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Democratising participatory health promotion: power and knowledge involved in engaging European adolescents in childhood obesity prevention

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Abstract

Public policy aimed at preventing undesired phenomena has increasingly sought to engage representatives of the target population. Little is known, however, about how power dynamics function to shape the processes and outcomes of risk governance engagement interventions. In order to study the ways in which, and the extent to which, power differentials can be reduced in participatory health promotion initiatives, we develop a conceptual framework synthetising theories of participatory action, phenomenology and governmentality. Based on the empirical research into youth participation in the EU project CO-CREATE, involving 15–19-year-old adolescents in five European countries (2019–2021), we show that diverse forms of knowledge may become available in engagement interventions. We analyse the use and relative inclusion and exclusion of these different forms of knowledge in terms of a three-level framework of different depths of democratisation in participatory health promotion: risk management, risk definition and risk negotiation. Advanced democratisation can only be achieved if risk negotiation is carried out in ways which embrace and encourage a range of different, and potentially conflicting forms of knowing.

Keywords: Health risk; democratisation of prevention; experiential knowledge; health promotion; public participation; childhood obesity; co-creation

Introduction

This article considers citizen participation in public policy aimed at preventing undesired phenomena. In the last decades, the need to involve those citizens who are targeted by prevention policy has been increasingly acknowledged (OECD. Organization of Economic Cooperation and Development, 2003; Stern & Fineberg, 1996; Wynne,

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1996). This is in line with social accountability initiatives which promote citizen voice to enhance public sector performance (Fox, 2015 – see also Bonvin and Laruffa's (2018) receiver-doer-judge framework). In the case of prevention, citizens' involvement in policy design and implementation is deemed especially relevant where risk causation is not simple but rather uncertain, complex and/or ambiguous (Renn et al., 2011; Van Asselt & Renn, 2012). In particular, participatory health research intended to increase participation of patients and caregivers in action-oriented research has become popular (Anyon et al., 2018). Although engagement interventions are increasingly implemented (Harting et al., 2022), research about the outputs and outcomes of engagement interventions in health risk governance is limited (Brown & Bahri, 2019). In particular, further research is needed into power differentials in participatory processes, since academic experts and policymakers are more likely to hold the capacity to influence the course of events in public policy than other citizens (Hashem et al., 2018; Milewa & Barry, 2005). This concern is even more relevant when it comes to youth participation, where age differentials add to power imbalances. Thus below we question how democratic is democratised health promotion? And if democratisation is a process through which power differentials are reduced, hence possibly a gradual process of sharing power among stakeholders, what are the conditions for advanced democratisation in participatory risk governance?

In this article we approach these questions of power differentials from the angle of the knowledge involved in participatory health promotion research. We define knowledge as the representations of facts, feelings or experiences deriving from the capacity of individuals to foster, involve and combine different forms of information. In doing so we are inspired by the phenomenology of Alfred Schutz in several regards. First, we aim to analyse the knowledge that guides the conduct of individuals in everyday life (Schutz, 1972), here focused on their perceptions of and dealings with problems of risk, risk-taking and/or risk mitigation. Second, we are interested in knowledge in the wider sense; that is 'whatever passes for knowledge in a society, regardless of the ultimate validity or invalidity (by whatever criteria) of such "knowledge"' (Berger & Luckmann, 1966, p. 15); hence including intellectual thoughts but also 'common-sense knowledge', derived from social interactions in everyday life (see also Schutz, 1962). In our view, such a broad perspective towards knowledge allows us to apprehend the diversity of knowledge at stake in participatory interventions and to question the power relations between them. Building on Schutz, but also on Foucault (1969), we scrutinise the knowledge validation processes at stake in participatory health promotion. Typically, prevention policy plans are informed by 'academic' knowledge[1] about the causation of the undesired events (Callon et al., 2001). This knowledge is acquired through research grounded in scientific methods and, as such, formally validated due to having been published in peer reviewed academic publications (Foucault, 1969). More informally, what is seen as 'academic' knowledge can also consist of claims and expectations made by scientists who are considered 'experts' in a particular field, such as health promotion. However, taking citizens' participation seriously in prevention and health promotion[2] may entail inviting other forms of knowledge of undesired events such as experiential knowledge (Baillergeau & Duyvendak, 2016; Wynne, 1996).

By experiential knowledge we refer to knowledge gained over living the life while being exposed to particular contexts (Horlick-Jones et al., 2007; Walklate & Mythen, 2011). In their daily lives, individuals happen to use such knowledge to inform their

attitude and their pragmatic decision-making with regard to certain situations, as 'recipe knowledge' in the sense of Berger and Luckmann (1966, p. 56; see also Schutz, 1946). While doing so, individuals deem their experiential knowledge valid and worthwhile for action. Considering experiential knowledge in participatory health promotion may foster other forms of validation of experiential knowledge. In such cases it is important to understand how this affects power differentials involved in participatory health promotion? While Fox (2015) framed citizen voice as a rather emergent topic in social accountability studies, we propose, by addressing the power differentials involved in participatory health promotion from a knowledge perspective, a discussion of the processes through which citizen voice is potentially nurtured and enhanced. To this end, we need to clarify the ways in which participatory exercises are likely to bring about processes of reduced power differentials in prevention.

