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Oral presentation

# MENTAL HEALTH NURSE AS A CASE MANAGER- AN EXAMPLE BASED ON TALLINN SCHOOL HEALTH FOUNDATION

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Background and aims

The prevalence of mental health problems among students is increasing and they have become an important part of the school nurse's work. In recent years, the mental health of students has been in the spotlight. Every third 11-15-year-old Estonian student has experienced a depressive episode, and every fifth 13-15-year-old child has thought about suicide during the year. At the same time, the availability of mental health care is limited due to the lack of mental health specialists. In order to alleviate the situation, mental health services and human resources dedicated to this need to be systematically reorganized, bringing more attention than before to the time and resource-saving early help options in primary and at the community level.

In 2022, two mental health nurses started working at the Tallinn School Health Foundation and started mapping the student's journey to help students to reach the appropriate help in time. The aim of this work is to describe the role of the mental health nurse in the student's journey.

Methods

Mental health nurses of the Tallinn School Health Foundation mapped the student's support network. It included the student, school nurse, mental health nurse, parent/guardian, mental health team, general practitioner, school support staff and local authority. When creating the journey model, the focus was on how the student could most effectively reach help in case of mental health concerns at the right time and in the most appropriate way. Since the journey may differ depending on the student's needs, there are also several possible journeys.

### Results

When mapping the student's journey, it turned out that the mental health nurse is a case manager within the organization. Active teamwork takes place between the school nurse and the mental health nurse, where the mental health nurse can advise the school nurse, carry out an initial assessment of the student's condition and determine the student's need for further assistance. The role of the mental health nurse is also to decide who to contact and where to refer the student.

### Conclusion

According to the created journey, the mental health nurse is the case manager, being an important link in deciding on the next steps related to the student's mental health. It is not only important to choose the right path, but teamwork between different parties to ensure that the student is noticed at the right time. To develop the student's journey, it requires common understanding and teamwork of all the journey participants.

# DO YOUTH HEALTH CARE DOCTORS ENGAGE WITH THE HEALTHY LIVING ENVIRONMENT?

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### Background and aims

Youth public health physicians promote a health society for youth, within and outside the consultation room. For this healthy society for youth, playing an influence on the determinants of health, like the healthy living environment, is of great importance. A healthy living environment encourages healthy behaviour, invites to engage with others and is pleasant to live in. This study explores whether and how youth health care physicians are engaged in activities concerning a healthy living environment and the role they see for themselves and their profession.

### Methods

Youth public health physicians who are member of the Association of Dutch Youth Health Care Physicians (AJN) were invited to participate (n=1408). Data collection took place between February 2024 and March 2024 via a questionnaire and one-to-one video calling interviews. All interviews were audio-taped and transcribed verbatim. The interview data and open-ended questions of the questionnaire were analyzed using a thematic approach. The closed questions of the questionnaire were used for descriptive statistics.

#### Results

This study interviewed 12 youth public health physicians. 60 youth public health physicians completed the questionnaire, half of them actively working on this topic. Working on a healthy living environment is important for them, because of the preventive influence of the living environment on health. They are particularly concerned with lifestyle, outdoor space being second. The main bottleneck to do more on this topic is that youth health care organizations are overlooked when it comes to working on a healthy living environment. As a result, they are not financially compensated and staff have no time to work on it.

### Conclusions with Take Home Messages

A significant part of the youth public health physicians wants to work on this topic, but doesn't know how to do so or has lack of time. The AJN could help them get started. Outdoor space is a nice theme to focus on. It's close to the daily work and influences lifestyle, the topic physicians are most familiar with. Little response on the questionnaire could be due to the length of the questionnaire, the fact that another questionnaire had been send just before this one or only a small number of youth public health physicians being engaged with this topic.

Given the great importance of the healthy living environment the AJN can appoint ambassadors to put this topic on the map and support others. To enthuse others, it's important to address this topic and collect good examples and knowledge. Furthermore, emphasize the role of youth public health physicians regarding the healthy living environment in contact with partners.

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# PROMOTING NAVIGATION HEALTH LITERACY AT THE INTERSECTION OF SCHOOLS AND COMMUNITIES. THE LOCATION-BASED GAME NEBOLUS

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Background: Health literacy (HL) is seen as an urgent public health issue and studies show that children and adolescents have difficulties in obtaining and dealing with health-related information (Fischer et al., 2022). Available interventions often focus on the individual level by neglecting the physical and social environment where HL is developed within (Dadaczynski et al, 2022). Location-based games (LbG) are playful applications in which the course of the game is influenced by constantly changing the geographic position of the player. Nebolus is a location-based game intervention that offers the possibility to create health-related scavenger hunts to promote navigational HL (NavHL) in young people (Dadaczynski et al., 2021).

Methods: In May 2022, a Nebolus scavenger-hunt on mental health was implemented with 7 local professional stakeholders in Fulda. A randomized-controlled trial was carried out with adolescents from five secondary schools. The NavHL was assessed on the basis of a self-developed item pool. Data from 148 adolescents were evaluated over two measurement time points (t0, t1 +3 weeks). For data analysis, repeated measures ANOVAs were calculated and the effect sizes were reported using partial eta-squared.

Results: The examination of the factorial structure revealed three dimensions (finding, evaluating, communicating) with satisfactory reliabilities. For all dimensions as well as for the overall NavHL scale, interaction effects (group x time) with large effect sizes ( $\eta$ 2p=0.04-0.22) could be determined, with the greatest improvements being found especially for the overall NavHL scale.

Discussion: Worldwide, Nebolus is the first location-based game intervention that strengthens navigational health literacy at the intersection between schools and communities. The results demonstrate promising effects on the ability of finding, evaluating local health services and to communicate with them. However, further studies with larger samples and longer time periods are needed to examine the stability of effects. Here, the usage behavior of local health services should also be given greater consideration as a distal outcome.

Literature

Dadaczynski, K., Sykes, S., Bíro, E. & Kósa, L. (2022). Editorial: The Socio-Ecological Cotext of Health Literacy. Frontiers in Public Health, 10:897717.

Dadaczynski, K., Krah, V., Frank, D., Zügel-Hintz, E. & Pöhlmann, F. (2021). Promoting Navigation Health Literacy at the Intersection of Schools and Communities. Development of the Game-Based Intervention Nebolus. Frontiers in Public Health, 9:752183.

Fischer, S.M., Dadaczynski, K., Sudeck, G., Rathmann, K., Paakkari, O., Paakkari, L. & Bilz, L. (2022). Measuring Health Literacy in Childhood and Adolescence with the Scale "Health Literacy in School-Aged Children – German Version": Psychometric Properties of the German-language Version of the WHO Health Survey Scale HLSAC. Diagnostica, 68, 184-196.

# THE SPI:KE PROJECT - A COMPREHENSIVE APPROACH TO HPV PREVENTION IN SCHOOLS

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Background: HPV vaccination coverage in Germany is low compared to other high-income countries. According to the Robert Koch Institute, only 54% of 15-year-old girls and 27% of 15-year-old boys were fully vaccinated in 2021. Several studies have identified a lack of knowledge in German society, particularly among children and their parents, as one of the main reasons for poor vaccine uptake. Schools are an ideal setting to reach these two groups. Alongside face-to-face interactions, digital media are becoming increasingly important sources of health information.

Methods: The Medical Society for Health Promotion (ÄGGF e.V.) and the statutory health insurance fund Bahn BKK have been conducting the SPI:Ke project since 2019. To this end, members of the ÄGGF, who are registered doctors, visit schoolchildren aged 10-13 years at school and provide evidence-based, culturally sensitive health education on puberty, HPV and HPV vaccination. Using a semi-standardised approach, they address questions and common concerns. A short quiz at the end of each session summarises the key messages. Additionally they provide information sessions for parents and teachers. Starting in 2022 the events for teachers were evaluated. Beyond that, leaflets and YouTube videos for students and adults, fully translated or subtitled in six languages (German, English, Arabic, Turkish, Russian and Ukrainian), and a website for adults featuring a comprehensive FAQ section covering common questions and misconceptions about HPV and the vaccine have been developed.

Results: Between 2019 and 2023, the ÄGGF visited 15,106 children in 1,146 events. The quiz results consistently showed a minimum correct answer rate of 72.7%, although this varied from question to question. Approval ratings for discussing these topics with a doctor were 84.8-87.8%. 1,782 adults attended the 74 information sessions. 151 teachers completed the questionnaire in 2022 and 2023. 56.3% in 2022 and 50.4% in 2023 reported that they had not received any information about HPV during their entire education as a teacher up to that point. More than 90% intended to incorporate the new knowledge into their teaching. Furthermore, over 97% would recommend this training to their colleagues. The YouTube videos were viewed between 543 times and 1064 times between July 2021 and December 2023. The website was launched in October 2022 and was visited approximately 400 times in the first year.

Conclusions: Medical professionals are highly accepted and trusted sources of information by both children and teachers. Considering that most teachers have limited knowledge about HPV,

it is necessary to include training on this topic in their mandatory curriculum. The online approaches require further promotion to reach more users, which is actively underway. In addition, health professionals should increase their involvement in schools as this has been shown to be highly effective.

# THE DEPLOYMENT OF SCHOOL NURSES TO PROMOTE HEALTH LITERACY AMONG STUDENTS IN INTERNATIONAL COMPARISON

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Background and Aims:

The interaction between health and educational opportunities underscores the importance of health literacy. Limited health literacy in the population contributes to individual and social disadvantages. Therefore, early integration of health literacy into daily life is essential. School Nurses offer a promising approach for this purpose. Internationally, School Nurses have been integral to the school environment for decades. In recent years, they have been deployed in various projects across German federal states. Therefore, it was imperative to investigate, from an international standpoint, how School Nurses are deployed to promote health literacy among students. The objective was to comprehend the implementation extent in Germany and identify overseas approaches as best practices for national adoption.

Methods:

A systematic literature review examined how the promotion of health literacy is carried out by School Nurses in the USA, Australia, Finland and the United Kingdom. School Nurses from Germany and Estonia, along with subject matter experts from Germany, were interviewed to gain precise insights into this topic. Additionally, the practical implementation of health literacy promotion by a School Nurse was observed during a two-week internship at a school in Hesse.

Results:

School Nurses are implemented in varied and accessible manners to enhance health literacy among students. While there are numerous similarities in interventions, topics, organizational frameworks, resources and evaluation methods, there are also challenges, coping strategies and overseas best practices that warrant consideration in Germany. Analysis of results from the diverse methods yielded six recommendations to effectively implement measures for health literacy promotion by School Nurses in Germany. These recommendations include the establishment of a standardized and legally binding professional profile for School Nurses, implementation of a national program to enhance health literacy in educational institutions, structuring training and professional development opportunities for these professionals, systematic evaluation and adjustment of their competence profile, promotion and reinforcement of their professional network, and implementation of mental health as an essential aspect of their health literacy promotion efforts.

Conclusions:

As a bridge between health and education, School Nurses offer a low-threshold service for students from various economic backgrounds and can promote their health literacy during school years. Therefore, School Nurses should be empowered and supported in their role in health literacy promotion, enabling them to unleash their diverse potentials and act holistically, accessibly and evidence-oriented in promoting health literacy.

# EFFECTS OF AGE AND ECHOSCREEN DEVICE ON PERCENTAGE OF FALSE POSITIVE RESULTS AT FIRST HEARING SCREENING

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### Background and aims

For parents, children and efficiency considerations the number of false positive screening results needs to be as low as possible. We analysed the effect of age and type of screening device on the percentage of false positive results at the first hearing screening.

### Methods

Results from the first hearing screening test of newborns screened from 2013 to 2022 by child health care in The Netherlands were analysed. The dataset contained the otoacoustic emission (OAE) results for the left and right ear separately (pass, refer, failed measurement or missing), day of first screening (with day of birth=day 0), year of birth, type of screening device (Echoscreen I/II (together) or III) and preterm birth. Preterm infants are often screened at older ages than a terme infants. Therefore, this group was excluded from the analyses.

Since 2020, the percentage of children screened with the Echoscreen III has increased from 25% to 42% in 2022. Therefore, for the effect of type of screening device only data from 2020 to 2022 were considered.

The results of left and right ear were combined into one result. Only children who had a pass result on both ears were considered as 'no second test needed'. All other combinations of results were given 'positive at first test' as outcome. The percentage with a 'positive at first test' was calculated by age at screening. Results from children who were referred to an audiological centre were excluded. This was done to exclude possible true-positive results. Thus, the outcome 'positive at first test' was considered as 'false-positive at first test'.

### Results

The dataset contained data from 1,663,646 children.

The relationship between age at first hearing test with the Echoscreen I/II/III and the percentage with 'false-positive at first test' for all years combined showed the lowest percentages between

day 6 to 12 (3.3-3.7%). An increase is visible toward younger ages (6.3% on day 3 to 3.8% on day 5). An increase is also visible after day 12 to 6.3% at week 3, 6.6% at week 4 and then a decrease to 5.6% at week 5 and 5.4% at the rest of the 2nd month.

The Echoscreen I/II and III had an average percentage of 'false-positive at first test' of respectively 3.9% and 5.4% (difference 1.5%; 95% confidence interval 1.4 to 1.7%). At all ages, the Echoscreen III has a higher percentage of 'false-positive at first test' than the Echoscreen I/II.

### Conclusions

To prevent false-positive screening results at the first hearing screening, the Echoscreen tests can best be performed between day 6 to 12 after birth.

Changes in screening devices also affect the test results. The Echoscreen III gives more false-positive results at the first test than the Echoscreen I/II. It is recommended to monitor the performance of screening devices before and while introducing them in national screening programmes.

## SCHOOLCHILDREN ANNUAL HEALTH CHECK UP ANALYTICS IN TALLINN, ESTONIA

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### SCHOOLSCHILDREN ANNUAL HEALTH CHECK UP ANALYTICS IN TALLINN, ESTONIA

Tallinn School Health Foundation

Kristina Galdupaite

Background and aims: Estonian School Healthcare is an important part of Govermental Primary Healtcare. The major objectives for School Healtcare is prevention and health education among students aged 7-19. In the end of academic year Tallinn School Health Foundation school nurses analyse data of schoolchildren health check-ups and implemented interventions for prevention. The purpose of health check-up is to monitor children's growth, mental and social development. In case of deviations children and their parents are councelled and referred for additional consultations. Outcome statistics is a reflection of society health trends and development.

Methods: annual preventative health check up data in 1st (age 7-8), 3rd (age 9-10), 7th (age13-14), 10th (age 16-17) grades analytics' in 1 primary school (Nõmme Primary School) and 2 high schools (Secondary School of Science and St John's School) in Tallinn, Estonia.

Results:

Nõmme Primary School; St John's School; Secondary School of Science 1st 3rd 7th 10th

total 140 136 222 173

postural disorder 2 3 16 20

overweight 8 8 16 7

refractive error 13 11 39 46

School nurse intervention depends on the severity of postural disorder. If there are inward shoulders, neck forward posture, spine measured with a scoliometer  $\leq 6^{\circ}$  - stretching exercises, sitting and screen time ergonomics are advised, the student is called for re-assessment within 6-12 months. If there are strong body sides' asymmetry, spine measured with a scoliometer  $\geq 6^{\circ}$  - the student is referred to the family health centre for further examination.

In case of overweight - eating habits, physical activity, healthy and balanced nutrition are discussed with student and parent. The student is encouraged to notice unhealthy choices and to correct them. If necessary, re-assessment within 6-12 months.

In case of refractive error, vision with glasses or contact lences is controlled using eye chart, if necessary, addressing for ophthalmologist examination. The student is advised on the ergonomics of screen time and the daily necessity of staying in daylight for 2h.

Conclusion: Regular health check-up's are effective for detecting, solving or addressing primary health disorders. The school nurse advises and guides students and parents on health issues like postural disorder, overweight or refractive error.

# HEALTH STATUS AND PUBLIC HEALTH NEEDS IN A TOGOLESE CHILD HEALTH CARE CENTRE MODELLED AFTER THE DUTCH SYSTEM

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Background and aims: Togo is a low-income country in Sub-Saharan Africa. Implementation of strategies to better organise preventive measures in primary care can improve children's health in Sub-Saharan Africa is. For this reason, the charity foundation Association Soutien Enfants Togo started a child health care (CHC) centre in the city Kpalimé in Togo that was modelled after the Dutch high-quality CHC system to improve child health. We aimed to describe health care data of children who visited the centre.

Methods: The CHC centre in Kpalimé was modelled after CHC in The Netherlands, but adapted to better align with differences in lifestyle, socio-economic factors, (mal)nutrition, hygiene, blood relationships, diseases and pathologies between the Dutch and Togolese population. To be able to monitor the health status of children who visited the CHC centre in Kpalimé, health care data were collected between October 2010 and July 2017 and included in the Child HEalth Care in Kpalimé TOGO (CHECK2GO) study. Outcomes were completed vaccinations, growth, development, lifestyle, physical examination, and laboratory testing results.

Results: In total, 8,809 children aged 0-24 years were available. Half (47.5%) of children aged 0-4 years did not receive all eligible free vaccinations from the government. The proportions of stunted children (all) or with a developmental delay (0-4 years) were 10.1% and 9.5%, respectively. In total, 40-50% of all children did not wash their hands with soap after toilet or before eating, or did not use clean drinking water. Furthermore, 5.1-6.6% had insufficient vision, high eye pressure or hearing loss. Sickle cell disease was detected in 5.3%.

Conclusions: A large group of children in need of prevention and early treatment were detected, informed and treated by the centre. Our program, teaching materials, protocols, epidemiological data and other statistics are documented so that they are useful and accessible to others who want to conduct data research or establish preventive CHC in Sub-Saharan Africa. Interested parties (including researchers, government, healthcare professionals) can contact one of the authors, so that the knowledge that has been built up within this project can be shared and used to improve the health of children in Sub-Saharan Africa. In addition, the program can serve as

an example for raising awareness of health problems, intensifying public scrutiny, improving access to and availability of services and making structural changes.

