Will People With Type 2 Diabetes Speak to Family Members About Health Risk?

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OBJECTIVE — This study aimed to assess the potential for communication of familial risk by patients with type 2 diabetes.

RESEARCH DESIGN AND METHODS — A questionnaire was completed by a random sample of patients with type 2 diabetes registered with a hospital diabetes clinic.

RESULTS — Two-thirds of patients (65%) had spoken to at least one sibling or child about diabetes risk. They were more likely to believe their family was at risk, to worry about their family developing diabetes, and to be aware of the seriousness of diabetes. The results revealed greater awareness of family risk of type 2 diabetes compared with those from previous studies.

CONCLUSIONS — Many patients with type 2 diabetes had already taken the initiative, without formal prompting, to talk to family members about their risk of diabetes. Discussion of risk and interventions to reduce risk should be encouraged within families.

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Communicating family risk of diabetes

Table 1—Factors from the Health Belief Model and responses to the question “Have you talked to any of your children or siblings about the possibility of them getting diabetes?”

| Health Belief Model factor                                           | n   | Yes          | No          | Statistic                  |
|---------------------------------------------------------------------|-----|--------------|-------------|----------------------------|
| Susceptibility factors                                              |     |              |             |                            |
| Likelihood that children will get diabetes                         |     |              |             |                            |
| Not at all/not very likely                                         | 95  | 57           | 43          | $\chi^2 = 7.43, 1 \text{ d.f.}; P = 0.006$ |
| Quite/very likely                                                  | 156 | 74           | 26          |                            |
| Likelihood that siblings will get diabetes                         |     |              |             |                            |
| Not at all/not very likely                                         | 112 | 54           | 46          | $\chi^2 = 11.0, 1 \text{ d.f.}; P = 0.001$ |
| Quite/very likely                                                  | 131 | 75           | 25          |                            |
| Diabetes in first-degree relative                                  |     |              |             |                            |
| Yes                                                                 | 134 | 72           | 28          | $\chi^2 = 4.73, 1 \text{ d.f.}; P = 0.03$ |
| No                                                                  | 121 | 59           | 41          |                            |
| Relative seriousness of diabetes                                   |     |              |             |                            |
| Compared with cancer                                               | 258 | 0.97 (0.93–1.02) | 0.90 (0.79–1.00) | $t = 1.54, 256 \text{ d.f.}; P = 0.12$ |
| Compared with arthritis                                            | 253 | 1.25 (1.19–1.31) | 1.10 (1.01–1.18) | $t = 3.04, 251 \text{ d.f.}; P = 0.004$ |
| Seriousness of treatment type                                       |     |              |             |                            |
| Diet                                                                | 44  | 55           | 45          | $\chi^2 = 8.35, 2 \text{ d.f.}; P = 0.015$ |
| Oral agents                                                        | 173 | 64           | 36          |                            |
| Insulin                                                            | 53  | 81           | 19          |                            |
| Cues to action                                                     |     |              |             |                            |
| Worry that children will get diabetes                              |     |              |             |                            |
| Not at all/not very often                                          | 84  | 38           | 62          | $\chi^2 = 46.53, 1 \text{ d.f.}; P < 0.001$ |
| Quite/very often                                                   | 170 | 81           | 19          |                            |
| Worry that siblings will get diabetes                              |     |              |             |                            |
| Not at all/not very often                                          | 149 | 54           | 46          | $\chi^2 = 17.87, 1 \text{ d.f.}; P < 0.001$ |
| Quite/very often                                                   | 91  | 81           | 19          |                            |
| Benefit analysis                                                   |     |              |             |                            |
| Talking; make relatives more aware of the importance of diet and exercise |     |              |             |                            |
| Agree                                                              | 245 | 68           | 32          | $\chi^2 = 5.34, 1 \text{ d.f.}; P = 0.02$ |
| Disagree                                                           | 19  | 42           | 58          |                            |
| Encourage family to make lifestyle changes                         |     |              |             |                            |
| Agree                                                              | 230 | 70           | 30          | $\chi^2 = 7.79, 1 \text{ d.f.}; P = 0.005$ |
| Disagree                                                           | 26  | 42           | 58          |                            |
| Help prevent diabetes                                              |     |              |             |                            |
| Agree                                                              | 230 | 70           | 30          | $\chi^2 = 4.47, 1 \text{ d.f.}; P = 0.03$ |
| Disagree                                                           | 26  | 42           | 58          |                            |
| Barriers                                                           |     |              |             |                            |
| I do not have a healthy lifestyle myself                           |     |              |             |                            |
| Agree                                                              | 150 | 67           | 33          | $\chi^2 = 0.68, 1 \text{ d.f.}; P = 0.4$ |
| Disagree                                                           | 109 | 62           | 38          |                            |
| I do not have much contact with my relatives                       |     |              |             |                            |
| Agree                                                              | 114 | 63           | 37          | $\chi^2 = 0.74, 1 \text{ d.f.}; P = 0.4$ |
| Disagree                                                           | 145 | 68           | 32          |                            |
| My relatives are not open to advice from me                        |     |              |             |                            |
| Agree                                                              | 119 | 68           | 32          | $\chi^2 = 0.31, 1 \text{ d.f.}; P > 0.5$ |
| Disagree                                                           | 142 | 63           | 35          |                            |
| They do not see diabetes as a serious illness                      |     |              |             |                            |
| Agree                                                              | 134 | 70           | 30          | $\chi^2 = 1.02, 1 \text{ d.f.}; P = 0.3$ |
| Disagree                                                           | 123 | 64           | 36          |                            |
| They do not believe they are at risk for diabetes                  |     |              |             |                            |
| Agree                                                              | 115 | 72           | 28          | $\chi^2 = 2.02, 1 \text{ d.f.}; P = 0.2$ |
| Disagree                                                           | 138 | 64           | 36          |                            |

