Quality of primary care and self-management of patients with type 2 diabetes in Muscat, Oman

ACADEMIC DISSERTATION
for the degree of PhD
at Karolinska Institutet.
The thesis will be defended in public at
Rockefeller lecture hall, Nobels väg 11, KI Campus, Solna,

Tuesday 12th February 2013 at 13:00
by Nadia M. Noor Abdulhadi

Supervisors:
Associate Professor Rolf Wahlström
Karolinska Institutet
Department of Public Health Sciences
Div. of Global Health (IHCAR)

Associate Professor Mohammed Ali Al-Shafaee
Sultan Qaboos University, Oman
College of Medicine and Health Sciences
Family Medicine & Public Health

Professor Katarina Hjelm
Linnæus University, Växjö, Sweden
School of Health and Caring Sciences,

Professor Claes-Göran Östenson
Karolinska Institutet
Department of Molecular Medicine and Surgery
Endocrine and Diabetes Unit

Opponent:
Professor Urban Rosenqvist
Uppsala University
Department of Public Health and Caring Sciences

Examination board:
Associate Professor Åsa Hörnsten
Umeå University
Department of Nursing

Associate Professor Alexandre Wajngot
Karolinska Institutet
Department of Neurobiology, Caring Sciences and Society

Associate professor Birger Forsberg
Karolinska Institutet
Department of Public Health Sciences

Stockholm 2013
ABSTRACT

Background: Diabetes mellitus is the most common non-communicable disease in Oman and its control remains a huge challenge for the health system.

Objectives: The first three studies aimed at exploring how health-care providers interacted with patients with type 2 diabetes at primary health-care level in Muscat, Oman, how the patients perceived these interactions and how the health care providers perceived diabetes care. Study four assessed diabetes self-management, awareness of complications, and attitudes about diabetes management among people living with type 2 diabetes.

Methods: Quantitative and qualitative research methods were used for data collection. Data for study I was collected through direct observations of 175 consultations among doctors and diabetes practice nurses using checklists developed from the National Diabetes Guidelines and other studies of patient-provider interaction. Data for study II was collected through focus groups discussions with patients, while face-to-face interviews with providers were conducted in study III. A questionnaire-based survey among patients was used to collect data for study IV. Statistical analyses were used for the quantitative data, while qualitative content analysis was applied for the qualitative data.

Main findings: The interactions between health-care providers and their type 2 diabetes patients were sub-optimal in more than 50% of consultations and there was poor collaboration between the health care staff working in diabetes care. The quality of the diabetes nurses’ interactions was sub-optimal in 75% of their consultations. The combined scores of all aspects for both doctors and diabetes nurses showed that they interacted optimally with the patients in only one health centre. In sub-study II, the patients expressed their dissatisfaction with issues related to the organization of the diabetes clinics and they perceived the doctors and nurses to be neither experts nor sufficiently competent in diabetes care. Patients expressed their inability to participate in the medical dialogue or communicate their concerns. In sub-study III, organizational barriers and barriers related to patients and health care providers were identified such as: workload; lack of teamwork approach; patients’ poor management adherence and influence of culture on their attitudes towards illness; frustration of doctors and nurses due to unsuccessful efforts with the patients and tendency to aggressive behaviour with non-adherent patients. In sub-study IV, 62% of patients had a poor self-management score, while home glucose monitoring was practiced by 38% of patients. Many patients were unaware about how to recognize hypoglycaemia or respond to it, but were good at demonstrating methods to stabilize blood glucose.

Conclusions and recommendations: Clearly defined professional roles and appropriate education to support patients to be able to have a key role in their own care are essential. The role of diabetes nurses should be enhanced. A multidisciplinary team approach and training of the providers to upgrade their skills regarding communication and care with emphasis on patient-centred approach are needed. The findings further reflect the need for changes in professional behaviour towards a less authoritarian style and to recognize cultural influences and the patients' beliefs in order to individualize the care according to patients’ needs. The results can be useful for the policy makers in Oman and countries with similar health systems, for improving the quality of diabetes care and the organizational efficiency of diabetes clinics.

Keywords: Diabetes mellitus type 2; primary health-care; patients’ perceptions; patient-doctor interaction; self-management behaviour; Oman