

Therapeutic Approach to Diabetes Mellitus Type 2 in People with Progressive Weight Gain: A Unique Case Study (Ucs)

Marta Fernández Batalla^{1*}, José María Santamaría García², Jorge Luis Gómez González³, Enrique Monsalvo San Macario⁴, Blanca Gonzalo de Diego⁵ and Sara Herrero Jaén⁵

¹Specialist in Nursing of Family and Community, Madrilenian Service of Health, Spain

²PhD Sciences of the Computation, Alcala University, Spain

³PhD Documentary sciences, Alcala University, Spain

⁴Specialist in Nursing of Family and Community, Madrilenian Service of Health, Spain

⁵Master in Management and Application of Knowledge of Nursing Self-Care, Alcala University, Spain

Received: July 21, 2017; Published: July 31, 2017

*Corresponding author: Marta Fernández Batalla, Specialist in Nursing of Family and Community, Management of Primary care, Madrilenian Service of Health, Madrid, Spain, Email: marta.fdezbatall@uah.es

Keywords: Diabetes Complications; Risk Reduction Behavior; Life Style; Weight Loss Insulin; Long-Acting

Introduction

Diabetes Mellitus (DM) is an important public health problem of our time [1]. According to European Health Survey in Spain, diabetes is 6.8% of the diagnosed chronic disease in people over the age of 15 in 2014 [2]. There are studies that claim that most chronic diseases, such as diabetes mellitus, are related to unhealthy lifestyles [3]. These lifestyles produce obesity in the people, associated causative factor of type 2 DM which in turn relates to an increased cardiovascular risk [3-4]. Diabetes Mellitus type 2 is a chronic and complex disease, which required continuous care. For that reason diabetes brings about 75.000 million euros of health expenditure in Europe [5], which means high levels of sanitary and economics costs.

Nowadays, resources and efforts of health actions are not focused on healthy lifestyle, as Lalonde mentioned [6]. This way, in the clinical stage of the disease, the main goal is to control signs and symptoms through overmedication, approaching therapeutic control to a single vital parameter [7]. This can develop a “palliative circle” with negative effects for health status of people. Therefore the purpose of this study is to represent the “palliative circle” of unhealthy eating habits in people with diabetes mellitus type 2 with increasing insulin treatment.

Methods

This unique case study (UCS) primary health care was carried out in a rural primary health care (PHC) area of Madrid (Spain).

A literature review was carried out on the therapeutic approach to diabetes mellitus and results associated with therapy in people with diabetes. The single case was monitored from the nutrition change through the following variable measures: weight, measurement of blood glucose and control – insulin (Lantus®). Information was collected by extracting knowledge from texts, formalized through formal representation techniques and data analysis of four computerized clinical histories. Consequently, it was carried out a modeling of decision algorithms in order to determine the different consequences to potential alternatives in a given case for the acquisition of capabilities for the organization of non-pharmacological therapeutic indications in coordination of the pharmacological ones. The inputs of the algorithm were in relation with the context and the potential evolution of the person’s state of the case.

Findings

After the exhaustive study, records of planning cares were shown according to the computer program, keeping the confidentiality from the beginning. In addition, according to current regulations, the diagnoses of each individual in the family have been documented due to the computer system does not allow grouped diagnoses, either family or community, such as “Ineffective family health management”. This one involves the diagnoses detected in each one of the members of the family. The research outcomes show the evolution of the unique case. The clinical weight data

decreased 10% and Body Mass Index (BMI) decreased 7%. Blood glucose measurement was stabilized in 90 – 110 mg/dl and daily units of Lantus® decreased from 41 to 16 IU. Glycated hemoglobin (HbA1c) was in the range <7% after three months.

Finally, it was carried out a flow chart representing the “palliative circle” of medication performed by a group of family and community care experts in relation with the signs of inadequate care giving. The diagram takes part of the element of unhealthy habits to care problems that are manifested with alterations of parameters debuting in a chronic process labeling. Usually these signs are treated with medication, decreasing the intensity of the alteration of the parameter and maintaining the unhealthy habits which leads to the imbalance of the parameters. This process is a continuing cycle.

Discussion

European Commission focuses on regular population – based measurement of risk factors related to chronic diseases, including sedentary lifestyle and unhealthy eating [8]. Both risk factors closely related to Diabetes Mellitus type 2 [9]. Other international studies link weight management as a fundamental area in people with diabetes for metabolic control because weight loss improves HbA1c [8]. Spanish model is developing explanatory models of how weight loss in diabetes contributes to decrease mortality and morbidity.

Conclusion

The flow diagram shows the elements and relations that take action in the “palliative circle” across the range of different situations, improving process comprehension. The circle masks rather uncertain outcome of health status of people and covering up the situation. For this reason it is necessary to know it and guiding the strategies towards positive health situations. It should

be pointed out that the professional must be attentive and actively to break the causal chain of therapy focused on the control of a single vital parameter. This fact, it can control the sign or symptom but it has negative consequences on the health level in the longer term because of it is based on “palliative” therapeutic strategies of a sign. Likewise, that same “pallium” covers up uncertain outcome of health status of people.

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