Best Practices in action: how to transfer, implement, and sustain effective health promotion interventions for children (0-12)

Module 3 - Smart Family: a Best Practice to support and empower families in promoting well-being and healthy lifestyle

Session 3.2 - Pre-implementation phase of Smart Family

Unit 3.2.1 - “Baseline situation by using SWOT and Scope analysis- experiences from Greece”

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Slide 1

Hello, my name is Emmanuela Magriplis. I’m an associate professor in nutritional biology and public health in Agriculture, University of Athens, Greece, and I’m a visiting professor with the University of Patras, collaborating with Smart Family Health4EUKids, for the Work Package Smart Family.

Slide 2

And today I will be presenting you some information on Smart Family, a best practise to support and empower families in promoting well-being and healthy lifestyle, which is specifically a pre-implementation phase of Smart Family baseline situation by using SWOT analysis and scope analysis experiences from Greece.

Slide 3

At this point, what I would like to stress is that we always need a motivating factor. A motivating factor will shape our path and therefore we have the elephant, which is the majority of our brain. And then there’s the little person that is trying to make the elephant move towards the correct path, which is the frontal lobe, the small area of our brain that is trying to move and motivate our elephant. Why this is necessary? Because this is where everything when it has to have pretty cute and Smart Family takes into account. We need to be able to motivate not only the families and the children, but even the healthcare professionals or the educators in order to be able to implement and change the way the promote lifestyle and the promote dietary information and change to our children in order to reduce overweight and obesity. And epidemic that we see today and this is the point where this Joint Action has targeted to improve our well-being. Other than that, you see little pictures on the top where we have little books that I will be presenting you in detail as we go on, and of course continue education information that we have also prepared in order to promote all these actions.

Slide 4 - Smart Family Study in Greece: Two fronts

What is the Smart Family study in Greece and the two fronts that we have actually looked into? The main aims was to motivate healthcare professionals intervention approach family modify from general treatment to personalised in the area of Patras, which is was the pilot area that we started, and therefore from there on to adapt methodology for the remaining 6th Health ADM region. Therefore expand based on what information and the feedback we received and any

Co-funded by the European Union

Health and Digital Executive Agency

problems or, of course, what we actually achieved and proceed. Also, we should we did not forget that part with it when it comes to the breastfeeding and that will explain why we took these two actions in terms of duration and, of course, initiation, therefore providing not only knowledge but also skills to women throughout when they were in their gestation and therefore being beside them throughout. And this was always through trying to find the most sustainable ways and approaches which I will be presenting to you soon. This is our Smart Family. We also generated a website that I will be showing you in a little detail.

Slide 5 - Smart Family Study in Greece: Two fronts

Why these two fronts? Like we said, Smart Family study in Greece when we have, if we see the graph, we understand this is from the midterm evaluation of the EU Action Plan and Childhood Obesity that took place between 2014-2020. And the details that were actually monitored and disseminated in 2018. What we see? Greece with the EL at this point, having and showing you the highest prevalence when it comes to childhood obesity for girls and boys for the seven- and nine-year olds that we had details about. This is one front.

Slide 6 - Baby Friendly

The other front was the breastfeeding approach. But if we see again the details and the percentage of hospitals and maternities designated as Baby Friendly, therefore supporting breastfeeding according to the initiative and the percentage of babies born in such facilities, we've seen 2016, one of the lowest prevalences in Greece, which is also shown in the bar as highlighted EL, like Elláda, which means Greece in this case.

Slide 7 - Exclusive Breast Feeding

And this is the percentage of exclusively breastfeeding our children. Greece was only 1% by 6 months, so we understand, therefore that these two areas and of course we know that breastfeeding is one of the factors and the public health actions that we can support for the well-being of our child, but also to decrease obesity rates, as well.

Slide 8 - Children & Guardians (2-12 years old)

In children and Guardians 2 to 12 years old the action and the whole implementation phase that we want, this started in January 2024, which was the first Smart family intervention that began and the training. We had the implementation phase from January until July 2024, where mutual child & Guardian enrolment ended throughout after the training phase where we had the healthcare professionals on board. In June, we had the first evaluation of children that were enrolled in January. In July, the last follow up in children enrolled in April 2024 and in October 2024, after the 1st results and the first feedback received from the Healthcare professionals. The first training in the pilot programme there we have started the start the programme expansion and at this point we have reached the second training of the healthcare professionals.

