

THE EFFECT OF GESTATIONAL WEIGHT GAIN ON PREGNANCY OUTCOME

Kozmann K¹, Pesti Sz², Pusztai D¹, Csákvári T³, Ferenczy M⁴, Karácsony I⁴, Boncz I⁵, Tamás P⁶

1. Institute of Nursing Sciences, Basic Health Sciences and Health Visiting Department of Nursing Science, University of Pécs, Pécs, Hungary

2. Clinic of Obstetrics and Gynecology, University of Pécs, Pécs, Hungary

3. Institute of Health Insurance, University of Pécs, Zalaegerszeg, Hungary

4. Institute of Nursing Sciences, Basic Health Sciences and Health Visiting, University of Pécs, Szombathely, Hungary

5. Institute of Health Insurance, University of Pécs, Pécs, Hungary

6. Institute of Emergency Care and Health Education Department of Midwifery and Clinical Coordination, University of Pécs, Szombathely, Hungary

OBJECTIVES

Too little or too much gain of weight could increase the occurrence of risks regarding the outcome of the pregnancy, (e.g., gestational diabetes, pregnancy-induced hypertonia, preeclampsia).

METHODS

We conducted a retrospective, cross-sectional, quantitative, descriptive study with document analysis in August 2021 at the, University of Pécs, Hungary. Non-probability targeted sampling was used to include women who gave birth between January 1and June 30, 2020. Women with singular pregnancies, live births and with completed 37th gestational week were included. Those who smoked or suffered from hypo/hyperthyreosis or heart disease were excluded.

RESULTS

Weight gain of <10 kg significantly correlated with the prevalence of complications during pregnancy (p<0.05). Regarding the prevalence of episiotomy, we found significant difference between birth weight for those with below average birth weight (p<0.05). For weight gain of <10 kg, a higher proportion of newborns were born with a lower birth weight than those with a normal or above-average weight. For >20 kg weight gain, a higher proportion of newborns were born with above average weight than with normal and below average weight. There was a significant connection between prevalence of illnesses during pregnancy and body mass index. Those who were overweight before conception also had a higher incidence of gestation morbidity (p<0.05).

CONCLUSIONS

Our results have shown from several approaches that suboptimal weight gain can lead to adverse consequences for perinatal outcomes. Therefore, attention should be paid to the development of an ideal body weight within antenatal care.

