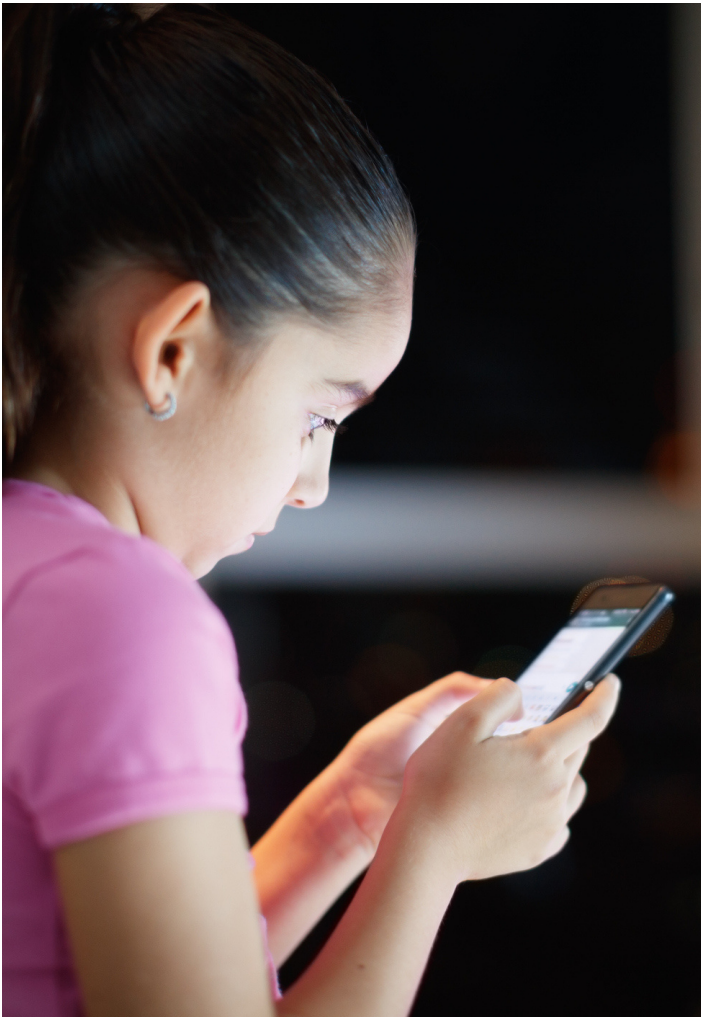


Why are approaches to childhood obesity in healthcare settings important?

Excess bodyweight affects over a quarter of school-age pre-adolescents in Europe. Higher prevalence levels are found among children from households with lower incomes or lower parental education. In children under 5 years old, there has been a swift increase in childhood overweight. The high prevalence of childhood obesity is concerning, as it is an independent risk factor for adult obesity and its related complications. Treating childhood obesity is difficult and a structured standardised treatment plan is lacking in most countries. Consequently, there is a need to find evidence-based, effective approaches that are feasible for both healthcare providers and families.



STOP project findings: Mini-summary

- **Interventions in healthcare settings:** A systematic review (81 examined studies) revealed a major lack of information on social and economic influences on childhood obesity treatment. In middle- and higher-income countries, the prevalence of obesity remains greater among families with lower incomes or parental education, and in specific ethnic groups. A lack of attention to designing interventions with a degree of understanding of the children being treated and their families was found. Overall, there was lack of evidence to inform policy, despite a clear and continuing policy concern over health inequities and universal access to health services (1).
- **The feasibility and effectiveness of a combined intervention including mobile health:** The More and Less Europe (ML Europe) study assessed the effectiveness of an obesity intervention combining a parent support program (More and Less) and a mobile-based intervention (the MINISTOP App) compared to traditional, country-specific intervention approaches to obesity for children (aged 2-6). Findings of the ML Europe study will be available in 2023 (2).
- **Perceptions of weight management programmes:** A series of qualitative studies were conducted in Spain, Romania and Sweden involving parents and health professionals. Results underlined the need for more robust communication skill training for staff on obesity, transparent patient treatment guidelines and referral mechanisms, and sensitive care approaches aimed at cementing patient trust. Findings from a study on the impact of the pandemic on weight management showed an interrelation of household insecurity with obesity-related behaviours (3-7).

STOP publications are referenced (1-7)

Implications of findings for policy design

- **Interventions** should be culturally and socially sensitive, avoid stigma, encourage motivation, recognise barriers, reinforce opportunities, encourage repeated attendance, and be designed with an understanding of the children that will be treated and their families.
- **The structures in the healthcare system** need to be better organised to initiate treatment early to reduce risk for later obesity and obesity-related comorbidities. For example, enough time should be allocated for clinical visits and a clear description provided of what treatment the family will receive and by whom.
- **Paediatric healthcare professionals** require continuing education about obesity, communication skills training, as well as organisational support, to improve communication within the healthcare system.
- **Secure housing and employment** are integral for reducing the impact of pandemics on children's diet and physical activity.

