

UNIVERSITI TEKNOLOGI MARA

**ORGANIZATIONAL FACTORS, HEALTH
OUTCOMES, AND THEIR PREDICTORS IN TYPE 2
DIABETES CARE IN THE OCCUPIED PALESTINE**

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ABSTRACT

Political instability of Palestine influenced economic, social, and health aspects. Diabetes prevalence at Palestine was 10%, with rising fund crisis and diabetes care problems. There was a limited research concerning diabetes care dimensions (organizational factors and health outcomes) and their predictors. Health outcomes included costs, diabetes self-care management, and glycaemic control. This study described patient characteristics, assessed organizational factors, diabetes self-care management, glycaemic control, and their predictors, evaluated drug utilization pattern, assessed costs and their predictors. This study had two phases, and was carried out at the National Centre for Chronic Diseases and Dermatology, Ramallah, Palestine. Phase one is retrospective cross-sectional in 330 participants recruited by convenience sampling method from a type 2 diabetes patients list who were seen regularly during the past one year. Phase two is an-observational follow-up that involved 79 participants selected from phase one participants by simple random sampling; they were followed-up for six months. Data on patient characteristics, organizational factors, diabetes self-care management, and glycaemic control were collected from personal interview and medical records review for both phases. Data on costs was obtained in phase two from personal interview in each visit. Good glycaemic control was defined as $HbA1c \leq 7\%$. Data was analyzed by SPSS v 16.0. Phase one showed that 51.2% were males, mean \pm standard deviation age was 60 ± 9.7 years, 88.5% had additional chronic diseases, and 46.1% were obese. The mean total overall organizational factors score was higher than average score (cumulative percentage=55.4%). Preventive care and patient-health care professionals relationship were the most prominent organizational factors in statistically significant relationships among organizational factors. The overall diabetes self-care management level was higher than average (cumulative percentage=52%). Marital status, body mass index, and diabetes duration were significantly related to follow a diabetic meal plan. Additional chronic diseases number was significantly related to physical exercise participation. Marital status and insulin treatment were significantly related to self-blood glucose monitoring. Gender and diabetes duration were significantly related to medication adherence. HbA1c last readings for 271 participants showed that only 20.3% had good glycaemic control. Unemployment was significantly related to decreased odds of good glycaemic control. Phase two showed that most common prescribed medications were Metformin, followed by Insulin. Many of the participants received Statins and almost half of them received Angiotensin-Converting Enzyme Inhibitors. Estimated health care cost was Israeli Shekel 24,000 (US Dollar 6,480). Medications number and Angiotensin-Converting Enzyme Inhibitors were significantly related to health care cost. This study reflects appropriate overall status of organizational factors and diabetes self-care management. However, the participants' proportion with good glycaemic control was low. Further investigation and improvement of inappropriate organizational factors and diabetes self-care management dimensions, reviewing prescription mode, and educational programs that emphasize the diabetes self-care management and the health care providers' role would be of great benefit in health outcomes.

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CHAPTER ONE

INTRODUCTION

1.1 PURPOSE

This study evaluated the relationship between diabetes health care system dimensions that included organizational factors and health outcomes of diabetes health care among Type 2 Diabetes (T2D) patients who usually visited the National Centre for Chronic Diseases and Dermatology (NCCDD), Ramallah, occupied Palestine; the main Palestinian Ministry of Health (PMoH) affiliated centre for providing outpatient diabetes health care service. Therefore, the study assessed the diabetes health care service through an auditing of structure, process, and health outcomes; the health care system features that are related to diabetes health care service. Furthermore, the glycaemic control (i.e. Glycosylated Haemoglobin (HbA1c)), Diabetes Self-Care Management (DSCM), and T2D costs are main health outcomes thought to be indicative of diabetes health care service.

The study also considered the importance of a diabetes health care service improvement through auditing structure, process, and health outcomes including economics, and estimated the T2D costs incurred by both patients and family members, and investigated predictors/relationships. For example, it is very important for those in charge of diabetes primary and tertiary health care centres to take into account an early diabetes diagnosis, patient education and regular follow-up through a well-organized surveillance system (Al-Alfi, Al-Saigul, Saleh, Surour, & Riyadh, 2004). A Doanbedian's framework is a conceptual model for examining health care service (Avedis Donabedian, 1985). Economics is a discipline that studies limited resources usage to satisfy their unlimited needs, so maximize gains from the available resources (Peter Shizgal, 2012). Health Care professionals (HCPs) factors in combination with disease management characteristics expands the focus from only understanding the prescription process and medications consumption to an approach that also uses treatment guidelines and algorithms to evaluate medication therapy in the context of treating particular disease. This reflects health outcomes and pharmaco-economic findings.