Childhood obesity remains a major public health challenge in the WHO European Region. The latest COSI data (2015-2017), showed overweight and obesity in children aged six to nine. This poses significant health and economic burdens. The pandemic has worsened the situation, especially on vulnerable groups. More efforts are needed to prevent and control obesity.

Effects of gestational weight gain interventions on obesity in children

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There is growing evidence that maternal weight status and lifestyle before and during pregnancy contribute to the risk of obesity in offspring. In particular, it has been found that obesity and smoking in the parents at conception, in addition to having a number of harmful effects on the pregnancy in both the mother and offspring, also increases the risk of childhood obesity in the offspring. Moreover, an unhealthy diet pattern and physical inactivity during pregnancy is also associated with an increased level of obesity in the offspring. Analyses of observational data have found that 20% of overweight and obesity for children aged 10-18 could be attributed to maternal overweight (BMI 25-30 kg/m²), and 22% to maternal obesity (BMI > 30 kg/m²). An additional 20% could be attributed to excessive gestational weight gain.

In conclusion, prenatal factors are attractive targets for prevention of obesity, but causality needs to be shown by randomized controlled trials before implementation.

PL4 - COVID19: Impacts on Child and Adolescent Health and Lifestyle

COVID-19: Impacts on Child and Adolescent Obesity and Health

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Childhood obesity remains a major public health challenge in the WHO European Region. The latest COSI data (2015-2017), showed overweight rates up to 43% and obesity rates up to 20% in children aged six to nine. The HBSC survey 2017/2018 showed that one in five adolescents are living with overweight or obesity. Despite countries taking actions to reverse childhood obesity, children are exposed to unhealthy foods and are increasingly physically inactive and spend more time in front of mobile devices. The COVID-19 pandemic has worsened the situation. COVID-19 restrictions like lockdowns, closed schools and leisure facilities have increased children’s screen time and sedentary behavior, affect their mental health and well-being and can have immediate and lifelong impact. The pandemic resulted in a lack of access to school meals and made access to medical services including preventive treatment, like vaccinations, more difficult.

New WHO guidelines on physical activity and sedentary behaviour promote at least 60 minutes per day of moderate- to vigorous-intensity physical activity while limiting sedentary and recreational screen time. Although the latest published COSI data, this was not achieved even before the pandemic. COVID-19 restrictions mean that it is likely that overall physical activity levels decreased further during the past year. Digital marketing targeting children and adolescents can affect their health behaviors, yet few countries have regulations in place to protect children from these targeted and personalized advertisements. The COVID-19 pandemic has heightened this exposure to advertisements via social media, the internet and food delivery apps. According to Public Health England sales of unhealthy snacks in the UK has increased considerably since the beginning of the pandemic.

The pandemic has raised the importance of focusing on NCD management due to the increased vulnerability of people living with preconditions and/or overweight and obesity. The heavy impact of the COVID-19 pandemic especially on vulnerable groups needs more recognition. More data is needed to support the development of evidence-based policies to improve health outcomes for children and adolescents in the immediate and long-term future.
EP3-24
Associations between antenatal lifestyle and the risk for gestational diabetes mellitus in the GeliS trial – an exploratory secondary cohort analysis

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Introduction: The growing prevalence of gestational diabetes mellitus (GDM) is alarming, since GDM is known to increase the risk of maternal and offspring complications, such as caesarean section and macrosomia. Maternal age and pre-pregnancy body weight status are established risk factors for GDM. But also other factors and modifiable conditions, such as early excessive gestational weight gain and lifestyle factors have been discussed to influence the development of GDM. However, research remains inconclusive so far.

Methods: We aimed to analyse the predictive potential of early pregnancy factors on the risk of GDM development in a pooled cohort of the large-scale, cluster-randomised, controlled GeliS trial (“Healthy living in pregnancy”) conducted within the German routine care system. Women were recruited before the 12th week of gestation. Demographic data and pre-pregnancy weight were collected in a screening questionnaire. Gestational weight gain was calculated based on weight measurements from maternity records. Data on early pregnancy lifestyle and mental health were collected via questionnaires before the 12th week of gestation. Between the 24th and the 28th week of gestation, GDM status was determined through a standardised two-hour 75g oral glucose tolerance test. Multiple logistic regression analyses were performed to elucidate the associations between several maternal factors and the odds of developing GDM.

Results: Of the 2286 initially recruited women, 1694 were included in the analysis. 10.8% of the women were diagnosed with GDM. The risk factor analysis revealed a positive association between pre-pregnancy BMI and age category and the risk of developing GDM (women with overweight: OR 1.51, 95% CI 1.02–2.24, p = 0.039; women with obesity: OR 4.91, 95% CI 3.35–7.19, p < 0.001; women aged 26–35 years: OR 2.09, 95% CI 1.17–3.73, p = 0.013; women aged 36–43 years: OR 2.84, 95% CI 1.45–5.56, p = 0.002). Neither early excessive gestational weight gain nor a low diet quality, low physical activity or smoking were associated with GDM risk. Similarly, early pregnancy anxiety/distress and low maternal education were not observed to have an impact on GDM incidence. In contrast, a 31% reduction in the odds of developing GDM was observed when less than 30% of energy in the maternal diet originated from fat (p = 0.026). Moreover, vigorous-intensity physical activity was non-significantly associated with lower odds of GDM (OR 0.59 per 10 MET-h/week, CI 0.33–1.06, p = 0.039).