# GUIDELINES, RESEARCHES, CHALLENGES THE DEVELOPMENT OF SCHOOL NURSING IN ESTONIA

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### THE DEVELOPMENT OF SCHOOL NURSING IN ESTONIA

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### Background and objectives

This abstract offers an overview of the historical progression and current practices of school nursing in Estonia, emphasizing the independence of school nurses. In the late 18th century, legislation required medical professionals to be present in schools. Over time, the autonomy of school nurses has developed, leading to a regulation in 2010 that granted them the ability to provide independent services. This evolution reflects a broader trend of empowering healthcare professionals in educational settings.

### Methodology

Information was gathered from historical records and current regulatory documents to track the growth of school nursing in Estonia. Additionally, data was collected from the Foundation for School Health Care in Tallinn, established in 2004 to examine present practices and staffing within the organisation.

### Findings

The school nurses in Estonia are recognised as independent practitioners. The Foundation for School Health Care in Tallinn employs 104 nurses in 86 schools, providing significant healthcare services. The Foundation collects feedback on satisfaction levels with its services and management, issues bi-annual reports on children's health, and excels in equal service distribution, quality supervision, mentorship, and collaboration. Notably, this organisation is

unique in having active mental health nurses on staff, demonstrating an increasing acknowledgement of the importance of mental well-being.

### Conclusions and Key Points

The progression of school nursing in Estonia demonstrates a longstanding dedication to student health and well-being, with recent regulatory adjustments bolstering the independence of practitioners. The inclusion of mental health nurses within the Foundation for School Health Care in Tallinn signifies a comprehensive approach to student welfare. The external audit report indicates that the Foundation's service provision meets all requirements for top quality.

Oral presentation

# HEALTHY SCHOOL LUNCHES ON PRIMARY SCHOOLS IN THE NETHERLANDS – A MIXED METHODS FEASIBILITY STUDY

### A.W. Van den Berg1,2, A.Wargers1, W.Jansen1,3

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Background and aims: The diet of most children in the Netherlands currently does not meet dietary recommendations. Especially in socio-economic disadvantaged groups this is a major problem. Healthy school lunches can contribute to healthy eating behaviours in children. Unlike many other European countries, Dutch primary schools do not commonly provide a (healthy) school lunch, although research has shown positive effects on children's food consumption quality and that children, parents and teachers would like to continue with healthy school lunches. This study aims to determine the feasibility and factors influencing the feasibility of healthy school lunches on primary schools in The Netherlands.

Methods: Observational cross-sectional study using quantitative and qualitative methods including a questionnaire and focus groups. Directors of all primary schools in the municipality of Rotterdam, a city with many disadvantaged groups, receive a questionnaire which focuses on the current state of providing school meals, (future) demand for school meals and specifically healthy lunches, acceptability of healthy school lunches and perceived barriers and facilitators for implementing a healthy school lunch. Semi-structured focus groups with staff of schools focus on feasibility of healthy school lunches in Rotterdam and school-specific implementation. Participating schools in focus groups are schools who have implemented a healthy school lunch for 18 weeks during academic year 2023-2024.

Results: Data collection will be completed by the end of academic year 2023-2024. This study will provide an overview of the current state of and future demand for provision of healthy school meals on primary schools in Rotterdam (ca. 215), that will be shared during EUSUHM. Topics regarding feasibility include acceptability (i.e. acceptance of healthy school lunches, satisfaction with school lunches if implemented), demand (i.e. interest to continue healthy school lunches, perceived benefits and disadvantages of healthy school lunches), and practicality (i.e. barriers and facilitators for implementing a healthy school lunch, effects of healthy school lunches). Furthermore, exploratory analysis will be performed to see whether differences in feasibility of and demand for healthy school lunches can be found between different city districts, type of school, deprivation scores and having health promoting programs at school.

Conclusions with Take Home Messages: This study will give insight in the feasibility and factors influencing the feasibility of implementing healthy school lunches at primary schools, as perceived by school directors and by school staff involved in implementation. First study findings will be shared during EUSUHM. Take home messages regarding the feasibility of healthy school lunches and implications for policy and practice will be presented.

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# EXPERIENCES OF PREVENTIVE CHILD HEALTHCARE PROFESSIONALS USING 'SINDA' TO ASSIST IN EARLY DETECTION OF INFANTS AT HIGH RISK OF NEURODISABILITY

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### Background

The road to diagnosis and treatment in children with neurodisability often takes several years, resulting in a long period of uncertainty and lack of timely intervention and adequate support for caregivers. Earlier identification would allow for early intervention, thereby gaining health for the child and promoting families' well-being. Detecting children at high risk of neurodisability is a critical task of preventive Child and Youth Healthcare (CYH), however it is challenging and no specific tools are currently available. Recently the Standardized Infant NeuroDevelopmental Assessment (SINDA), with a neurological, developmental, and socio-emotional scale, was developed to detect infants (0-1 years) at such high risk. Its simple and structured design may make it suitable for application in CYH. We aimed to explore the potential added value of SINDA in the CYH system.

### Methods

In a mixed-methods study, 25 CYH professionals were trained in SINDA and conducted SINDAs in local CYH services for ten weeks, after which implementation scenarios were explored in focus groups. Their experiences with opportunities, barriers and requirements for SINDA implementation were evaluated using a questionnaire based on the Measuring Instrument for Determinants of Innovations (MIDI) (mean±SD scale 1-5).

### Results

CYH professionals considered SINDA easy to perform  $(3.9\pm0.62)$ . It strengthened them in their skill  $(4.4\pm0.63)$  and ability to detect at-risk-children  $(4.1\pm0.33)$  and facilitated parent counseling  $(4.2\pm0.39)$ . The main barrier was organizing time to perform SINDA within current settings  $(2.1\pm0.90)$ . Support by CYH organizations  $(4.4\pm0.70)$  was considered a prime requirement. In focus groups, all professionals indicated they wanted to integrate SINDA into daily practice, particularly in response to signals as professional intuition or parental concerns.

Conclusions

According to CYH professionals, SINDA is a key supporting tool to early detect children at risk for neurodevelopmental disorders, offering possibilities for parent counseling and early intervention. Implementation in preventive CYH may benefit from discussion with stakeholders on support and time allocation.

No conflict of interest

Oral presentation

# ADHD (ATTENTION-DEFICIT HYPERACTIVITY DISORDER) AND ITS COMORBIDITIES AMONG AN ACADEMIC STUDENT

### Tiina Tikkanen , Aleksi Varinen

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### Case Description

The patient is a 20-year-old woman. She has no previous psychiatric patient history. She hasn't any major health concerns considering her lifestyle habits.

She contacted student health care because of problems in her daily life. These problems had existed her whole life, but previously she had managed without any major difficulties. As a child, she had gotten a lot of support from her parents and from her school personnel. Even if she was motivated for her studies, she had not passed any courses during the first year of her studies. The symptoms she reported were, for example forgetfulness, difficulties in concentration and mood regulation, feeling of restlessness. She didn't have any significant symptoms of depression or anxiety.

After comprehensive investigations, the symptoms of the patient were diagnosed as attention-deficit hyperactivity disorder, ADHD.

### Intervention

The patient was prescribed with methylphenidate medication. She reported positive effects after beginning the medication and was willing to continue it.

At a control visit six months later she reported that she still forgets daily routines easily and cannot concentrate in her academic studies. She also described that she still gets stuck easily to various kinds of things.

Because of these continuing problems the patient got a recommendation for a neuropsychological rehabilitation. Furthermore, support from her academic institute and from her municipal social work were recommended.

At a control visit one year later the patient still reported problems in her daily life despite she was receiving medication, neuropsychological rehabilitation, support from her academy and support from her social worker.

She had thorough psychological examinations done once more. In these, the symptoms of the patient seemed to fit in to autism spectrum disorder as well.

### Take Home Message

ADHD is a congenital neuropsychiatric disorder. The exact psychopathological mechanisms behind it are still under research. The prevalence of ADHD is supposed to be from 2,5 % to 3,4 % among adults.

A new diagnosis of ADHD in adulthood requires that the typical symptoms have already existed before the age of twelve. Various comorbidities, such as depression, anxiety, substance addiction and autism spectrum disorders are common among adults with ADHD.

The treatment of adult ADHD is of same kind as of children. Medication is widely used, alone or together with various kinds of psychological interventions.

Now days it often seems that a diagnosis of ADHD is a quite easy answer to a complex group of various symptoms. The diagnosis of ADHD in adulthood especially must be carefully made while evaluated the possibility of other conditions with similar symptoms. Re-evaluation of the diagnosis must be considered if the condition of the patient is not improving with the treatment chosen.

No conflict of interest

Oral presentation

# THE ROLE OF SELFHELP ORGANISATIONS FOR CHILDREN WITH SPECIAL NEEDS – BRIDGING SECTORAL GAPS

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Background and aims

Kindernetzwerk e.V. (knw) is one of the German self-help umbrella organisations. knw focusses on organization for self-help of families with children and young adults with chronic (rare) diseases and disabilities. With its member organisations it represents around 200,000 affiliated persons.

Childrens health, welfare and development should, from the knw point of view, not be thought in sectoral frontiers. Therefore, we would like to introduce two major approaches to helping these sectors to get in closer contact and to fostering a joint support of the affected families.

One of our major goals is to improve the collaboration between the education and the health sector. An important reform in German legislation concerns the "Inclusive Solution" of the German social code. Making participation in this legislation for the affected families possible, we organized a thinktank for parents who care for children with special needs. We want to explain to the responsible persons in politics and youth welfare how integration assistance in kindergarten and schools is possible. The view of the caregivers and the children with special needs is important. As an umbrella association we have the chance to involve families across diseases and needs. Though we can contribute to improve mutual understanding between the education and the health sector.

In addition, for overcoming sectoral frontiers, we need instruments to allow communication across them. In a project funded by the Federal Ministry of Health (BMG) we therefore developed an application: unrare.me. Unrare.me offers an AI (artificial intelligence) driven matching of people with special health and welfare need as well as experts supporting them (e.g. doctors, self-help, youth welfare). Individual knowledge that is currently fragmented (e.g. due to sector boundaries or because the problem is too rare) and is difficult to find should be bundled and made accessible to those affected and the experts. Through this new type of knowledge transfer, people with special needs are supported in many ways: emotionally, psychologically and instrumentally through helpful knowledge. Experts are supported in their work. To further develop this new possibility of communicating and interacting between patients and experts new applications in healthcare, research and health departments can be developed based on unrare.me.

Methods

Think tank "Inclusive Solution": participation platform, using qualitative interviews, focus group survey.

Unrare.me: App-development and evaluation in cooperation with the Center for rare diseases Bonn and the Medical University of Hannover

Results

The affected families need more resources in the educational and the health sector. The responsible persons in both sectors should share more information to assure the best possible treatment and support them in a family centred way.

Conclusions with Take Home Messages

Let you guide by the families needs and not sectoral frontiers.

No conflict of interest

Oral presentation

# A GUIDELINE FOR VIDEOCONSULTATIONS IN PREVENTIVE YOUTH HEALTH CARE

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### Background and aims

The use of videoconsultations in Dutch Preventive Youth Health Care (PYHC) took a flight during the COVID-19-pandemic, coinciding with the implementation of distancing measures. However, its utilisation in PYHC was not formally outlined in policy and guidelines, resulting in inconsistencies in its application and uncertainty among professionals regarding its appropriate use. Therefore, our aim was to develop a guideline for PYHC-professionals on the use of videoconsultations, to aid the use in daily practice.

### Methods

We conducted a systematic review of the literature on videoconsultations, along with gathering and reviewing of guidelines and grey literature about videoconsultations. Additionally, we investigated the experiences and needs of parents and PYHC-professionals through digital questionnaires. Interviews were carried out with parents who have low-literacy and education levels, to further explore their specific needs.

### Results

No literature was found on videoconsultations in the preventive setting, such as PYHC. Of the professionals, 60% would like to continue using videoconsultations in the future. Approximately half of the parents expressed a desire to increase the possibility of videoconsultation appointments. Parents (n=54) tend to be more positive about video calling than professionals (n=72). Professionals rate videoconsultations appointments on average with a 6.4 (scale 1-10, range 2-9), while parents rate them on average with a 7.8 (scale 1-10, range 4-9). For professionals it took effort to adjust their consultations to videoconsultations. Parents with low-low-literacy and education levels are also interested in the option using videoconsultations, they prefer the use of WhatsApp over programs like Teams and Zoom.

Based on the literature from other settings, experiences and needs of professionals and parents, a guideline-module was developed on videoconsultations in PYHC. We also developed a summary card for professionals and an information brochure for parents about videoconsultations.

Conclusions with Take Home Messages

After the COVID-19-pandemic, the use of videoconsultations in PYHC declined and did not become part of the regular procedures in Dutch PYHC. Nevertheless, a large number of parents and professionals would like to have the option of videoconsultations. Equipped with the guideline-module, the summary card and an information brochure for parents, they have tools to optimize the use of videoconsultations in the future.

No conflict of interest

Oral presentation

# RELIABILITY OF PARENT- AND SELF REPORTED HEIGHT AND WEIGHT MEASUREMENTS FOR USE IN PREVENTIVE YOUTH HEALTH CARE

### Deurloo J1,2, van Dommelen P1, van Zoonen R1

1TNO Child Health, Leiden, The Netherlands 2GGD Holands Noorden, Alkmaar, The Netherlands

### Background and aims

In Dutch Preventive Youth Health Care (PYHC), there is debate regarding the usefulness of parent- and selfreported (PR/SR) height and weight measurements. These measurements could be used in addition to measurements conducted by PYHC or as a replacement when contact occurs over the phone or digitally, however their reliability is not known. The aim of our study was to determine the reliability of height and weight measurements performed by parents and/or children for use in PYHC.

### Methods

A systematic literature search was performed for studies on the reliability of height and weight measurements conducted by parents and/or children. The studies had to include results of parent/self-reporting as well as height and weight measured by a healthcare professional. Correlation coefficients were categorized according to international standards, so different coefficients could be reported together.

### Results

Twenty-two studies were included in the review, the majority was performed in European countries and the United States. Twelve studies involved self-reporting by children (aged 6-19 years, n=62 to 3,379), nine studies involved measurements reported by parents (children aged 1-13 years, n=42 to 6,373), and one study involved both self-reporting and parent-reporting (children aged 8-13 years, n=875).

The correlations between PR and measured height between the studies were moderate to very strong. There was a larger variation for SR and measured height: fair to almost perfect. Studies with younger children and smaller numbers of participants tended to have a lower correlation.

The correlations between PR and measured weight between the studies were very strong to almost perfect, while for SR and measured weight the correlations were moderate to almost perfect.

The mean difference between PR and observed height ranged between -5.3 cm to +0.4 cm. For SR height this was -3.2 cm to +1.9 cm. For weight the mean difference between PR and observed weight ranged from -3.9 kg to -0.1 kg. For SR weight the range was -3.6 kg to +1.3 kg.

Conclusions with Take Home Messages

Although parent-reported weight shows promising correlations to measured weight, the results across the different studies vary considerably. The mean differences between reported and measured height and weight show a considerable range, with outliers of -5.3 cm and -3.9 kg respectively. For monitoring individual height and weight, we currently do not recommend using PR/SR height and weight for use in PYHC, as the measurements may lack reliability. Further research is necessary to determine how to increase the reliability of PR/SR height and weight, so they can be used in Dutch PYHC.

# RELIABILITY OF PARENT- AND SELF REPORTED HEIGHT AND WEIGHT MEASUREMENTS FOR USE IN PREVENTIVE YOUTH HEALTH CARE

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# GUIDELINES, CURRICULA THE IMPORTANCE OF NURSES AND NURSE PRACTITIONERS IN YOUTH HEALTHCARE

Betty Bakker - Camu, Vera Klamer - de Lepper, Annet de Jonge - Cornelisse V&VN (professional association for nurses and nurse practitioners) GGD Fryslân (youth healthcare organization)

Background and aims:

We will start with an introduction about the development of the most recent edition of the area of expertise of the youth health nurse. In previous conferences of EUSUHM, the importance of the youth health nurse was discussed and the profession continues to evolve.

In addition to the important role of the youth health nurse, we introduce the role of the Nurse Practitioner (NP) in Youth Healthcare (YHC). The NP is an unknown profession in many European YHC organizations. Because several studies in various healthcare sectors show the added value of the NP, this is an opportunity dearly missed. By implementing the profession of the NP, tasks are taken over from doctors. In hospitals and elderly care, for example, task rearrangement with a NP is already being successfully applied. In the Netherlands, the first NP in YHC started in 2003 and the number of NPs in YHC has now increased to 70 professionals.

The NP is an independent managing practitioner, an expert in generalist care and works as an advanced nurse. By combining nursing and medical practice, the NP offers an integrated range of care that is very broad and plays a connecting role in creating optimal care. The NP is able to connect care and cure at the micro, meso, and macro levels, and this has benefits at all levels. In addition, although shortages of YHC doctors are increasing, continued health care can be provided, due to the NP taking over tasks. It is important that YHC organizations start to recognize the NP as a solution to the deficit of doctors and the increasing complexity of care.

### Methods:

Dialogue with participants of the workshop to discuss the possibilities and opportunities related to the competences of the nurse practitioner in different European countries and the societal challenges in which Youth Healthcare plays an important role.

Results and conclusion:

In this workshop we intend to inspire participants to experience the added value of the nurse practitioner in youth healthcare and stimulate participants to consider the possibilities and benefits of deploying and train nurse practitioners in their own country.

