections are things we do regularly, such as thinking about how the day went before we sleep or reflecting on action such as recognising a patients' emotions while speaking to them and reacting appropriately. However, I recognised the importance of writing down reflections as we can look back at it in the future and learn from the past.

During my paediatric placement in 4th year, I had the opportunity to reflect on a case I found myself getting emotionally involved. A two-year old child was vigorously shaken by his parents which led to a hypoxic brain injury and consequently cerebral palsy. Seeing the patient every day on ward rounds was disheartening as I could witness the stark difference between the neglected, immobile child and another child playing happily in the next bed. Upon reflecting, I could appreciate that there will be circumstances in the future where I encounter similar situations, and the practice of reflecting and debriefing with colleagues can aid in alleviating the emotional weight we take back home. This served as a turning point in appreciating the value of reflections as a medical student.

Even though portfolio assessments are summative in final year, the process of developing the portfolio became more genuine nearing the end of the course. On reflection, I would think this is mainly due to the realisation that the reflective process required in building a portfolio helped me become a better medical professional; with not only arming myself with the right skills but also enabling the confidence to perform well once we set foot into the clinical world as a Foundation Doctor / House Officer.

It is important to emphasise that it is not only reflective questions that use the skill of reflection. Reflections for feedback given for case discussions and clerkings allow us to reflect on the process of writing the essays and how we could improve in the future. The reflection serves as a critical interrogation which creates meaning from an event and urges us to act. I realised that only if one

identifies their limitations and develops an action plan, they can work towards a target in mind. Setting an action plan paves path to avidly look for opportunities in order to gain more practice in those areas. This made me realise that it is truly up to an individual's initiative whether they want to gain something useful from building a portfolio.

If I had the opportunity to tell my year 1 self something, I would advise to regularly update her portfolio rather than leaving it to the very end and to approach it as something she does for herself rather than to impress a supervisor or faculty member. Even if one does not understand the purpose of portfolio at the initial stages, completing reflections and small pieces of work are valuable as the skill is slowly starting to develop. Ultimately "every expert was once a beginner".

Looking back at my portfolio and seeing all my achievements collated in one area fills me with a sense of pride and fulfilment. After all, portfolio is something you develop throughout your life; from the first year you start working till the day you retire. So why not start early if you can!

Notes on Contributors

Dhivya Subramanian is a final year medical student at the University of Dundee, UK. The author based this personal view from past experiences in developing a portfolio during the period of undergraduate medical school.

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Appendix 1: Summary of Portfolio Requirements for respective years (Adapted with permission from University of Dundee)

Year 1	<ol style="list-style-type: none"> 1. Reflection on interactions with cadaver 2. Reflection on “What makes a good doctor?” 3. Infection control modules 4. Creative piece / summary of interaction with other topics in healthcare (e.g. – refugee health, climate change, artificial intelligence etc.) 5. Patient clerking 6. Prescribing e-modules 7. Inter professional education reflection 8. Reflecting on feedback 9. GP patient journey case discussion 10. Year 1 assessment for self-selected component (SSC)
Year 2	<ol style="list-style-type: none"> 1. Patient experience module reflection 2. Global health presentation 3. Ethics presentation 4. Patient clerking 5. Reflective piece on stigma 6. 3 Reflective pieces for each Outcome for Graduate 2018
Year 3	<ol style="list-style-type: none"> 1. 1 Patient clerking 2. 1 reflection on ethics session 3. 1 Case discussion 4. Prescribing task 5. 3 Reflections on learning
Year 4	<ol style="list-style-type: none"> 1. Professional development plan (PDP) for each block 2. 5 Patient presentations 3. 10 Reflective Logs 4. 8 sign offs in Skills passport – Practical skills and procedures 5. Record of clinical examinations (ROCE)
Year 5	<ol style="list-style-type: none"> 1. 3 Case discussions (medical ethics, biomedical sciences, population and behavioural sciences) 2. Adverse event report 3. Professional development plan for each block 4. 10 Record of Patients Seen (RoPs) 5. Reflection on medical journey 6. Record of clinical examinations (ROCE) 7. Skills passport – Practical skills and procedures 8. Linking evidence for Outcome 1 – Professional values and behaviours