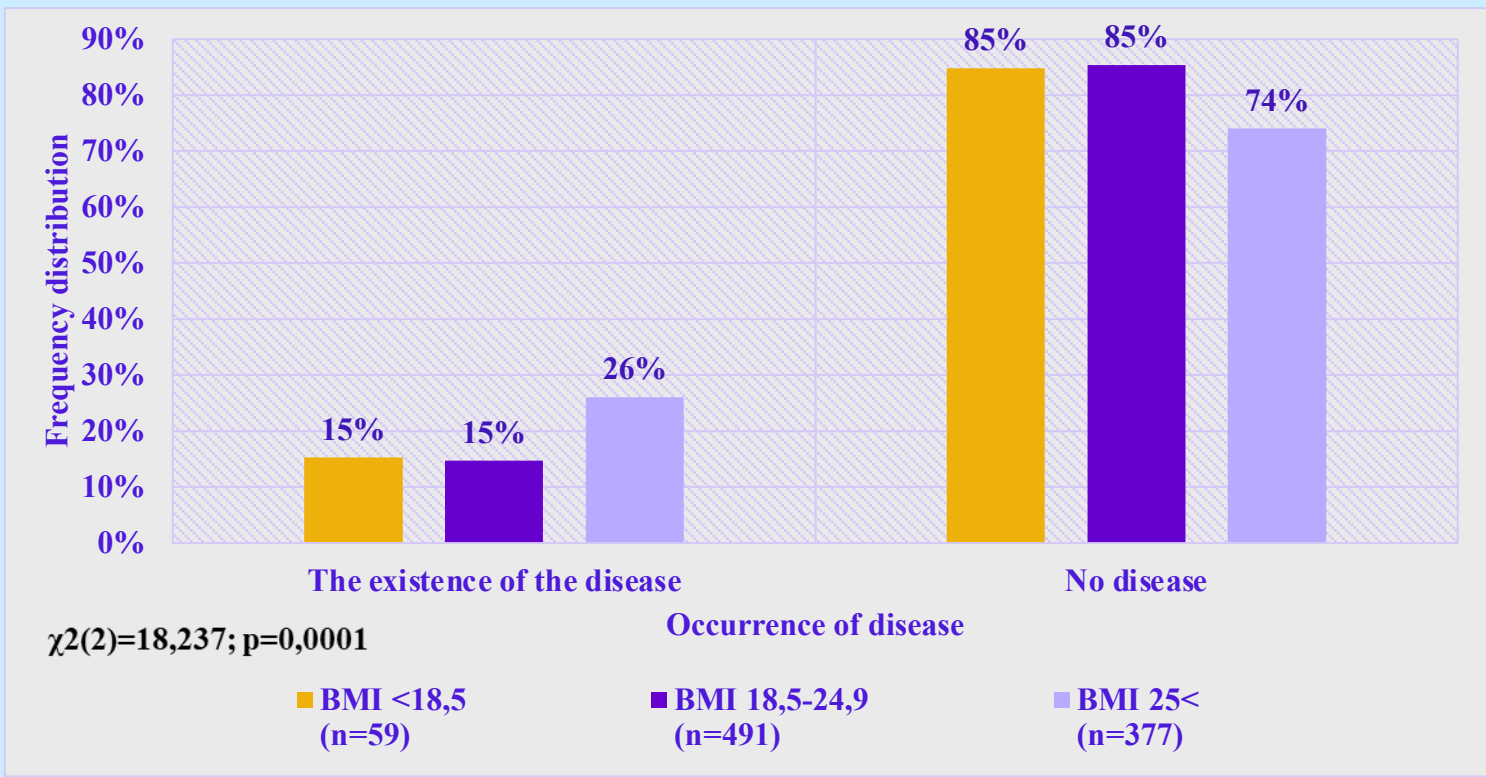


Figure 1. Correlation between BMI and incidence of disease of during pregnancy (n=927)

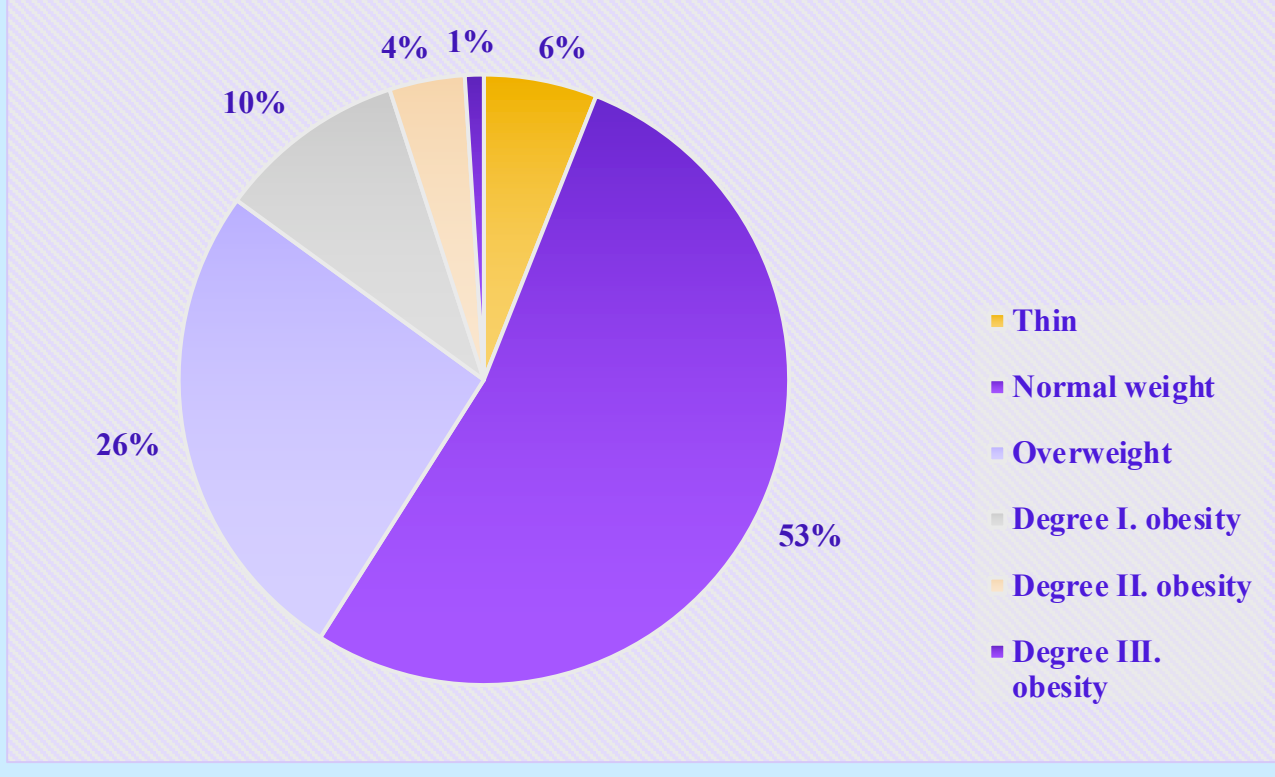


Figure 2. Percentage distribution of body mass index (n=927)