Oral presentation

## FOCUS ON KNOWLEDGE AND RISK PERCEPTION OF PREVENTIVE CHILD HEALTHCARE PROFESSIONALS IN NATIONAL IMPLEMENTATION OF THE INFANT STOOL COLOUR CARD

Dr. L.T. Warris, L. Dogger, Prof. dr. S.A. Reijneveld, Prof. dr. J.B.F. Hulscher Dr L.T. Warris: University Medical Center Groningen / Netherlands School of Public & Occupational Health, Hanzeplein 1, 9713 GZ Groningen, The Netherlands L. Dogger: Netherlands School of Public & Occupational Health, 10th floor, Churchillaan 11, 3527 GV Utrecht, The Netherlands Prof. dr. S.A. Reijneveld and Prof dr. J.B.F. Hulscher : University Medical Center Groningen, Hanzeplein 1, 9713 GZ Groningen, The Netherlands

Background and aims Biliary atresia is a rare life-threatening cholestatic disease of early infancy with an incidence of approximately 10 children every year in the Netherlands. Delay in diagnosing biliary atresia due to insufficient recognition of symptoms of neonatal cholestasis, such as prolonged jaundice and pale-coloured stools, is a major problem. Use of the Infant Stool Colour Card (ISCC) in other countries resulted in earlier diagnosis and Kasai operation (<60 days) of infants with biliary atresia, which led to an improved survival.

The use of the ISCC is therefore advised to youth health care organisations in the upcoming Dutch national guideline Neonatal Cholestasis, in addition to the current advise to perform a bilirubin assessment at 3 weeks in case of prolonged jaundice. In that guideline, the ISCC has to be introduced to parents at two weeks in a home visit by a youth healthcare nurse. Its outcomes have then to be discussed at the first visit to the youth healthcare doctor at the age of 4 weeks. Currently, the youth health care organisations in the Netherlands are under pressure by labour shortages, which could potentially influence implementation. We therefore aimed to analyse the facilitating and hindering factors for implementation of the ISCC.

Methods We performed a qualitative study with semi-structured interviews performed in youth health care organisations in the Netherlands. To maximize variability, we selected participants from different professions (physicians and nurses) and from both small and large organisations spread over the country. We included organisations that already officially implemented the ISCC, and organisations that did not work with the ISCC yet. Participants were involved with or responsible for the organisational policy regarding hyperbilirubinemia (including biliary atresia).

The interview topic guide was based on the Consolidated framework of Implementation Research. We transcribed the interviews verbatim, and coded them using ATLAS.ti software.

Results Ten of 17 approached youth health care organisations participated (10 physicians and 3 nurses), among which all three organisations that officially implemented the ISCC. Within these three organisations the use of the ISCC varied between teams, because the rationale behind the ISCC was not clear for all professionals. A major contributor was a lack of effective maintenance of the intervention within the organisations. Professionals that used the ISCC, said it is simple and costs little time. Collaboration with general practitioners and paediatricians was considered essential during the implementation and maintenance phase.

Within organisations that did not implement the ISCC, the need to perform a bilirubin assessment in case of prolonged jaundice and the rationale behind the ISCC were not completely clear. Professionals had inadequate knowledge of the clinical presentation of neonatal cholestasis and inadequate risk perception.

Conclusions with take home messages This qualitative study shows that improving knowledge and risk perception about neonatal cholestasis in youth healthcare professionals is needed. On top, more effective maintenance of the intervention is required to successfully implement the use of the ISCC in Dutch youth healthcare organisations. Thereby professionals will understand the need to use the simple ISCC and follow the guideline, which will lead to earlier diagnosis and surgery of infants with biliary atresia and an improved survival.

### WHAT IS DISABILITY? MAKING THE VARIOUSITY OF RARE DISABILITIES VISIBLE FOR MEDICAL STAFF.

### Sarah Brandsmeier, Leonie Welsch

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### Background and aims:

To Reduce knowledge gaps and prejudice against patients with rare diseases as well as promote straightforwardness and feeling save by handling people with these rare diseases are our aims for this congress as well as for projects in the future.

The Background in the health care system is that there exist between 6.000 and 10.000 rare diseases. If you compare this to the population size medical staff as well as doctors will see a lot of people with rare diseases during their medical carrier. At the moment, the provision of medical care for patients with a rare disease is more than catastrophic. Most of them won't be well cared by medical staff, some even won't get any sort of medical intention. Only a small amount of doctors knows about these different and rare conditions and are able to treat them properly. Often patients with complex symptoms will be ignored and they are told that everything is only in their head. Sometimes they are even called liars, idiots or get called dumb. But there isn't even a reason to do so, as long as enough doctors are determined to get to know more about rare diseases and their various forms.

For the future it is important to not overlook these diagnoses. It is noteworthy to respond to these diseases and to find some individual solutions as well as some intermediate solutions for these patients, this would lead to a better integration in daily life and as a consequence it should also lead to a good provision of medical care for rare diseases as a normality. Therefore, it will be a major key to teach awareness already during medical school. Students has to be shown that rare diseases exist and how they can look like. Not every disease looks the same. Some are even not visible. Also, with the same rare diseases the outcome will look different. The students, later doctors, patient clientele is so wide-ranging, they can easily be overlooked and we want to prevent that. The med students should naturally learn from the start to care for patients with rare diseases despite the age, visibility or rare occurrence of a disease. Also, medical staff including nurses, MedTechs physio therapists and so on can be part of these lectures.

#### Methods:

Disabled Patients with different rare diseases are holding a lecture to a plenum of med student, doctors and medical staff in a lecture theatre of university hospitals. They report about the criteria of some rare diseases and how they affect the daily life, as well as about their personal journey through life. In the aftermath there will be time for questions and some clinical tests and anamnesis done by med students.

Therefore, med students as well as medical staff and doctors profit by examining different morphologies, external characteristics and movement patterns connected with the ability to ask questions and discuss everything.

#### Results:

As a result, there should be an improvement of the provision of medical care for patients with rare diseases. Accordingly medical gaslighting should reduce and the connection of patients with rare diseases should be guaranteed, so that a competent medical care is connected with interdisciplinary work.

Take-Home-Message:

There are a lot of different rare diseases and their appearance vary. So, everyone working in the medical field and treating patients should always be aware that their patient could have a rare disease. Please do us a favour and forget the ancient Quote "If you hear hoofbeats, think horses not zebras". Stay alert and trust your gut.

Authors: Sarah Brandsmeier, Leonie Welsch

# IMPROVING SCHOOL ATTENDANCE: THE ROLE OF SCHOOL HEALTH SERVICES

#### Dr. Pijl, EK , Dr. Graczyk P

Child and youth Healthcare physician, GGD West-Brabant, Breda, The Netherlands. Assistant Professor of Clinical Psychology, The University of Illinois Chicago, USA.

School attendance is crucial for children's development and future health. Missing school has negative consequences for the child, such as lower educational achievement, school drop-out and poor peer relationships. School absenteeism can be caused by a variety of underlying problems, such as an illness, anxiety or bullying. Research shows that improving school attendance requires collaboration across sectors, including education and healthcare. However, in practice, there are large differences between European countries on how school attendance problems are addressed and how school health services are involved.

In this round table we present two evidence-based innovations to improve school attendance: the international school attendance teams and the Dutch child and youth healthcare approach to sickness absence called 'Medical Advice for Sick-reported Students'. Additionally, we will introduce the 'Multi-Dimensional Multi-Tiered System of Supports' (MD-MTSS) framework, which is a data-driven framework focused on prevention. We invite participants to discuss the roll school health services have in improving school attendance based on their own expertise and the situation in their country.

We aim for the round table discussions to help define the role of school healthcare professionals in improving school attendance. Increasing awareness of the importance of school attendance and determining the role of European school health services will improve the further development of international interventions and may ultimately contribute to reducing school absenteeism and improving public health.

### DEVELOPMENT, EVALUATION CONTINUOUS ADAPTATION OF AN IT-BASED DATABASE OF THE WORK OF SCHOOL NURSES IN BRANDENBURG OVER FIVE YEARS

Johann Böhmann, MD Delmenhorst Institut for health promotion, 04221 9813833

The profession of a school nurse has hardly been known in the (West) German school system. The innovative project has until now only been implemented in a few places. The pilot project "school nurses in Brandenburg" was built on the practice of many years of international experiences.

According to the international situation dissemination is wanted by many professionals and needs an appropriate database especially to convince policy makers.

Because of missing experiences, it was- and is- crucial to document, analyze and reflect on everyday practice. This is a challenge in the often hectic daily school life with many uncertainties and processes that are difficult to plan.

On the other hand, a documentation system had a large number of tasks with sometimes contradictory objectives: It had to be simple, but detailed enough to meet scientific, legal and administrational requirements.

Any data input has to be easily applicable and at the same time reliable. Reliable analyses are of central importance for the school nurses themselves, for the administration, but also for training needs and scientific evaluation.

The database was developed in close cooperation between the AWO Bezirksverband Potsdam e.V. and the Delmenhorst Institute for health promotion (DIG) and Ipinternetconsult® (DK).

A workgroup of practitioners (school nurses), medical doctors and IT specialists has developed a learning system in a highly participatory process over several years.

The questions to be answered by an information system were:

What do the activities of the school nurse look like on site in the schools? How are they utilized and what are the pupils' health support needs? What is the cooperation within and outside the school like? Can the school nurse improve pupils' participation in education? How is the innovative task of networking with local stakeholders implemented? What is their mediation function in the medical care system?

The recording therefore includes the reason of presentation, all activities and interventions.

An automatic tool for evaluation and visualization (dashboard) was additionally developed, to meet the needs for easy information of many stakeholders- first the school nurses themselves for reflecting and evaluation of their daily work.

The database system developed, has proved its worth in recent years, as numerous analyses have shown. Examples are presented.

There is a great need for dissemination of this project, particularly in view of the increasing number of medical and mental health problems.

Oral presentation

### PREVENTIVE CARE PATHWAY AFTER AN ABNORMAL SPEECH-IN-NOISE TEST IN THE CENTRES FOR PUPIL GUIDANCE IN FLANDERS: EXPERT CONSENSUS

### Seghers Alexandra , Vanlander Anouk

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#### **BACKGROUND & AIMS**

The importance of good hearing and, in the absence of it, the consequences in various areas of life (social, emotional, educational, financial, etc.) are well known. Moreover, the prevalence of hearing problems is increasing rapidly, so that the human and social cost will only increase in the coming years. Environmental factors such as exposure to noise play an important role in this. On the other hand, early detection and an adequate approach can limit the impact of hearing problems on functioning.

That is why in 2014 the Centres for Pupil Guidance started rolling out a hearing screening programme using a Speech-in-Noise (SPIN-) test for 10- to 15-year-old adolescents. The test is very sensitive to the onset of subclinical neurosensory hearing loss. Unfortunately, the lack of an unambiguous follow-up process turned out to lead to frustration among both the Youth Health Care Professionals and the curative colleagues. In addition, it risked that part of the effect of early detection would be cancelled out.

#### METHODS

A literature review could not answer the question about the ideal follow-up after a hearing screening with a Speech-in-Noise test because of the limited experience with this. Therefore, we had to resort to an expert consensus. To this end, a group was put together consisting of, in addition to Youth Health Care Professionals, audiologists, otorhinolaryngologists, and a physicist, affiliated with various Flemish universities, colleges, university hospitals and rehabilitation centers.

To reach consensus, we used the Delphi methodology. The term 'consensus' in this context signifies neither unanimity nor compromise. Instead, it is a "reach" that most participants could agree with.

Participants were asked to rate statements on a Likert scale from 1 (strongly disagree) to 9 (strongly agree). As a cut-off point for reaching a consensus, a median of at least 7 was determined in advance with ideally at least 70% of the participants agreeing (score 7-9). Due to the small size of the expert group, the latter criterion could not always be fully met. When there was a clear trend, these statements were still considered to be supported by the group.

### RESULTS

After a first live meeting to explore the subject, the course to be followed became clear in 2 consecutive rounds of Delphi surveys. A concluding meeting resulted in the fine-tuning of some decisions that were more difficult to make. The concept note was presented to the experts with the opportunity to submit their objections before it was presented to the funding government.

Before the care pathway after a deviating SPIN-test can be rolled out in practice, the following steps still need to be carried out: a pilot study, informing and training the curative colleagues and the necessary adjustments to the electronic pupil file used in the Pupil Guidance Centres.

### CONCLUSIONS

Early detection of an increased risk of neurosensory hearing loss due to noise damage is only useful if appropriate diagnostics can follow. When international experience with a screening instrument is still limited, a literature review does not provide an adequate answer to the question of the appropriate approach. Through a combination of a Delphi methodology and consultation, we came to an expert consensus on the approach to be followed. With this preventive care pathway, we hope to build a new bridge between prevention and curation.

### BUILDING A SUPPORTIVE NETWORK FOCUSING ON CHILDREN WITH MENTALLY ILL PARENTS – ENHANCING COMMUNITY-BASED MENTAL HEALTH CARE IN THE EU

Dervishaj, Linda

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The EU-funded Joint Action (JA) ImpleMental (2021-2024) aims to provide an improved well-being among citizens and lower the suicide-rate in Europe by supporting 21 participating countries and 39 institutions in implementing two best practices in the area of mental health. Drawing from the Belgian reform model, core elements are being adapted and piloted in a local context. The aim is a transformation of the healthcare systems towards community-based mental health care. Key elements include building multidisciplinary networks, developing collaborative strategies, covering diverse functions of care, developing outpatient and outreach care, and including peers in care planning. The pilot projects target various groups, utilize different core elements and offer varying levels of intervention.

In Germany, the need to address the challenges faced by children with mentally ill parents is a priority. The issue of this vulnerable group is well-known among professionals, but strategies for early intervention and coordinated support are still lacking due to the fragmented healthcare system divided between inpatient and outpatient services and various laws and sectors. The role of municipalities in healthcare, although recognized in the prevention law of 2015, needs to be strengthened to effectively address the mental health needs of children with mentally ill parents. The National Prevention Conference in Germany has therefore identified this group as a crucial focus for mental health prevention.

The mental health of students in educational institutions has been a concern even before the onset of the Covid-19 pandemic. The recent impact of the pandemic has emphasised the vulnerability of these groups, necessitating special protection and treatment options. Teachers

and students are showing an increased need for actionable solutions and knowledge to address mental health issues effectively.

To address these challenges, key stakeholders and networks in the community were assessed through 39 interviews across various sectors (medicine, social services, kindergartens, schools, youth welfare, public safety, administration, midwifery, etc.). These interviews played an important role in the mapping process and provided valuable insights to different perspectives. This led to the establishment of a multidisciplinary network aimed at raising awareness, fostering collaboration, and addressing the diverse needs of individuals. Early prevention, detection and treatment of mental health problems were identified as fundamental, highlighting access to support services for all ages across the life course. Early preventive interventions are crucial in breaking the cycle of intergenerational mental health issues and reducing stigma. Providing information and psychoeducation, particularly in educational settings, plays a vital role in promoting mental health and combating stigma. The challenges, opportunities, and outcomes of this approach are discussed.

### BUILDING A SUPPORTIVE NETWORK FOCUSING ON CHILDREN WITH MENTALLY ILL PARENTS – ENHANCING COMMUNITY-BASED MENTAL HEALTH CARE IN THE EU

#### Dervishaj, Linda

Oral presentation

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### FOSTERING STUDENT WELL-BEING THROUGH FIVE PATHS & GAMIFICATION

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### ONYA - FOSTERING STUDENT WELL-BEING THROUGH FIVE PATHS & GAMIFICATION

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1Center for Applied Health Sciences, Leuphana University, Lüneburg, Germany

Abstract Topic: Mental Health

Oral presentation

Background and Aims: Promoting well-being among students is paramount for fostering their physical, mental, and social health. With rising awareness of the importance of holistic well-being, interventions targeting students' daily routines are crucial. ONYA is designed to integrate well-being-promoting activities seamlessly into students' lives, drawing upon the evidence-based "5 Ways to Wellbeing" framework [1,2]. Through gamification and the "5 Ways to Wellbeing" framework, ONYA aims to empower students to prioritize their health in an engaging and sustainable manner.

Methods: ONYA utilizes a gamified approach to encourage students to engage in activities that enhance their well-being across five pathways: Be active, Keep learning, Connect, Take notice, and Give. By incorporating elements of play and reward, ONYA aims to establish sustainable health-promoting habits among secondary school students.

Results: The ONYA application offers an innovative solution for fostering student well-being by integrating evidence-based strategies into a user-friendly interface tailored for secondary school students. Through the diverse activities offered via ONYA, preliminary observations suggest an increase in student engagement with well-being practices.

Conclusions with Take Home Messages: ONYA represents a promising tool for promoting student well-being by leveraging the principles of gamification and evidence-based strategies. The integration of the "5 Ways to Wellbeing" framework provides a structured approach for students to cultivate habits that support their overall health and happiness. The forthcoming pilot study in May 2024 will further assess ONYA's effectiveness in enhancing the user experience and fostering sustainable well-being practices among students.

Case Report: Case Descriptions Including Health and Education Needs: ONYA addresses the growing need to prioritize student well-being in educational settings, acknowledging the interconnectedness of physical, mental, and social health among adolescents.

[1] Aked, J., Marks, N., Cordon, C., and Thompson, S. (2009). Five Ways to Wellbeing: A Report Presented to the Foresight Project on Communicating the Evidence Base for Improving People's Well-Being. London: Nef.

[2] Green J (2013) Evaluation of the 2012 wellbeing game. Canterbury District Health Board, Canterbury

# TREATMENT OF UMBILICAL GRANULOMA IN NEWBORNS WITH SALT: A FEASIBILITY STUDY

#### Maaike Kok1, Eva P. Timmermans1, Tjalling de Vries2

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#### Background

Umbilical granuloma occurs in about 1 in 50 newborns. It may lead to infection if left untreated. The gold standard for treating umbilical granulomas in The Netherlands is silver nitrate. Studies have shown treatment with salt (sodium chloride) to be safe and effective; this is the gold standard in the United Kingdom. When compared with silver nitrate, salt is safer on the skin, costs less and is more environmentally friendly. In this study we investigate the feasibility of treating newborns in Frisia, The Netherlands with an umbilical granuloma with salt instead of silver nitrate.

