

This study revealed that higher perceived diabetic related worry showed a negative significant association with active coping (refers to efforts directed toward rational management of a problem and aimed to change the situation causing the stress) and a positive significant association with aggressive coping (avoidance coping and emotional focus coping such as behavioral and mental disengagement). This finding may be due to the fact that diabetic adolescents were struggling in the social-emotional and peer relationships areas of functioning which lead to emotional problems such as anxiety and depression. It is the maladaptive coping styles, which predict stress. Problem focus coping or active coping is generally associated with better adjustment^[19]. Avoidance coping (refers to reduce emotional stress caused by stressful situation and to manage and to regulate emotions that might accompany stressors) is associated with poor specific self-care behavior^[20]. Greater use of active coping (problem focus coping) was related to improved metabolic control and diabetic life satisfaction while aggressive coping was related to poor metabolic control^[16]. This finding indicated that anxious adolescents may be harder working in monitoring diabetes and may take actions that are more effective in response to signs of poor blood glucose.

Diabetic related worry was significantly associated with emotional support. It may refer to that diabetic adolescents cope with illness by ventilating feelings through shouting and arguing in family. The finding that social support had no role in reducing diabetic related worry may reflect a higher degree of self-blame among diabetic adolescents. Although self-blame might stimulate adolescent's responsibility taking^[16], too much self-blame might be linked to internalization of emotional problems^[21]. This finding may be due to parental perception of the adolescent's adjustment at school and level of social and emotional functioning with peers. In previous communication, the role

of peers in management of diabetes was demonstrated in Iraq^[22].

This study revealed, also, that diabetic related worry was significantly associated with sex. It is consistent with other reports^[22,23]. It may be due to general family factors such as warmth, cohesion and adaptability, which are the primary drivers for emotional instability. Source of stress for adolescent girls with diabetes include frequent changes in daily routines, academic challenges, interpersonal conflicts with family and peers, and societal messages regarding what is consider attractive contribute to adolescent's concern about their body image (when girls are becoming more concern about their body shape and size and particularly vulnerable to opinion of peers^[24], especially boys) may lead to intentional compromising in disease management^[22,25] (sever dietary indiscretion and repeated insulin omission) and eating disorders (anorexia nervosa, bulimia nervosa, excessive exercising and food deprivation). It seems that the situation in Iraq is different than in Western countries.

Recently, Wills et al^[26] reported that there are failing to achieve high standards of care for young adults with type 1 diabetes, a problem which likely to affect the entire United Kingdom. They demonstrated the need to learn from European centers that achieved better results. The dose adjustment for normal eating program (DAFNE) was a success in United Kingdom^[27].

In conclusion, the findings demonstrate the importance of coping behavior on perceived diabetic worries, which are in turn affect the metabolic control. Health promotion intervention in schools and others are important in helping the adolescents to better integrate challenges of the disease, and to adapt a more constructive behavior.

References

1. Hamilton J, and Danewan D: Deterioration in diabetes control during adolescence: physiological or psychological? *J Pediatr Endocrinol Metab*, 2002; 15: 115-26.