Technological innovation in a combined intervention

The universal use of smartphones makes the use of mobile health (mHealth) an option for boosting the effects of treatment programs. mHealth is increasingly being used for promoting healthy habits and as treatment of various health conditions.

In ML Europe we tested the use of mHealth in the management of overweight and obesity in pre-schoolers through the MINISTOP app (i, ii) as a continuous support after the More and Less parent support program (iii, iv).

(i) Delisle C, Sandin S, Forsum E, Henriksson H, Trolle-Lagerros Y, Larsson C, et al. A web- and mobile phone-based intervention to prevent obesity in 4-year-olds (MINISTOP): a population-based randomized controlled trial. *BMC Public Health*. 2015; 15:95.

(ii) Nystrom CD, Sandin S, Henriksson P, Henriksson H, Trolle-Lagerros Y, Larsson C, et al. Mobile-based intervention intended to stop obesity in preschool-aged children: the MINISTOP randomized controlled trial. *Am J Clin Nutr*. 2017;105(6):1327-35.

(iii) Ek A, Chamberlain KL, Ejderhamn J, Fisher PA, Marcus C, Chamberlain P, et al. The More and Less Study: a randomized controlled trial testing different approaches to treat obesity in preschoolers. *BMC public health*. 2015;15(1):735.

(iv) Ek A, Lewis Chamberlain K, Sorjonen K, Hammar U, Etminan Malek M, Sandvik P, et al. A Parent Treatment Program for Preschoolers With Obesity: A Randomized Controlled Trial. *Pediatrics*. 2019;144(2).

Communication skills training, with focus on childhood obesity, should be mandatory for healthcare professionals providing obesity management



For more information, visit www.stopchildobesity.eu or scan the QR code

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Future research priorities

The findings from the STOP project have provided new evidence and insights on barriers to successful treatment interventions in standard healthcare settings.

Further research opportunities identified include:

- the impacts of gender on inequalities and the effectiveness of childhood obesity treatment;
- social disparities; and
- studies that address household resilience in relation to long-term public health challenges such as COVID-19.



STOP Publications (see www.stopchildobesity.eu for an up-to-date list)

- (1) Lobstein T, Neveux M, Brown T, Kheng Chai L, Collins C.E, Ells L.J, and Nowicka P, for the STOP project consortium. Social disparities in obesity treatment for children age 3–10 years: A systematic review. *Obesity Reviews*. 2021; 22: (2) (<https://doi.org/10.1111/obr.13153>).
- (2) Ek A, Nyström C, Chirita-Emandi, A, Tur J A, Nordin K, Bouzas C, et al. A randomized controlled trial for overweight and obesity in pre-schoolers: the More and Less Europe study - an intervention within the STOP project. 2019. *BMC Public Health*; 19:945. <https://doi.org/10.1186/s12889-019-7161-y>.
- (3) Sjunnestrand M, Nordin, K, Eli K, Nowicka P, Ek A. Planting a seed - child health care nurses' perceptions of speaking to parents about overweight and obesity: a qualitative study within the STOP project. *BMC Public Health*. 2019; 19:1494 <https://doi.org/10.1186/s12889-019-7852-4>.
- (4) Eli K, Neovius C, Nordin K, Brissman M, Ek A. Parents' experiences following conversations about their young child's weight in the primary health care setting: A study within the STOP project. *BMC Public Health*. 2022; 22:1540. <https://doi.org/10.1186/s12889-022-13803-8>.
- (5) Serban C.L, Putnoky S, Elk A, Eli K, Nowicka, P and Chirita-Emandi, A. Making childhood obesity a priority: A qualitative study of healthcare professionals' perspectives on facilitating communication and improving treatment. *Frontiers in Public Health*. 2021; 9:652491. <https://doi.org/10.3389/fpubh.2021.652491>.
- (6) Argelich E, Alemany ME, Amengual-Miralles B, Argüelles R, Bandiera D, Barceló, M.A. et al. Paediatric teams in front of childhood obesity: A qualitative study within the STOP project. *An Pediatr*. 2021. 95:174-185 <https://doi.org/10.1016/j.anpedi.2020.11.009>.
- (7) Nowicka P, Ek A, Jurca-Simina I. E, Bouzas C, Argelich E, Nordin K, Garcia S, Vasquez Barquero M. Y, Hoffer U, Reijs Richards H, Tur J, Chirita-Emandi A, Eli K. Explaining the complex impact of the Covid-19 pandemic on children with overweight and obesity: a comparative ecological analysis of parents' perceptions in three countries. *BMC Public Health*. 2022;22(1):1000. <https://doi.org/10.1186/s12889-022-13351-1>.