Slide 9 - Children & Guardians (2-12 years old)

Throughout this process, what we did is getting the information, get receive the results, get the feedback not only from the healthcare professionals, but also from a sample of the families that took part in the whole process and therefore develop our new plan, which we will show you and the SWOT analysis before and after. Overall, before I proceed with the SWOT analysis, the pre- and post implementation, let's see that we had 47 individuals that were trained to begin with that started the training, 7 of which were actually active at the end. Total children families are enrolled were 41. The goal achieved as per primary aim, which was in the beginning 200 for the whole programme of course, was 20.5% from the pilot phase. When it came to self-evaluation questionnaire returned, we had 15 questionnaires returned and of course a 32% approximate response rate. Well, if we think about it, this is actually what we kind of expect above 20%. We believe it's a good response rate with how things are going, but

we wanted a 40% as much as possible since this was in a small area. So therefore, we were below what we had target to begin with.

Slide 10 - 2nd cycle commencement of Greek Smart Family

The second cycle commencement of Greek Smart Family, which we said we just start in July '24, we adjusted the training based on the feedback from the pilot phase then from September to December and we have trained the healthcare professionals and of course end of pilot programme adapt and adapt all materials in order to get the administration programme to the remaining 6th Healthy ADM region, health paediatricians, with modifications based on primary feedback.

Slide 11 - SWOT Modifications: Pre-Pilot vs Post-Pilot SWOT Analysis

Let's go to SWOT modifications: pre-pilot versus post-pilot SWOT analysis. The key shifts in the SWOT perspective and of course looking from theory to evidence and SWOT evolution in the beginning. So, we go into the pre-pilot:

From theory to evidence: concrete data replaces conceptual benefits.

Overall, we have: From general to specific, we have measurable outcomes versus broader goals.

From potential to pathways: clear expansion opportunities identified, all of which we will see in detail.

Some assumptions to barriers, we have real implementation challenges that were revealed, and of course, from hopeful to realistic: better understanding of participant engagement, and things to look into. And from planning to improvement: specific areas for programme enhancement, in order to make it more sustainable as we as this the majority and the aim of Health4EUKids.
So, prepared consensual planning and theoretical benefits. Most pilot evidence-based assessment with concrete metrics and key learning is the implementation reveals new insights in all areas, quadrants if you like.

Slide 12 - SWOT Modifications: Pre-Pilot vs Post-Pilot SWOT Analysis - comparing Strengths

Strengths. In the beginning, the Pre-Pilot SWOT analysis was for strengths work comprehensive approach targeting multiple populations. Focus on vulnerable groups in lower socioeconomic areas, of course. Multi-pronged objectives when it comes to breastfeeding, lifestyle, weight management and educational components for practitioners and parents, specifically.

Post-Pilot SWOT and the strengths that we were revealed and how these were modified, worked, evidence-based results. We had 83.3% exclusive breastfeeding rates at one month despite the 72% C-section rate. I guess it was something that we were anticipating based on the evidence that we had from large surveys. We have the academic output, generated abstracts for scientific conferences. Clear success metrics, best rating rates, family competence scores and of course, validated tools that were used, which is the HCCQ showed high scores 6.0 to 8.0. So, an average of 6.8 out of 7 for practitioner approach. These are the tools that were used that, like I said, they're validated in order for the families to show us whether they were actually happy with the whole process of the new methodology, which is the Smart Family approach. We also have the Smart Family Health Card, specifically where families can select behaviours to address, and of course, the multi-disciplinary engagement: we have, paediatricians, dieticians, social counsellors and nurses there for building a more collaborative team approach.

Slide 13 - SWOT Modifications: Pre-Pilot vs Post-Pilot SWOT Analysis - comparing Opportunities

When it comes to opportunities, read and post, always we have the beginning, all the support potential for child health initiatives, potential partnerships with hospitals and nurseries. Technological advancements opportunities, research and development potential. Parallel that opportunities and how this evolved. Location potential: promising results for peer-reviewed publication. Therefore, disseminating the results make them unclear, therefore strengthening the programme EU-wide implementation: part of European Joint Action programme. Protocol integration: we wanted and we can have methods that could become standard paediatric protocols, which would be a good aim and not only for Greece but overall.

