

CHAPTER I

INTRODUCTION

1.1 Backgrounds

Type 1 diabetes (T1D) is an autoimmune illness caused by the destruction of pancreatic β -cells, which results in insulin insufficiency, hyperglycemia, and a risk of ketoacidosis. (Kahanovitz *et al.*, 2017). Type 1 diabetes (T1D) treatment is based on frequent blood glucose monitoring and insulin administration that is tailored to the patient's blood glucose level, meals, exercise, and overall health. Parents are responsible for the treatment of a young kid with T1D, which necessitates constant monitoring of the kid (Hannonen *et al.*, 2019). This consequences affected children's Quality of Life (QoL), and because parents are involved, the parents have their own perception of their children's QoL.

Children with Type 1 Diabetes Mellitus (T1DM) are becoming more common worldwide, including in Indonesia. In 2018, the Indonesian Pediatric Society (IDAI) recorded 1120 children with T1DM. The significant number of T1DM children with diabetic ketoacidosis upon presentation, which reached 71 percent in 2017, reflects low public and healthcare awareness of T1DM. To date, the Indonesian Pediatrician Association (IDAI) have been collecting data on DM pediatric patients in Indonesia (Pulungan B., 2019).

Despite the fact that children and adolescents with T1DM must adhere to a rigorous treatment regimen, overall results show that their generic QoL is unaffected when compared to healthy peers (Cho and Kim, 2021). However, there were disease-specific QoL issues, such as the unfavorable impact of diabetes on everyday functioning and diabetes-related concerns. Complexity problems that occur in children with T1D can cause physical problem, psychological and social

disorders which can interfere with the activities of good children at home and at school. Children experience delays in participate in activities at school because children required to rest at home. Children may experience stress and low self-esteem because it requires insulin treatment throughout his life. Patients and caregivers must adjust to a new lifestyle, while the developing children or teen seeks for independence. Parents who accompany their children in the routine treatment of diabetes also have their own perceptions of their children's quality of life. According to recent studies, improving the quality of life and well-being of children with diabetes is just as important as controlling their blood sugar levels in preventing secondary morbidity. As a result, the primary goal of current diabetes management for children and adolescents has shifted from purely medical to optimal glucose control, normal psychological development, and maximum QOL (Rosaul *et al.*, 2013).

pediatric medicine has come to increasingly recognize health-related quality of life (HRQoL) as a crucial health outcome indicator. For the purpose of identifying at-risk children and implementing early intervention programs, it is critical to develop and use pediatric HRQoL evaluations, especially in patients with T1D.

The World Health Organization (WHO) Emergency Committee proclaimed the coronavirus-19 (COVID-19) pandemic a worldwide health emergency. In many nations, it has also had an impact on the socioeconomic, physical, psychological, and health sectors. In the COVID-19 pandemic, people with Diabetes Mellitus are very susceptible to the SARS-CoV-2 virus due to high glucose levels. The pandemic phase is marked by poor glycemic management in many patients. As a result, COVID-19 infection is risky for kids with T1DM.

Patients with T1DM may have a further decline in their Quality of Life (QoL) in pandemic conditions as a result of their decreased ability to interact with doctors due to a fear of going to the hospital.

Based on the data regarding the QoL of T1D children according to parents and children that correlate to the treatment and prevention of complication and morbidity, especially at Dr. Soetomo Hospital, Surabaya in COVID-19 pandemic era and parents and their children have their own perception about the Quality of Life of the patients with T1D in Indonesia. Therefore, further discussion is needed regarding the QoL of T1D children according to parents and children. The research intend to compare between the QoL of T1D children according to parents report and children report in Indonesia, especially in Dr. Soetomo Hospital, Surabaya.

1.2 Formulation of The Problems

Is there any difference between parents report and children report on QoL of children with T1D?

1.3 Research Purposes

1.3.1 General Purposes

To compare between parents report and children report on QoL of children with T1D.

1.3.2 Special Purposes

- a. Comparison of QoL of T1D children according to parents report and children report.
- b. Analyze the QoL of T1D children according to parents report.
- c. Analyze the QoL of T1D children according to children report.

1.4 Benefits of Research

1.4.1 Theoretical Benefits

The theoretical results of this study are expected to contribute ideas in enriching the conceptual insight of the QoL of T1D children according to parents and children.

1.4.2 Practical Benefits

1.4.2.1 Benefits for Research Subjects

- a. This study are expected to increase patient's knowledge, insight and awareness of the QoL of T1D children according to parents and children.
- b. This study are expected to give knowledge to parents therefore they may improve their knowledge and give more support for the patients.

1.4.2.2 Benefits for Health Service

The results of this study are expected to improve therapeutic services for children with T1D so that the patient's QoL will increase.

1.4.2.3 Benefits for Academics

The result of this study are useful as information and input for other students to carry out further research related to QoL of T1D children according to parents and children.