

The use of videos for diabetes patient education: A systematic review

Cosette Yoon Wey Hoe¹ | Badariah Ahmad¹ | Jessica Watterson^{1,2} 

¹Jeffrey Cheah School of Medicine and Health Sciences, Monash University Malaysia, Subang Jaya, Selangor, Malaysia

²Action Lab, Department of Human-Centred Computing, Monash University, Clayton, VIC, Australia

Correspondence

Jessica Watterson, Action Lab, Department of Human-Centred Computing, Monash University, 25 Exhibition Walk, Clayton, VIC 3168, Australia.
Email: jessica.watterson@monash.edu

Abstract

Diabetes prevalence is rising worldwide, calling for public health concerns and interventions to improve prevention and management. Self-care is an important component in reducing the incidence of complications from diabetes, but it must be taught. This systematic review aims to synthesise the evidence for education videos for people with diabetes. Electronic databases, including Ovid (Medline, Embase, EmCare), PsychInfo, CINAHL, Web of Science and Scopus, were searched for studies on educational videos for patients with diabetes that met the inclusion criteria. A total of 36 studies met the inclusion criteria. Data extracted were synthesised through narrative synthesis. Studies examined outcomes including biological (i.e., glycated haemoglobin (HbA1C), weight, BMI), non-biological (health literacy, self-efficacy) and subjective feedback (i.e., acceptability, cultural appropriateness). The most common length of video was ≤ 10 min. Online dissemination was the most common method of video distribution. A statistically significant decrease (ranging from -0.1% to -2.1%) in HbA1C was noted in 7 of 12 studies examining this outcome. Other studies also found evidence of improvement in health literacy, self-efficacy, physical activity, medication adherence and other outcomes. Feedback from participants was generally positive, and emphasis was placed on the need for cultural appropriateness and representation in the educational videos.

KEYWORDS

diabetes, module, programme, self-care, self-management, video

1 | INTRODUCTION

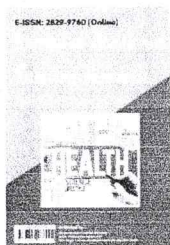
Diabetes (including both Type 1 Diabetes Mellitus (T1DM) and Type 2 Diabetes Mellitus (T2DM)) is a non-communicable disease (NCD) that does not discriminate—it affects people of all ages, races and genders. Rising numbers of cases worldwide call for public health concern in both developed and developing nations.¹ Hospital admissions due to complications or acute crises are increasingly burdensome to national healthcare systems.² Self-care is an important component in reducing

the incidence of complications.³ Patient self-care is crucial because poorly managed diabetes can lead to complications that can seriously impact the quality of life and healthcare demand for people with diabetes. However, self-care behaviours must be learnt, often through patient education services provided by diabetes educators, nurses, or physicians.

The way individuals consume information has changed because of the instantaneous and vast nature of the Internet. For example, YouTube™, an online media platform, is ranked as the second most

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The Effectiveness of Leaflet and Video Educational Media Toward the Knowledge of Type 2 Diabetes Mellitus Patients

Novia Dwi Anggraeni¹, Astri Ayu Novaria¹, Riana Pangestu Utami¹, Wiryanto¹

Correspondence e-mail: noviadwia1117@gmail.com

¹ Department of Nutrition, Health Polytechnic, Ministry of Health, East Kalimantan, Indonesia

ABSTRACT

This study aims to know the effectiveness of leaflets and video educational media in the knowledge of type 2 diabetes mellitus patients in the inpatient room of RSUD Beriman Balikpapan. The methodology used is a quasi-experimental study with a pretest and posttest research design with control group. The intervention group used video media and the control group used leaflet media. The results obtained were that the average patient knowledge increased in the experimental group, which was $50.90 \pm 8,228$ SD before the intervention, increasing to $81.37 \pm 9,615$ SD after the intervention. In the control group, the mean knowledge of patients before the intervention was $55.75 \pm 7,036$ SD, increasing after the intervention to $84.18 \pm 9,895$ SD. The P-Value value is $0.000 < 0.05$ from the results of the analysis of the difference in knowledge between the experimental group and the control group after the intervention shows that there is a significant difference between the two; so that H_0 is rejected and H_a is accepted. This means that nutritional counseling using video and leaflet media can increase knowledge about Diabetes Mellitus and video media is more effective than leaflet media. The providing nutritional counseling using video media was more effective than using leaflet media in increasing the knowledge of Diabetes Mellitus patients in the inpatient ward of the Beriman Balikpapan Regional Hospital.

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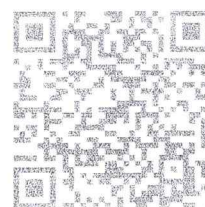
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Keywords:

Diabetes Mellitus, Nutrition Counseling, Leaflets, Videos, Education

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Quick Response Code

Key Messages:

- Video Media Proves More Effective in Diabetes Education: The study conducted in the inpatient ward of RSUD Beriman Balikpapan demonstrated that video educational media significantly enhances the knowledge of patients with type 2 diabetes mellitus, more so than traditional leaflet media. The experimental group, which used video interventions, showed a remarkable increase in patient knowledge post-intervention, highlighting the efficacy of dynamic and visual learning tools in patient education.