Digital expansion: programme adaptable for broader digital delivery. Educational standardisation: training system for healthcare continuing education and this is why, like I said, we started to continue education programme which is there and will remained to be used in many cycles. Collaborative foundation: we have universities, hospitals and Regional Health authorities that are part of the programme, have been educated and are motivated to proceed and continue the process. And follow up studies: three to six months assessment for sustainability insights, as well. There's no programme and prevention programme without evaluations throughout.

Slide 14 - SWOT Modifications: Pre-Pilot vs Post-Pilot SWOT Analysis – comparing Weaknesses & Challenges

Let's go into comparing weaknesses and challenges, as well. What were the newly identified weaknesses? Only 29% of trained healthcare professionals actively participated. Reasons behind it? Well, we should think of the burden and the work life balance and therefore how they can be motivated or how this can be implemented in the world setting in their actual other job descriptions.

19.5% attrition rate in breastfeeding study, therefore, and this was when it came to having the lactating nurse right on top of them, about what happens when there is a video in behind it, so this is where things are modified.

We have high PCS scores which are the skills that were acquired from the [incomprehensible] families show high variability in long term maintenance. Therefore, although they like to programme. They find the programme motivating the skills they… how confident they felt were much lower. Implementation barriers: time, personnel, and material limitations, which is an issue that we need to take into account and therefore proceeding slower in order to have something that can be implemented on the long run.

And training throughout voluntary participation bias toward motivated participants, as well. We have limited geographic scope. Until now, we only have Patras. We need the feedback from the second. Now that we're expanding as well, because social and other cultural effects may have an aspect, so we need to focus on that, as well.

And the current focus on short term outcomes. We always need a long term. At this point, we cannot expect to have a decrease in prevalence of overweight and obesity. We need to take action and to have patience because it's a lifestyle we want to change in order to have the effect. And this is the area that most families and healthcare professionals need to be motivated about because the result is what they're trying to achieve. And this is how they have been trained up to now, so this is the huge change that with the Smart Family approach.

Slide 15 - Greek Smart Family Website

For doing that, we have built the website which I started with explaining in my presentation, which is the health of Smart Families and we're welcoming all families and health educators to come connect and have tools that they can have at any point. We have two heroes, we have Socrates and Alice, Alice in this case, which I'm trying to motivate children and families to get

in the programme and see the tools that are there for them. And of course, a public health book with these heroes which they can download at any point or see online where we have various nice pictures and active lifestyle and these are being expanded to a lot more.

Slide 16 - Public Health for Children

There's a Public Health for Children area not only targeting on nutrition and well-being and telling and recommending the healthy eating patterns, but also lifestyle, trying to relax, sleep then the importance of these areas. But of course, having as much movement as possible and this is not only integrating and going to basketball games or playing football, but also biking and going out with families as at all and therefore having fun, as well.

Slide 17

Let's not forget, like we said, the other area which is breastfeeding. So, in this slide you see. I'm all my little one needs worth more promoting breastfeeding in the means of actually having the skills to go through it. In this case, we did not only support women through the knowledge and how beautiful it is and how important it is to breastfeed, this is actually known, but not only because there's one lactating agent, there was on top and of course followed through the women. That are in the area of Patras. The goal in this case was to get in contact and close to as many women as possible, and therefore specific videos were also produced and prepared that can be viewed online after responding to specific questionnaires that they scan to the QR code other than the link that is in the Smart Family. So, we can get some information about their difficulties and why and how evolving with their breastfeeding, but also, they can at any point review the videos and therefore get trained on the procedures, as well.

Slide 18 - Breastfeeding (0+)

And these are the various questionnaires that they were either there in the area of Patras and therefore they have the lactating agent or their online in order to respond with the specific feedback and we use the conjointly Platform in order to collect all information.

Slide 19 - SWOT Modifications: Pre-Pilot vs Post-Pilot SWOT Analysis - Threats & Challenges (Post-Pilot)

Therefore, what did we leave threats and challenges pre and post-pilot. Newly identified challenges. Therefore, with healthcare professionals, like we said, low practitioner adoption rate. Family confidence, variability in long-term maintenance, that we said. Competing public health initiatives; low completion rates for full intervention cycle, and limited data across different social and economic groups. Newly identified challenges for breastfeeding: limited data across different socio-economic groups; EU funding dependency rate without transition to permanent support; the high C-section that may undermine breastfeeding goals, and common barriers which were latching on and insufficient milk, very often, these require cultural shifts and greater support, as well. In both cases, EU funding dependency without transition to permanent support is also and always needs to be taken into account.

