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Perspectives in Practice

How to Offer Culturally Relevant Type 2 Diabetes Screening: Lessons Learned from the South Asian Diabetes Prevention Program

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ABSTRACT

The literature on diabetes mellitus in the South Asian population clearly states the high-risk status of this group, yet there is a lack of effective models of culturally relevant, community-based screening and education programs for such a group. The South Asian Diabetes Prevention Program (SADPP) was developed to enhance equitable access to diabetes prevention resources for the South Asian communities in Toronto by offering language-specific and culturally relevant services. The SADPP model works through 3 participant education sessions plus an additional attachment and enrolment component. The screening tool that SADPP uses to provide participants with their individual risk score at the first education session is derived from the multiculturally validated Canadian Diabetes Risk Assessment Questionnaire (CANRISK), which has been modified to reflect the distinctive characteristics of the South Asian population. After analyzing the risk scores, 32% of participants were at increased risk, 40% were at high risk, 21% were at very high risk and only 7% were found to be at low risk of diabetes development. Evaluations of the program conducted in 2010 and 2013 revealed that the program is achieving its objectives and that participants increase their knowledge and self-efficacy related to diabetes prevention after program participation. Participants reported that the presentation from the nurse and dietitian, the question-and-answer time, the healthy eating demonstration, the multiple languages of delivery and the convenient location were especially beneficial. Those working in the field are encouraged to adapt this model and to contribute to the development of culturally relevant, community-driven diabetes prevention programs.

Mots clés :
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RÉSUMÉ

La littérature sur le diabète sucré de la population de l'Asie du Sud indique clairement le risque élevé de ce groupe, mais il manque de modèles efficaces de dépistage communautaire et de programmes d'éducation qui tiennent compte de la culture d'un tel groupe. Le SADPP (South Asian Diabetes Prevention Program) était mis sur pied pour accroître l'accès équitable aux ressources en matière de prévention du diabète des communautés sud-asiatiques de Toronto en offrant des services qui tiennent compte de leur langue et de leur culture. Le modèle du SADPP intègre 3 séances d'éducation des participants ainsi qu'une composante supplémentaire d'engagement et d'adhésion. L'outil de dépistage que le SADPP utilise pour fournir aux participants leur score de risque individuel à la première séance d'éducation est tiré du Questionnaire canadien sur le risque du diabète CANRISK, qui a été modifié pour refléter les caractéristiques de la population sud-asiatique. Après l'analyse des scores de risque, 32 % des participants étaient exposés à un risque accru, 40 % étaient exposés à un risque élevé, 21 % étaient exposés à un risque très élevé et seulement 7% montraient un faible risque de développement du diabète. Les évaluations du programme menées en 2010 et 2013 révélaient que le programme avait atteint ses objectifs et que les participants avaient amélioré leurs connaissances et la connaissance de leurs propres capacités liée à la prévention du diabète après la participation au programme. Les participants rapportaient que la présentation de l'infirmière et de la diététiste, le temps alloué aux questions et aux réponses, la démonstration d'une saine alimentation, les diverses langues de prestations et

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l'emplacement pratique étaient particulièrement utiles. Ceux travaillant dans le domaine sont encouragés à adapter ce modèle et à contribuer à l'élaboration de programmes communautaires de prévention du diabète qui tiennent compte de la culture.

Introduction

The literature on diabetes mellitus in the South Asian (SA) population clearly states the high-risk status of this group (1,2). Research on diabetes prevalence in Ontario shows that almost 12% of the immigrated SA population living in Ontario is living with type 2 diabetes, compared with 5.2% of the general population (2). Additionally, it is well known that both prediabetes and diabetes disproportionally affect socially and economically disadvantaged groups, including recent immigrants (3). The need for culturally relevant programming is evident, and that is reflected in both research discourse and professional practice (4,5).

Emerging literature also dictates the vital importance of prevention, and highlights screening programs as a key component of prevention efforts (6,7). Although there is no evidence that screening efforts lead to improved cardiovascular outcomes (8), screening among high-risk populations has proven to be an effective practice for the early detection of diabetes (9–11), especially 2-step screening (12). The most accurate screening modalities are invasive and time consuming, and not likely suitable for community level, population-based screening (13). Thus, screening people who are known to be at risk for type 2 diabetes through a simple method that combines risk factor assessment with simple blood glucose testing may be an effective public health strategy. This approach has been evaluated in other populations with encouraging results (14–17), but there is a lack of evidence on the efficacy of screening approaches in the SA population (8).

