

Personality traits of children and young adolescents who take a prominent place in their social networks

Introduction. Peer-driven health studies among children often use influential peers to promote healthy behaviour in children's networks. Influential peers are usually identified with nomination questions about networks such as: "who are your friends?", or "who would you ask for advice?". This study examined six of these general nomination questions, as well as six nomination questions specifically about children's dietary intake and physical activity. The first aim was to find out with a PCA whether certain clusters of these nomination question networks could be identified. The second aim was to identify which predictors are able to identify children with a higher number of nominations.

Method. For a duration of five days participants (N = 506; 51% girls; mean age 10.97+/-1.31; 7.1% underweight, 69.2% healthy weight, 17.4% overweight) used a smartphone through which they received several questionnaires, related to, for example, children's psychometric and physical characteristics.

Results. The twelve networks consisted of three distinct clusters of networks: dietary intake and physical activity related behaviour, friendship, and admiration. Regression analyses showed that athletic competence was consistently positively related to the number of network nominations, and several other predictors such as gender, body-esteem and public individuation were significant dependent on the cluster of network observed. An interaction effect between gender and body-esteem was found to predict the number of friendship nominations. The effect of body-esteem for boys (B = .24, $p < .01$) was significantly positively related to the number of friendship nominations, while this effect was not significant for girls (B = -.13, $p > .05$).

Conclusion. Different clusters of nomination networks can be identified among children and young adolescents. Predictors of network influence depend on the cluster of networks observed. Policy makers are advised to choose the type of network for peer-driven health studies carefully.

Keywords: social network, peer influence, dietary intake, physical activity