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Review Article

'Adult Learning Theories' & its Application in the Re-accreditation Journey of Physician Migrants: A Review

Dr. Sharafat Malek[1], Professor Dr. Md. Humayun Kabir Talukder[2]

Abstract

Literature on learning among immigrant adults is limited.[1, 2] Published literatures directly concerning the socio-cultural educational experiences of permanent resident international medical graduates (PRIMGs) at their post-migration adaptive period is even more limited.[3] In order to properly understand the post-migrational re-qualifying experiences of PRIMGs; it was felt important to study and incorporate educational theories. This paper has focused on examining some of the adult learning theories that underpin PRIMGs' accreditation experiences in developed English-speaking countries i.e. Australia. To do this has involved repeatedly visiting a range of educational theories, concepts and paradigms. Since one single theory or paradigm failed to cover all aspects of the study, it was deemed important to explore a variety of different theories.

Although the social experience during re-settlement is crucially important for predicting PRIMGs' academic progress; this paper solely concentrates on their post-migration educational experiences. The review has suggested that some pre-knowledge on nature of the educational facilities in the host country is important for re-establishing medical career. For some, this process may all go smoothly whereas others may find this journey difficult, frustrating and costly. The outcome of settlement ought to be better if the decision to migrate was taken with pre-knowledge of the post-migration learning environment and structure[4]; although, many other micro and macro elements are equally involved in the process.

The implementation and practice of *'Experiential learning model'* has been advocated that both indicates and emphasizes the need for funded arrangements of '*Structured on the job training*' programs for PRIMGs. The alternate option would be to undertake full-fee-paid, practical-oriented, up-skilling bridging courses[6]. Such training would assist them to effectively complete their *learning cycle* and re-qualify in a shorter timeframe.

Introduction

Developing countries like Bangladesh produce a large number of medical graduates every year through its public and private medical colleges[5]. Following completion of supervised internships, the majority of graduates try to write competitive multi-tier exams for entering the Government service. While most graduates academically prepare to achieve local post-graduate qualifications; others attempt to emigrate/immigrate into range of developed countries i.e. Australia. The license to practise medically at the destinations may not be readily permissible in most cases.[6] Available literature[7-8] demonstrates a large discrepancy between migrant doctors' (IMGs) success rates in the knowledge and practical part of the Australian licensing process (i.e. 80% vs. 42% in case of Bangladeshi-IMGs). So, where is the gap? Is it a problem in their study technique or lacking exposure to hone clinical skills?

1. Population Health Academic, Department of Epidemiology & Preventive Medicine, School of Public Health and Preventive Medicine, Faculty of Medicine, Nursing & Health Sciences, Monash University, Australia.

5. Professor, Curriculum Development & Evaluation, Centre for Medical Education (CME), Mohakhali, Dhaka.

Address of correspondence: Dr. Sharafat Malek
School of Public Health and Preventive Medicine
Monash University, Australia.
Email: sharafat.malek@monash.edu

The post-migrational re-qualifying journey of the permanent resident doctors (PRIMGs) is the focus of this study. Major theory-based study techniques will be explored and discussed.

Moving to a new land and learning to re-qualify for medical practice:

The PRIMGs are both medical practitioners and migrants coming to a new country (i.e. in Australia). To study these medical migrants (PRIMGs), it is important to understand the medical profession as '*a community of practice*' – the model which was developed by Lave & Wenger.[9] The concept means to benefit any group of people within a common learning process where the learner' success come by exercising the authors' famous *'situated'*, *'learning by doing'* and/or *'shared learning'* technique. In case of medical profession, the above concept embraces a number of disciplines and sub-disciplines, for example a network of surgeons with a common assignment, physicians, specialists, pathologists, ophthalmologists and general practitioners. Now within these disciplines various sub-groups may experience life differently, for example male compared to female doctors, and rural GPs when compared to their metro GP-colleagues.[3] In this varied circumstances, it's apparent that no single theory or paradigm could explain this adult community's re-learning needs; rather a review is necessary to look at what works best for all members in general. positive and negative impacts.

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'PRIMGs' are migrants as well as adult medical professionals with experience in various medical disciplines. The migration experience in the case of adult medical professionals can be a difficult one if they are to re-establish their pre-migration careers in a partial to completely different socio-educational and welfare support system.[10-14]

The role of Andragogy:

I n the 1950, Knowles[1] wrote about 'adult learning', advising that *"adults learn best in informal, comfortable, flexible, non-threatening settings"*. Since the late 1960s, other authors used the term 'Andragogy' which means *'the art and science of helping adults learn'*.[1] Knowles et al set out the criteria for adults' learning, some of which were:

- Adults have a readiness to learn those things that they need to know in order to cope effectively with real-life situations.
- Adults are life-centred in their orientation to learning
- Adults are more responsive to internal motivators than external motivators.