Unfortunately, there is a paucity of evidence on effective models of culturally relevant, community-based screening and education programs, especially for the SA population in Ontario. A diabetes screening and awareness program was developed in Alberta for the Indo-Asian population (18). Research from this program has further emphasized the need for culturally relevant community-based diabetes prevention strategies for high-risk populations in this country (5,18). Here, we share evidence for and models of practice from the South Asian Diabetes Prevention Program (SADPP) for other groups working to develop culturally relevant diabetes programs in the field.

Program description

The SADPP model was developed by Flemingdon Health Centre in Toronto and is funded by the Toronto Centre Local Health Integration Network. The overall goal of the program is to enhance equitable access to diabetes prevention resources for the SA communities in Toronto by offering language-specific and culturally relevant services. The SADPP model involves screening participants for diabetes and prediabetes, providing education sessions on preventing diabetes and on healthy living, and making referrals that are responsive to participants' needs. A logic model describing the program activities, objectives, outputs and outcomes can be seen in the Figure 1.

Typical barriers to diabetes prevention that have been identified and targeted by SADPP include transportation, language, cost and health literacy. The SADPP model addresses these barriers by setting up mobile clinics that provide free services in the community in languages that participants are comfortable speaking, using culturally relevant practices. Screening sessions and materials are offered in SA languages, and suggestions for lifestyle modifications are intended to reflect the daily lives and distinct diets and cultures of participants. The program team is able to achieve this level of cultural competence through the support of SA staff members who speak the languages. Screenings are conducted at locations where the target population meets regularly (for example, places of worship, settlement and newcomer centres, public schools, and so forth).

A multidisciplinary team consisting of a registered nurse, a registered dietitian, community outreach workers, a database entry assistant and a program coordinator delivers the activities of SADPP. The SADPP community outreach workers connect with unique groups of SAs by contacting an organization and developing a relationship with that group. After determining interest and coordinating schedules, the SADPP team arranges an early detection clinic (EDC) for the organization's members and the surrounding community. Efforts are made in particular to reach out to persons and communities who are marginalized, socially and economically disadvantaged, and do not traditionally access health promotion services particularly owing to resettlement. SADPP's outreach strategy consists of person-to-person engagement in the community with prospective groups; conducting information sessions to recruit participants for the program; and collaborating with community leaders, volunteers and key stakeholders to assist with program attendance, session logistics and interpretation. The team will continue to work with each new group until participants have been through all 3 encounters.

The SADPP model works through 3 participant encounters, plus an additional attachment and enrolment component. The first encounter is a 3-hour EDC, a first-step screening to identify SA program participants who are at risk of having diabetes. Before the screening process begins, staff provide an interactive education and awareness session about diabetes and prediabetes risk factors. Participants from SA communities are first screened at the EDC using an evidence-based tool tailored to the population, which groups participants into categories of low risk, increased risk, high risk, very high risk, and living with diabetes. Contrary to the Canadian Diabetes Risk Assessment Questionnaire (CANRISK) tool, which is self-administered (18,19), the SADPP screening tool is tailored to the SA population based on risk criteria for this specific population and is administered by the SADPP team at the 3 distinct stations of the EDC.

Station 1, risk assessment

When participants begin the clinic, they meet with an outreach worker to initiate the risk assessment of the screening process.

Station 2, physical activity and anthropometrics

Next, participants move on to see the dietitian for the physical activity, body mass index (BMI) and waist circumference assessment.

Station 3, cardiovascular risk and capillary blood glucose testing

Finally, participants see the nurse for cardiovascular risk factors, blood glucose testing, the risk score calculation and subsequent referral. The blood glucose testing in this station is done for educational purposes to give clients an understanding of what a blood glucose test is and how it is obtained, and to demystify the blood glucose testing process that might otherwise be intimidating in a clinical environment. The results are not used in risk score