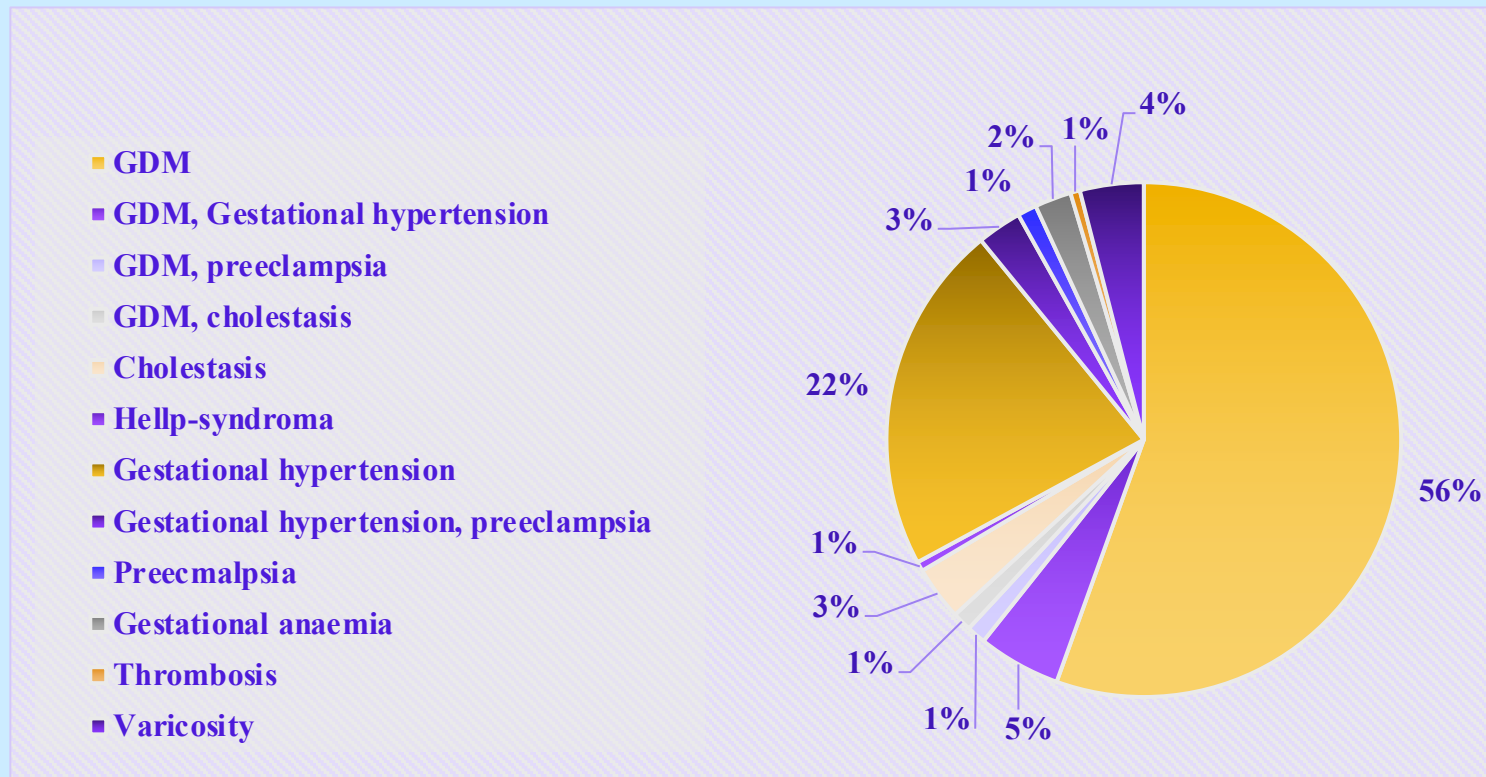


Figure 3. Distribution of diseases (n=173)

