

Coping styles of adolescents with type 1 diabetes and their parents: Association with metabolic control and disease duration

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INTRODUCTION

➤ Coping styles refer to habitual ways of approaching problems and may be regarded as strategies that people use to cope across a wide range of stressors

➤ **Problem-focused** coping refers to efforts directed towards rational management of the problem and it is aimed to change the stressful situation

➤ **Emotion-focused** coping refers to efforts towards reducing the emotional distress and regulate emotions that result from the stressor

➤ Across different chronic diseases, it has been shown that problem-focused coping is generally associated with better adjustment

➤ In adolescents with diabetes, coping styles have been identified as important factors in the management of the disease.

➤ A relationship between higher levels of avoidance coping and poorer metabolic control has been demonstrated

AIM

To study the various coping behaviors in a sample of children and adolescents with T1DM and to evaluate their association with metabolic control and duration of disease.

PATIENTS AND METHODS

65 adolescents with T1DM (male/female:22/43)

➤ mean (\pm SD) age of 12.6 (\pm 2.2) years,

➤ disease duration of 4.8 (\pm 2.4) years

➤ HbA1c of 8.1(\pm 1.6)%,

who attended the diabetic clinic of the University Department of a Tertiary Children's Hospital.

The "Ways of Coping Questionnaire" (Lazarus and Folkman), adapted and validated in Greek population, was completed by all adolescents, 36 fathers (67.9%) and 17 mothers (32.1%).

Coping was categorized as:

- active coping** (*I knew that it had to be done, so I doubled my efforts, I tried to see the positive side of things*)
- seeking social support** (*I discussed with someone to help me understand more about the situation, I discussed with someone who would do something specific for me*)
- wishful thinking** (*I wished the problem would go off, I prayed...*)
- problem avoidance** (*I was trying not to take it seriously, I was trying to forget the problem by working or doing sth else*)
- aggressive coping** (*I got irritated, I expressed my anger to the person responsible for the problem*)

Table 1 Characteristics of patients with T1DM

Sex	Boys	22 (33.8%)
	Girls	43 (66.2%)
Age		12,6 (2,2)
Duration of disease (yrs)		4,8 (2,4)
Living with both parents	No	13 (20%)
	Yes	52 (80%)
HbA1c (%)		8,1 (1,6)
Insulin treatment	Conventional	3 (4.6%)
	Intensive	58 (89.2%)
	Pump	4 (6.1%)
Concomitant disease		24(47.1%)
	Microalbuminuria	8 (15.7%)
	Thyroiditis	13(25.5%)
	Celiac disease	3 (5.9%)
	Autoimmune gastritis	3 (5.9%)
Person who filled the questionnaire	Father	36 (67.9%)
	Mother	17 (32.1%)

RESULTS

➤ There was a significant association between parents' and adolescents' coping styles in respect of "active coping" and "seeking social support" (table 2)

Table 2. Correlation between parents' and children's coping styles

Adolescents	Parents				
	Active coping	Seeking social support	Wishful thinking	Problem avoidance	Aggressive coping
Active coping	r 0,41				
	P 0,016				
Seeking social support		r 0,38			
		P 0,023			
Wishful thinking			r 0,03		
			P 0,863		
Problem avoidance				r -0,11	
				P 0,522	
Aggressive coping					r 0,28
					P 0,109

➤ Female adolescents used more the "seeking social support" way compared to males (table 3)

Table 3 Difference in coping styles between boys and girls with T1DM

	Boys		Girls		P
	Mean	SD	Mean	SD	
Active coping	1,80	0,70	1,88	0,52	0,668
Seeking social support	1,39	0,99	1,92	0,73	0,041
Wishful thinking	1,21	0,83	1,58	0,81	0,140
Problem avoidance	1,35	0,52	1,57	0,53	0,184
Aggressive coping	1,17	0,38	1,34	0,60	0,326

➤ Duration of disease was positively associated with the "active coping" style.

➤ Mean HbA1c levels were positively correlated with aggressive coping" and negatively associated with "active coping" (table 4)

Table 4. Partial correlation coefficients between coping styles and disease duration and glycaemic control

	r	Duration of disease (yrs)	HbA1c
Active coping		0,36	-0,31
	P	0,014	0,035
Seeking social support		0,00	-0,12
	P	0,977	0,412
Wishful thinking		-0,03	0,26
	P	0,848	0,079
Problem avoidance		-0,16	-0,02
	P	0,277	0,911
Aggressive coping		0,10	0,36
	P	0,529	0,014

CONCLUSIONS

➤ **Active coping** was associated with better metabolic control and longer diabetes duration in adolescents with T1DM.

➤ **Female adolescents with T1DM** used more the "seeking social support" strategy compared to males, which is also reported in healthy adolescents.

➤ **Assessment of coping behavior** might be useful in the identification of adolescents in need of particular support and counseling.