#### Methods

This is a single-arm feasibility study into salt treatment for umbilical granuloma in The Netherlands. Parents to newborns aged 10-14 days with suspected umbilical granuloma are informed about this study by a trained nurse during the first home visit of the Dutch preventive child healthcare scheme. If informed consent is given, newborns are included into the study at their first visit to the walk-in healthcare centre at >23 days post-partum. The first treatment is given after diagnosis by a youth healthcare physician. Instructions are given to parents, who carry out the next treatments at home, twice daily for three days. Parents and treating physicians take photographs of the umbilical granuloma before start of treatment and at several times post-treatment, and fill out questionnaires about the child's reactions and their own experiences. Data are stored anonymously and are analysed by two independent researchers. Based on a power of 0,80, a required sample size of thirty newborns was calculated.

#### Results:

To date, 21 newborns were included into this study. Results are therefore preliminary. Most (18/21) newborns were treated adequately for their umbilical granuloma by the salt treatment of 3 days. In one case, parents withdrew consent and requested silver nitrate treatment following the first salt treatment. In two cases, silver nitrate was used for a persistent granuloma after 3

days of treatment: parents declined extended salt treatment. Salt treatment was considered rather demanding and inconvenient in 9/21 cases. Redness of the skin around the umbilical granuloma was reported in 6/21 cases. No other complications of salt treatment were reported. Salt treatment was considered effective by professionals. In most cases, both parents and treating physicians were content with the treatment and its results.

Conclusions:

Salt treatment for an umbilical granuloma is safe but considered demanding by some parents, especially if a granuloma has not resolved after three days and extended treatment is required. Planning treatment around baths and sleeps was reported to be inconvenient by some parents. Of all newborns eligible for this study, about half the parents declined inclusion because they considered the treatment too much of a burden. Although we feel that salt treatment for umbilical granuloma may be preferable to silver nitrate, it is important to realise that for some parents, treatment is considered too demanding, especially if prolonged treatment is necessary.

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### TALKING ABOUT THE IMPACT OF STRESS

Dr. Liesbeth Meuwissen, Drs Feia Hemke, Municipal Health Services (GGD) Regio Utrecht General Practionar, Utrecht

Background and Aims:

Many adolescents and parents are suffering from the impact of stress. The understanding of the relationship between chronic stress and health issues has significantly increased in recent years. Early life stress has a major influence on health. Chronic stress leads to physical and mental health problems. People from lower socio-economic-background suffer more frequently from chronic stress. And people with chronic stress have limited possibilities to absorb information during the consultation. Physicians often face challenges in providing concise and clear explanations regarding the implications of stress, leading to patients feeling dismissed or not taking seriously.

The aim of this research is to develop materials that assist primary health care (PHC) in addressing stress-related complaints by offering explanations that provide insight and actionable perspectives to young people and their parents. This approach aims to enhance the effectiveness of consultations and subsequently improve the job satisfaction of medical professionals.

Method

We employed a mixed-method research approach utilizing participatory learning action methods involving a diverse group of stakeholders. Through co-creation with individuals from diverse cultural backgrounds and lower educational level, students, PHC Physicians, youth health care (YHC) physicians, psychosomatic physiotherapist, psychologists and scientists, we developed illustration sheets for use in the consulting room alongside 4 animatic movies designed to be watched at home. Coming period, a feasibility study will be conducted to assess the impact of these materials on the consultations.

Results.

Preliminary results are promising. Medical professionals started using the illustration sheet to explain the relation between stress and complaints. Subsequently, they direct clients to watch the four-minute movies at home. They cover the subjects: physical and behavioural effects of stress, the origins of stress and strategies for stress-reduction. During the second consult the need for further support can be elaborated. Feedback from the 10 GPs, 20 YHC-Physicians and 28 trained YHC-Nurses has been enthusiastic. The post-training questionnaire revealed that over 80% of the professionals intend to integrate these materials in their daily practice. A

follow-up questionnaire will be administered after 3 months, to evaluate their experiences practice, with results to be presented at the EUSUHM congress.

Conclusions with Take Home Messages

Communicating clearly about stress and the impact on body and mind is challenging. However, this new approach shows promise in supporting medical professionals in addressing stress-related complaints by providing insight in the interconnectedness of mind and body; aiding the identification of stressors, and as such stopping the medicalisation of social problems; giving insight in the impact of healthy lifestyle and thus strengthening prevention; and fostering unity in language among medical professionals and increasing job satisfaction.

Conflict of interest Nothing to disclose

### THE FIRST RESULTS OF A SLOVENIAN NATIONAL THREE LEVEL MODEL OF OBESITY PREVENTION AND TREATMENT IN SCHOOL CHILDREN AND ADOLESCENTS

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Background and aim: Overweight and obesity in children and adolescents increased during the epidemics of Covid 19. The multidisciplinary intervention seems to be effective in prevention and treatment of obesity. The model of three level overweight and obesity treatment were developed and implemented in Slovenia. This presentation aims to assess the effectiveness of a program.

Methods: The results of national SLOfit surveillance system (SLOfit) were used to assess body mass index (BMI) and physical fitness. The SLOfit consists of a battery of eight motor tests, body mass and height, carried out in every April in schools. The age- and sex-specific mean percentile values for eight fitness tests were used to calculate a Physical Fitness Index (PFI) and BMI.

The Three level model consists of multidisciplinary primary health care intervention for overweight (BMI 91st - 98th percentile) and (or) hospital treatment for children with obesity (BMI over 98th percentile). The most important life style factors were addressed: nutrition, physical activity, mental health, motivation for change, the use of electronic media, and sleep. The children and adolescents with overweight or obesity were identified at regular school health checks and invited to join the primary care intervention (10 weeks of intensive family intervention and one year follow up - 3 checks). The close collaboration with schools and local communities was a part of the intervention.

For children with obesity and those in whom intervention at the primary level failed (190 to 230 per year in two centers), a multidisciplinary in-hospital introduction to a healthy lifestyle was provided. This consisted of 2 hospitalizations (10 days, followed by 5 days 6 to 8 weeks later), with 7 check-ups over 24 months. The average index of obesity of enrolled children and adolescents (BMI/BMI 98th percentile) dropped significantly over one year of follow-up (1.23 on admission, 1.10 at 6 months, 1.09 at 12 months; p<0.0001).

Children and adolescents with the most severe forms of obesity and complications were referred to the Department of Endocrinology, Diabetes and Metabolism, University Children's Hospital, Ljubljana. Efforts were focused on nonsurgical bariatric procedures and recently on the treatment of children with GLP-1 analogues. We also focused on identifying the genetic background of obesity, especially with respect to the genes of the leptin-melanocortin pathway. Recently, we performed next-generation sequencing in 1508 children and detected variants in the leptin-melanocortin pathway that influenced their weight in 6% of the population. In addition, all children with other monogenic obesity disorders, syndromic obesity such as Prader-Wiil syndrome, and hypothalamic obesity were managed and followed up regularly.

Results: The overweight and obesity in school children and adolescents in Slovenia decreased from (15.0%, 15.5%) and (5.9%, 5.4%) in 2020 and 2021 to 12.7% and 4.1% in 2023 respectively. However, the PFI was still below the pre-pandemic levels (2019/2020/2021/2022/2023 PFI for bOW 30.3/24.2/24.9/25.9/26.5 and 15.3/11.3/11.1/11.8/12.1 for being obese).

### Conclusion

With the three-level management protocol and with its broader effects on schools and public awareness we manage to decreased the percentage of overweight and obesity in children and adolescents to pre pandemic level. In the future, however, additional interventions to improve physical fitness will be needed.

### COMPREHENSIVE TREATMENT OF CHILDREN AND ADOLESCENTS WITH SPECIAL HEALTH CARE NEEDS IN EDUCATIONAL PROGRAMMES IN SLOVENIA

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Background and aims: In Slovenia, children and adolescents with special needs can be educated in mainstream primary and secondary schools (inclusion) with or without a personal assistant who takes care of physical needs. They can be directed to elementary schools with adapted programmes and institutions, where it is also possible to stay throughout the year, or only during the school year.

For children and adolescents with physical disabilities, there are two Education, Rehabilitation and Training Centres (CIRIUS) in Slovenia, where they receive comprehensive care from healthcare and education.

CIRIUS Kamnik presents a model of comprehensive care for children and adolescents (CA) with primary motor impairment for the whole of Slovenia, who, despite adaptations, are unable to attend school in the majority programme.

Methods: overview of educational programmes and health services at CIRIUS Kamnik in the school year 2023-24 and pathologies in CIRIUS Kamnik directed CA.

Results: In the school year 2023/24 there are 196 CA included in CIRIUS Kamnik, aged 6–26 years. 107 are educated in 3 primary school education programmes: an equivalent educational standard (38), a lower standard of education (23) and a specific education programme (46). 87 are educated in secondary education programmes: lower vocational programmes (22), vocational programmes (28), a vocational engineering programme (17) and a post-rehabilitation practitioner (20). 61 CA is using accommodation during the school year from Sunday evening to Friday, the rest come to the institution daily from home.

60 have light, 30 moderate, 41 severe and 54 CA have very severe motor impairment. All have at least one rare disease, with cerebral palsy predominantly (79). Most children have undergone genetic testing, including children with SMA type 2 (6), muscular dystrophy (5), Prader Willi syndrome (5). 11 CA have non-invasive ventilation and 1 have invasive ventilation.

All of them are considered multidisciplinary. The vast majority need some sort of medical devices.

Conclusions with Take Home Messages: Opportunities for education at different levels and multidisciplinary treatment at CIRIUS Kamnik by educational staff, social workers, psychologists, specialists in clinical psychology, nurses, physiotherapists, occupational therapists and speech therapists bring the advantages of comprehensive treatment in one place and thus less absenteeism, faster detection of deterioration of health and early intervention. Multidisciplinary approach offers a better quality of life for children and their families and enable later integration into the labour market, as these children are better integrated into society (social networking), have fewer health complications and are better treated (access to health services).

Conflict of interest Both authors of the article are employees of CIRIUS Kamnik.

### SHARING EXPERIENCE ON THE GROUND HEALTH OUTCOMES AND COST BENEFIT ANALYSIS OF SCHOOL NURSES IN GERMANY

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#### Background and Goals:

The federal states of Brandenburg and Hessen have exemplarily tested and partially implemented School Nurses in several public schools for the first time in Germany. Those School Nurses typically were responsible for specific areas of health care provision, for furthering health competencies and to manage various accident scenarios. That had an impact on students, their families, school staff, and the associated costs incurred through health issues in the school setting and beyond. The aim of this project was thus to demonstrate and quantify the benefits of establishing School Nurses in public schools in Germany.

Methods:

Investigating the health-economic value creation, a cost-benefit analysis of deploying School Nurses was conducted using case scenarios with or without a School Nurses, modelling the lifetime gain or societal costs incurrend. Also based on accident fund data of both states, ambulance usage levels were compared for schools with or without School Nurses in Brandenburg and Hessen in schools of similar types. For the same data set, a pre-post analysis was conducted at the respective schools with School Nurses to quantify the direct effect of their deployment independent of differences between the schools. In Hessen differences in the average medical treatment cost per accident at schools with School Nurses and comparative schools were also examined. Subsequently, potential savings were extrapolated for both federal states assuming a statewide implementation of School Nurses.

Results:

The analyses show that there is an earn back effect in the lifespan perspective for fifth-grade students with diabetes of €1 to €35. For mental illnesses, the earn back effect is €1 to €43. The results of the ambulance usage analyses in Brandenburg and Hessen demonstrate that the number of ambulance uses was reducted when School Nurses werde deployed in both states

and across all types of schools in the pre-post comparison. Also the pre-post comparision of average medical treatment costs per accident at Hessian schools with School Nurses showed a reduction in cost from an average of €220.94 to €188.53 per accident.

### Conclusion:

The results of this study demonstrate the positive economic effect of deploying School Nurses in public schools in two states in Germany, demonstrated both through the accident fund data analyses, as well as the lifespan scenario analyses.

Overall the benefit of access to a School Nurse results in the promotion of a health status and thus likely acdemically more successfull education path of the individual and concomitant economic benefits to society in general.

### UNIVERSAL SCREENING FOR FAMILIAL HYPERCHOLESTEROLEMIA: WHERE ARE WE NOW?

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Background: Familial hypercholesterolemia (FH) is probably the most common inherited metabolic disease with an estimated frequency around 1:300. It is characterized by abnormally high concentration of low-density lipoprotein (LDL) cholesterol in blood. Undiagnosed and untreated FH leads to premature development of atherosclerosis and early coronary heart disease (CHD) in 50% of men with FH by age of 50 and in 30% of women by age of 60. According to available evidence, childhood is the most appropriate time for detection of FH, allowing an early intervention through lifestyle changes and treatment and reverse cascade screening of parents.

Objective: Universal screening program in Slovenia has three stages. In the first stage, universal screening for cholesterol at the primary level is carried out as a part of preventive health check ups of all children before entering school, the second stage is carried out at the UMC - University Children Hospital Ljubljana for children with increased cholesterol levels where targeted genetic screening for FH is performed and the third stage is reverse cascade screening of their parents and siblings. Our first goal is to check performance of all three stages with the aim of possible improvement, also we aim to perform cost efficiency of the program.

Methods: Our research is prospective, non-interventional and cohort. It has been started in 2023 and it is still ongoing. The first part of the research takes place at the primary level – Capillary or venous blood sample is taken during routine checkups between age of 5 and 6, also the families are asked to complete a one page questionnaire to assess possible positive family history (dyslipaedemia, premature CHD in first or second grade relative). Children with measured serum cholesterol levels > 6mmol/l or >5.5mmol/l and positive family history are referred to tertiary level to University Children's hospital Ljubljana (UMC-UCH Ljubljana). The second and third part of the research takes place at UMC-UCH Ljubljana where genetic testing is performed. When diagnosis is genetically confirmed, reverse cascade testing of first-degree relatives is done.

Conclusion: To the purpose of detecting a significant number of children with FH there is a need for a universal screening program, although according to some studies it is not the most

cost-effective screening program. With an ideal implementation of screening program in Slovenia, an average of 60 children out of 18000 per generation with FH are expected to be detected annually, and for almost every child there would be a parent detected. This is followed by immediate treatment of the parents and intensive monitoring and treatment of the children. We will report the cost effectiveness of the screening in future publications.

### IMPACT OF COVID-19 PANDEMIC ON CHILDRENS DEVELOPMENT: FROM THE POINT OF VIEW OF MEDICAL FACULTY STUDENTS

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Aim: The COVID-19 pandemic has affected the lives of children as much as it has affected the adults so various studies have been conducted how pandemic changed the many facets of children's lives. Our Social Pediatrics Internship Education Program is designed to provide an understanding of the complex factors that impact children's health and to give a perspective on how the pandemic influence children in constantly changing current conditions. Our study aimed to understand the thoughts and perceptions of medical students who have completed a two-week program about the effects of the COVID-19 pandemic on developmental status of children.

Methods: Out of 455 fifth-grade medical students who had recently completed the program, 246 voluntarily participated in study. We asked medical students to write down seven effects that COVID-19 pandemic had on children. We used quantitative and qualitative methods to evaluate answers of medical students.

Results: The comments on the effects on the social development were prominently more common than other issues. Socialization problems and limitations in recognizing the surrounding environment in children (68.7%), and retardation in social development (41.1%) were found to be the most widely perceived negative effects. A reduction in playing games (15%), and separation from their healthcare worker parents (8%), have also been reported. Additionally, retardation in motor development (19.9%) was also indicated. Among the serious effects of COVID-19 on children reported were a failure in mental (15.1%), cognitive (16.3%), and language development areas (4.1%).

Conclusions: The findings of this study will contribute to the literature about medical students' awareness of childhood health problems during the pandemic period after social pediatrics internship where the highest susceptibility to developmental problems may occur.

Oral presentation

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### ALCOHOL AND TOBACCO CONSUMPTION AMONG ADOLESCENTS IN THE FEDERAL STATE OF BRANDENBURG

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#### Background and aims

Several studies, such as Brandenburg Youth and Substance Consumption (BJS) survey, investigate adolescent substance consumption in the state of Brandenburg. Additionally, data from Public Health Service (ÖGD) offer new insights into alcohol and tobacco consumption among young individuals for the first time in the 2022/23 school year. One of the tasks of the ÖGD in Brandenburg is to examine school-leavers (SAU), including the initial examination in accordance with Section 32 of the Youth Employment Protection Act (JArbSchG). As part of SAU, adolescents who plan to begin an employment with an age lower than 18 undergo an examination to assess the risk of certain work for adolescent development and health. Both BJS and ÖGD data will be used to describe alcohol and tobacco consumption among young people in Brandenburg. The objective of this study is to compare and show differences and similarities between SAU and BJS. In addition, BJS data will be used to investigate potential social support resources for adolescents if confronted with drug-related issues in Brandenburg.

#### Methods

Data assessment in the context of SAU has been standardised according to the children and youth health services (KJGD) manual since 2004, with data collection on a yearly basis. The target population consists of 10th graders from secondary and comprehensive schools, with a mean sample size of 10,000 to 12,000 young individuals through the past 10 years. In the 2022/23 school year, data on alcohol and tobacco consumption was analysed for the first time among 9,953 adolescent school-leavers\*. In this study, we additionally included the fifth wave of the representative BJS survey (2020/21 school year), with n=5,843 participants. With BJS, approximately 10,000 10th graders from all types of school were investigated every four years, with reduced participation rates attributed to the COVID-19 pandemic during the fifth wave. Based on BJS, data on alcohol and tobacco consumption and potential social support resources was analysed.