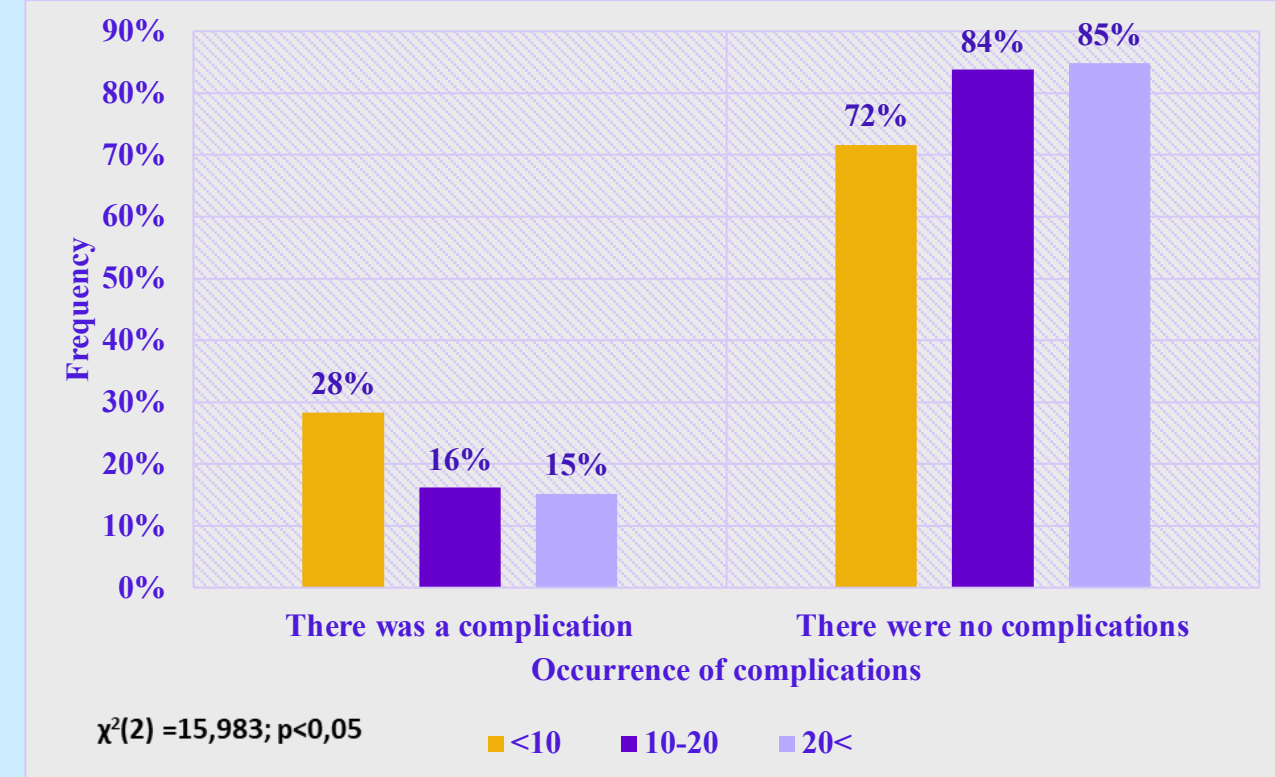


Figure 4. Weight gain and complications occurring during childbirth % distribution (n=927)

