

Title

Identification of diabetes self-management profiles in adults by cluster analysis using selected self-reported outcomes

Authors

***Ketia Alexandre, PhD** (School of Health Sciences (HESAV), University of Applied Sciences and Arts Western Switzerland (HES-SO)), Fanny Vallet, PhD (Faculté de Psychologie et des Sciences de l'Education, University of Geneva), Isabelle Peytremann-Bridevaux, Prof. PhD (Center for Primary Care and Public Health (Unisanté), University of Lausanne), Olivier Desrichard, Prof. PhD (Faculté de Psychologie et des Sciences de l'Education, University of Geneva)

Background: People adjust to diabetes and perform diabetes care activities in different ways, nonetheless global patterns of diabetes self-management (DSM) combining these two dimensions can be expected. The identification of such DSM personal profiles would deem informative in defining the actual patient situation.

Objective: To identify self-management profiles in adults with diabetes using specific DSM-related indicators associated with diabetes care activities performance and psychological adjustment with the disease.

Methods: We used self-reported data from a community-based cohort of adults with diabetes (N= 316). We conducted clustering analysis on selected DSM-related indicators (*i.e.*, DSM behaviors, self-efficacy and perceived empowerment, diabetes distress and quality of life). We tested whether the clusters differed according to socio-demographic and clinical characteristics and care delivery processes.

Results: Clustering analysis revealed four distinct DSM profiles that combine high/low engagement in diabetes care activities, and good/poor psychological adjustment with the disease. The profiles with high engagement in care activities are characterized by congruency of care received with the Chronic Care Model. The profiles with poor psychological adjustment are associated with financial insecurity feelings, taking insulin treatment, and presence of depression.

Conclusions: The results help health professionals at gaining a better understanding of the different realities and contexts of people living with diabetes, at identifying patients at risk of poor DSM-related outcome, and they can lead to the development of profile-specific DSM interventions.