Conclusion: Our analysis confirms maternal age and pre-pregnancy BMI to be important predictors of GDM and highlights the relevance of normalising body weight prior to conception. Further evaluation is needed on the association between early pregnancy lifestyle factors such as dietary fat content and GDM risk before making recommendations for primary care. Future research on the identification of predictive lifestyle factors for GDM risk is warranted.

EP3-25
Societal Factors Associated with Obesity in Nigerian Women

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Introduction: A 2019 prevalence survey conducted by mDoc showed that being overweight/obese was perceived as culturally acceptable and an index of good living. Culture plays a significant role in body image and body size perceptions in many African countries. Being overweight has been idealized and associated with wealth and a higher socioeconomic status as it indicates the ability to have a higher indulgence in food and employ maids that take care of the household chores. Additionally, overweight body size is perceived as a symbol of attraction as seen in the preservation of the practice of fattening rooms in some subcultures in Nigeria where women are fed copious amounts of food in order to prepare for marriage. We therefore conducted this survey to understand the association between cultural influence in Nigerian communities and its relations to obesity.

Methods: A total of 1909 members were enrolled on the CompleteHealthTM self-care digital platform and surveyed during the onboarding process between January 2020 and June 2020. This study examined members who responded to the following three questions: (1) “Have you ever been diagnosed with being overweight/obese?” (2) “Do you feel being overweight (big size, ‘orobo’) is a sign of good living?” (3) “Do you feel being overweight (big size, ‘orobo’) is culturally acceptable?”, Percentages and Chi-square test were used to determine whether an association existed between the belief that being overweight/obese is sign of good living and culturally acceptable and reported overweight/obesity.

Results: The mean age of respondents was 31.6 years. 18.2% of respondents reported that they have overweight or obesity as a chronic disease. 11.2% of those that reported being overweight/obese and 6.5% that reported not being overweight/obese answered “yes” when asked if being overweight was a sign of good living. When asked whether being overweight was culturally acceptable, 11.3% that reported being overweight/obese and 14.5% that reported not being overweight/obese agreed that it was. There is an association between the perception of overweight/obesity being a sign of good living and culturally accepted and reported overweight/obesity.

Conclusion: As the obesity epidemic continues to increase across Africa, it is important to understand the African societal emphasis on body size that contributes to overweight and obesity. These results suggest that there are cultural differences that affect body size perception and overweight and obesity acceptance. The overall preference for an overweight body size in Nigeria may affect interventions to mitigate the obesity burden and decrease the prevalence of overweight and obesity in Nigerian women.

References


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EP3-26
Attitudes and beliefs about obesity among healthcare professionals in Spain

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Introduction: Weight stigma experiences can have a detrimental impact on physical and mental health, and reduce healthcare seeking behaviour. Negative attitudes and beliefs about obesity have been identified in healthcare professionals (HCPs) which may impact the patient–practitioner relationship (Alberga, Nutter et al., 2019). Several studies have documented stigmatising attitudes about obesity amongst HCPs, including a
large study of HCPs from 77 countries around the world (The ASK study, O’Keefe et al., 2020). To date, no research has examined the attitudes of HCPs in Tunisia.

**Methods:** An online, cross-sectional study of attitudes, stigma, and knowledge of obesity among HCPs in Spain was conducted. The same set of questions used in the ASK study to investigate attitudes and beliefs toward obesity and the Fat Phobia Short Form (F-Scale; Bacon et al., 2001) were adapted to Spanish and used in this survey. Spanish professional societies and medical and academic institutions were invited to participate. A total of 735 HCPs participated. The male/female ratio was 3.37, Mean BMI = 23.49 (SD 3.73), Mean age = 43.41 (SD 12.38, range 23-75), ~90% provide care for people living with obesity (PLWO).

**Results:** Mean F-Scale score was 3.54 (SD 0.42), slightly higher than in the ASK study (3.40). No differences were found among medical specialties (range 3.44-3.64), gender and treat or not PLWO. Younger age and higher BMI were associated with lower weight stigma. 57% (37% in the ASK study) of HCPs reported believing that lifestyle interventions were the most effective treatment for severe obesity (BMI>35kg/m2); diet and exercise, 31% (16% in the ASK study); psychological support and behaviour modification, 27% (21% in the ASK study). Many HCPs believe that the main reason it is difficult for people to lose weight is an individual’s lack of motivation and or self-discipline (60%). 39.3% of HCPs reported that overeating is the result of personal causes (gluttony 1.9%, emotional or comfort eating 33.2%, or food addiction 4.2%), similar to the ASK study (36%) and, differently from the ASK study, did not differ in weight stigma scores compared to participants who listed physiological malfunction (36.5% / 35% in the ASK study), food environment (19% / 29% in the ASK study) or other (5.2%).

**Conclusion:** Spanish HCPs hold stigmatising attitudes about obesity and believe that obesity management is under personal responsibility. This gap in their knowledge, could contribute to weight stigma and inappropriate management of PLWO. Educational initiatives aimed at addressing these gaps are necessary.

**References**


O’Keeffe, M., Flint, S.W, Watts, K., Rubino, F. (2020). Knowledge gaps and weight management of PLWO. Educational initiatives aimed at addressing these gaps are necessary.

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