Slide 20 - The Value of Pilot Implementation & Moving Forward

The value of the Pilot implementation: revealed concrete strengths backed by evidence; identified specific barriers requiring attention; highlighted clear pathways for expansion; provided realistic view of implementation challenges, and create the foundation for data-driven improvement. Transforming theoretical benefits into measurable outcomes, as much as possible. We need in order to move forward address all these issues, especially: the participation rates, because not only this is not part of being in a study, but actually maintaining it throughout and therefore having an action that will be here to stay sustainable. Reduce the attrition and strengthen therefore long-term adherence. And expand geographic reach as much as possible, which we have started doing. Develop sustainability plans reduce EU funding dependency pretty much and, of course, address systematic barriers: work with medical community on C-section rates, for example, and not only, and also supporting breastfeeding,

which is the other area that we're implementing not only having the lactating agents, but also having the paediatricians on our side, as well as other gynaecologists that women start throughout their gestation with. Plan for digital adaptation, which is a leveraged successful component for broad reach overall.

Slide 21 - Program Modifications based on Revised SWOT

Therefore, programme notification based on revised SWOT, adapting Smart Family methodologies following the pilot phase. We want to decrease in amount of data to collect and handle. We decrease the content materials, as well that the healthcare professionals had to use throughout the process when it came to lifestyle month counselling with the families. And more specific, training and tool use more interactive to make it more personal and motivate the infant further, explaining that the hurdles are not difficult when they're actually trained themselves to it. Continuous education programme is the next section which are methodologies on handling children and families with overweight and obesity for healthcare professionals, which need to be specific because they have been trained in a different way. Therefore, how these can be used and the methodology to use it in more practical ways and not only introducing them to it.

Slide 22 - Program Modifications based on Revised SWOT

So, all the Child Obesity seminar workshop: a practical workshop for healthcare professionals translating knowledge into practise which we already can have completed first cycle and now we're starting the second cycle. And of course, data collection acquired baseline measures throughout the 6th Health ADM region in order to know where we're starting, and we will be following through in six months with the aim to assess the trend and strengthen the need of new approaches.

Slide 23

Based on the data, these are the results, so we have in three different age groups that we collected data, a total of 2,739 that were acquired throughout the 6th Health ADM region; 387 2 to 5-year olds; 1,424 6 to 12-year olds and 900 and 2,813 to 18-year olds, which were all measured. And the sex and the area they came from were also collected and therefore we have a prevalence rate: 27.3 in males, 16.1% in females of overweight overall. And 8.5% in males for obesity and approximately 5.5 in the females for the distribution with a trend, as were growing older having higher rates. The majority were, like we said, between 6 to 12-year olds that we collected but the obesity status was higher in the 13 to 8-year-old, especially in boys.

Slide 24 - Smart Family Timeframe (Gantt Chart)

This is the Gantt Chart. What we've done and what we will be doing from now on based on April 2025 where we're at now. These are all the actions that have taken place and areas that we still need to collect, and how things will evolve for the most sustainable practices, and how things will be changed in order to achieve a sustainable Smart Family approach throughout and not having something that will stop within 2025, with the end of the programme.

Slide 25 - General Recommendation

You know, should do that final slide with a general recommendation. Programme design and participant engagement. We want to simplify data collection, like we said, and reduce content material burden, because healthcare professionals have already too much to do. Address the attrition rates and with targeted retention strategies. Focus interventions on areas that will acquire better skills. And develop family-specific support for common barriers that we will be collecting through all the data that we're asking for to be given to us, therefore making it more specific, we need to create more accessible formats for different socioeconomic groups in order to be able to target and reach more and different levels, and therefore, decrease in potential inequalities. Refine methodology based on implementation feedback. And develop

school-based implementation approaches, as the next step as until now, we only have the healthcare professionals that we have contacted.

When it comes to healthcare system and professional integration: develop for sustainability plans to reduce the EU funding dependency, which is through the training and the material that we have built through the Smart Family website and therefore load more into that. Improve the healthcare professional participation beyond 29% rate, which means motivating further on the importance of the lifestyle counselling to reduce obesity in the long-term and not what happens tomorrow. And create standardised protocols and continue education for them to follow. Addressing systematic barriers like the C-section is a high challenge, which of course is multiple dependent, but we need to address it and take it into account. And therefore, expand methodology throughout the 6th Health ADM region as we have repeated throughout.

Slide 26 - Thank you all for your participations!

Thank you all for your participation and for listening to this webinar.