Exploring diabetes education and information: Perspectives of people with diabetes (DAWN2 study)

Introduction

The DAWN2 study consists of three surveys investigating the Attitudes, Wishes and Needs of people with diabetes, family members of people with diabetes, and healthcare professionals. The study is a Novo Nordisk initiative, performed in a partnership with the IAPO, the IDF and the Steno Diabetes Center. The first DAWN2 benchmarking results have been published.

Diabetes education is essential for diabetes self-management and improved diabetes outcomes, prevention of complications, and quality of life.

The DAWN2 study explores needs and experiences of people with diabetes and all stakeholders in a role of supporting them.

Aims of the DAWN study

To improve our understanding of the unmet needs of people with diabetes and those who care for them.

To facilitate dialogue and collaboration among key stakeholders to strengthen the active involvement and self-management of people with diabetes.

To establish a cross-culturally validated multinational survey system for assessing and benchmarking psychosocial and educational aspects of diabetes care delivery.

Aims of the current analysis

Among people with diabetes of 18 years old across four continents (Figure 1) this study explored (1) characteristics of people with diabetes participating in diabetes education (2) the associations between participation in diabetes education, psychosocial issues and self-management behaviors; and (3) preferences for future diabetes education.

Methods

Study design

Multinational, inter-country and multi-stakeholder survey.

Conducted in accordance with the relevant ethical requirements in each country.

Participants

People with diabetes aged 18-79 years (1368 and 7228 with T1DM and T2DM, respectively).

Each country's sample comprised 350–650 adults (18 years or older) with diabetes. 80% with T1DM and 40% with T2DM were identified in 17 countries from 4 continents using methods appropriate for each country.

Instruments

On-line, telephone or in-person survey.

Questionnaire for people with diabetes included: - Items from the original DAWN2 study (www.dawn2study.com)
- Standardized instruments in original or shortened forms: EQ-5D-5L, HADS, EQ-5D, PSS-10, PSS-14, WHO-QOL BREF Global Quality of Life Questionnaire, and WHO-5.
- Questions developed with inspiration from, or adapted from, existing validated instruments, including the DES-5 and HCSQ-DSF questionnaires.

- Newly developed questions to investigate the impact of diabetes on attitudes and beliefs such as: daily control, discrimination and the impact of diabetes on family and friends.

- Questionnaires were translated and cross-culturally adapted to the language of each participating country.

Statistical analysis

Psychometric validation of multi-item measures in each country to confirm cross-cultural validity and suitability for clinical and benchmarking purposes.

Preconditions are used to describe the participation in diabetes education with a chi-square test investigating significant differences between people with T1DM and T2DM.

Binary logistic regression models are used to estimate factors explaining participation in education and ordinary least squares regressions used to investigate associations between participation and psychosocial, empowerment and self-management outcomes. All analyses were performed using software for statistical analysis. Country data in all analyses are clustered-adjusted.

Results

8136 patients completed the questionnaire: 16% with T1DM, 84% with T2DM. 55% of people with T1DM (n=934) and 48% with T2DM (n=4221) reported they had participated in diabetes education (Table 1).

Among people with diabetes in 17 countries across four continents using methods appropriate for each country.


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Conclusion

The study analysis has highlighted significant country variations in access to education and has identified groups of people with diabetes who were less likely to participate in education (older age, T2DM, being male, living in a large city, not living alone).

People with diabetes who had participated in diabetes education generally had better psychological well-being and better self-management compared with those who had not participated in education and their preferences for better education and support.

Best practices can guide improvements in access to diabetes education.

References


Abreviations

T1DM = type 1 diabetes; T2DM = type 2 diabetes; DAWN = Diabetes Attitudes, Wishes & Needs;


Figure 2. Characteristics associated with participation in diabetes education (n=8136). For the sample is weighted in comparison with the general population in terms of age, gender and level of education in each country.

Figure 3. Rates of participation in education varied between countries (range 23–83%) and were highest in Germany, Poland and Canada (78–83%) and lowest in India, Turkey and Mexico (23–28%).

Figure 4. Preference for future sources of diabetes information (n=8136). Note: The sample is weighted in comparison with the general population in terms of age, gender and level of education in each country.

Figure 5. Best practices can guide improvements in access to diabetes education.