Data are percent or mean (95% CI) unless otherwise indicated.

Risk factors for type 2 diabetes, only 50% identified a parent with diabetes and 28% a sibling with diabetes as risk factors. Half of the patients (56%) moderately or strongly agreed that they would speak to family members about their risk of developing diabetes if they were offered help to do so. More importantly, 87% of those who had not spoken to family members in
in the past reported they would do so if they received assistance.

**CONCLUSIONS** — This study shows that many patients with type 2 diabetes had already taken the initiative, without formal prompting, to talk to family members about diabetes risk. Younger patients, patients with an existing family history of diabetes, and patients on more intensive treatment were more likely to have discussed risk with family members. Respondents exhibiting several parameters of the Health Belief Model were most likely to have spoken to family members, including those with greater perception of susceptibility of family members, increased awareness of the seriousness of diabetes, and increased appreciation of the benefits of talking to family members. Greater anxiety about family members developing diabetes appeared to act as a cue to action. This suggests that emphasizing these parameters when educating patients with type 2 diabetes concerning familial risk may lead to increased discussion within families.

This study also reveals an encouraging improvement in knowledge, attitudes, and behaviors of patients with diabetes toward sharing information about risk with family members compared with findings from previous studies (9). However, knowledge of risk factors for type 2 diabetes was still poor, and there were significant barriers to intervening within families. A real challenge for respondents was providing information regarding suggested lifestyle when they did not adequately adhere to such guidelines themselves. Supporting materials on diet and physical activity to use within their families may help overcome this barrier. More challenging to address was the reported lack of regular contact with family members by a substantial minority of respondents.

The typically low postal response rate merits a note of caution in that those participating may be more enthusiastic about engaging with their families. A strength was the use of a theoretical framework (the Health Belief Model) to identify parameters likely to influence preventive health behaviors.

This study suggests that patients with a vascular risk factor such as type 2 diabetes may provide a valuable outreach educational role to at-risk family members. They may benefit from provision of information on familial risk, the seriousness of the risk to family members, and interventions to reduce the risk, along with encouragement to discuss this information with family.

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