Introduction

Worldwide, diabetes is one of the leading causes of death and morbidity. A lack of insulin, either partial or complete, prevents glucose from being metabolized, causing high blood glucose (hyperglycemia). Diabetes Mellitus is a chronic condition for which there is no cure, so sufferers will continue to experience its effects. Condition This with thereby called as disease lifetime life or "lifelong disease" (1). In 2016, WHO reported that in 2014, 422 million Diabetes Mellitus sufferers experienced an increased risk of developing hypertension. Of 3.7 million people, 43% died before reach 70 years old. Research Health Basis (Riskesdas) also reported a fairly large increase in the prevalence rate of diabetes, from 6.9% in 2013 to 8.5% in 2018, putting around 16 million Indonesians at risk of other diseases such as blindness, kidney failure, heart attacks, stroke, can even cause paralysis and death. According to data from Basic Health Research (Riskesdas) 2018, the prevalence of Diabetes Mellitus in East Kalimantan is 2.3%. In Balikpapan City itself, the prevalence of Diabetes Mellitus is 2.55% (2).

Eliminate complaints and symptoms with still guard comfort and health is objective period Short management of Diabetes Mellitus. As mentioned in the four main pillars of Diabetes Mellitus management, education is the first step that must be taken to increase knowledge and awareness in managing diabetes. Diabetes Mellitus sufferers need to have a thorough understanding of the 3Js: Type, Amount and Schedule of food that must be consumed to maintain blood glucose levels in the body which

Pengaruh Media Edukasi terhadap Peningkatan Pengetahuan Pencegahan Diabetes Mellitus pada Remaja

Wina Fitriyani¹, Ratih Kurniasari²

¹ S1 Gizi Fakultas Ilmu Kesehatan Universitas Singaperbangsa Karawang

² S1 Gizi Fakultas Ilmu Kesehatan Universitas Singaperbangsa Karawang

Email: 1910631220054@student.unsika.ac.id

Abstrak

Diabetes merupakan penyakit metabolik yang ditandai dengan terjadinya hiperglikemia atau kadar gula darah tinggi yang akibatnya oleh adanya gangguan resistensi insulin, dan sekresi insulin. Meningkatnya jumlah diabetes mellitus dapat diakibatkan oleh kurangnya pengetahuan tentang penyakit. Pengetahuan dapat diubah dengan memberikan instruksi melalui media cetak atau media aplikasi. Penelitian ini bertujuan untuk mengetahui dampak pemberian informasi diabetes pada remaja melalui *leaflet* dan *website*. Jenis penelitian ini yakni *quasi experimental* dengan rancangan *pretest-posttest* design. Sampel penelitian berjumlah 40 responden dengan rentang usia 15-18 tahun dengan 2 kelompok intervensi mendapat edukasi melalui media *leaflet* dan *website*. Hasil uji *wilcoxon* pada media *leaflet* diperoleh *p value* 0,001 artinya pemberian edukasi berpengaruh pada peningkatan pengetahuan diabetes mellitus pada remaja. lalu pada media *website* hasil uji *paired t-test* diperoleh *p value* 0,000 artinya pemberian edukasi berpengaruh secara signifikan terhadap peningkatan pengetahuan diabetes mellitus pada remaja. Kesimpulan pada penelitian diketahui bahwa media *leaflet* dan *website* berpengaruh secara signifikan terhadap peningkatan pengetahuan diabetes mellitus pada remaja.

Kata kunci: *leaflet*, *website*, pengetahuan, diabetes mellitus, remaja

ABSTRACT

Diabetes is a metabolic condition characterized by hyperglycemia or elevated blood sugar due to insulin resistance and decreased insulin production. A lack of understanding about diabetes mellitus may be to blame for its rising prevalence. Knowledge may be altered by giving instruction via print media or application media. This research aimed to examine the impact of giving diabetes information via pamphlets and websites. This sort of study employs a quasi-experimental, pretest-posttest approach. The research sample was 40 respondents with an age range of 15-18 years with 2 intervention groups receiving education through leaflets and websites. The findings of the Wilcoxon test on leaflet media provide a *p value* of 0.001, indicating that the education has an impact on raising teenagers' understanding about diabetes mellitus. Then on the media site, The findings of the paired *t* test yielded a *p value* of 0.000, indicating that schooling had a substantial impact on teenagers' understanding about diabetes mellitus.. The conclusion of this research is that leaflet and website media have a significant influence on increasing knowledge of diabetes mellitus in adolescents.

Keywords: *leaflet*, *website*, knowledge, diabetes mellitus, adolescents

KATA PENGANTAR

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Malang,23 Mei 2025

Penulis

HALAMAN PERNYATAAN ORISINALITAS

Skripsi ini adalah hasil karya sendiri, dan semua sumber baik yang dikutip maupun dirujuk telah saya nyatakan dengan benar.

Nama : Jufi Luhur Pratama
NIM : P17111181036
Program Studi : Sarjana Terapan Gizi dan Dietetika
Jurusan Gizi : Gizi
Judul Skripsi : Tinjauan Literature: Efektivitas Media Video Dan Leafleat Terhadap Pengetahuan Dan Kadar Glukosa Darah Penderita Diabetes Mellitus Tipe 2

Dengan ini menyatakan bahwa skripsi yang saya tulis ini adalah benar-benar karya saya dengan arahan dari dosen pembimbing dan belum diajukan dalam bentuk apapun kepada perguruan tinggi manapun. Sumber informasi yang berasal atau dikutip dari karya yang diterbitkan maupun tidak diterbitkan dari penulis lain telah disebutkan dalam teks dan dicantumkan dalam daftar pustaka.

Demikian pernyataan ini saya buat dengan sesungguhnya dan apabila dikemudian hari terdapat penyimpangan dan ketidakbenaran dalam pernyataan ini, maka saya bersedia menerima sanksi lain dengan peraturan yang berlaku di Politeknik Kesehatan Kemenkes Malang.

Malang, 23 Mei 2025
Yang Membuat pernyataan

Jufi Luhur Pratama
NIM.P17111181036