

Glycemic control, self-efficacy and fear of hypoglycemia among Iranian children with type 1 diabetes

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The aims of this study were to describe glycemic control and determine level of fear of hypoglycemia and confidence in diabetes management in a sample of younger Iranian children with type 1 diabetes. 61 children (35 boys, age:6.0-12.7 years) with type 1 diabetes were assessed using the children's versions of the Hypoglycemia Fear Survey (HFS-C) and the Self-Efficacy for diabetes scale (SED). Mean HbA1c was 9.4 ± 1.76 (range:6.1-13.7) and only 19.7% of children had controlled diabetes by recommended standards (<8%) which trended higher in children 10 and older. Internal consistency of the Iranian version of HFS-C ($\alpha=.89$) and SED ($\alpha=.86$) were good, as well as validity. HFS-Worry and Total scores for participants <9 years old were higher than those >10 years old $F(1,57)=18.97$, $p<.0005$ and $F(1, 57)=17.29$, $p<.0005$ respectively. Children reported high level of self-efficacy in their diabetes control ($\mu=69.3$, midpoint cut-off=47); however, there were significant negative correlations between SED and HFS-Worry and Total scores ($p<.02$ and $r=-.3$, $p<.025$ and $r=-.3$ respectively). There was no correlation between HbA1c and HFS or SED scores, but frequency of SMBG correlated negatively with HbA1c ($p=.026$, $r=-.30$) in children with diabetes for over 2 years. The Persian version of HFS-C and SED are reliable and valid measures of the fear of hypoglycemia and confidence in children with type 1 diabetes. The negative correlation between HFS-C and SED indicate that children may benefit from diabetes education that reduces fear of hypoglycemia and improves diabetes self-efficacy. The association between a higher frequency of SMBG and better HbA1c emphasizes the importance of SMBG in diabetes control.

Biography

Fatemehsadat Amiri Ph.D. student in nutrition and working as a diabetes educator at Gabric Diabetes Education Association and a member of American Diabetes Association too (Membership No. 08228965). A short history of my accomplishments is: B.Sc.(1998-2003) in Nutrition (Sh. Beheshti Uni Med Sci, Tehran) to be selected as a Top Student (Total Average:18.49).

M.Sc.(2004-2007) in Nutrition (Jundishapur Uni Med Sci, Ahvaz) to be selected as a Top Student (Total Average:18.77). To be selected as a Gifted and Talented by Ministry of Health and Medical Education in 2003 and 2007. Ph.D. student (2008 to present) in Nutrition (Tehran Uni Med Sci, Tehran), to be selected as a Top Ph.D. Student in scientific and cultural fields, 2009.

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