

Association between coping styles of adolescents with type 1 diabetes and metabolic control.

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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.

METHODS

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

➤ mean (±SD) age of 12.6 (±2.2) years,

➤ disease duration of 4.8 (±2.4) years

➤ HbA1c of 8.1(±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

	Males	22 (33.8%)
	Females	43 (66.2%)
Age (yrs)		12.6 (2.2)
Duration (yrs)		4.8 (2.4)
Living with both parents	yes	13 (20%)
	no	52 (80%)
HbA1c(%)		8.1 (1.6)
Insulin regimen	conventional	3 (4.6%)
	multiple injection	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 style

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				
	p				0.28
					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

	Sex		
	Males	Females	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

		Duration (yrs)	HbA1c (%)
Active coping	r	0.36	-0.031
	p	0.014	0.035
Seeking social support	r	0.00	-0.12
	p	0.977	0.412
Wishful thinking	r	-0.03	0.26
	p	0.848	0.079
Problem avoidance	r	-0.16	-0.02
	p	0.277	0.911
Aggressive coping	r	0.1	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.

