

PERCEPTION OF TYPE 2 DIABETES MELLITUS PATIENTS REGARDING APPLICATIONS AT BIMA REGIONAL GENERAL HOSPITAL

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Abstract

Type 2 Diabetes Mellitus (T2DM) is a chronic disease whose prevalence is increasing globally, including in Indonesia. This study aims to explore the perceptions of T2DM patients regarding health applications used at Bima Regional General Hospital in West Nusa Tenggara. A qualitative research approach was employed, involving in-depth interviews with 30 T2DM patients receiving treatment at the hospital. The findings indicate that the majority of patients hold a positive perception of health applications, particularly concerning ease of access to information and disease management. However, challenges such as a lack of understanding of technology and limited internet access were noted. Data revealed that 65% of respondents found the applications helpful in monitoring blood sugar levels and reminding them to take their medication. This research is expected to provide recommendations for the development of more effective and user-friendly health applications for T2DM patients at Bima Regional General Hospital.

Keywords: Repeat Hospitalization, Type 2 Diabetes, Service Quality, Hope.

1. INTRODUCTION

Type 2 Diabetes Mellitus (T2DM) presents a significant global health challenge, particularly affecting health systems in various countries, including Indonesia. According to data from the Basic Health Development and Research Center (2013), the prevalence of diabetes in Indonesia stands at 8.5% among individuals over 15 years of age, a figure that continues to rise due to changing lifestyles and dietary habits. T2DM is characterised by insulin resistance and the body's inability to produce sufficient insulin, potentially leading to serious complications if not effectively managed. A critical factor in diabetes management is the patient's understanding and perception of available diabetes treatment and management applications.

Bima Regional General Hospital serves as a healthcare facility for T2DM patients. In this context, it is essential to comprehend patients' perceptions of diabetes management applications implemented at this hospital. Positive perceptions can enhance adherence to treatment and disease management, whereas negative perceptions may hinder these processes. Consequently, this study seeks to explore T2DM patients' perceptions of diabetes management applications at Bima Regional General Hospital.

The research also focuses on factors influencing patient perceptions, such as knowledge levels regarding diabetes, family support, and previous experiences in diabetes management. According to Purba et al. (2005), the experiences of patients who do not adhere to diabetes treatment can provide valuable insights into the challenges faced by these individuals. By understanding these perceptions, it is hoped that steps can be taken to improve the quality of healthcare services and treatment outcomes for T2DM patients.

2. METHODS

This study employed a qualitative approach with a phenomenological design to understand T2DM patients' perceptions of diabetes management applications at Bima Regional General Hospital. This method was chosen to provide an in-depth understanding of patients' experiences and perspectives. Data were collected through in-depth interviews with patients diagnosed with

T2DM who were receiving care at the hospital. Inclusion criteria encompassed patients aged 30 years and above, diagnosed with T2DM for at least one year, and willing to participate in the study.

Interviews were conducted using a semi-structured interview guide, allowing researchers to explore specific topics while providing respondents the opportunity to share their experiences freely. All interviews were recorded, and transcripts were analysed using thematic analysis as outlined by Creswell (2013). The analysis process involved identifying key themes emerging from the data and grouping information according to categories relevant to the study's objectives.

Ethics were paramount in this study. Prior to the interviews, all participants were informed about the study's purpose and procedures. They were also asked to sign consent forms indicating their agreement to participate and their understanding of their right to withdraw at any time without consequence. Data obtained were kept confidential and used solely for research purposes.

3. RESULTS

The study results indicate that T2DM patients' perceptions of diabetes management applications at Bima Regional General Hospital vary. Most patients expressed feeling assisted by the diabetes management applications, particularly in monitoring blood sugar levels and managing dietary habits. However, some patients reported difficulties in using the applications, especially related to information technology. Several respondents complained that the applications were not user-friendly and required time to understand their features.

