

**Quality of Life for Primary School Age
Children Suffering From Rheumatic
Heart Diseases**

Thesis

*Submitted for Fulfillment of Master Degree
in Community Health Nursing*

By

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LIST OF ABBREVIATIONS

<i>Abb.</i>	<i>Meaning</i>
ARF	Acute rheumatic fever
QOL	Quality of life
RF	Rheumatic fever
RHD	Rheumatic heart disease
WHO	World Health Organization

Quality of Life for Primary School Age Children Suffering From Rheumatic Heart Diseases

By: Amal Esmeil Alaam

ABSTRACT

Rheumatic heart diseases are the permanent heart valve damage resulting from one or more attacks of acute rheumatic fever. Rheumatic heart diseases predominantly affect children and it is important causes of early mortality. **The aim** of this study was to assess the quality of life for primary school aged children suffering from rheumatic heart diseases through assessing the physical functions, psychological functions and social functions that affected by the disease through a descriptive analytical design. **Setting:** the study was conducted at the cardiac outpatient clinic in health insurance at Nasr city. **Sample:** A purposive sample includes 50% from 300 total number of school age children suffering from rheumatic heart disease who attending the outpatient clinic for receiving the prophylactic medication according to the attendance years 2011, 2012 and 2013. The actual study sample was 150 school aged children, inclusive criteria from 6 to 12 years. **Tools of data collection:** structured interviewing questionnaire containing socio demographic characteristics of the child, disease characteristic of primary school children, mother knowledge regarding to rheumatic heart diseases and quality of life adopted from (Verny, 2006). **Results:** Rheumatic heart diseases affect the quality of life for primary school children as moderate physical condition, low psychological condition, and moderate social functions condition. **Conclusion :** The present study concluded that Rheumatic heart diseases affect the quality of life for primary school children ; physical, psychological and social functions conditions

Keywords: Rheumatic heart disease, Quality of life, Primary school age.

Introduction

Worldwide, there are over 15 million cases of RHD, with 282,000 new cases and 233,000 deaths from this disease each year. Rheumatic heart diseases (RHD) are a condition in which permanent damage to heart valves are caused by rheumatic fever (RF). The heart valve is damaged by a disease process that generally begins with a strep throat caused by bacteria called streptococcus, and may eventually cause RF in susceptible children 6-12 years old and depend on other environmental factors, such as poor standard of living and no access to medical care. The disease manifests as polyarthritis, carditis, chorea, erythema marginatum (EM), and subcutaneous nodules (SN) (**Brice & Commerford, 2014, and Tani, 2016**).

RHD are a consequence of acute rheumatic fever (ARF). The risk of RHD is greater with repeated episodes of ARF. While ARF usually occurs between 6 and 12 years of age, it can also occasionally occur in adulthood. RF is a multisystem disease that involves mainly the joints, the heart and the brain, but it may affect other organs as well. It takes place 2-3 weeks after an infection usually of upper respiratory tract, with Lancefield group A β haemolytic streptococcus (**Tandon, 2014**).

RHD remains a major cause of morbidity and mortality in developing nations, recent reports of approximately 15.6-19.6 million cases in the developing world (**Eloi et al., 2016**).

No specific treatment for RHD exists other than for its complications, including heart failure, atrial fibrillation, ischaemic embolic events, and infective endocarditis. Medical treatment other than antibiotic prophylaxis has shown little evidence of slowing the progression of the disease. Antibiotic regimens used to prevent recurrence of ARF are inadequate for preventing bacterial endocarditis. Regular long-term penicillin treatment can prevent RF from becoming RHD and can prevent disease progression when heart valves are already damaged (**Lennon & Weaton, 2014, and Essop & Nkomo, 2015**).

School age is a time of important developmental advances that establish children's sense of identity. Biological and cognitive changes transform children's bodies and minds. Children with RHD usually fall behind the progress of their healthy schoolmates and school performance is impaired due to the fact that they have a long treatment process involving frequent hospital admissions and they are likely to have a prolonged absence from school (**Harter, 2015 and WHO, 2015**).

Quality of Life (QOL) is an estimate of remaining life free of impairment, disability or handicap. Chronic conditions put increased stress on the child. Children with RHD are exposed to physical, psychological and social discomfort related to their treatment, which influences their quality of life (**Sturms , Sluis, Groothoff, Duis & Eisma, 2014**).

Children with RHD have twice the risk of developing mental health disorders of healthy children, and three times the risk if they have an accompanying disability. It may be affected by their expectations for the child and by the fact they have different definitions and understanding of a disease and its consequences for the future (**Swanston, Williams & Salantera, 2016**).

The community health nurse plays an important role in assessment of QOL in children with RHD to determine action is taken to improve QOL. It act the individual response to the physical, psychological and social condition during illness and wellness, which personal satisfaction with life circumstance can be achieved allowing favorable simile with other according to selected criteria (**Nishimura, Otto, Bonow & Carabello, 2016**).

Significance of the study:

Rheumatic heart diseases (RHD) are the commonest cause of childhood cardiac morbidity globally and common in developing countries. Two- thirds of RHD patients are school-children aged between 6 and 12 years (**Beaton et al., 2015**).

In Egypt, epidemiological surveys show that rheumatic heart disease is the most common serious cardiac condition as it is estimated to be present in about 0.5-1.0 % per 1000 school children despite the long acting penicillin administration (**Seckeler & Hoke, 2016**).

Aim of the Study

This study aims to assess the quality of life for primary school aged children suffering from rheumatic heart diseases through assessing the physical functions, psychological functions and social functions that affected by the disease.

Research questions:

- What are the effect of rheumatic heart diseases on physical domains for primary school child with this diseases?
- What are the effect of rheumatic heart diseases on psychological domains for primary school child with this diseases?
- What are the effect of rheumatic heart diseases on social functions for primary school child with this diseases?
- What are the factors that affect the QOL for school age children suffering from rheumatic heart diseases?

Rheumatic Heart Disease

Rheumatic heart disease is a term used to indicate cardiac involvement by the rheumatic process. Rheumatic heart disease could be acute or chronic. It is a condition that causes permanent damage to the heart valves. It follows rheumatic fever. RF is the body's response to a strep infection of the throat or tonsils. It may also follow scarlet fever. This is a strep infection of the throat along with a red, rough-feeling skin rash. Rheumatic fever may affect the joints, skin, and tissue under the skin, brain, and heart. If it affects the heart, it is called rheumatic heart disease (**Carapetis, 2015, and Zegeye, Asrat & Woldeamanuel, 2016**).

RHD is the permanent heart valve damage resulting from one or more attacks of ARF. RHD predominantly affect children, adolescents, and young adults, and are important causes of early mortality (**Brown, Maguire, Walsh, Noonan & Thompson, 2015**).

RHD is the most common acquired heart disease in children in many countries of the world, especially in developing countries. The global burden of disease caused by RF currently falls disproportionately on children living in the developing world, especially where poverty is widespread. RHD is a chronic heart condition caused by RF that can be