Complexities of transitions in the medical education and how to transform transition period from a threat into a rewarding experience.

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DOI: 10.29322/IJSRP.9.06.2019.p9052
http://dx.doi.org/10.29322/IJSRP.9.06.2019.p9052

ISSN 2250-3153

***Abstract*- Introduction:** There are lots of transitions within the trajectory of being an independent medical practitioner. Transition is an inevitable process in the medical career, it starts from the first day at medical school and continues until doctors' retirement, with accompanying changes in identities. Transition period can be a double-edged sword, it represents potential threats as well as valuable learning opportunities. Isaac Asimov stated in his famous dictum that "Life is pleasant, death is peaceful, it is the transition that is troublesome". Jindal Snape also, argued that transitions can be times of multiple adversities for some as what it might be seen as minor hassles by others. Transition is a continuous process and a stepping stone between each stage, yet it does not eliminate on stepping up to a new level. Understanding the complexity of the transitions helps smoother processes, better preparedness and adaptation of junior doctors for their new responsibilities and ultimately safer patients.

Aim of this case study : Morrow et al (2009) highlighted that transitions in the medical career have not fully addressed by medical education research, and ways to enhance these period for the benefit of the patients and doctors have not been appropriately explored. Transition from undergraduate to first clinical practice is the most difficult transition period and described as a plethora of new changes. This paper focuses mainly on the transition from undergraduate to junior doctor, and sheds some light on other transitions within the medical education continuum. The first section illustrates the main challenges involved in the transitions. The second section provides solutions to overcome these obstacles and suggests alternative approaches to transform transition period from being a potential threat to a valuable learning opportunity and a rewarding experience.

Conclusion: Doctors go through many intense transition periods in their career and without understanding the intensity of these periods, doctors performance and patients safety can be compromised. Donaldson L and Haller et al (2006) reported that, there are quantifiable risks to patients safety during the transitions at all level of seniority and evidences that patient care can be compromised during transition process. A better understanding of challenges of the transitions and establishing a supportive network, would help mutual adaptation of doctors and organisations, and building up a more supportive relationship. This also, might offset any negative impact on a range of stakeholders, maximise afforded learning opportunities for junior doctors and ultimately ensure safer patients.

Index Terms- Transitions, medical career, junior doctors, preparedness, better doctors, safer patients

I. INTRODUCTION

There are lots of transitions within the trajectory of being an independent medical practitioner. Transition is a double-edged sword it represents potential threats and carries valuable learning opportunities. Isaac Asimov stated in his famous dictum that "Life is pleasant, death is peaceful, it is the transition that is troublesome". Transition periods are inevitable processes during the progress in the medical education continuum that run from the first day at medical school and continue until doctors' retirement. Doctors go through many intense transition periods in their career and without understanding the intensity of these periods and appropriate preparedness, doctors performance and patients safety can be compromised. There are three main transitions in the medical education continuum, first is shifting from preclinical to clinical life, then from medical students to junior doctors and finally from junior trainees to independent specialist or general practitioner. Transition is a continuous process and a stepping stone between each stage, yet it does not eliminate on stepping up to a new level. Transitions include lots of adjustments to accommodate working in a new environment, or to adapt managing broad spectrum of diseases and mastering new technical skills or learning managerial skills.

Each transition is a highly demanding stage and without enough understanding the challenges involved in these periods, it can be problematic and become a real threat rather than a rewarding experience. Transition is defined by Clack GB (1994) as a period of change, where doctors are forced to develop new attitude and life space to be able to cope with the new situation. Challenges of transition vary in each phase; for the newly qualified doctors the main challenges are application of theory into practice, reinforcing what is learnt and developing new skills in a self directed way. As specialist trainees, the challenges involve handling many responsibilities and simultaneously learning from daily work during providing patients care. For an independent specialist, delegating tasks, managerial and leadership skills become the main challenges.

Understanding the transitions helps smooth processes of these challenging periods and better preparation of future doctors to their new responsibilities and guiding them in their journey. Donaldson L and Haller et al (2006) reported that, there are quantifiable risks to patients safety during the transitions at all level of seniority and evidences that patient care can be compromised during transition process. Kilminster et al (2011) also stated that transition is an ongoing process and does not end when we qualified, and often hard to be adapted at all level of seniority, yet there is little research on these transitions. In line with this Morrow et al (2009) highlighted that transitions in the medical career have not fully addressed by medical education research, and ways to enhance these period for the benefit of the patients and doctors have not been explored.

This case study focuses mainly on the transition from undergraduate to junior doctor, and sheds some light on other transitions within the training medical education continuum. The first section illustrates the main challenges that can be encountered during these transitions. The second section suggests solutions to overcome these obstacles and explores ways to enhance the process of transitions and how to transform a transition from being a potential threat to a valuable learning opportunity.