### Results

Data from SAU showed that 21.8% of 9,953 adolescent school-leavers reported occasional alcohol consumption, and 10.5% reported daily tobacco use while 79.7% showed non-smoking

behaviour. These results are consistent with prevalence observed in BJS with 9.9% of participants reporting daily smoking in the 2020/21 school year. In contrast, BJS data indicate lower rates of non-consumption for alcohol (34.0%) when compared to SAU data (77.1%). Furthermore, respondents from BJS survey primarily indicate a preference for seeking support from personal contacts, such as peer (74.9%) and family members (62.9%), if confronted with drug-related issues. Conversely, a smaller proportion (31.4%) expressed willingness to contact professionals such as school social workers or addiction counsellors for assistance.

### Conclusion

Based on the underlying results we could show similarities in daily tobacco consumption in both populations but higher prevalence of alcohol non-consumption in SAU. Despite annual examinations of school-leavers, resources of ÖGD are not sufficient for comprehensive prevention and health promotion within school setting. Therefore existing drug prevention services and professional support resources must be expanded and interconnected. A large number of children and adolescent can be reached within the school setting. Hence, professional support resources, such as school nurses or school social workers, should be strengthened to assist adolescents in understanding health risks associated with tobacco and alcohol consumption and support behavioural changes.

\*Excluding data from the city of Potsdam; these will be incorporated once they become available.

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## MARIJUANA AND TOBACCO USE AMONG CROATIAN PUPILS: INSIGHTS FROM THE 2022 HEALTH BEHAVIOUR IN SCHOOL-AGED CHILDREN (HBSC) SURVEY

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Background and Aims: The utilization of marijuana remains a prevalent concern among school-aged children globally, with Croatia experiencing its own challenges in this regard. This study aims to delve into the intricate relationship between marijuana and cigarette smoking among Croatian adolescents, providing insights crucial for targeted interventions and prevention strategies.

Methods: Leveraging data from the 2022 Health Behaviour in School-aged Children (HBSC) research conducted in Croatia, this study analyzed information gathered from 705 boys and 840 girls, all aged 15. Through rigorous statistical analysis, including the application of the Person Chi-Square test, the study explored the association between cigarette smoking and marijuana use among these adolescents.

Results: The findings unveiled that 12.1% of boys and 12.9% of girls had experimented with marijuana at least once in their lifetime, shedding light on the prevalence of marijuana use among Croatian adolescents. Notably, a concerning trend emerged regarding the early onset of marijuana use, with 2.5% of boys and 0.7% of girls reporting marijuana use at the age of 11 or younger. Furthermore, the study highlighted a significant correlation between cigarette smoking and marijuana use. Among boys who had tried marijuana, a substantial 77.5% reported smoking cigarettes at least once in the last 30 days, a stark contrast to the 16.8% among non-users (p<0.001). Similarly, among girls, 87.7% of marijuana users reported cigarette smoking within the same timeframe, compared to only 19.3% among non-users (p<0.001).

Conclusions with Take Home Messages: The findings of this study underscore a noteworthy shift in substance use patterns among Croatian adolescents, with girls surpassing boys in marijuana use for the first time since the survey in 2002. Moreover, the robust association between cigarette smoking and marijuana use emphasizes the interconnected nature of these behaviors and calls for comprehensive interventions targeting both substances simultaneously. Early prevention strategies focusing on addressing these intertwined habits are imperative in mitigating the adverse effects of substance use among Croatian youth.

Keywords: marijuana use, tobacco use, smoking, schoolchildren, HBSC

### AUDIT TOOLS AS DRIVER FOR PHYSICAL ACTIVITY PROMOTION IN SCHOOLS AND ITS ENVIRONMENT

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Background: Physical activity behavior in the population depends on the one hand on the related knowledge, the corresponding skills and the motivation of the individual people. On the other hand, it depends on the opportunities for exercise and physical activity that people have in their daily living environments e.g. at school, at work or at home (Rütten & Pfeifer, 2016). Public communal places should be seen as a potential enabler for physical activity. Planning of interventions in communities therefore should take improvements and changes in the environment into account. Living spaces, neighborhoods, green spaces, footpaths and cycle paths, as well as schools and daycare, have to be consistently designed with physical activity friendly aspects in mind (BMG, 2024). Measuring the environment using audit tools provides a description of the current status and concrete indications for improvements.

The Federal Centre for Health Education (BZgA) in Germany offers a wide range of health information in several languages that is published via various media such as teaching materials, websites, best-practice project databases. In addition, there is a digital planning tool ("Impulsgeber Bewegungsförderung") comprising tools for needs assessment, interventions and information on physical activity to support the implementation of practices by local public health actors (Bußkamp, et al., 2021; Bußkamp, 2022). Further development of the digital planning tool and provision of a digital audit tool for the assessment of the physical activity friendliness of school surroundings (Müller et al., 2023) is recommended and resolved within the expert meetings in the "Round Table on physical activity and health" (BMG, 2024).

Methods: The development of the digital audit tool for the assessment of the physical activity friendliness of school surroundings will be carried within the Joint Action (JA) Prevent NCDs (2023-2027) initiated by the European Union. The JA is aiming to improve joint capacities of Member states to plan and implement prevention policies and activities both at a national, regional, and local level (Klepp, 2023). To design an easy-to-use audit tool applicable for e.g. employees in local governments, social workers, citizens' initiatives participatory procedures and community preferences and needs will be followed. Therefore, a focus group with local stakeholders and potential users will take place to specify the content of the tool regarding the assessment of walkability, safety, greenery and attractiveness of playgrounds and schoolyards.

Results: Potentials and barriers regarding physical activity promotion with focus on the application of audit tools as driver for structural adaptions in schools and their environment are discussed. The final audit tool for the assessment of the physical activity friendliness will guide a structured evaluation, document findings and perceptions, and evaluate all data in an automated way.

Conclusion: Audit tools can contribute to physical activity promotion in schools and their surroundings. Specific requirements of schools must be considered and pupils should be consistently involved. Based on the crowdsourced gathered data walkability, safety, greenery and attractiveness can be improved and physical activity levels will rise.

### ADDRESSING HARD-TO-REACH FAMILIES: EARLY CHILDHOOD INTERVENTION ON INSTAGRAM

### Rebecca Maier , Astrid.Königstein , Meike Wulf

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The National Centre for Early Prevention is part of the German Federal Centre for Health Education. One of its main tasks is to improve psycho-social services for vulnerable families with young children by strengthening the link between health and social services. With its measures of communication, the National Centre for Early Prevention does not only address professionals in the area of early childhood intervention services, but also their potential clients: expecting parents and families with children up to the age of three, with a particular focus on burdened families.

With its measures of communication the National Centre for Early Prevention aims to inform these families about the various services offered by early childhood intervention. It has however proven to be particularly difficult to reach those who would benefit most from the support offered by early childhood intervention. This includes the most vulnerable and burdened families, e.g. families affected by poverty, single parent families or parents suffering from addiction or a mental illness.

In order to address this specific target audience and to make early childhood intervention more widely known as a brand, the National Centre for Early Prevention set-up its own Instagram channel @elternsein\_info. Instagram was the social media platform of choice, as it is particularly popular among the age group of expecting and young parents.

The Instagram channel @elternsein\_info offers a balanced mixture of informative, entertaining and emotionally appealing content. It is closely linked with the website elternsein.info, which provides further information on the subjects covered on Instagram. The website also offers a postcode search that helps parents find early childhood intervention services near their place of residence and in-depth information on the different types of early childhood intervention services.

The tonality of the content on @elternsein\_info is appreciative and at eye-level, while the images aim to reflect the diversity and different situations of families living in Germany. The aim is to build trust, reduce thresholds and present the early childhood intervention services as easily approachable and free of stigma, so that parents seek advice as early as possible. It

The presentation will introduce content formats that have proven to be particularly helpful in engaging with parents on Instagram as well as lessons learned. This will include concrete examples of posts that have performed well and encouraged the target audience to interact. The presentation will also outline, how using Instagram to address hard-to-reach families ties in with the National Centre for Early Prevention's wider communication strategy.

# THE PANDEMIC EFFECT AMONG MEDICAL STUDENTS: GENDER AND CHRONIC DISEASE

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Aim: This study aims to examine the relationship between students studying at medical faculty and their exposure to the COVID-19 pandemic in terms of social determinants of health.

Methods: It has been conducted a cross-sectional analysis of the "Covid Impact Scale (CIS)" on interns at Hacettepe University Faculty of Medicine. We compared students scores based on their characteristics by using the Student's t-test and the ANOVA statistical test. Three-way variance analysis was used to assess the relationship between gender, disease, mental health support and scale score.

Results: The survey was completed by 157 students, with 85 of them being women (54.1%) and 72 being men. Of these students, 62 (39.5%) lived in the family house, while 55 (35.0%) stayed in the dormitory and 40 (25.5%) in the student house. A total of 19 students, which accounts for 12.1% of the sample, were employed. A diagnosis of chronic illness was reported in 20.4% of the interns, while 36.9% had utilized mental health services. The mean score scale ( $\pm$ SD) for the interns was determined to be 11.96 ( $\pm$ 5.5). Higher scores (13.02 $\pm$ 5.5, 10.69 $\pm$ 5.3, respectively; p<0.05) were obtained by female students on the scale compared to male students. Students with long-term medical conditions had higher impact scores (13.9 $\pm$ 6.04, 11.45 $\pm$ 5.3, respectively; p=0.02). It was discovered that the individuals who had mental health support had significantly higher scale scores (13.36 $\pm$ 6.24, 11.13 $\pm$ 4.9 p=0.01, respectively). Subsequent investigation revealed a correlation between the coronavirus impact scale score and gender as well as the existence of chronic illness. The group with a chronic illness and a female member had the highest average scale score (16.8  $\pm$  1.32). The number of family members with COVID-19 (r=0.37, p<0.001) and the number of individuals from close networks (r=0.33, p<0.001) proved to be correlated with higher scores on the CIS scale in a low-medium degree.

Conclusions: According to the results of this study, medical students with chronic health issues and female gender have been linked to increased pandemic susceptibility. Future health crises should prioritize providing additional help to these vulnerable groups, especially young individuals such as medical students.

# COLLABORATION BETWEEN THE EDUCATION AND HEALTH SECTOR WHAT IS NEEDED TO FULFILL A SUCCESSFUL INCLUSION OF A CHILD IN A PUBLIC PRIMARY ACHOOL? A CASE REPORT

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Talking about early inclusion for a child in school is also political willing in the community of Fribourg located in the Canton of Fribourg/ Switzerland and a challenge which are school health professionals and educational personal are facing to. We explore in this case report the collaboration between teachers, parents, therapeutic and para-medicals mostly located in the school setting, together with the medical health service.

The situation: In 2019, a Syrian boy started school with an unknown handicap in an open public school at the age of 8years. No scolarisation before. No one knew about his medical story neither the family situation. As he was not able to communicate, because of his recent migration to Switzerland, his parents exposed to a difficult integration and administration process, all interactions for the teachers had to build up. Soonly, different professionals were induced to the boy's situation (social services, help for migration families, first aide services, hospitals) to organise an integration process. At that time, the role of the school health medical services had a key position and could develop together with the school professionals a long and intense process of inclusion.

We show in our case-report a 6 year time-line of a successful inclusion in a public school and focus on the roles of the school health doctor, school nurses as well as the coordination with the family and access to possible school support systems.

Our keywords are: Case managing, interprofessional working, implication of community interpreters, implication for the parents, need of advocacy to receive political and financial support.

Methods: short presentation, followed by an interactive discussion with the audience to generate take home messages for the participants according to help in successful inclusion for disabled children in public schools.

Aim : exchange practices and answer to the main question: What is need to fulfill a successful inclusion of a child in schools?

Oral presentation

## SHARING EXPERIENCE ON THE GROUND A SCHOOL NURSE IN THE SCHOOL-SETTING: IS THERE A NEED FOR IN 2024?

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Context :Health promotion and school health visits with school aged children are required by law in each canton in Switzerland. In parallel, the lack of medical doctors, financial restrictions, and political decisions in governance force to rethink new perspectives of tackling health issues in public schools in Switzerland. Political decisions have to be implicated at the community level often missing financial support. The enlarged community of Fribourg city explores since now 3 years the key-role of school nurses present in the school setting and supervised by a school health doctor : regular school health surveys, mandatory for each adolescents, are addressed to all young students integrated in public schools while the choice is between the school health service or the private doctor depending on parental authorization.

We present the results after one year of pilote study enrolling 524 of 1313 students ages between 12 y to 14y, which subscribed for the general health check completed by a specific adolescents friendly questionary.

Methods: This study analyses collaboration services of a school-nurse based in the school setting. In an adolescents health's questionnaire, the school nurses interviewed and examined 12-14 y old high school students in a confidential setting, registered the results and decided with the school health doctor about further investigations.

Results :The results show that all adolescents (524 interviewed out of 1313 adressed) seem to be concerned about their own health, appreciate a dedicated moment to address and discuss these thoughts/emotions.The presence of a school nurse located in the school was also often required for general health problems emerging in between the different levels, and not declared as priority of the school direction. The school nurse is identified to be a pivot not only for the suffering adolescent but also for the teachers, directions, the social workers or psychologists, implemented in high school settings. The main requests concerned psycho-social related health worries in adolescents leading ton sleeping disorders, physical or psychological tiredness as well as recurrent absentism or chronical diseases.Differences were seen between urban and rural school settings. Non gender effect was observed.

Conclusion : Interviewing adolescents about their health needs and expectations valorizes the autonomy thinking in adolescents and may confirm the importance of the role for health care givers directly connected with the school setting. The importance of a school-nurse as one part of the team may strengthen adolescent's individual health as well as collective health issues during puberty

# ADOLESCENT MENTAL HEALTH: WAS THE ADOLESCENT'S MENTAL HEALTH PROBLEMS DURING THE COVID-19 EPIDEMIC A PASSING PHENOMENON?

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Background and aims: Adolescent mental health problems are a leading health problem in this population and remain unrecognized for a long time, especially in various crises.

The study aim was to examine the mental health problems with YP-CORE test as a part of regular school health periodic examination of first-year secondary school students (ages 15-16) in 2020 before Covid-19, in 2022 during epidemic and 2024 after the epidemic.

Methods: Study included 165 first-year Zagreb secondary school students (80.6% girls) academic year 2019/2020, 227 academic year 2021/2022 (67.4% girls) and 308 academic year 2023/2024 (70, 8%). Data were collected by YP-CORE test ten questions about feeling over the last week. The students provided informed consent, and testing was done during regular periodic examinations. Data were analysed using descriptive statistics.

Results: At risk of mental health problems were 9.8% of girls (13/133) and 4 of 32 of boys before the epidemic academic year 2019/2020. In academic year 2021/2022 at risk were 19.6% of girls (30/153) and 14.9% (11/74) boys. After the epidemic in academic year 2023/2024 at risk were 11.9% of girls (26/218) and 11.1% boys (10/90).

Comparing three periods: positive answer to the question 'I've thought of hurting myself" in 2019/2020 had 12 (9.0%) girls and 2 (6.3%) of the boys, in 2021/2022 had 19 (12.4%) girls and 7 (9.5%) and in 2023/2024 had 15 (6.9%) girls and 3 (3.3%) boys.

All recognized students at risk are immediately involved in the counselling of the School and University Medicine Counselling Services provided by every secondary school in Croatia.

Conclusions with Take Home Messages: The results of the study showed that mental health problems have a rise in the Covid-19 pandemic period from 10.3% (17/165) of all secondary school students in 2019/2020 to 18.1% (41/227) in 2021/2022, and with a decrease in 2023/2024 to 11.7% (36/308). The rise is twofold for girls from 6.7% to 14.7%, and almost 8%

for boys. The increase in girls is in the epidemic from 9.8% to 19.6%, and in boys from 12.5% to 14.9%. After the epidemic, the frequency decreased and it was almost equal, 11.9% in girls and 11.1% in boys. The school medicine service continues to intensively monitor all students, especially those who were under increased emotional stress during the epidemic. School health service applies a protocol for students at increased risk. The first step is the school medicine specialist interview with the student, then with the parents and the student, and the second step including school staff and other professionals.

We hope that increase during epidemic was transitional.

Key words: Mental health, YP-CORE test, Adolescent

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# HEALTH PROMOTION OF PRIMARY SCHOOL CHILDREN IN DISTRICTS WITH MAJOR HEALTH-RELATED NEEDS AND CHALLENGING SOCIAL STRUCTURES IN BREMEN

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#### Background and aims

In 2015, a new law was enacted to enhance prevention efforts, alongside the national action plan for increasing health competence in 2018, making health promotion and illness prevention a nationwide initiative in Germany. A statewide report of school entrance examinations in Bremen for the years 2016/2017 highlighted heightened health needs among children, especially in structurally disadvantaged urban areas, such as motor coordination issues, overweight/obesity, and pre-existing conditions. These findings underscored the necessity for intervention in Bremen, leading to the initiation of the model project "Healthcare professionals at schools (GefaS)" in 2018, aimed at increasing health literacy within primary school settings.

#### Methods

Initially funded by the Department for Health, Women, and Consumer Protection in Bremen and statutory health insurances for three years, the project transitioned into a regular service provided by the Public Health Service in Bremen after the statutory health insurance project funding ended in 2021. Coordination of GefaS activities is carried out by the Public Health Service of Bremen in collaboration with LVG & AFS Nds. HB e.V. All GefaS possess dual qualifications, combining medical or nursing training with a degree in Public Health or equivalent. Participating schools were selected based on social ranking and results of school entry exams, prioritizing districts with high health needs and challenging social structures.

#### Results

GefaS are currently deployed in 25 primary schools, reaching approximately 7000 children. Their work encompasses health promotion activities, individual counseling and support, health projects, and networking initiatives. This includes organizing workshops, learning sessions, and activities to motivate healthy lifestyles, providing personal consultations with students, parents,

and school staff, initiating health projects, and facilitating collaboration with stakeholders and health-promoting structures in the neighborhood.

