Malaysian Family Physician 2008; Volume 3, Number 3
ISSN: 1985-207X (print), 1985-2274 (electronic)

Online version: http://www.ejournal.afpm.org.my/

News & Reports

REFLECTING ON RESEARCH: SELF- MONITORING OF BLOOD GLUCOSE AMONG DIABETES PATIENTS ATTENDING GOVERNMENT HEALTH CLINICS

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Abstract
This article described the author's reflection on conducting research in primary care. Certainly hand-on experience will give a better learning experience for a person to explore further in research and research training will help too. Conducting a collaborative research with other institutions also help in better research outcome. Research capacity building is important as most patients are seen in primary care.

Mastura I. Reflecting on research: self-monitoring of blood glucose among diabetes patients attending government health clinics. Malaysian Family Physician. 2008;3(3):168-169

Reflecting on my previous research conducted during my area of interest training in Monash University Melbourne, Australia demonstrates the highs and lows of pursing the challenges of research – particularly after being involved in full time clinical training on Non-communicable Disease in Primary Care. Exploring research in primary care has proved an interesting and rewarding experience.

The overwhelming feeling during that time was just how much time research can take. Compared to the rapid pace of clinical practice – a patient every 15 minutes, 28 patients a day, 126 patients per week – the progress of research is a completely different time pressure to overcome.

I am very fortunate to have several supervisors who guide me along the whole process. In an average week I meet regularly with one of my co-supervisors, and discuss current research with other colleagues. These discussions have been really useful in developing my research ideas and learning about working in research world. They have also shown me that research is very different to clinical general practice. Ones should read about their area of interest, talking to others about their research, or simply just thinking about what it is that they want to achieve and how they are going to do it.

A number of barriers have added to the challenge of starting out in research. Some of these have been easy to overcome and others not so easy. An added complexity for me was being in Melbourne by myself and leaving my family behind in Malaysia during that one year. I initially feared this would have an impact on me; fortunately this has proved not to be the case. I have managed to start a research project of my own. I feel this has helped me in gaining a broader understanding of what is required in conducting future research.

To overcome other barriers, I have found it best to talk to all the people around you and to follow up on contacts. The best thing about being in an academic department which is the Department of General Practice, Monash University is its connections with other departments in the university. This has enabled me to talk with others about their own research experiences. For example, I found out about End Note course. This has given me opportunity to be enrolled to the course and able to use it now for writing purposes. I am very fortunate also to be able to complete two short courses conducted by the Department of General Practice namely on Quantitative Research Methodology and Qualitative Research Methodology.

This period was also challenging in the sense that there was a combination of clinical training and research. It is important to get the balance right. When I reached in Melbourne for the training, I already have in mind pursuing this research project. I would like to do something related to the course that I am doing while I was in Melbourne. As everyone is aware self care is an important aspect in Chronic Disease Management and I chose to study on self monitoring of blood glucose among the type 2 diabetes patients. The first thing I did was to conduct literature search and review all the related papers on self monitoring blood glucose and diabetes. After that I conducted a semi-structured interview among several diabetes patients either by talking to them in the clinic, via telephone or doing home visits. Then I started writing for the research proposal and preparing the research instrument i.e Questionnaires for data collection. Several drafts were prepared until my supervisors said it was ready to be submitted to the Research and Ethic Committee.

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I have chosen to submit the research proposal to the Research and Ethic Committee in Malaysia since I would like to conduct the data collection at my own clinic in Ampangan Health Clinic, Negeri Sembilan and another clinic in Kelana Jaya Health Clinic, Selangor. At the same time I managed also to collaborate with the International Medical University (IMU) with Professor Teng Cheong Lieng, Department of Family Medicine. I went back to Malaysia and presented the paper during the Research and Ethic Committee Meeting. It was the second time for me presenting at the Research and Ethic Committee (the first time was during my master program) and I felt slightly nervous. I was a bit disappointed because the committees decided that the proposal has to be re-written and submitted again. This has somehow affected my research timeline. I did so and finally the paper was approved in the subsequent Research and Ethic Meeting. I was also successful in getting some research fund from IMU. A staff nurse was later recruited and trained to help in the data collection. The data collection progressed very well and took about 3 months.

Once all the questionnaires were ready, she posted it to me in Melbourne and I proceeded with the data entry and analysis. However, for the full write up of the paper I didn't have enough time to complete it while I was in Melbourne. I only managed to complete it once I am back in Malaysia. Taking time to write for the paper was another challenged for me as I was back to the usual routine working in the health clinic. Furthermore I was promoted and transferred to another district and has to travel about 100 km to and fro everyday. It was such a happy moment for me when the paper was finally published in June 2007[1] in the Malaysian Medical Journal.

In summary, in doing research it is important to:

- talk to others to find out what their experiences have been
- look at all options and make up for own needs
- don't panic if there is too much things to do
- have fun!

ACKNOWLEDGEMENT

I wish to thank IMU for the research grant. Also Professor Leon Piterman, Dr Sangiva Wijesinha (Department General Practice, Monash University) and Professor CL Teng (IMU) who gave me the opportunity to conduct the project.

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1. Mastura I, Mimi Omar, Piterman L, Wijesinha S, Teng CL. Self-monitoring of blood glucose among diabetes patients attending urban health clinics- A cross sectional study. *Med J Malaysia.* 2006;6(2):147-51

ACCORD trial: intensive glucose lowering in high-risk patients with type 2 diabetes may be harmful

The Action to Control Cardiovascular Risk in Diabetes Study Group. Effects of intensive glucose lowering in type 2 diabetes. *N Engl J Med.* 2008;358(24):2545-59.
In this RCT, 10,251 patients (mean age 62.2 years, 35% had a previous CAD event) with a median HbA1c of 8.1% were assigned to receive intensive therapy (targeting HbA1c level <6.0%) or standard therapy (targeting a level from 7.0 to 7.9%). As compared with standard therapy, the use of intensive therapy to target normal HbA1c levels for 3.5 years *increased* mortality and did not significantly reduce major cardiovascular events.

ADVANCE trial: intensive glucose lowering in type 2 diabetes reduces nephropathy but not macrovascular complications

The ADVANCE Collaborative Group. Intensive blood glucose control and vascular outcomes in patients with type 2 diabetes. *N Engl J Med.* 2008; 358(24):2560-72.
In this RCT, 11,140 patients (mean age 66 years, 12% had a previous CAD event) with a mean HbA1c of 7.5% were assigned to receive intensive therapy (gliclazide, targeting HbA1c level <6.5 %) or standard therapy. After a median of 5 years of follow-up, intensive therapy reduced combined outcome of major macrovascular and microvascular events, primarily as a consequence of a reduction in nephropathy.