

Attachment orientations and spouse support in adults with type 2 diabetes

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Abstract

This study was designed to better understand psychosocial factors that may influence diabetes control. An attachment theoretical perspective was adopted to define the relationship between attachment orientation and perceived spousal diabetes-related support. 81 married male patients with type 2 diabetes were assessed for demographics, HbA1c, and their association with attachment orientations and diabetes-related spousal support. A negative association between attachment avoidance and both positive and negative support was found. In addition, among patients scoring high on avoidance, the duration of diabetes was associated with increase in HbA1c levels. Thus, patients scoring high on avoidance are more likely to view spousal interaction as less supportive and may find such support intrusive and detrimental. In these patients, emphasis should be on self-reliance and confidence and less on spousal support. Prospective studies will be able to show if personality assessment will have a positive impact on diabetes related outcome.

Keywords: *Attachment, support, diabetes*

Type 2 diabetes is a chronic medical illness in which patients' behaviour and compliance is crucial for achieving optimal glycemic control (Von Korff et al., 1997). Treatment of diabetes is a complex task especially due to the present rigorous goals to achieve physiological metabolic levels of glucose, lipids, and blood pressure, while maintaining optimal body weight, exercise levels, and smoke cessation. This multitask is inevitably associated with the need to interact with several health care providers and is highly dependent on familial and close contacts support (Ciechanowski et al., 2002). Accordingly, it is recommended to assess family support and its influence on self-management (Delamater et al., 2001; Mensing et al., 2004). Still, clinical guidelines have not fully incorporated formal assessment of family support but refer in general to the need of evaluating lifestyle, cultural, psychosocial, educational, and economic factors that might influence the management of diabetes (American Diabetes Association, 2004). Although previously shown that greater level of diabetes-related support from family and health care provider are associated with better regimen adherence (Glasgow & Toobert, 1998), it is not uncommon to observe negative interactions between the diabetic patient and his or her family, support group, and health care provider. These negative interactions may disrupt the

diabetic patient empowerment toward better metabolic control (Ciechanowski et al., 2001). The present work challenges the universality of the claim that all patients benefit and positively perceive familial support.

To better understand patient–family relationship, an attachment theoretical perspective (Bowlby, 1982) was adopted. According to this theory, variations along dimensions of attachment anxiety (fear of separation and abandonment) and attachment avoidance (discomfort with intimacy and interdependence), shaped by the history of interactions between the individual and significant others throughout the life span, are associated with differential perception, seeking, and usage of social support (Anders & Tucker, 2000; Mikulincer & Florian, 1995; Ognibene & Collins, 1998). Ciechanowski et al. (2001, 2004), applying attachment theory to the health care relationships, showed that avoidantly attached patients with diabetes were less well controlled and perceived their patient–provider communication as poor. Hence, we hypothesized that patients differing in global attachment orientations along the anxiety and avoidance dimensions would perceive spouse support differently.

Research design and methods

The current study is a cross sectional study of randomly selected male patients seen at a secondary community based diabetic clinic and a primary care clinic in an urban region of central Israel. Included were married male patients with type 2 Diabetes Mellitus, with no language or comprehension deficits. All subjects were approached at the clinic during a routine visit, where the questionnaires and an informed consent form were completed.

Demographics and HbA1c levels were obtained at the visit. HbA1c is a measure of previous 3 months glycemic control. Normal range is below 6.5%. The HbA1c assessed was the mean of the last 5 measurements obtained every 3.6 months (mean for the entire cohort). Demographic and clinical data were determined from a questionnaire and the patient's medical records.

Participants also completed the following measures:

A Hebrew version of the Experience in Close Relationships Scale (ECR) (Brennan et al., 1998), which assesses attachment orientations. This self-report scale consists of 36 items tapping the dimensions of attachment anxiety and avoidance. The ECR was translated into Hebrew by Mikulincer and Florian (2000), who also validated its two-factor structure on an Israeli sample. In the current sample, Cronbach's alphas were high for the 18 anxiety items (.92) and the 18 avoidance items (.93). Therefore, two scores were computed by averaging items on each subscale, with higher scores indicating more avoidance or anxiety in close relationships.

Diabetes family behaviour checklist 2: Was based on the Glasgow & Toobert (1988) and reflects the perceived familial support related behaviours. The questionnaire relates to behaviours relevant for diabetes management. This self-report scale consists of 16 items reflecting the dimensions of perceived positive and negative spousal support. Nine items indicated positive support (e.g., 'My wife complimented me on maintaining my diet') and 7 items manifested negative support (e.g., 'My wife keeps nagging me to check my glucose levels'): In the current study, both positive and negative support obtained higher internal consistencies than those reported in the original manuscript (.71 and .64, respectively).

Statistical analysis

Pearson correlations were performed to describe the pattern of associations between the demographic data and outcome measures. Hierarchical multiple regressions analyses were

conducted for both positive and negative support. In addition, to examine the contribution of attachment anxiety and avoidance, as well as positive and negative support to HbA1c, a hierarchical multiple regression analysis for glucose control was conducted. Another hierarchical multiple regression analysis examined the contribution of attachment anxiety and avoidance and duration of diabetes to glucose control. In each regression, the demographic variables were entered in Step 1, the main effects were added in Step 2, the two-way interactions (product terms) were added in Step 3, and the three-way interactions (in case of the two last regressions) were added in Step 4.