Conclusions with Take Home Messages

Evaluation reports indicate high acceptance of GefaS work among participants. GefaS have become integral to school and health structures in Bremen, playing a vital role in reducing health inequalities. Emphasizing the enhancement of health literacy allows for a holistic approach to health promotion within primary schools. GefaS have garnered nationwide interest in their way of promoting children's health.

### COOPERATION NEEDS BETWEEN THE EDUCATIONAL AND HEALTH SECTOR -CLEARINGSTELLE FÜR SCHULABSENTISMUS

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School absenteeism encompasses various patterns of unauthorized school absences and is associated with emotional and social developmental risks, reduced educational participation, and difficulties in professional and societal integration (Ricking & Albers, 2019). Moreover, research indicates that school absenteeism often co-occurs with or leads to manifest mental disorders, particularly anxiety, depression, and behavioural disorders (Finning et al., 2019; Gakh et al., 2020).

In early 2021 the Health Department of the Rhein-Erft-Kreis supported by the Landschaftsverband Rheinland (LVR), established a counselling service for school absenteeism. The main focus of the "Clearingstelle für Schulabsentismus" is to achieve coordinated collaboration among the family and all participating institutions (like school, youth welfare office, child and adolescent psychiatrists/psychotherapists and others) to collectively consider what is necessary for the child/adolescent to find return to school.

If returning to school isn't possible for the child/adolescent particularly due to significant mental health issues the "Clearingstelle für Schulabsentismus" assists in implementing alternative support measures. This may include for example arranging psychotherapy or the admission to child and adolescent psychiatry facilities and supporting in communications with participating institutions.

Over the past three years, the "Clearingstelle Schulabsentismus" has supported approximately 120 children and adolescents. Around 40 % had been struggling with school avoidance for more than a year and 30 % of the 120 children and adolescents were only able to be supported through home visits by the "Clearingstelle Schulabsentismus". The demand for such support offered by the "Clearingstelle Schulabsentismus" is continuously increasing with children and adolescents seeking assistance to be able to return to school.

The results and insights gained from this consultation service offered by the Health Department of the Rhein-Erft-Kreis will be utilized to strengthen early detection and implement prevention efforts of school absenteeism of children and adolescents.

Finning, K., Ukoumunne, O. C., Ford, T., Danielsson-Waters, E., Shaw, L., De Jager, I. R., ... & Moore, D. A. (2019). The association between child and adolescent depression and poor attendance at school: A systematic review and meta-analysis. Journal of Affective Disorders, 245, 928-938.

Gakh, M., Coughenour, C., Assoumou, B. O., & Vanderstelt, M. (2020). The relationship between school absenteeism and substance use: An integrative literature review. Substance Use & Misuse, 55(3), 491-502.

Ricking, H., & Albers, V. (2019). Schulabsentismus: Praktische Handlungsansätze im Umgang mit Schulversäumnissen. Carl-Auer Verlag.

## GROWING UP HEALTHY IN HAMBURG – SCHOOL HEALTH PROFESSIONALS IN HAMBURG ELEMENTARY SCHOOLS. INSIGHTS FROM THE HAMBURG PILOT PROJECT

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Health reporting indicates a close connection between socioeconomic status and health condition. For example, children in challenging socioeconomic situations show more developmental deficits, developmental delays, psychological stress, and obesity compared to those in more advantaged conditions. It is important that children recognise what benefits or harms their physical and mental health and to have opportunities to practice health-promoting behaviours.

The project "School Health Professionals" supports the healthy development of children through dedicated health professionals at elementary schools with social indices 1 and 2. Launched in September 2020, the project will run until April 2025. Currently, 14 schools (across 15 locations) are staffed with school health professionals. The project is jointly funded by the Association of Substitute Health Insurance Funds and the Free and Hanseatic City of Hamburg. Possibilities for consolidation are currently being explored.

The aims of the project are:

Reach children and parents in difficult life situations with concrete health-promoting measures,

Actively and sustainably strengthen the mental health, physical health, and health literacy of children,

Expand access to public health services (ÖGD) at these schools and contribute to the care of children on a case-by-case basis with the child and adolescent health service (KJGD),

Improve parents' health literacy and strenghten the cooperation between school and parents,

Support children in individual situations, tailored to their health-promoting needs.

Different methods are used to reach these aims:

School health professionals...

implement health promotion measures with the children (70% of their job profile) especially in the areas of physical activity, nutrition, stress management, social interaction, and media consumption,

support the implementation of a health-promoting environment at schools,

are the health experts in schools (e.g. reportable diseases) and are called upon for case discussions with the school counseling team as needed,

support parents with questions about health education,

act as a bridge between the school, the home, the neighborhood, and the child and adolescent health service,

Dedicate 30% of their role to child healthcare (caring for minor injuries, supporting chronically ill children).

The project is being scientifically monitored. The methods include:

daily documentation of the activities of the school health professionals

Annual qualitative interviews(target groups: school health professionals, school principals, teachers and school staff, students, parents)

quantitative questionnaires (target groups: teachers and school staff, students, parents)

The evaluation shows the high effectiveness of the initiative in meeting its project goals. For instance, the study shows a positive impact on students' health behaviour and well-being, as well as their daily school life. It also indicates increased student participation in classes and school life through health care, and improved access to public health services at the schools.

Take Home Message:

In terms of health promotion and prevention, school health professionals can effectively address health inequalities among students and their families.

Studies show that there is a clear connection between living conditions, health, and educational success. Health promotion and prevention achieve a particularly sustainable impact when they are tailored to the specific living environments ("Lebenswelten") of the people.

"External" professionals (i.e. those who are not teachers) have particularly good chances of reaching families in socioeconomically challenging situations, who are normally difficult to reach.

Oral presentation

## A SCHOOL-BASED CLINIC AS AN EDUCATIONAL PLATFORM FOR PEDIATRIC RESIDENTS, NURSING STUDENTS, AND ALLIED HEALTH STUDENTS

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Background and Aims: Access to care is a complex issue that disproportionally affects low-income children and families. Healthcare trainees are uncomfortable caring for this population, due to a lack of training on how to care for their unique needs, further exacerbating access-to-care challenges. School-based clinics have been shown to improve access to care, especially among low-income children. However, the role of school-based clinics as an educational tool has not been previously explored. Our aim was to describe a school-clinic's educational platform and assess the feasibility of having a school-based clinic serve as an educational tool for pediatric residents, nursing students, and allied health students.

Methods: Document review and semi-structured interviews with school-clinic leadership members were conducted. Key findings of the educational platform implemented were summarized; content analysis was conducted to identify major themes and concepts. Findings were corroborated through engagement with relevant participants (learners, students' supervisors, and clinic leadership).

Results: Between September 2021-May 2024, a total of 90 healthcare learners trained at the school-based clinic. This includes 8 pediatric residents, 8 nutrition students, 16 occupational therapy students, 12 speech-language pathology students, and 54 nursing students. All

trainees, except the nursing students, had a clinical placement at the school-based clinic. All clinical placements lasted at least 5 weeks, with pediatric residents being assigned a minimum 3-year longitudinal placement at the clinic. Nursing students, in addition to the other trainees, played an advocacy role, conducting health promotion activities within the schools served by the school-based clinic; this includes classroom presentations and workshops designed for children and/or their caregivers.

Biweekly interprofessional seminars were also conducted at the school-based clinic. This included a 1-hour meeting between all school-clinic trainees and supervisors, led by the clinic manager and allied health staff. The purpose of the meetings were to stimulate interprofessional learning across all trainees, discuss challenging cases seen in the clinic, and identify opportunities for system improvement.

Conclusions: School-based clinics are a feasible educational platform that can be used to train healthcare learners across multiple disciplines. Training learners in a school-clinic environment may improve interprofessional teaching, while teaching the learners how care for low-income children and families.

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# CHILDREN'S PERSPECTIVES ON HEALTH AND WELLBEING: A CONCEPT MAPPING STUDY

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Background and aims - Children's needs and perspectives regarding health and wellbeing are rarely considered in public health care services. To improve preventive youth health care (YHC), the aim of this study was to gain knowledge about children's perspectives on health and wellbeing.

Design and methods - In a concept mapping study, Dutch children, 9-12 years old in primary schools (N=82), generated ideas regarding health or wellbeing and sorted and rated these ideas on importance. Multidimensional scaling and hierarchical clustering were done in program R. Qualitative analyses determined the final concept maps. Subsequently, we conducted four focus groups about these maps with nurses and physicians.

Methods - For the concept "health", children (n=33) generated 309 statements in 7 themes: 1) healthy living environment, 2) food and drinks, 3) important for a healthy life, 4) leisure time and relaxation, 5) physical diseases and cure, 6) necessities to be healthy, 7) love and affection. For the concept "wellbeing", children (n=49) generated 435 statements in 9 themes: 1) negative influence on feelings, 2) feeling connected with friends and family, 3) unpleasant feelings, 4) positivity and enjoyable activities, 5) bad experiences and things, 6) problems with friends and family, 7) social media and gaming, 8) puberty and sexuality, 9) tasty food and drinks. Professionals (N=16) had a more risk-oriented perspective on health and wellbeing than children.

Conclusions with take home messages - Children have a wide variety of perceptions of what is important for their health and wellbeing. Children's perceptions could inform YHC services to better adapt to children's needs.

#### Acknowledgements

This work was supported by Amsterdam UMC Department of Public and Occupational Health, the Public Health Services of Flevoland and of Amsterdam. They are all partners in the Academic Collaborative Centre of Youth and Health.

### CHILD HEALTH DASHBOARD – RAISING DATA TREASURES

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#### Background and Aims

In health reporting, the demand for data-based, up-to-date information often clashes with the actual availability of resources. Traditional analogue reporting methods resulted in outdated results by the time of publication, or valuable data remained unseen and underutilized. Moreover, access to data is typically restricted to select groups, keeping the information primarily within the confines of the office or administration.

The Office for Public Health in the City of Leipzig aims to develop an interactive information platform for politicians, administrators, and interested parties. This platform will not only display current health indicators and trends over time but also provide a clear spatial reference. Additionally, the presentation of results should align with the integrated municipal planning of the city administration and be user-friendly.

#### Methods

The application utilises data that are both valid and politically and administratively relevant. For this purpose, the compulsory school enrolment survey, conducted by the Health Office, provides up-to-date data on children's health, which is integrated and updated in a dashboard solution by the Office of Geoinformation and Land Management (OGM). In the first step, a concept was developed collaboratively by the Health Reporting Unit and the Pediatric and Adolescent Medical Service, ensuring compliance with data protection laws. Subsequently, the OGM tested the feasibility and implemented a combination of cartographic representations and diagrams, both longitudinal and cross-sectional.

#### Results

Since its publication, the results of the school enrolment survey have served not only as an overview for administrative and municipal authorities but also to raise awareness and understanding of special needs at the local district level. These data can be utilised across different divisions of the Health Office and compared with actual needs, such as at the district

level, to derive integrated strategies and measures aimed at promoting health equity. The dashboard serves as a city-wide information and decision-making tool, enabling the identification of more specific requests from politics and administration. Moreover, it facilitates dialogue with the scientific community, as the transparency of the data within the public health service fosters collaboration and understanding.

#### Conclusions

Exploring new avenues in reporting and leveraging the opportunities presented by digitalization is essential. The dashboard serves as a means to deliver timely and transparent data, enabling the derivation of needs-based measures aimed at promoting health equity. In the future, the addition of additional health data should shed light on the current health situation of children and adolescents.

Link to Dashboard: Stadt Leipzig - Dashboard Kindergesundheit

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# THE INTERVENTION STUDY "BB3": TIME IN NATURE AS COMPENSATING FACTOR FOR INCREASED PARENT SCREEN TIME IN PRESENCE OF THE CHILD

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Background: Screen media use by children is significantly higher than the existing recommendations. Increased screen media use in the first years of life is probably associated with numerous health consequences and developmental impairments.

Aim: The "Bildschirmfrei bis 3 (BB3)" study aims to raise awareness of and counteract the effects of dysregulated screen media use in early childhood. Furthermore, the study investigates the behavior of families with regard to screen media use and child development longitudinally from 6 months of age.

Methods: "BB3" is a prospective Germany-wide randomized study of the effectiveness of a preventive intervention on screen media use in regular care in pediatric and adolescent medical practice. The evaluation was conducted using the mHealth app "Meine pädiatrische Praxis" of the Professional Association of Pediatricians and Adolescent Physicians. The intervention and measurement time points are at the recommended screening examinations in Germany.

Results: Results: At the end of May 2022, 2,581 pediatric and adolescent practices were invited to participate in the study voluntarily and on a preference basis. After a one-year study period, 5,540 parents from 692 practices nationwide participated in the pre-interventional survey and provided 3,014 data sets. Problematic Internet use was found in 30.98% of fathers and 16.70% of mothers. Parents whose children use screen media at an early age were significantly more prevalent in this regard than the parents of children who do not yet have screen time. There was also a negative correlation between parental screen time and the developmental progress of the children. A Mann-Whitney U-test was used to show that children who spend more time in nature are significantly better positioned in the following developments Doing hand support, Switching toys between hands, Forming rhythmic syllable chains, Vocal laughter when being teased, Joy when another child appears.

Discussion: The study achieved good participation within a short time and provides the expected data. The evaluation to date demonstrates extensive parental use of screen media, and that even infants use screen media both passively and actively, contrary to

recommendations. In addition, there are indications that high screen media use by parents is related to higher screen media use by children, and that this in turn negatively influences children's development.

Take Home Message: Doing an exploratory risk factor assessment time in nature is a compensatory factor for the consequences of problematic screen use.

Acknowledgements: The authors would like to thank the BVKJ as co-operation partner and all participating practices and parents for their support of the research. Also they would like to thank Hanno Krafft, Tobias Maurer, Silke Lange, Juliane Schemmer, Arndt Büssing, Thomas Fischbach, Anke Emgenbroich, Sean Monks, Michael Hubmann, which were co-authoring a paper about the results of this study.

# COMPREHENSIVE HEARING SCREENING AT PRESCHOOL AGE: A COMPARISON OF PURE TONE AUDIOMETRY AND OTOACUSTIC EMISSIONS

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Introduction: As a mandatory examination, the school entry examination offers a good opportunity for comprehensive hearing screening of all preschool children. Pure tone audiometry (PTA), a subjective test method, is established as a screening method. Introducing transient evoked otoacoustic emissions (TEOAE) the hypothesis will be evaluated whether the objective test procedure indicates existing hearing disorders more reliably.

Methods: This is an epidemiological cross-sectional study of preschool children who were examined by the Public Child and Youth Health Service in the Hanover Region from October 2022 to summer 2023 and who received a TEOAE in addition to the PTA. The team members are all physicians and medical assistants. Children who were already fitted with hearing aids at that time, who were examined by other medical institutions or whose parents refused to participate in the study were excluded. In the event of abnormal findings in one of the hearing measurements, a specialist examination was recommended. The result of the specialist's assessment should be reported back via a reply form. The evaluation was carried out using an anonymized data export via Excel.

Results: 7094 preschool children were enrolled in the study, 6052 of them were examined using both methods. In 318 cases, abnormalities were found in both hearing tests. 147 of these children underwent further diagnostics, which revealed conductive hearing loss (CHL) in 36 cases and sensorineural hearing loss (SNHL) in 2 cases. 809 children showed pathological TEOAEs with normal PTA results. 309 of them were presented to a specialist, with a total of 42 CHL, 7 SNHL, and 2 combined hearing losses confirmed. Pathological PTAs with normal TEOAEs were found in 143 cases (34 controls, 7 confirmed CHL). In 108 cases, only a TEOAE was performed without a PTA (16 controls, 2 confirmed CHL). In 896 cases, only PTA was performed (6 controls, 1 confirmed CHL). In 38 cases, no hearing test was performed during the school entry examination (1 control, no hearing loss confirmed).

Conclusions: The additional TEOAE increased the amount of pathological hearing tests and thus also the specialist referrals from around 10% to 33.1%. Furthermore, the proportion of children without any hearing test was reduced by 76% to a total of 0.5%. The procedure was based on the voluntary commitment of all those involved which could be the main reason for the low response rates. It leaves a high number of unreported cases (77.5% of referrals without feedback). Nevertheless, a total of 99 children with a proven hearing impairment were referred for further specialist care. It is worth noting that only 46.5% of these children had a pathological PTA, while 92.9% had a pathological TEOAE. Especially in the case of SNHL and combined hearing loss, 9 out of 11 children would not have been conspicuous after the previous hearing screening using PTA.

Acknowledgement: We thank all participating members of the Public Child and Youth Health Service in the Hanover Region for their patience and perseverance in carrying out the examinations and the documentation in this study. We thank the company Diatec Diagnostics GmbH for providing the OAE devices, in particular Sylvia Walz and Gabriel Treindl for their technical support throughout the whole study.

# Speech Problems in Children – Results of the School Entry Examinations in Hanover

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Introduction: Federal law in Germany requires a physical examination and developmental assessment for every child before school entry. In recent years more speech problems can be seen in the school entry data in the Hanover region.

Method: School entry data in the Hanover Region of children starting school in summer from 2018/2019 until 2023/2024 are analysed. The standardized assessment schedule includes several language related tests (grammar tests for prepositions and plural, articulation, listening comprehension and a hearing tests), furthermore a standardized questionnaire for sports activities, swimming, media consumption and of parents reading to their children. Different data evaluation including a multivariate analysis were performed to identify possible influencing factors.

Results: The data of the school entry examination of the cohorts from 2018/19 to 2023/2024 show an increasing proportion of children with speech problems. Between 2018/19 and 2021/22 we already saw an increase of severe language deficiencies from 12,4 % in 2018/ 19 to 15,1% in 2021/22. In 2023/24 there is an significant increase to 18,5 %. More children have already been in speech therapy or needed further medical examination. There is a link between higher everyday media consumption and speech problems in children. There is a higher risk for the development of speech problems in families where the parents seldom read books to their children.

