

Supporting Paper

A health promotion material overview

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Introduction

This presentation will cover an overview of a patient information leaflet titled ‘Diabetes - Reducing carbohydrates’ prepared by NHS University Hospitals Coventry and Warwickshire NHS Trust (2022). The review starts with an introduction, followed by the main body, and ends with the conclusion. The key terms are defined, and the core questions answered about the health promotion material are focused on the aims, targets, and outcomes. The conclusion will summarise and outline the key points. The information review is supported by sources such as in-text citations and reference list.

Key terms

Health promotion is defined by the World Health Organisation (WHO) as "the process of enabling people to increase control over and to improve their health." (World Health Organisation, 2022). This definition emphasises the role of individuals in managing their health and well-being, and it is underpinned by the principle that health is not merely the absence of disease but also involves a comprehensive state of physical, mental, and social well-being. The concept of health promotion has evolved over the years, with significant developments marked by international conferences and declarations, such as the Ottawa Charter for Health Promotion in 1986. This charter introduced fundamental strategies for health promotion, including advocacy, enabling, and mediating across different sectors of society. The WHO's approach to health promotion is also aligned with the Sustainable Development Goals (SDGs), aiming to champion health across all goals and focusing on good governance, health literacy, healthy settings, and social mobilisation. In Viner and Macfarlane's perspective,

“Health promotion is the science or art of helping people change their lifestyle to move towards a state of optimal health. Lifestyle change can be facilitated through a combination of efforts to increase awareness, change behaviour, and create environments that support good health practices.” (2005).

Type 2 Diabetes, as Bikman describes:

“(...) type 2 diabetes is insulin resistance that has progressed to the point where the body is unable to keep blood glucose levels below the clinically relevant 126 mg/dL. (...) is a hyperinsulinemic state. That means a person with insulin resistance has more insulin in the blood than normal.”(2020. p. 27)

Blood glucose, commonly referred to as blood sugar, is the primary sugar found in the blood. Blood glucose also comes from the food eaten and is one of the body's energy sources, along with ketones (Wilson and Lowery, 2017).

Carbohydrates are one of the three primary macronutrients in the human diet, after protein and fat (Holesh, Aslam and Martin, 2023). These molecules, which contain carbon, hydrogen, and oxygen atoms, impact the body. They convert to a significant energy source, increase blood glucose, affect insulin metabolism, influence cholesterol and triglyceride metabolism, and cause fermentation processes. Upon consumption, carbohydrates break down in the digestive tract into glucose, which is used for energy. Any excess glucose is stored in the liver and muscle tissue for later use. Carbohydrates are divided into simple and complex types based on the number of sugars they contain and their chemical structure. Simple carbohydrates, consisting of one or two sugars, are efficiently utilised for energy, causing rapid changes in blood sugar and insulin secretion. Complex carbohydrates, which have three or more sugars bonded together, digest more slowly and have a longer-lasting effect on blood sugar levels (Ludwig *et al.*, 2018).

In the UK, **food labelling** is a crucial tool for providing consumers with essential information about food products. The primary purpose of food labels is to ensure that the information presented is clear, accurate, not misleading, and easily understandable. This helps consumers make informed choices about food purchases and dietary habits (Government Digital Service, 2012).

Hypoglycemia's symptoms vary but can include feelings of hunger, tremors, heart palpitations, sweating, dizziness, confusion, irritability, or weakness (Cryer *et al.*, 2009). Severe hypoglycemia can lead to loss of consciousness, seizures, and in extreme cases, death (Pasquel and Umpierrez, 2014).

Hyperinsulinemia is a medical condition characterised by abnormally high levels of insulin in the blood. Insulin is a hormone the pancreas produces that helps regulate blood sugar levels. Hyperinsulinemia is often associated with insulin resistance, where the body's cells do not respond effectively to insulin, leading the pancreas to produce more insulin to compensate. This condition is commonly seen in individuals with obesity, type 2 diabetes, and metabolic syndrome (Shanik et al., 2008).

What health promotion does the material focus on?

The material focuses on educating people with Type 2 Diabetes on managing their quality of life by selecting meals based on micro-elements that will alleviate the disease. Two main fundamentals are weight loss and improving diabetes management, as well as changing the proportion of ingredients to be less toxic (Kroemer *et al.*, 2018).

The aim is to reduce carbohydrate intake

The reviewed guide lists examples of snacks and drinks to avoid because of high carbohydrate content and also others that are moderate or completely safe to eat. The material indicates the importance of choosing foods that don't affect blood sugar and teaches how to read food labels to recognise desired products.

The article's audience target

Patients who struggle with blood sugar management and obesity - are trapped in a vicious circle of abnormal metabolism.

Intervention outcomes

The most significant is the reduced doses of medicaments and their long-term side effects. The equally crucial psychological comfort and overall quality of life cannot be ignored. Losing weight and regaining control over the disease can restore the patient to social and professional life.

Is there a need for this health promotion?

The reviewed patient information doesn't mainly show statistics, but it is already a well-researched problem. For example, Sidik recently showed this trend linked to various socio-economic and environmental factors and highlights the importance of addressing these underlying causes to combat the escalating rates of these metabolic diseases (2023) or research about the Canadian situation getting worse significantly for the last decades (Thibault *et al.*, 2016)

Conclusion

The article contains essential and practical tips, but some are still based on old, outdated nutritional stereotypes, especially when consuming fats and proteins of animal origin. The most critical point is patients are not doomed to the unpleasant and sometimes fatal effects of metabolic diseases, which have a tangible impact on their health. Education and promotion of positive changes and giving up harmful habits are extremely necessary in the era of growing problems with metabolic health, especially type 2 diabetes. Especially in times of rising costs of medical care, shortages of medical staff and exclusion of patients from professional life who cannot contribute to the state budget.

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