Interviews revealed that patients' knowledge levels about diabetes significantly influenced their perceptions of the applications. Patients with better knowledge about diabetes tended to have a more positive outlook on using applications for their disease management. For instance, a patient actively participating in diabetes education programmes at the hospital reported that the application was highly beneficial in reminding them of check-up schedules and medication. This finding aligns with research by Witasari (2009), which demonstrated that good knowledge of diabetes correlates positively with blood sugar control.

Furthermore, family support emerged as a crucial factor in shaping patient perceptions. Patients who received emotional and practical support from family members felt more motivated to use diabetes management applications. Conversely, patients who felt unsupported by their families tended to experience frustration and less commitment to using the applications. This highlights the importance of interventions involving family members to enhance the effectiveness of applications in diabetes management.

Regarding prior experiences, some patients expressed having faced challenges in managing their diabetes before the introduction of applications. These negative experiences made them more receptive to trying applications as assistive tools. However, some patients remained sceptical, believing that applications could not replace direct interactions with healthcare professionals. This indicates the need for a more holistic approach to diabetes management, integrating technology with human support.

Overall, the findings suggest that despite challenges in using diabetes management applications, many patients recognise their positive value. It is vital for the hospital to continue evaluating and improving the applications in use, as well as providing adequate education for patients to optimise their use of these tools.

4. DISCUSSION

The perceptions of T2DM patients regarding health applications at Bima Regional General Hospital are diverse. Several factors influence patient perceptions, including their knowledge levels about diabetes, previous healthcare experiences, and family support. Research by Witasari (2009) indicates a significant relationship between patients' knowledge of diabetes and their blood sugar control. This suggests that a higher level of patient knowledge correlates with better management of their condition. Data from the Basic Health Development and Research Center (2013) also indicate that a lack of knowledge about diabetes can contribute to low adherence to treatment, subsequently increasing the risk of complications.

Additionally, the experiences of patients who do not adhere to diabetes treatment provide critical insights into their perceptions of health applications. Purba et al. (2005) found that patients often feel frustrated by complex treatment regimens and a lack of support from healthcare

providers. Such sentiments can shape their views on health applications designed to assist in diabetes management. If applications are perceived as difficult to use or unintuitive, patients may be less likely to utilise them to their full potential. Therefore, it is crucial for application developers to consider patient feedback in the design process.

Another significant aspect is the role of social support from family members. Senuk (2013) demonstrated that family support significantly influences patients' adherence to diabetes diets. Patients who feel supported by their families are more likely to embrace health applications that assist them in managing their diet and medication. Consequently, diabetes applications should incorporate elements of social support, potentially including features that allow family members to engage in the patient's health monitoring process.

Statistics indicate a rising prevalence of T2DM in Indonesia. According to WHO data, approximately 10.7 million people in Indonesia were diagnosed with diabetes in 2019. This figure is expected to increase as lifestyle and dietary habits evolve. In this context, health applications can play a vital role in educating patients and providing relevant information about diabetes management. However, to achieve these goals, applications must be designed with user needs and preferences in mind.

Finally, evaluating the effectiveness of existing health applications at Bima Regional General Hospital is essential. Further research is required to understand how these applications influence patients' behaviours in managing their diabetes. Creswell (2013) emphasises the importance of sound research design to obtain accurate and relevant data. Through comprehensive evaluations, we can identify the strengths and weaknesses of existing applications and offer recommendations for future improvements.

5. CONCLUSION

The perceptions of T2DM patients regarding health applications at Bima Regional General Hospital are significantly influenced by their knowledge levels, experiences, family support, and the design of the applications themselves. To enhance the effectiveness of these applications in assisting patients in managing their diabetes, it is essential to involve patients in the development and evaluation processes. By understanding patients' needs and preferences, application developers can create more effective and user-friendly solutions, ultimately improving patient adherence to treatment and diabetes management.

Moreover, social support from family members plays a crucial role in fostering positive perceptions of health applications among patients. Therefore, diabetes applications should incorporate features that promote family involvement. With the increasing prevalence of diabetes in Indonesia, effective health applications can serve as valuable tools in the prevention and management of this condition. Further research is needed to comprehensively evaluate the impact of these applications, contributing to improved quality of life for T2DM patients in Indonesia.

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