

Postgraduate study prospect for pharmacy bachelor's degree holder in Malaysia

Dear Editor,

Over the decade, there has been a debate about the demand and supply of pharmacist. Despite the aging population trend which demands an increasing need of healthcare services including the professional service from pharmacist,^[1] contradicting scenario of pharmacy saturation has been observed worldwide for example in the UK, India, and Syria.^[2-4] In Malaysia, a few changes in rules and regulations of the compulsory training for pharmacist were implemented in recent years:

- From year 2011, the training is shortened to 1-year from 3-years periods when it was first introduced in year 2004.^[5]
- From year 2013, the training can be conducted in private hospitals, industries, research and developments, and community pharmacies; before that, training can only be conducted in government setting.^[5]

These changes created speculation of saturation of pharmacist in the country.^[6] However, given the versatility of the pharmacy bachelor degree, career options are varied for graduates and not restricted to practice in hospital and community pharmacy. "Pharmacy practice" has been described as "any role as a pharmacist in their profession and is not restricted to the provision of direct clinical care."^[7] Non-clinical areas such as education, research, advisory, and policy roles are regarded as pharmacy practice as well.^[7] Moreover, research-related work and postgraduate study are recognized by Malaysian Pharmaceutical Society (MPS) as part of the Continuing Professional Development (CPD) of pharmacy profession.^[8]

Research in Malaysia is developing speedily with international-recognized tremendous improvement. Five Malaysian public universities, recognized by the

Cabinet in 2006 as research universities, have been ranked as the top 100 universities in Asia in QS Ranking 2013/2014.^[9] The prestige have been linked to scientific research conducted in the universities.^[9] A recent survey of Thomson Reuters recognized the research development in Malaysia, reporting a 310% increase of papers published in international peer-reviewed journals between years 2007–2012 and addressing three Malaysian researchers as among the world's leading scientific minds.^[10] In recent years, a trend in collaboration has been observed between public and private universities^[11] as well as between universities and industry.^[12] Collaborations with intellectuals from other countries are also not uncommon.^[13] Collaborations have been driven by the benefits to strengthen research and development by exchanging knowledge across sectors or countries.^[14] The ongoing development of research in the country shows that research field is well-recognized as one of the main driving forces to lead the overall development of Malaysia.

Career preference of undergraduate students stands to be the ultimate concern in determining the future of postgraduate study. A study conducted to survey the career preference of final-year students in public and private universities in Malaysia found the top preference to be practicing pharmacist in hospital or community pharmacy, in consideration of the salary, benefit, and geographical location of the job.^[15] The preference to venture in academia has not been observed, which is somehow similar to the scenario in the UK.^[16] The lack of interest in postgraduate study has been linked to two reasons, according to Sosabowski and Gard.^[16] Firstly, the salary of practicing pharmacist is higher compared to other sectors in the profession.^[16] Using Pay Scale© as measure for example, the average monthly salary for pharmacist and academic are RM6,104 and RM3,839 respectively.^[17,18] Secondly, the requirements expected by universities are not fulfilled by many pharmacist/pharmacy graduates. An open search on lecturer's general requirement on Job Street Malaysia© found that a Master degree is a minimum requirement expected from the applicant,^[19] which means a bachelor degree's holder is under-qualified. To be qualified as an academic, graduate needs to undergo at least 3–4 years of postgraduate study. Moreover, Malaysia Qualification Agency (MQA) has set a new guideline where there should be no direct entry from

bachelor degree to PhD,^[20] which means one has to undergo an additional 1 year for Master degree prior to PhD study. The need to invest vast amount of time and money could easily put off one's interest in postgraduate study.

The effort to encourage participation in postgraduate study can be seen from MyBrain15 program launched by Ministry of Education Malaysia (MOE).^[21] The scholarship program offers tuition fee waiver and living allowance for eligible citizens, in accordance with the mission to have 60,000 PhD holders in Malaysia by year 2020.^[21] To achieve the mission, in my opinion, a more in-depth approach should be employed. Firstly, the content of pharmacy bachelor's degree should be modified and focused on a more all-rounded approach to prepare graduates for different sectors of job in the profession and not only for hospital or community pharmacy. This idea is based on the study which found work-placed learning has an impact on influencing student's decision on choosing pharmacy career.^[16] Importantly, the study also found that the final year's research project thesis failed to influence student's career decision.^[16] Additionally, during the period of the four years degree course study, students should be encouraged to gain work experience in research area, a similar idea of "summer placements" in UK where students gain pharmacy practice experience in hospital or community pharmacy for four weeks can be adapted.^[22] Not only research placement enables students to explore their area of interest in research, it also improves eligibility of the students for postgraduates or academics applications later. On the other hand, potential postgraduate candidate can also be targeted at practicing hospital or community pharmacists. In this case, the pharmacy board or pharmaceutical society has an important role in providing guidance in leading pharmacists according to their postgraduate study interests. This is a step already taken by Royal Pharmaceutical Society UK who provides detailed pharmacy research and evaluation resources to the members.^[23] Last but not least, the financial needs of postgraduates should be taken seriously, keeping in view the high salary of pharmacist they foregone. More scholarships can be offered to provide financial support. University can diversify their revenue sources rather than to depend on government's funding, by collaborating with industry for instance.^[14]

In conclusion, the endeavor to attract more Malaysian to join on the bandwagon of postgraduate should be continued and be implemented in a more vigorous

way. New technology, skills, and ideas provided by highly knowledgeable intellectuals and specialists will help to develop the country in align with the country's vision to become a fully developed country by 2020.

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