Discussion: Mandatory school entry examinations are valuable in detecting special needs in individual children. The results of the school entry examinations show an increase of children with noticeable speech problems, more children are already in speech therapy, or need further medical examination. The results are in line with other current studies. These findings are a strong call for action. Prevention programs targeting at better language development and less media consumption should be enforced for preschool children, preferably focussing socially disadvantaged children.

Keywords: Child Health, School entry data, speech problems, media consumption, language deficiencies.

## THE NORDSTADT IN HILDESHEIM – PUBLIC HEALTH IMPULSES FOR THE QUARTER RELATED EMPOWERMENT OF EDUCATIONAL STRUCTURES

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Introduction: For children and youth, health status, developmental and educational chances are inseparable from each other. The fact that in this concern in our cities and municipalities there are big and even growing inegalities between different residential quarters is not new. As well not new is the situation that the available financial resources just for these areas and their children and youth are almost never sufficient to install the necessary measures to fight these inequalities. But: what happened in the so-called Nordstadt in Hildesheim in the years since 2018 can be named a real success: The realisation was only possible by a good, well-structured AND trustful cooperation of all responsible persons and institutions.

Methods: Based on one hand on the every-year-analysis of the school-entry-data (children's public health service) and on the other hand on the children-focussed social-monitoring (city of Hildesheim since 2018), the process got to be started in 2019. Practicing specialists from the reginal schools and kindergartens and the quarter manager were as well involved as responsible persons and structures in the administration (e.g. Kindergarten counselling specialists, street- and parks department, music school, sports clubs also) and as well the Hildesheim University (education, sport). The responsibility for the fundraising was located at the administration of Hildesheim municipality.

Results: So, over the years a lot of projects and programmes could be installed. Their monitoring concerning quality and the outcome of the children at school start is continuously carried out based on the school-entrance-data. The results concerning speech-development and body weight of the school-beginners will be shown as well as the reasons why the Nordstadt-working group won the German Kindergarten price in 2023 in the category "best system". In addition, we will show the current data and the consequences which have been drawn, meaning the next planned activities and the big subject of participation of the families.

Conclusions and Take-Home Message: The health=developmental chances for children and young people seem often not to be as much in focus of the responsible persons and institutions as they should be. But with a GOOD intersectoral cooperation many important actions are

possible even with small budgets. The "profit" is primarily to be found in the health status of the children and their growing chances in educational concerns, but as well we experience the very welcome growing up of a big Nordstadt-family.

Keywords: Child Health and developmental inegalities, School entry data, social monitoring, quarter related programmes in intersectoral cooperation

# DATA FOR ACTION. - RESULTS OF THE GERMAN HBSC STUDY (PART 3): BULLYING AND CYBERBULLYING AT SCHOOLS IN GERMANY

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Background: Bullying is a form of violence that is carried out repeatedly, with the intention of causing harm and with an imbalance of power between those involved. Bullying has serious negative effects on the mental health of adolescents and thus represents a significant health risk in childhood and adolescence.

Methods: Based on data from the Health Behaviour in School-aged Children (HBSC) study from the survey year 2022 in Germany (N = 6,475), the prevalence of school bullying and cyberbullying among 11-, 13- and 15-year-olds in Germany was analysed. In addition, the prevalence of school bullying and cyberbullying was analysed as a trend from 2009/10 to 2022 (bullying) and from 2017/18 to 2022 (cyberbullying).

Results: Around 14 % of the learners surveyed reported direct experience of bullying at school, and around 7 % reported cyberbullying experiences as bullied and/or bullying victims. Adolescents who identified as gender diverse were particularly likely to report bullying experiences. School bullying decreased over time, but remained stable between 2017/18 and 2022. Cyberbullying, on the other hand, increased in 2022 compared to 2017/18.

Conclusions: Experiencing bullying at school and online is an everyday experience for many children and young people, so there is still a need for the broad implementation of effective anti-bullying measures in schools.

# SCHOOL MEDICINE IS THE MISSING LINK IN THE HEALTH CARE OF SCHOOL CHILDREN AND YOUNG PEOPLE

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Case Descriptions Including Health and Education Needs: Social changes at the end of the twentieth and beginning of the twenty-first century and the impact on the health of school children and young people published in the 1998 EUSUHM Newsletter: a) population migration and east-west transition; b) changes in health care systems: countries in transition, the health system is increasingly privatized and in more developed countries, public health care is being strengthened and special care; c) the leading health problems of school children and young people in Europe will be: infectious diseases (diphtheria, poliomyelitis), psycho-social problems (traffic accidents, suicides), behaviour and lifestyles related to health (alcohol, tobacco, marijuana, sexual behaviour and STD, diet and physical inactivity).

Was the "forecast" correct? For infectious diseases correct but some other emerged: measles, Covid-19, and occasionally pertussis and others (due to insufficient vaccination). Psycho-social problems and traffic accidents are the leading cause of death and suicide in adolescents. Significant increase in mental health disorders: anxiety, depression and other emotional disorders. Behaviours and lifestyles related to health practically remained the same but new synthetic drugs appeared. Sexual behaviour and STD without significant changes. Diet and physical inactivity led to an alarming increase in overweight and obese children.

Intervention: What's missing in the "prognosis": increased number of children and adolescents suffering from chronic non-communicable diseases (allergies, asthma). Rise of specific learning difficulties and multiple disabilities that significantly affect the school achievement. Rise of number of children due to difficulties in psychophysical development and disabilities and the need for adequate inclusion. Psychosocial and social problems as a result of unemployment. New forms of violence such as "Cyber violence". Adolescents do not use health care often and regularly, even when objectively they should.

What and how to proceed? New means of communication did not give the expected result in solving the leading needs and demands of children and adolescents. On the contrary, "Google Doctor" is only an aggravating element. Misinformation and cyber violence have a significant impact on their mental health. School and health care, especially school children health care

failed to respond adequately to their new needs. Existing models of health care in which children do not have their official school doctor and health team without close cooperation with school, children and parents didn't produced good results.

Take Home Message: School children have the right to all-round protection by school health professionals that will respect the specifics of this population and ready to provide appropriate health care.

Perhaps it would be good to recall the First international congress of school hygiene in Nuremberg, April 1904, where one of the main topics was "The duties and education of the school doctor."

Key words: School children, School health care, School doctor

# SHARING EXPERIENCE ON THE GROUND -EXPERIENCES WITH E-CONSENT FOR THE HPV VACCINATION PROGRAMME

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#### Background and aims

HPV vaccine is the most effective option for primary prevention of HPV infection, which can cause certain cancers. The HPV immunization programme was introduced in Split-Dalmatia County since 2007 and has been carried out at the parents' expense and request. Since 2015, HPV vaccination in the Republic of Croatia was included in the national immunization schedule as free of charge, recommended vaccine for girls and young women up to 25 years of age, whereas from 2016 free of charge recommended gender neutral HPV vaccination was introduced. The aim is to present the results of HPV immunization in SDC since 2016 and the increase in vaccination rates since 2020, after the introduction of electronic informed consent (e-Consent) to vaccination and changes in the parental knowledge of the HPV vaccine.

#### Methods

Descriptive analysis of immunization data of children up to 15 years of age and older in the period from 2016 to 2023 in SDC from internal databases of Teaching Institute of Public Health of Split-Dalmatia County.

#### Results

Based on data processing on vaccinated children under the age of 15 (eighth grade of primary school), it was established that from 2016 to 2020, the vaccination coverage of children ranged from 0.30% to 3% of children in the generation. From 2021 to 2023, 15% to 34.58% children of the same age-peers were vaccinated. Analyzing the number of HPV vaccine doses administered in children under the age of 15 in the period from 2016, only 16 HPV vaccine doses were administered until the increase of 2545 doses given in 2023. The total number of administered vaccine doses in the age group of 15 years or over ranged from 117 doses in 2016 to 949 received doses in 2023. It was reported that out of all vaccinated children under the age of 15, 68.46% were female, while 31.34% were male. In the age group of 15 years or over, the

vacination coverage for girls was 76.50%, and for boys 23.50%. Based on the analysis of the invitations for children to get vaccinated against HPV, it was indicated that for 41% children the appointment was booked via online order form and e-Consent, 41% via written notification and informed consent, whereas combined invitation method was used for 18% of them. Using online order form, 19.07% of parents requested additional advice in relation to HPV vaccination, out of which 67.78% of children were vaccinated after counseling.

#### Conclusions

The vaccine hesitancy is associated with the increased information availability where the alternative websites lacking reliable professional and scientific data, social networks and forums are followed (someone else's speech or attitude), with the existing decline of trust in medical authority. Availability, individual, proactive approach and more effective communication skills of healthcare professionals as well as improved communication in the mass media can significantly contribute to higher vaccine uptake.

#### Take Home Messages

Evidence based information, the level of knowledge of healthcare professionals and adapting communication methods contribute to the successful and effective implementation of healthcare and public health in general. Healthcare workers should use positive communication skills to provide support for psychological empowerment and responsibility of parents, children and adolescents regarding the informed decision-making in healthcare.

Oral presentation

## DATA FOR ACTION. - TRENDS IN HEALTH INEQUALITIES IN CHILDHOOD AND ADOLESCENCE IN GERMANY (PART 2): RESULTS OF THE HBSC STUDY 2009/10 – 2022

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Background: Many studies have identified health inequalities in childhood and adolescence. However, it is unclear how these have developed in recent years, particularly since the COVID-19 pandemic.

Methods: Analyses are based on the German data from the international Health Behaviour in School-aged Children (HBSC) study from 2009/10 (n = 5,005), 2013/14 (n = 5,961), 2017/18 (n = 4,347), and 2022 (n = 6,475). A total of 21,788 students aged approximately between 11 and 15 years were included. Socioeconomic status (SES) was assessed using the Family Affluence Scale (FAS). Life satisfaction, self-rathed health, fruit and vegetable consumption as well as physical activity were included as health indicators and stratified by gender using bivariate and multivariate analysis methods.

Results: In 2022, there are clear socioeconomic inequalities in life satisfaction, self-rated health, fruit and vegetable consumption, and physical activity. These inequalities remained largely constant or increased between 2009/10 and 2022. Between 2017/18 and 2022, no significant changes in inequalities were found.

Conclusions: Health inequalities are persistent and reduce the chances of growing up healthy. There is no evidence that inequalities in the analysed outcomes have changed during the pandemic period (between 2017/18 and 2022). Rather, the changes in the health indicators seem to affect all adolescents in a similar way

Acknowledgement: Our special thanks go to all schools, teachers, parents/ guardians, and, of course, the students who provided us with valuable information on their health situation by participating in this survey. We would also like to thank all ministries for authorising the HBSC study in the respective federal states, so that representative data could be collected nationwide. At the international level, we would like to thank the International Coordinating Centre (ICC) at the University of Glasgow (headed by Dr. Jo Inchley) and the HBSC Data Management Centre (DMC) at the University of Bergen under the direction of Prof. Dr. Oddrun Samdal

### IMPACT OF TRAJECTORIES OF MATERNAL POSTPARTUM DEPRESSION ON INFANTS' SOCIOEMOTIONAL DEVELOPMENT

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BACKGROUND AND AIMS: Socioemotional development (SED) is a continuous process through which humans acquire the skills to express, experience, and regulate emotions as a precursor to develop social competencies and emotional intelligence. Maternal postpartum depression (PPD) is highly prevalent but evidence lacks on the effects of PPD on early childhood SED. More specifically, it is not clear what is the relevance of the variations in the PPD trajectory, i.e., in the onset, severity, and continuity for infants' SED. Furthermore, maternal self-efficacy (MSE) might mediate the association between PPD and SED, and it is not clear if postpartum anxiety (PPA) has an independent effect on infants' SED on top of PPD.

Aims of the study were (a) to assess the effects of postpartum depression (PPD) trajectories until 6 months postpartum on infants' SED at age 12 months, and (b) to assess the mediating role of maternal self-efficacy (MSE), and the additional effect of PPA at age 12 months.

METHODS: We used data from the POST-UP trial (n = 1,843). POST-UP had a prospective, quasi-experimental, comparative design to assess if regular screening for PPD in preventive child healthcare improved mental health outcomes at the maternal and child level. PPD was assessed using the Edinburgh Postnatal Depression Scale (EPDS) at 1, 3, and 6 months. Infants' SED was assessed at 12 months using the Ages and Stages Questionnaire-Social-Emotional (ASQ-SE). Structural equations modelling was applied to estimate the effect of PPD trajectories on infants' SED and of the mediating effect by MSE (assessed by Self-Efficacy in Nurturing Roles questionnaire). The additional effects of PPA (assessed by State form of State-Trait Anxiety Inventory short form) were estimated based on conditional regression analysis.

RESULTS: Higher levels of PPD over time were associated with a lower SED (regression coefficient for log-EPDS 3.5, 95% confidence interval 2.8; 4.2, e.g., an increase in the EPDS score from 9 to 13 is related to a worsening of the ASQ-SE by 1.3 points). About 50% of the total effects of the PPD on SED was mediated via MSE (indirect effect 1.4, 95% CI: 1.0; 1.9). PPA had a small but significant additional negative effect on SED (B 0.17, 95% CI: 0.10; 0.24).

CONCLUSIONS: PPD and PPA have a negative impact on infants' SED. MSE as a mediator may be a potential target for preventive interventions to alleviate the negative effects of maternal psychopathology on infants' SED.

# MATERNAL POSTPARTUM MENTAL HEALTH NEGATIVELY AFFECTS INFANTS' HEALTH RELATED QUALITY OF LIFE

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BACKGROUND AND AIMS: Pediatric health related quality of life (HRQoL) offers additional value over traditional clinical measures of neurodevelopment as it provides insights on multiple aspects of child development, like physical mental and social well-being. The most common maternal mental health problems during the postpartum period are postpartum depression (PPD) and postpartum anxiety (PPA) with prevalences up to 25%. Negative associations of the postpartum maternal mental health during the first year of life with the offspring's growth and development have been well established, but evidence lacks regarding the associations of maternal mental health at different stages of the postpartum period with infants' HRQoL during the first year of life. The first aim of the study was to assess the associations of early postpartum, with infants' HRQoL at age 1m and 12m. The second aim was to assess the associations of late postpartum maternal mental health i.e., symptoms of PPD at 6m and PPA at 12m, with infants' HRQoL at age 12m.

METHODS: The study was embedded within the POST-UP trial (n=1,843). Infants' HRQoL was assessed with the Infant and Toddler Quality of Life Questionnaire Short Form-47 at ages 1 months (1m), and 12m. Maternal mental health regarded postpartum depression (PPD), measured with the Edinburgh Postnatal Depression Scale at 1m and 6m (early/late), and PPA with the short version of the state form of the Spielberger State-Trait Anxiety inventory at 1m and 12m (early/late). We used linear regression analyses.

RESULTS: Early and late PPD and PPA were negatively associated with infants' HRQoL at ages 1m and 12m. The negative associations with infants' HRQoL at 1m were most pronounced for the domain infant temperament (standardized regression coefficient, (95%-confidence interval)): -0.30 (-0.34; -0.25), and -0.37 (-0.41;-0.32) for PPD and PPA respectively, and weakest for the domain bodily pain: -0.14 (-0.19;-0.09), and -0.22 (-0.27;-0.18) for PPD and PPA respectively. The negative associations of early postpartum maternal health with infants' HRQoL were less pronounced at age 12m. Negative associations of late PPD and PPA were observed with infants' HRQoL at age 12m, but less pronounced compared to associations of early PPD and PPA with infants' HRQoL at age 1m.

CONCLUSIONS: Postpartum maternal mental health is negatively associated with infants' HRQoL at age 1m and 12m. This confirms the need for regular screening of maternal mental health in the postpartum period.

## INTERRATER RELIABILITY OF THE SPARK36, A NOVEL INSTRUMENT TO GUIDE PREVENTIVE NURSE-LED CONSULTATIONS WITH PARENTS OF THREE YEAR OLDS

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Aim: The aim of this study was to evaluate the interrater reliability of the SPARK36 (Structured Problem Analysis of Raising Kids aged 36 months), an instrument to guide Youth Health Care nurses during a parent-child consultation in assessing the risk for problems in child development and parenting, aiming to realize timely prevention.

Methods: To evaluate the interrater-reliability of the SPARK36, a cross sectional study was conducted in Flemish School Health Service using a convenience sample of parents and their three-year olds. Data from parents of three-year-olds were collected by Youth Health Care nurses during the school year 2021- 2022. Two SPARK36-trained nurses simultaneously completed the SPARK36 during the parent-child consultation. The second nurse listened to the SPARK-led conversation, without interfering, and filled in the SPARK36-form independently. SPARK36 Cohen's Weighted kappa statistic was used to examine agreement of the two nurses for the SPARK36 domains and the risk assessment for child development and parenting.

Results: Fifty-five randomly selected SPARK36-led consultations with a second nurse present were completed by 5 YHC nurses. In general, preliminary data show that 12 out of 16 SPARK36 domains and the risk assessment had a Kw coefficient, significantly >0.6 (90% lower limit). For the 12 SPARK36 domains a high Weighted kappa (Kw > 0.81)was measured , and an almost perfect Weighted kappa of 0.91 for the risk assessment

Conclusion with Take Home Messages: Preliminary data analysis for this study suggests a high level of agreement between raters. This implies that the use of the SPARK36 in preventive Youth Health Care has the potential to reduce differences in YHC nurses' assessments and,

thus increases uniformity in assessing the risk for child developmental and parenting problems. After all, a child's place of birth shapes their chances for growing up, and professionals employing this method ensure that their actions do not widen these inequalities.

Acknowledgements: This study is supported by the Flemish Government.