Results

81 males participated in the study. Ten patients refused to participate for lack of time and interest and for fear of disclosure. Two patients were excluded for lack of coherence. Mean age was 54.2 (range 40–62) with duration of diabetes ranging 1–30 years (mean 8.0). 53.1% were Israeli born, 9.9% immigrants from Europe (mostly former USSR), and 32.1% immigrants from Middle Eastern and North African countries. Their average years of education were 12.4. They were married for an average of 29.2 ± 7.1 years. Mean HbA1c $8.3\% \pm 1.8$.

The outcome measures for the whole group are described in Table I. The level of avoidance (3.47 ± 0.75) and anxiety (2.87 ± 1.05) is comparable to a reference group of younger adults described by Anders and Tucker (2000) {Avoidance (4.02 ± 0.86) and anxiety (2.96 ± 1.03)}. The long-term effect of diabetes on attachment styles are unavailable yet, though a cross sectional study showed that the proportion of high avoidance in patients with diabetes is similar to 25% found in the general population (Ciechanowski et al., 2001).

Pearson's correlations revealed several significant correlations between demographic data and outcome measures (Table II). Increased duration was associated with increasing HbA1c and attachment avoidance score. Higher level of education was associated with less positive spousal support.

Table I. Outcome measures.

Measures	Mean	SD	Minimum	Maximum
Attachment avoidance	3.47	0.75	1.89	6.39
Attachment anxiety	2.87	1.05	1.00	5.33
Positive support	2.65	1.12	1.00	5.00
Negative support	2.33	1.02	1.00	5.00

Table II. Pearson correlations between demographic data and outcome measures.

Measures	Age	Education	Duration of DM	Marriage duration	Number of children
HbA1c	-.27**	-.15	.23*	-.09	-.04
Attachment avoidance	.04	-.12	.22*	-.10	-.18
Attachment anxiety	.02	0.10	.13	-.07	-.08
Positive support	.01	-.29**	.01	.12	.01
Negative Support	-.11	-.16	.15	-.03	-.05

Note: * $p < .05$; ** $p < .01$

The hierarchical regression showed a negative association between attachment avoidance and both positive ($\beta = -.23, p < .05$) and negative support ($\beta = -.25, p < .05$) after controlling for demographic variables. Attachment anxiety was not associated with either negative or positive spousal support. The two-way interaction did not reach statistical significance.

The hierarchical regression showed that glucose control was not clearly associated with either attachment style or positive and negative support after controlling for the demographic variables. However, the other hierarchical regression indicated that the main effect of diabetes duration was significant ($\beta = .29, p < .01$) after controlling for the other demographic variables, and was qualified by the significant two-way interaction between attachment avoidance and diabetes duration ($\beta = .23, p < .05$). To examine the source of the significant interaction, Aiken and West's (1991) suggestion was adopted, and we conducted two regression lines for glucose control on diabetes duration as a function of two values of attachment avoidance (one standard deviation above the mean of attachment avoidance and one standard deviation below this mean). Specifically, among patients scoring high on avoidance, the duration of diabetes was associated with increase in HbA1c levels ($\beta = .28, p < .05$), whereas those low on attachment avoidance did not show any association between diabetes duration and control ($\beta = .15$). The other main effects and interactions were not significant.

Discussion

The results show that patients scoring high on attachment avoidance were more likely to view spousal interaction as less supportive. This finding is in line with our basic study's assumption that patients high on avoidance are less likely to perceive their family as supportive and may find such support intrusive and detrimental. These negative interactions (not in context of diabetes) are well documented in previous studies (e.g., Dozier & Tyrell, 1998). These results parallel previous studies that revealed that patients high in avoidance are less likely to engage in the health care relationship (Ciechanowski et al., 2002; Feeney & Ryant, 1994; Mikulincher & Florian, 1995). Thus, highly avoidant patients' attempts to distance themselves from both the health care providers and their families may contribute to poorer treatment adherence. Nevertheless we have no evidence from our findings that perceived quality of spousal support is the mediating factor in the attachment – glucose control relationship. Interestingly, preoccupied attachment style, which mirrors the avoidant style in their overreliance on others, has been recently shown to have better diabetes control (Ciechanowski et al., 2004).

We were able to show that duration of disease is associated with increase in HbA1c, as is well known and described in the UKPDS study (UKPDS, 1998). Our study presents a unique insight into this effect of duration on HbA1c by showing that it exists mainly among patients scoring high on avoidance. This is consistent with previous data (Ciechanowski et al., 2001, 2002, 2004) showing poorer glucose control in highly avoidant patients (with type 1 and type 2 diabetes). Our sample size was too small to detect significant differences in HbA1c values of more than 0.5% among different attachment styles as it was assessed by Ciechanowski et al. (2002) to require more than 500 patients.

The data encourage the usage of tools to assess patients' different attachment orientations by clinicians (Ciechanowski et al., 2001). It may assist the tailoring of the treatment assignment, putting less emphasis on family reliance and support, while encouraging more aspects of self reliance and confidence in the highly avoidant patients. Time will tell if the use of structured personality assessment will be integrated in clinical set-ups of chronic

diseases management as in diabetes, and if prospective studies will be able to show positive impact on outcome.

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