II. PROBLEMS OF THE CURRENT TRANSITIONS IN MEDICAL EDUCATION

There are many factors that affect the transitions process which cannot be fully addressed in this article, however, this paper focuses mainly on the most common challenges that can hinder junior doctors' progress and have negative impact on their learning. Transition is an ongoing processes in the medical

career, it does not end after changing over to a new phase, and it continues beyond training. It does not only include changes in role and seniority, but also, changes in professional identity and responsibilities, and can be seen as intensive learning period. Kilminister et al (2011) defined transition as "the process of change or movement between one state of work and another".

Preparedness for transitions can be complex due to the lack of institutions' understanding of the challenges involved in each transition, and consequently lack of developing a mutual supportive relationship between doctors and organisations. This is vital, not only for the well-being of the doctors and the organisations, but most importantly for patients.

It was reported by many doctors that the transition from undergraduate to new junior doctor is one of the most challenging period can be encountered in the medical career and includes high level of anxieties. Bligh (2002) described the first year in the medical career as a "survival exercise". For most of foundation year one (FY1) doctors, it is the first job in their life, which may necessitate geographical relocation, moving to unfamiliar places away from their family and working for long hours including nights and weekends. The transition is described by (FY1) trainees as a discrete stepping stone between being a student to become a responsible doctors, taking new professional identity and to be called doctor by patients and other medical staff. V R Tallentire (2011) also, described this particular transition as " a plethora of new challenges". There are many factors behind new qualified doctors' anxieties. In the medical school, students are provided with a curriculum and clear guidelines for each academic year until they qualify, on the other hand when they finally qualified and become junior doctors , there is no longer clear guidelines to follow. The only curriculum they are provided with is an online website based system "e-portfolio" to complete certain number of assessments, however, they are not provided with a formal teaching on how to use this website. Illing et al (2008) highlighted that there are negative views reported from FY1 doctors and senior clinicians about e-portfolio and how it can be time consuming.

Yet, there is a lack of conceptual frameworks to identify the challenges involved in this particular transition which can form real threats to most of the trainees. Luther et al (2004) described the negative implication on newly qualified doctors due to poor support and education provided by the institutions. S. Kilminster et al (2011) highlights the necessity for institutions to recognise the challenges included in these transitions and trusts should take account of transitions as critical intense learning period and support junior doctors for a better performance.

High expectation from workplace is another challenge can be encountered, it was reported by the new junior doctors that the tasks were given to them were above their experience and responsibilities. Sedlack and Kolars (2004), reported that there is a high expectations on the new graduate doctors and it is expected that medical students have been prepared to an adequate level to participate in the workplace environment. J. Weller (2004) also highlighted that medical students have been ill prepared to participate in the wards and clinical skills are poorly taught during undergraduate years. There are evidences that students preparedness for their first practice may vary between medical schools, Gold acre et al (2003) reported that nearly 40% of UK medical graduates feel underprepared and there is significant differences between graduates of different medical schools.The General Medical Council (GMC), the doctors regulatory body, published their guidelines on what should be expected from the newly qualified doctors and what employers of the new graduates expect to receive. In "Tomorrow's Doctors" (2009) GMC stated that new graduates are not expected to have the clinical experience or leadership skills as specialist expertise, but they must be able to demonstrate a range of clinical experience in order to be prepared for clinical practice.

Uninformative induction program is one of the main concerns of the FY1 doctors. Currently the two-week induction program does not include simulation workshops to practice the most common medical emergencies to refresh their practical and clinical skills and the time scheduled for shadowing is not enough. Evans et al (2004) explained the importance of the informative induction program to improve the new doctors clinical skills and enhance their confidence. Berridge et al (2007) highlighted the importance of the time spent as shadowing for the new doctors, that helps and eases the transitions. Illini et al (2008) stated that it is essential for FY1 doctors to spend time shadowing senior trainees, and it is the responsibility of foundation schools to ensure that shadowing trainees not to be taken away from the ward during their induction.

Ambiguity of the community languages is another challenge was reported not only by the overseas doctors, but also by UK graduates and described as a barrier that often hinders learning in the workplace and can break down the communication within the team. Despite that all medical terms are used and taught in the undergraduate teaching, the language used in the workplace often takes longtime to be adapted. Lave and Wenger (1991) highlighted the importance of using the language of the community to be able to communicate within the community and be a legitimate member within that community.

It was reported by FY1 doctors that some hospitals are better than others at providing useful placement and maximise their exposure to the clinical environment and allow them to perform tasks during their placement for variety of reasons. Paper work in the workplaces is often allocated to juniors doctors and can interfere with their participation and engagement in clinical work. Lack of supervisors' support and absence of effective supervision during transitions often add to juniors doctors' anxieties. S Kilminister et al (2011) highlighted that transitions are not systematically monitored and supervision varies, some supervisors are distant or absent, specially if doctors started transitional period working out of hours.

III. How to Enhance the Transitions for the Benefit of the New Doctors

In order to enhance the transition periods for the benefit of the learners in the workplace, firstly; it is essential to recognise these transitions as critically intensive learning periods by the institutions and all clinical staff, secondly; to acknowledged the stress involved in these periods both for the trainees and institutions, which can jeopardise patient safety. S Kilminister et al (2011) highlighted that the institutions and wards have their own learning cultures and recognition of transitions as intensive learning period has its implications of new doctors performance.

