CARDIOVASCULAR MORBIDITY AMONG YOUTH: DETERMINANTS AND IMPACT ON HEALTH RELATED QUALITY OF LIFE

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Abstract

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Introduction: cardiovascular diseases (CVD) are among prevalent and preventable of all health problems, resulting in decreased quality of life for millions of people. Unfortunately, developing countries suffer the most, As for Egypt ,CVD, particularly rheumatic heat disease is a significant health problem. Youth represent a priority group. Internationally, there is extensive research assessing the QOL of CVD patients, but there is a lack of such studies among the youth age group. This also applies on a local scale in Egypt.

Objective: of the study include an investigation the epidemiological profile of cardiovascular disease among the studied group of youth, a Quality of life Assessment of the cases compared with the controls, and a study of the possible determinants showing a significant association with QOL. And finally development of an Egyptian HRQL model to predict QOL among cardiovascular diseased youth.

Subject & Methods:

an analytic case control study that involved 500 patents and 500 apparently health controls. Age range 18-24 years , was performed in the cardiology department of the kasr el aini Hospital as well as the national heat institute. All cases and control were subject to a generic QOL tool (i.e the SF-36v.2) and a disease specific tool (MacNew Heart Disease HRQL questionnaire) was used to study QOL among the rheumatic heat disease group.

Results:

The results of this study can be divided into following sections: background Characteristics of the studied groups: epidemiologic profile of the cases: quality of life(QOL)summary of all study group: determinants of QOL among the cases and qualitative analysis of patient interviews.

Conclusion & Recommendations:

The study results showed that cardiovascular diseases have a negative impact on almost all aspects of the quality of life of diseased youth when compared to their healthy counterparts. Furthermore, RHD scored higher QOL than those with other CVDs. The study recommended establishing comprehensive strategies to improve their quality of life that follow four paths simultaneously : prevention, Treatment, Rehabilitation, and further Research.

Key Words:

Cardiovascular Disease, Rheumatic Heart Disease, Youth, Quality of life (QOL)

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LIST OF ABBREVIATIONS

ACE	Angiotensin Converting Enzyme
ADMA	Asymmetric dimethylarginine
ARF	Acute rheumatic fever
ASCE	Adolescence and Social Change in Egypt
BMI	Body mass Index
BP	Bodily Pain
CAPMAS	Center for Population Mobilization and Statistics
CDC	Center for Disease Control and Prevention
CHD	Coronary heart disease
CRP	C-reactive protein
CVDs	Cardiovascular diseases
DALY	Disability-adjusted life years
ECA	Economic Commission for Africa
EDHS	Egyptian Demographic and Health Survey
FMD	Flow-mediated dilation
GAS	Group A Beta hemolytic streptococci
GDP	Gross Domestic Product
GH	General Health
HCM	Hypertrophic cardiomyopathy.
HIV/AIDS	Human Immunodeficiency Virus/ Acquired Immune Deficiency Syndrome
HRQL	Health Related Quality of Life
ILO	International Labour Office
IMT	Intima media thickness
IP	Inpatient
LDCs	Less developed countries
MCS	Mental Component Summary
MH	Mental Health
MI	Myocardial Infarction
NHI	National Heart Institute
OECD	Organisation for Economic Co-operation and Development
OP	Outpatient

PASCAR	Pan-African Society of Cardiology
PCS	Physical Component Summary
PF	Physical Function
PROs	Patient-reported outcomes
QOL	Quality of life
RE	Role Emotional
RF	Rheumatic fever
RHD	Rheumatic Heart Disease
RP	Role Physical
SF	Social Functioning
SF-36 v.2	Short Form- 36 Version 2
SPSS	Statistical Package for the Social Sciences
SYPE	Survey of Young People in Egypt,
UK	United Kingdom
UN	United Nations
UNFPA	United Nations Population Fund
US	United States
VT	Vitality
WHF	World Heart Federation
WHO	World Health Organization
T2	Translational research

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INTRODUCTION

By 2050, the number of youth will have risen from just under a half billion in 1950 to 1.2 billion. And the growth of the world's youth population (ages 15 to 24) is shifting into the poorest countries because at that point, about nine in 10 youths will be in developing countries. This generation will need employment, adequate health care, and the ability to raise a family with an appropriate living standard if they so choose. Before those things can come about, they must have had access to sufficient education and training so that they can take part in building their country's society and economy. Improving young people's health and quality of life is a critical goal in and of itself, with long-term benefits to society as a whole *(Population Reference Bureau, 2009)*.

While urbanization brings greater access to education and health services, it also carries greater exposure to many risks including chronic non communicable diseases. Today's technological and medical advances have increased the life span of children with severe chronic illnesses and disabilities with more than 90% now reaching the age of 20 *(Whitehouse and Paone, 1998)*.

Today, chronic diseases—such as cardiovascular disease (primarily heart disease and stroke), cancer, rheumatic disorders and diabetes—are among the most prevalent, costly, and preventable of all health problems. The prolonged course of illness and disability from such chronic diseases results in extended pain and suffering and decreased quality of life for millions of people *(CDC, 2003)*.

Unfortunately, developing and least developed countries suffer the most, where there is more exposure to risk factors, and less access to effective and equitable health care services, such that over 80% of the world's deaths from cardiovascular disease occur in these countries. As for Egypt, it was estimated that 42% of deaths in 2002 were due to cardiovascular diseases making it the first leading cause of death. Early diagnosis

and management can play an important role in management and prevention *(El-Gabaly, 2010)*.

Youth with chronic health conditions face two simultaneous transitions: a developmental transition (from childhood to adolescence to adulthood) and a situational institutional transition (from pediatric to general health care). They may also have a third transition, from relative health to illness, depending on the progression of their illness *(Whitehouse and Paone, 1998)*.

Physicians have often used health-related quality of life (HRQL) to measure the effects of chronic illness on their patients in order to better understand how an illness interferes with a person's day-to-day life *(CDC, 2003)*.

The WHO defines quality of life as "individuals' perceptions of their position in life in the context of the culture and value system in which they live in relation to their goals, standards, and concerns. Quality of life is reflected in the general well being *(WHO, 1993)*.

HRQL, the concept of a person or group's perceived physical and mental health over time, expands the statistical toolbox we use to measure individual and community health, to compare communities and regions, and to plan and gauge the impact of our health services and public health programs *(Horton, 2001)*.

Quality of life (QOL) surveys, which are one example of outcome research, provides the data for evidence-based medicine. Both activities work together in a continuous quality improvement cycle under the general heading of disease management *(Chatburn, 2001)*.

Adolescent health care is challenging not only for general practitioners but for healthcare professionals involved in service delivery at all levels. Youth is a unique stage in the life span of an individual, and so the traditional management regimens