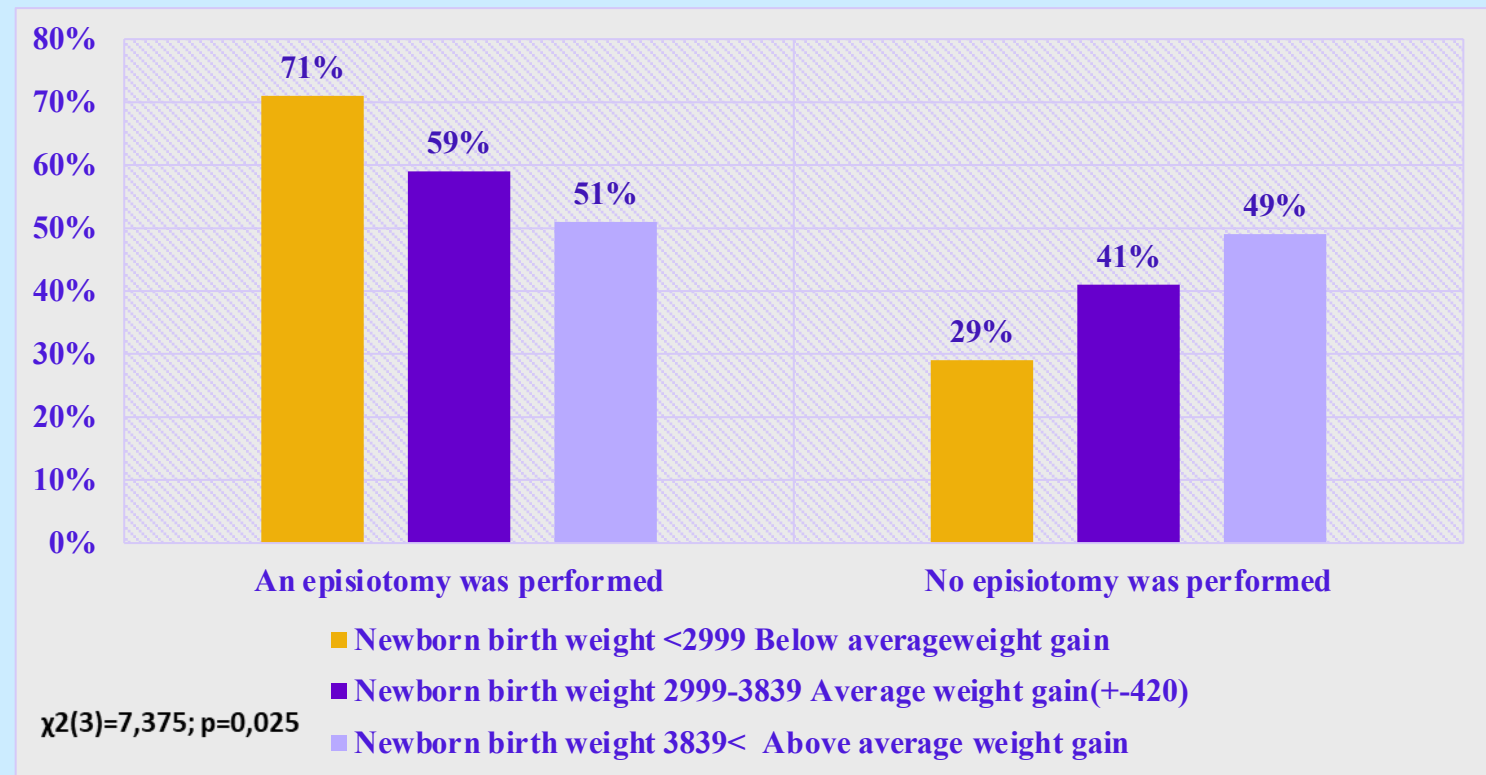


Figure 5. Incidence of episiotomy and birth weight, % distribution (n=549)

	Minimu m	Maximu m	Average	Mode (Mo)	Median (μ)	Standard deviation (SD)
Age	16	50	31	28	31	5,7
Number of pregnancies	1	10	2	1	2	1,50
Number of births	1	9	2	1	2	1
Body height (cm)	140	184	166	165	165	6,4
Pre-gestational weight (kg)	42	132	68	60	65	14,8
Body weight immediately before birth (kg)	50	145	82	70	80	15,3
Weight gain during pregnancy (kg)	-8	34	13	10	13	5,7
Gestational week at birth	37	42	39	39	39	1,2
Body weight of newborns (gr)	1480	5170	3411	3530	3400	460
APGAR 5'	0	10	9	9	9	0,6
APGAR 10'	1	10	10	10	10	0,4

Table 1. Sample data (n=927)

Financial support:

This research was financed by the Thematic Excellence Program 2021 Health Sub-Programme of the Ministry for Innovation and Technology in Hungary within the framework of the EGA-10 project of the University of Pécs. Supported by the ÚNKP-22-3-II. New National Excellence Program of the Ministry for Culture and Innovation from the source of the National Research, Development and Innovation Fund.



ISPOR Europe 2023
12-15 November | Copenhagen, Denmark



PÉCSI TUDOMÁNYEGYETEM
UNIVERSITY OF PÉCS

EPH
219

Corresponding author:

Dr. Imre BONCZ, MD, MSc, PhD, Habil
University of Pécs, Faculty of Health Sciences, Hungary
Institute for Health Insurance
E-mail: imre.boncz@etk.pte.hu



HUNGARIAN
GOVERNMENT



European Union
European Social
Fund



INVESTING IN YOUR FUTURE