# INVISIBLE POPULATION IN CROATIAN HEALTHCARE: ABSENCE OF COMPREHENSIVE AND ORGANIZED HEALTHCARE FOR STUDENTS. EXAMPLE OF ZAGREB, CAPITAL OF CROATIA

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Zagreb, Croatia's capital, is the largest student city, with numerous universities and institutions of higher education. According to the Agency for Science and Higher Education, the University of Zagreb enrolled 64,669 students in the 2022-2023 school year, with approximately 2/3 coming from other cities. Although students are a generally healthy population, having their healthcare clearly and legally defined is crucial. This is essential not only for curative purposes, but also for preserving and improving health and preventing disease. Using voluntary anonymous online survey results, conducted in 2019 and 2020 on students' healthcare and their attitudes, a review of data and legal framework, we aim to present the current situation and improvement possibilities.

In Croatia, the primary healthcare system is the cornerstone of student healthcare. Besides family physicians, student health is overseen by school and adolescent medicine doctors, primary gynaecologists, dentists, mental health professionals, etc. Despite the availability of multiple specialists, adequate care is lacking. The survey showed that 70% of students studying in Zagreb maintain their family physicians in their hometowns, accessing healthcare services online or by phone, which is not always feasible for acute issues. In such cases, students often seek private sector assistance due to practical inefficiencies, if they can afford it. Furthermore, they frequently seek emergency care at clinical hospitals, the highest and most costly tier of healthcare. These services often entail long waits with recurrent refusal of examination and could be more efficiently managed at the primary care level. Furthermore, current laws prevent school and adolescent medicine doctors from prescribing medications, with their work focusing on preventive care, learning difficulties, and counselling. One shocking survey finding revealed that some students reported sharing antibiotics in dorms due to lack of access, illustrating a critical gap in the system. Special focus should also be placed on sexual and mental health, as many female students lack a primary gynaecologist, with the average gynaecological clinic in Croatia having around 7000 patients, they cannot accept them. Additionally, despite multiple counselling centres, psychological support is still not easily available for all.

Given the unique morbidity profile of this population, it is crucial for students to have access to a health centre specialized in youth. Such a centre would provide timely care, including consultations, diagnostics, treatment, and preventive services like education, professional counselling, and free necessities (e.g., menstrual products, contraception, antibiotics). Allowing school and adolescent medicine specialists to provide curative care for illnesses and routine check-ups also seems like a suitable alternative. With the amendments to the Health Care Act adopted in 2023, medical faculties are able to establish internal organizational units to perform health activities for student healthcare. This legal basis allows for the creation of student polyclinics, offering primary and specialist-level care for physical, mental and sexual health. However, as of mid-2024, practical implementation with clear organizational units and health centres has not been realized in any university town in Croatia. This highlights the urgent need to advocate for student healthcare to ensure the full application of the principles of comprehensiveness, continuity and availability of healthcare.

# ADOLESCENT MEDICINE AND TRANSITION IN EUROPE – A REPORT ON THE ACTIVITIES OF UEMS MJC ON ADOLESCENT MEDICINE AND HEALTH

#### Zabuliene L , Gutniak A, , Michaud PA , Vogrin B

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Background and aim: Adolescence is a critical period marked by significant physical, mental and emotional development. Adolescents and young adults (AYAs) aged from 10 to 24, comprising 26% of the global world population, require healthcare tailored to their developmental needs. Addressing both acute and chronic diseases and ensuring a smooth transition to adult healthcare is essential. This abstract presents the activities of the Multidisciplinary Joint Committee (MJC) on Adolescent medicine and health of the Union of European Medical specialists (UEMS) aimed at promoting and improving adolescent medicine in Europe.

Methods: Four main training objectives were established to be incorporated into all European Training Requirements (ETRs) for the medical training of residents. These objectives include: conducting effective consultations, assessing lifestyle and behavior, performing respectful physical examinations, and providing comprehensive care for AYAs with chronic conditions including transitional care. These freely accessible training tools were published on the UEMS website and officially validated by the UEMS Council meeting in October 2022. To evaluate the effectiveness of our activities, we conducted a survey among MJC members in summer 2023.

Results: The survey gathered insights from 40 UEMS representatives and 33 external experts across 25 countries. Of the respondents, 27 (37 %) had accessed our documents and tools. Among these, 26 (96%) found the training tools valuable, 15 (56 %) had integrated them into their ETRs. Additionally, 18 (67%) expressed interest in UEMS short workshops. Feedback highlighted the tools' importance, effectiveness, and practicality as well as their positive impact on enhancing adolescent care. In the future, efforts to establish cooperation and joint initiatives will include developing guidelines and conducting research on best practices in adolescent healthcare.

Conclusions and future directions: The ongoing efforts of the MJC on Adolescent medicine and Health are crucial in enhancing the awareness, visibility and integration of adolescent medicine within European medical practice. Future plans include continuing to promote AYAs medicine, upgrading the training tools with a comprehensive syllabus on adolescent medicine and engaging different specialists and country representatives as advocates for adolescents. A particular focus is on school medicine and health, recognizing schools as critical venues for implementing preventive care to safeguard the health of adolescents and student. Continued collaboration, promotion and development of training resources are vital steps toward ensuring comprehensive healthcare for AYAs, addressing current gaps and paving the way for future advancements in adolescent health.

# HOW STUDENTS DEAL WITH ECO-ANXIETY AND HOW THOSE FEARS CHANGE THEIR PRO-CLIMATE BEHAVIOURS ? A QUALITATIVE STUDY

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Introduction:

Current climate changes and the overheating of the Earth damage our environment and have a significant impact on human health (Brophy et al., 2022). Ongoing research is now able to measure the effects of environmental damage on physical health (Watts et al., 2019). However, less is known about the impact on mental health, especially in the younger generation (Burke et al., 2021). In fact, awareness of the dangers facing our planet enhances feelings of anxiety in individuals. This phenomenon is called eco-anxiety (Budziszewska & Jonsson, 2022), defined as a "feeling of anxiety and suffering due to a global consciousness about climate changes in the world" (Brophy et al., 2022). International studies show that the young generation suffers from various symptoms such as anxiety, frustration, feelings of powerlessness, and even panic attacks (Hickman et al., 2021).

Despite the growing recognition of eco-anxiety, there is a lack of comprehensive understanding of how these feelings affect young people's behaviors and coping mechanisms. Our research project aims to understand this phenomenon in the young generation, focusing on how eco-anxiety influences their engagement in pro-climate behaviors.

Method: Our population covers young adults aged 18-30 years who consider themselves eco-anxious. As we refer to a qualitative approach, we prepared 4 topics in our chart using open questions in a semi structured interview during the ongoing summer semester 2024. After the data collections, a qualitative

analysis of the interviews is performed.

Results: The data reveal six categories: emotional management, political and ecological engagement, social responsibility, expectations and perspectives for the future, resources, and social impact. Those aspects will be interpreted and explained.

Perspectives : Eco-anxiety seems to be a new mental health issue that may lead to serious mental health problems, mostly in the young adults generation, who is more concerned about the future of our planet earth.

Conclusions: By exploring these aspects, we hope to contribute to the development of strategies that can help mitigate the negative mental health impacts of eco-anxiety and promote positive ecological actions.

Bibliographie :

Brophy, H., Olson, J., & Paul, P. (2023). Eco-anxiety in youth : An integrative literature review. International Journal of Mental Health Nursing, 32(3), 633-661. https://doi.org/10.1111/inm.13099

Budziszewska, M., & Jonsson, S. E. (2022). Talking about climate change and eco-anxiety in psychotherapy: A qualitative analysis of patients' experiences. Psychotherapy, 59(4), 606-615. https://doi.org/10.1037/pst0000449

Burke, S. E. L. et al. (2018). The Psychological Effects of Climate Change on Children. Current Psychiatry Reports, 20(5), 35. https://doi.org/10.1007/s11920-018-0896-9

Hickman et al. (2021). Climate anxiety in children and young people and their beliefs about government responses to climate change : A global survey. The Lancet Planetary Health, 5(12), e863-e873. https://doi.org/10.1016/S2542-5196(21)00278-3

Watts et al. (2019). The 2019 report of The Lancet Countdown on health and climate change : Ensuring that the health of a child born today is not defined by a changing climate. The Lancet, 394(10211), 1836-1878. https://doi.org/10.1016/S0140-6736(19)32596-6

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# RECENT UPGRADING OF PREVENTIVE CARE AND GUIDELINES FOR PREVENTIVE HEALTH CHECK-UPS FOR SCHOOL CHILDEREN AND ADOLESCENTS IN SLOVENIA

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Background: Preventive health care services for Slovenian school children and adolescents were introduced more than 100 years ago and were modified and strengthend during this time. The aim is to maintain and promote the health of children and adolescents with the goal of a healthy and fulfilling life in adulthood. Slovenia follows the recommendations of the World Health Organization by introducing updated prevention programmes and integrated health care for children, adolescents and their families.

Aim: We have introduced new, modern approaches to preventive care. Preventive health check-ups take place at every second year together with vaccination according to the national vaccination programme. The content of the examinations is adapted to the age of the children and adolescents, both at anamnestic data, screening tests and in health counselling and education contents addressing current health risks. We obtain information about family, personal, psychosocial and environmental factors. We monitor growth and development through systematic measurement and screening. Special attention is paid to the detection of non-communicable chronic diseases, overweight, obesity and low physical fitness, familial hypercholesterolemia, blood pressure disorders and eating disorders. Instructions are given for screening for some endocrinological disorders and deviations in the development of the skeleton. We perform regular vision screenings. Screening for hearing disorders is performed three times.

Results: Detected deviations are addressed by the health services using health counselling and health education individually and in groups. To this end, a network of integrated treatment teams is being built and group interventions are being developed, reaching also into the school and local environment. Cooperation and communication between health and education sector is essential at all levels of decision-making, as schools are the ideal place to implement effective and accessible public health measures. The close cooperation of teams of designated school physicians with schools and local communities can significantly contribute to the creation of a supportive environment for healthy development of children and adolescents.

Conclusion: Preventive health care for school children is well organized. There is still lack of monitoring of the health status of the population. We need to implement e-record and use digital questionnaires. Mental health screening is a particular challenge.

## PERCEPTIONS OF ADOLESCENTS ON MENTAL HEALTH AND DEPRESSION. A REVIEW OF QUALITATIVE STUDIES FROM THE 21ST CENTURY

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Background: Mental health problems are on the rise, affecting one in seven adolescents. Depression stands out as the most prevalent mood disorder. This qualitative systematic review aims to explore the perspectives on mental health expressed by adolescents aged 13-23 in high-income countries on mental health and depression.

Method: We searched in Pubmed and Psychinfo databases using terms including synonyms of adolescent, mental health or depression, perspectives and qualitative methods. Of 34074 records, 74 articles were included, which we thematically analysed in three stages: open coding, development of 'descriptive themes' and the generation of 'analytical themes'.

Results: We identified five themes: 1. Importance of maintaining balance for positive mental health, 2. Need for connection with self and others to cope with daily stressors, 3. Personal responsibility for their mental health, 4. Mentally (un)health is perceived a continuum, 5. Losing control is key for depression.

Conclusions: This comprehensive exploration of the literature on adolescents' perceptions on mental health and depression showed that mental health problems are perceived personal failure. Adolescents shoulder responsibility for their own mental health, while simultaneously expressing the need for social support. Recognizing adolescents' active role presents opportunities for empowering interventions and support, it also amplifies the perceived burden of responsibility making them susceptible for depression. Our results suggests the need for systemic and collective interventions rather than solely individual-focused interventions. It is necessary to further study adolescents' perceptions of mental health and depression, in order to promote their mental health, prevent mental health problems and make seeking (professional) help when in need more easy.

### IMPLEMENTATION STUDY OF THE HAPPIEST BABY METHOD IN DUTCH YOUTH HEALTH CARE

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Support and preventive parental education for excessive infant crying could be improved with the Happiest Baby Method, an evidence-based, universal and indicated prevention method for excessive crying. In the Netherlands, the preventive youth healthcare (YHC) system would be ideal to implement the HBM, as they monitor 95% of Dutch children at regular intervals, including multiple consultations in the first year of life.

This study aims to investigate the adaptation of the Happiest Baby-method (HBM) to the wishes and needs of vulnerable families and to evaluate the implementation process of the adapted HBM in Dutch youth healthcare (YHC). This study has a mixed-methods design, combining questionnaires and focus groups with professionals from the two pilot sites and a national sample. We observed the implementation process of the HBM amongst YHC professionals at two pilot sites and report findings from three different phases, including pre-implementation, implementation and post-implementation.

From thematic analysis of the focus groups held with YHC professionals and MIDI- and EBPAS-based questionnaires ten themes emerged. All themes are organized by four levels from the Dynamic Adaptation Process framework: the system, organization, provider, and client level.

Our results highlight that the Happiest Baby Method can best be implemented integral with the current care practices. Professionals experience it as a practical method with parental advices that they could adapt to individual needs. They received positive feedback from parents and report important improvements in infant care. Resources and time are limited in public health and repetitive training is important to increase fidelity and self-confidence of professionals.

# SHARING EXPERIENCE ON THE GROUND YHC4VMBO: YOUTH HEALTH CARE FOR STUDENTS IN VOCATIONAL SECONDARY EDUCATION

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### Background

Students in vocational secondary education (VMBO) experience psychosocial problems almost twice as often as students from other educational levels. Additionally, VMBO students smoke more frequently and have higher rates of overweight compared to students in higher general secondary education or pre-university education. Consequently, youth health care (JGZ) has an important role in focusing on these students to promote their health and prevent illness. With four JGZ organizations, we collaborate at four VMBO schools to co-create a more dynamic approach, aiming to reduce health disparities.

### Method

We investigated what VMBO students themselves need in terms of health and wellbeing, starting with understanding what health means to them. We also explored the wishes and needs of parents, school staff, and youth health care employees. To do this, we conducted focus groups with all these stakeholders at all involved schools. We are currently analyzing the data from these focus groups, with thematic reflective analysis.

#### Results

Preliminary themes emerging from the students include "Health is doing things that make you feel good", "Outdoors as the ultimate health space", "Health is finding balance", and "High confidence in healthy behavior, but simultaneously needing support." These perspectives seem to diverge from those of parents and professionals in schools and health care.

### Discussion

Our (preliminary) results help us align better with how students think about health and wellbeing, in order to start co-creation sessions with students. Using the photovoice method, we are now

exploring more in-depth health and wellbeing needs of the students and start linking them to actions.

## LESSONS LEARNED FROM AN IMPLEMENTATION STUDY IN DUTCH YOUTH HEALTHCARE: FROM GRANT WRITING TO ANALYSIS AND VOLARISATION

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Background: Professional guidelines are constantly revised, using scientific evidence from literature and data. Scientific projects aimed on public health problems and care practices are very valuable and require bridges between care practice and research skills. These could be both available in one professional working in both practice and research, but often collaborations between academic and care professionals and organizations are required. Best practices can be used to overcome obstacles and barriers that are experienced in doing practice based research.

Aims: to investigate facilitators and best practices in collaboration between public health care practice and academic organizations.

Methods: a multidisciplinary project group appointed a national research grant (ZonMW) and performed an implementation study in two Youth Health Care teams of regional organizations. They reflect on:

- The process of grant writing: depicting clinical relevance, study design
- The collaboration between care and academic in data collection
- The use of a panel group with parents
- Sustainment of innovations after study implementation period

Results/take home messages: we present identified facilitators and best practices and invite the audience to share their experiences and reflections, resulting in a best practices document during the workshop

Thema: School Health Services in Europe: Guidelines, Researches, Challenges PROCESS EVALUATION OF THE IMPLEMENTATION OF MASS (MEDICAL ADVICE FOR SICK-REPORTED STUDENTS), INVOLVING A MULTIDISCIPLINARY YOUTH HEALTH CARE TEAM.

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Background and aims: Increased sickness absence among secondary students is often multifactorial, and can be caused by medical conditions, lifestyle and environmental factors. The MASS (Medical Advice for Sick-reported Students) intervention involves youth health care physicians (YHCP) for a thorough analysis of causes. A plan is devised with students and parents to tackle sickness absence. MASS effectively reduces absenteeism. However, it's unclear which problems necessitate the YHCP's extensive role and whether and how their involvement may vary. Other YHC disciplines like nurses, psychologists, and social workers may offer adequate care and support. This has led to a variant of MASS where the most suitable professional for discussing a student's sickness absence is determined collaboratively. This assessment is made together with parents. After the conversation with students and their parents about the sickness absence, the analysis and plan are discussed in the YHC team, where all expertise, including YHCP's expertise, is used. The aim of the research is to test the feasibility of this variant in YHC Almere, the Netherlands, and, if necessary, to refine it, identifying experiences, obstacles and success factors. Methods: Qualitative research consisting of homogeneous and heterogeneous focus groups with intermediate target groups (YHC and school professionals). The topic lists have been

drawn up using the Measuring Instrument for Determinants of Innovations. Quantitative research using questionnaires for YHC professionals regarding the process and parents regarding their experiences.

Results: YHC interviewees report successfully collaborating with parents to decide on the best discipline for the conversation about a student's sickness absence. During initial phone contact, the purpose of MASS can be explained and the appointment can be scheduled, which parents appreciate. This reduces no-shows and facilitates smoother conversations. According to the interviewees, discussing case studies within the multidisciplinary YHC team expands one's perspective, with the input of YHCP's expertise proving valuable in organizing appropriate care and support. The MASS variant necessitates the YHC to regularly evaluate the collaboration with schools regarding task allocation and mutual expectations. It also requires organizational adjustments within the YHC, such as scheduling appointments over the phone and (re)organizing multidisciplinary meetings. The questionnaires have yet to reveal how parents experience this variant of MASS.

Conclusions with Take Home Messages: This MASS variant is highly applicable. YHC

professionals of Almere have positive experiences regarding parent communication, care allocation and case discussions in the multidisciplinary YHC team. The MASS variant enables more tailored Youth Health Care. The YHC uses the potential of all disciplines, meaning everyone's expertise and social-medical network, in tackling a student's sickness absence.