

Prevention in primary care - intrafamilial predictive model (MPI)

V. Herdea^{1,9}, R. Ghionaru^{1,9}, E. Costiug^{2,9}, I. Brinza^{5,9}, S.N. Rus^{3,9}, L. Comnea^{1,9}, E. Egri^{4,9}, E. Ruja^{2,6,9}, L.Chitanu^{5,9}, C. Mirauta^{1,9}, C. F. Pop^{2,6,9}, L.Soldea^{8,9}, A. Herdea^{7,9}

¹MD, Family Medicine, Bucharest, ²MD, Family medicine, Cluj Napoca, ³MD, Family medicine-, Bistrita, ⁴MD, Family medecine, Sibiu, MD, Family medicine-Braila, ⁶MD, PhD, Iuliu Hatieganu University of Medicine and Pharmacy, Cluj-Napoca, ⁷MD, Ph D student, Grigore Alexandrescu Emergency Children Hospital Bucharest, ⁸MD, diabet, nutrition and metabolism specialist, Bucharest, Romanian, ⁹Association for Pediatric Education in Family Medicine (AREPMF), **Corresponding author:** Alexandru Herdea e mail: alexherdea@yahoo.com

Background and Aims

According to WHO 2018, all around the world- 41 million children are obese.

○ Romania:

- 24.5% of children aged 5 to 19 years obese (2016, NIS)
- 7.4% HBP child and adolescents between 3-17 years
- 48.5% of Romanian population between 18-80 y are hypertensive

Aims

Introduction of **Intrafamilial Predictive Model** like Preventive interventional mechanism applicable from childhood, could reduce the incidence of major chronic diseases in future adult.

Method

For a period of 6 months October 2017-April 2018, there were observed:

- 35 children aged 6-18 years old
- sex ratio (Female:Male) 2:1
- Urban / Rural 30/5
- BMI 85th-95th percentile
- coming from families struggling with chronic diseases, high blood pressure (HBP), dyslipidemia, diabetes, static vertebral disorders, neuropsychiatric disorders.

Clinical parameters were recorded: Weight, Height, Blood pressure (BP), abdominal perimeter (PA), bodymass index (BMI). All children were examined for min 3 times: visit 0/visit 1/visit 2.

Based on family history and major risk factors (MRF) presence, a personalized **intrafamilial predictive model (MPI)** has been prepared.

Professional lifestyle changing recommendations for the child and family, has been applied(daily journal method: BP monitoring, nutrition, hidratation, physical activity, time with family),

Results

At the end of the 6 months:

- Average 10% weight looss in children
- Reduction of Systolic BP values average 15 mmHg- girls and 10 mmHg- boys
- Daily sports activity - average 60 min vs 0 initially
- Vaccine coverage for age (> 90% vs 80%)
- Professional orientation for children with static vertebral disorders
- 30 min every day - spending quality time with family (sport, dinner)

Discussions

Intrafamilial predictive model allows:

1. Family care & monitoring
2. Family pathology proper evaluation
3. Maping family risk (respecting patient confidentiality and the right for private life)
4. Intrafamilial predictive model (risk awareness, measures, personalized early preventive intervention)
5. Family counseling for healthy life style
6. Assess clinical outcomes
7. Reducing the risk for chronical disseases burden in adulthood
8. Changing microsystem (personal and familial level)- raising life quality
9. Changing macrosistem (community)- reducing socio-economical burden of non communicable disseases
10. A healthy person can invest in their own education, personal development, achievement of personal and social group goals

Conclusion

1. Obesity, HBP and behavioral disorders were MRF in the studied patients.
2. MPI allows the early identification of MRF that works from childhood an important role in the etiology of chronic diseases development in adulthood
3. MPI allows preventive interventions- implementation of cost-effective personalized programm, based on education for health: nutrition, sport, menthal health, proffesional orientation



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