PRIMGs are adult learners; therefore they need to learn and be taught and trained, using the above principles.[15]

Major theories in adult- learning area:

The following learning techniques and theories were felt worth to select, appraise on and discuss in here:

Learning through 'Group study':

Russian social constructivist Vygotsky claimed that in certain social contexts, individuals learn more by interacting with peers than they can achieve by studying alone.[2] The researchers[16-18] have demonstrated that people studying medicine make better progress when they work clinically and study together. Lave and Wenger[9] argue that learners are newcomers to a community of practice. For IMGs to practice medicine in what for them is a 'foreign'; sharing knowledge is important for learning the history, environment, culture and language of the community. It is also of fundamental importance to their learning- the behaviour and values that are expected from them. Having a local medical student or graduate in the study group would aid to seal those gaps, hence advisable.

Learning by 'Peer-tutoring':

Many professional teachers believe that, *'to teach is to learn twice'*. Peer tutoring has been popularly found to be an effective learning method for adults because for the tutors, it is 'learning by teaching'. This peer-assisted learning method is supported by Vygotsky's theories[2]. Here, in addition to better knowledge and skills, the peer-teachers achieve motivational and attitudinal gains that include greater commitment towards a goal, improved self-esteem, self-confidence and lowered anxiety through interactive and participative learning leading to higher self-disclosure. For PRIMGs, an organized (funded) mentor/tutorship connection could be exercised via established community platforms[19] aimed to see successful PRIMGs teaching those still sitting to pass re-accreditation exams.

Learning needs to be 'Facilitated':

'Facilitated learning' theory as described by Wells[2] tells us that provision of access to structured-learning facilities and courses will help PRIMGs gain accreditation faster and as well assist with understanding of Australian medical culture and context. Likewise, PRIMGs need facilitated access to *'clinical observer'* roles in order to hone their practical skills and integrate theoretical knowledge under supervision.

'Simulation' or *'Virtual reality'* learning is rapidly becoming popular in medical, nursing and health science education.[20,21] Palmer and Snyder described 'Simulation' as an interactive technique well-suited to adult learning.[22] Adults generally learn with a purpose in mind where using *'simulators'* (i.e. 'Laerdal™ SimMan' patient simulators in medical and nursing teaching) facilitate their learning. Through specific programme support software, clinical scenarios can be programmed into the *'SimMan'* patient simulators to elicit approximate human response on receipt of a specific intervention performed by the learner/s.[23, 24] PRIMGs need structured access to such simulation training environments. Once simulation hurdles are achieved, the opportunity to perform the skills learning in the real environment should also be available. Through this combined approach, PRIMGs will gain confidence that they have practiced in the real world what they have learned earlier in the classroom using *'case study'*, *'role-playing'* or other hands-on simulation techniques. Indeed, achieving this confidence is important for a trainee's safe medical practice.

Kolb's 'Learning Style Inventory (LSI)' model:

The final stage in Kolb's *'experiential learning model'* for adults[25] both indicates and emphasizes the need for undertaking 'structured on the job training' in order to complete the learning cycle. Knowles et al[1] explained Kolb's model that suggests the stage-wise appropriate learning strategies for the adults as shown in Table 1 below:

Table 1: Kolb's Model with Suggested Learning Strategies

Kolb's Stage	**Example: Learning/ Teaching Strategy**
Concrete Experience	Simulation, Case Study, Field trip, Real Experience,
Observations and Reflections	Demonstrations. Discussion, Small Groups, Buzz Groups, Designated Observers.
Formation of abstract concepts and generalizations (Abstract Conceptualization).	Sharing Content.
Testing implications of concepts in new situations (Active Experimentation).	Laboratory Experiences, On-the-job Experience, Internships, Practice Sessions.

Benefits of 'Small group' learning:

Mature adults as they get older may find learning more difficult. However, Sutherland[28] suggests that given enough time invested and assuming they are sufficiently motivated, it's possible for older adults to achieve learning outcomes that equal those of younger learners. Collaborative shared-learning group (with peers) may help mature-aged learners. Sutherland quoted Imel[29] to show the major advantages for adults through learning in a small group.

According to Imel, those advantages are:

- Allows for integration of critical thinking.
- Permits learners to expand their knowledge through sharing with each other.
- Breaks down isolation as members support each other.
- Enhances learners' self-esteem and
- Benefits members through both cooperative and single active participations.