In this section I will provide suggestions in how to ease the transitional period to become a pleasant rewarding experience and how to use this period for the benefit of the new qualified doctors to improve their performance. It will be difficult to address all possible solutions on this paper but I will focus mainly on finding alternative approaches to overcome the most

common problems, and explore few ways which could be applied in practice.

Ambiguity of the community is one of the main concerns highlighted not only by overseas doctors, but also by the new UK graduate doctors, which often hinders their effective communication within the team and forms a barrier for their learning in the workplace. Using the community language is essential step to communicate effectively within the community and establish working relationship with other team members. Lave and Wenger (1991) highlighted that various resources such as routines and vocabulary carry the accumulated knowledge of the community and are important for a better function of the community. This could be overcome by teaching this language as a teaching session in the induction program and provide them with a handout of the most common used vocabulary and abbreviations, this will help them to be familiar with the culture and practices of the workplace. This can be reinforced during the shadowing period from the consultants and senior trainees. This will help their quick adaptation, bridging the gap between them and the team, and allow them to become a legitimate member within the team. Lave and Wenger (1991) explained that learning process takes place in social participation more than acquisition of knowledge.

New graduate doctors should be encourage to participate in daily clinical work with supervision to alleviate their anxieties in feeling underprepared to undertake clinical skills. It should be explained in advance that learning in the workplace is mainly opportunistic and most of learning takes place in the presence of patients through active participation rather than teaching in a class. S. Kilminster (2001) stated that doctors will not be fully prepared before the transitional period and starting practice, as participation and learning are interlinked in practices. In line with this V R Tallentire (2011) highlighted that situational learning often helps in developing positive learning outcome. It was also proposed by Illing (2008) that experiential learning allows active participation in workplace and skills are better learnt in practice. Situated learning explained more by Wenger (1998) as learning takes place in a community of practice and encompasses active participation in the practices of social communities.

In Tomorrow's doctors (2009) , GMC stated that shadowing period of the FY1 doctors should be at least one week and should not to be interrupted or taken away from the ward. During the shadowing time the new doctors will act as apprentices to learn more about the placement they about to start. Evan (2004) acknowledged the apprenticeship in the learning process where learners will be familiarised with different aspects of job they are about to undertake. Many new doctors felt that one or two weeks of shadowing does not provide them with enough exposure to manage acutely ill patients. As Individual learning varies, a formal assessment should be considered for the new doctors at the end of their shadowing period to reflect on their experiences and learning process during this placement to assess if they ready to start working or more time of shadowing is required to build up their confidence. Perhaps more exposure to on-call and out of hours shifts would be beneficial to allow them to be involved in decision making and learning about managing and prioritising patients care. Legitimated peripheral participation was explained by Lave and Wenger (1991), it allows people initially learn at periphery when join the communities and as they become more confident they will move from legitimate peripheral participants to active full participation and become more involved in that particular community.

Simulation has been the champion in the learning process of the undergraduates and new qualified doctors and helps bridging the gap between theory and clinical practice. Simulation of the medical emergencies and practical skills are of great help in mitigating the stress on exposure to medical emergencies. Regular simulation teaching during the induction program and on joining a new trust, not only helps junior doctors to practicing common clinical scenarios in a structured way without endangering patient care, but also enhances their performance through adequate debriefing on what went well and what could have done better. Savoldell et al (2006) highlighted the importance of feedback and debriefing during simulation to identify and close gaps in knowledge and providing future plans.

Prescribing is a very high order task that difficult to learn in a classroom setting and one of the biggest challenges in particularly for junior doctors first practice. Most of the new graduates feel that they are underprepared in their pharmacological knowledge. Keller et al 2004, Lengford et al 2004, and Coombes et al 2008, described prescribing skills as a weak area in medical practice. More targeted teaching for prescribing is essential to be involved in the induction program for all trainees on commencing a new placement and in particular for FY1 doctors . Reinforce pharmacology teaching and learning about prescribing in a ward setting would ensure its contextualisation in clinical practice. Perhaps providing a workbook to complete on the first two weeks of the placement, led by the hospital pharmacist would refresh junior doctors skills and ensure safe prescribing. This would allow trainees to practice to prescribe the most common used medications in the department, including its dosage and interactions, and to be familiar with writing up the drug charts. More supervision from senior trainees and the pharmacist will be required to continue specially during transition period.

IV. Conclusion

Transitions are intensive critical learning periods during the progress in the medical education continuum, it is a continuous process that starts from the first day at medical school and continues until doctors' retirement. Transition from undergraduate to first clinical practice described as the most difficult transition period and a plethora of new changes. Understanding the challenges of the transitions by the institutions and clinical staff will help smoothing theses periods, enhancing doctors performance and ensuring patients safety. Clinical supervisors and senior trainees should be in the forefront to alleviate predictable stress and provide support for junior doctors. Establishing a supportive network, and building up a supportive relationship between coming doctors and receiving organisations, would help mutual adaptation of doctors and institutions, which might offset any negative impact on a range of stakeholders, maximise afforded learning opportunities and ultimately ensure safer patients.

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