Managing 'Time': education, work and family life:

There's a popular saying: *"None to blame- you had been the manager of your own time!"* Sutherland[28] indicated that the availability of time to engage in learning may be problematic for adults. The author explained that young adults may be financially supported by the state, their family members and/or their prospective employers to devote to full-time study. In addition, mature-aged students or older adults following retirement might have sufficient time and resources to satisfy their desire for further studies. But in contrast, the students in between those ages usually struggle with finding productive study time because of their jobs and/or family commitments. According to Sutherland, they commonly give up jobs or most social activities in order to engage in education, managing to combine education with other life roles and suffer the resultant pressures or give up the educational commitments. Regarding time management in contrast to earning for living, Sutherland stressed *"Most adult students are likely to have seriously considered the option of withdrawal if they are engaging in education over a lengthy period of time"*.

Women with family responsibilities may suffer more time-problems and feel compelled to somehow manage the 'triple shift' of family, work and education. Blaxter and Tight[30] titled these women' time management strategy as 'juggling':

> *I always seem to be juggling with half a dozen balls in the air… Coursework, work, and family I suppose. I don't see enjoyment as a separate thing, though I skim enjoyment off the top of those things… the house" (woman, 30s).*

'Part-time study' and *'distance education'* are said to be the preferred learning choice for the time to poor middle-aged adult respondents.[31] Other flexible learning options that are found popular are *'on the job learning'*, *'after hour/Saturday morning classes'* and *'a home tutor scheme for one to one tutorials (mainly for women)'*.[32]

As we have seen, there are a number of ways to assist PRIMGs overcome the many problems associated with gaining accreditation to become Australian doctors as well as Australian citizens. Freire[32] tried to explain this context as "*Students, as they are increasingly posed with problems relating to themselves in the world and with the world, will feel increasingly challenged and obliged to respond to that, challenged"*.

The conversion of *'negative feelings'* into *'positive motivation'* towards achieving their goal may come into benefit[33, 34]. This motivation can come from observing other people from similar background that experienced the same hardships but gained success.

Migration and Career-gap:

Commitment, continuous clinical/practical training and tenacity are very important to performing as a medical doctor. Continuous lifelong learning is essential for day to day medical work and therefore a significant gap in a medical career can seriously affect a doctor's academic and clinical performances[35]. If migrant doctors need to take on a variety of non-medical work for living, it can be detrimental to their medical careers. Involvement in a variety of non-professional mundane jobs can cause IMGs to experience a prolonged period outside the medical workforce. Their medical skills can significantly deteriorate during this time. Sullivan et al[35] commented:

> *Even if this group complete the whole AMC process[36], absence from right profession might impact detrimentally on their first year of working as a doctor in Australia caused not only by their unfamiliarity with the Australian culture or the hospital subculture but also due to the effects of long-term unemployment.*

An IMG commented in his interview with Arulmani[37] that "*In Australia, you can work and earn money but you can't get a career*". PRIMGs' financial burdens and debts, for example exam fees, travel, house rent, living costs, study materials, family here & overseas may require them to work, therefore delaying re-accreditation and increasing the cost of achieving a medical career.[38,39]

Involvement in the AMC accreditation system post-migration, may lead to a significant gap in clinical or practical skills of IMGs. Without workforce exposure or alternative clinical skills training via a '*practically-oriented bridging course'*, PRIMGs may never gain the skills required to pass the AMC clinical exam. To regain and retain the stated *"Core Competency Skills that every new medical graduate should have the capacity to perform independently"*[40]; PRIMGs need to have provided with on-the-job/hands-on practice (funded). Their clinical skills might deteriorate over time if there is no opportunity to train or carry out the skills as part of a medical job. In addition, a long gap in medical career may seriously affect a PRIMG's self-esteem and mental health as a whole.

Mentionable here, repeated failure in the accreditation exams can lead to 'Depression' or even 'Psychoses'.[41] Freire[32] quoted an interview that he undertook with a peasant. Freire wrote:

"The peasant is a dependent. He can't say what he wants. Before he discovers his dependence, he suffers. He lets off steam at home, where he shouts at his children, beats them, and despairs. He complains about his wife and thinks everything is dreadful. He doesn't let off steam with the boss because he thinks the boss is a superior being. Lots of times, the peasant gives vent to his sorrow by drinking".

These experiences of *'Oppression-oppressed'* may be felt by some PRIMGs as well. This review-work suggests that if PRIMGs are to re-qualify in a given timeframe, they will need education and training in the key areas of '*cultural awareness'* and '*language and communication skills'* in addition to medical knowledge and practical clinical skills.

Conclusion

For an adult migrant with additional burden of family responsibilities, there could be number of barriers to re-accreditation journey. This review has shown that the theories and literature is quite clear about what is needed for their sound progress towards re-accreditation. PRIMGs are adult learners who have made a commitment to Australia. Ensuring implementation of well-formulated, funded, state-wide adult learning programmes[44-6] would benefit both parties- the 'PRIMGs' and the publicly-claimed 'Stressed medical workforce' in Australia[43].

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