Building on participatory action research (PAR) literature (Cammarota & Fine, 2008; Rodriguez & Brown, 2009) and governmentality theory (Burchell et al., 1991; O'Malley, 2008), we propose a three-level framework of advanced democratisation of health promotion, which we discuss based on the examination of practices in actual participatory work, that is the PAR component of the 'Confronting obesity: Co-creating policy with youth' (CO-CREATE) project. Our EU-funded collaborative project CO-CREATE involved academic researchers and a wide range of civil society stakeholders (2018–2023) in aiming to contribute to childhood obesity prevention by developing co-created policy proposals with adolescents.[3] In total, 199 15–18 year olds were involved in the 15 so-called CO-CREATE Youth Alliances for Childhood Obesity Prevention located in the Netherlands, Norway, Poland, Portugal and the United Kingdom. Based on the collection of qualitative research data (introduced in greater detail in the methodology section), we noted that the descriptors of academic and experiential knowledge do not cover the whole range of knowledge involved and that other forms of knowledge of childhood obesity were available and necessary to nurture the preparation of the outputs of the participatory exercise – the policy proposals. Below we describe the diverse forms of knowledge involved in the Alliances' participatory activities and highlight the knowledge validation processes at stake. Subsequently, we examine how the respective forms of knowledge have related to one another in the CO-CREATE Alliances. Based on these findings, we argue that, where engagement interventions reveal conflicting forms of knowledge, advanced democratisation can only be achieved if risk negotiation is carried out.

Context

In CO-CREATE, the undesired phenomena at stake are a wide range of non-communicable diseases (NCDs), including type 2 diabetes, hypertension and coronary heart disease and several cancers for which overweight and obesity in adolescence are assessed as increasing the risk (Lobstein & Jackson-Leach, 2016). In line with the global health goals (WHO, 2013), CO-CREATE aimed to contribute to lower the prevalence of overweight and obesity in adolescence. As such, like many other proposed actions aiming at alleviating health risks, CO-CREATE built on academic knowledge endorsed by (inter)governmental institutions. However, the particulars of CO-CREATE were twofold. First, whereas obesity has often been regarded as a 'simple risk' (in the sense of Renn et al., 2011), to be tackled by measures focused on individual behaviour change

(Adams et al., 2016; Tylka et al., 2014), CO-CREATE considered childhood obesity as a complex systems issue for which solutions are to be found through a systems approach (Gortmaker et al., 2011; Johnston et al., 2014; Lee et al., 2017). In this sense CO-CREATE endeavoured to go beyond simple cause-and-effect relationships to address the structural factors and whole system dynamics involved in childhood obesity, hence including analyses of both individual level factors and up-stream factors and how these interact. Second, CO-CREATE was in line with Renn et al. (2011) view according to which risk governance addressing uncertain, complex and/or ambiguous risks ought to involve affected parties in risk decision-making. CO-CREATE aimed at exploring and possibly including forms of knowledge other than established scientific research, in particular experiential knowledge. Young people were invited, during the participatory process, to explore and reflect on their own experience and their environment for research purposes and for identification of context-related opportunities and obstacles to childhood obesity prevention. This knowledge formed part of a complex system approach by acknowledging the contextual variation and micro-macro linkages. Therefore, CO-CREATE's approach actively considered experiential knowledge and endeavoured to unearth and include more of it in system modelling and policy making.

Towards a three-level framework of advanced democratisation of participatory health promotion

The ambition of inviting both academic knowledge and experiential knowledge is also salient in Youth-led PAR, which inspired the PAR component of CO-CREATE. On the one hand, in Youth-led PAR founding works (Cammarota & Fine, 2008; Rodriguez & Brown, 2009), identifying 'public problems that [youth (often low-income youth of colour in US context)] experienced in their own lives' is regarded as a critical starting point (Mirra & Rogers, 2016:1257). In Youth-led PAR, there is a genuine willingness to value 'experiential learning', as 'leading to a legitimate form of knowledge that influences practice' (Baum et al., 2006, p. 854, based on; Kolb, 1984), building on experience of everyday life. On the other hand, in Youth-led PAR, young people are actively encouraged to get acquainted with other forms of knowledge. In particular, Youth-led PAR projects are usually carried out along a specific perspective, deriving from Freire's teaching of 'encourag[ing] poor and deprived communities to examine and analyse the structural reasons for their oppression' (Baum et al., 2006, building on Freire, 1972). Likewise, Youth-led PAR projects 'push youth beyond individual level explanations of problems faced by their communities to consider and investigate broader causal factors' (Ozer & Douglas, 2013, pp. 71–72). As a result, young people are invited to consider a variety of knowledge forms in ways which we cannot expect that they would naturally complement each other. So there is a potential for tension between possibly conflicting ways to resort to knowledge of health issues.

However, our reading of PAR literature did not lead to much evidence of discussions of how these tensions can be addressed. Interestingly though, Harting et al. (2022, p. ii13) noted 'the inclusion of more diverse, extensive and context-specific bodies of knowledge' as one of the possible underlying reasons for patient and public involvement in health promotion. This 'substantive rationale' is aimed at the improvement of the quality of knowledge by the 'exchange between – and integration of – various perspectives, approaches and bodies of knowledge (Harting et al., 2022, pp.

ii13-ii14). However, the extent to which and the conditions under which such an exchange and the integration of various perspectives can be achieved were not specified. Kohfeldt and Langhout (2011) suggested various ways in which knowledge may be involved in empowerment as a result of PAR, such as through knowledge acquisition as an output of a capacity-building process towards an increased 'access to the process and products of research' (Kohfeldt & Langhout, 2011, p. 317) and through knowledge production, as output of youth-led research activities. Besides, Kohfeldt and Langhout (2011) discussed lived experience, a critical component of participatory processes geared at systemic or 'second-order' change and how this component relates to 'dominant worldviews' channelled through the news and entertainment media, schooling and public policy (2011:316; see also Bröer, Veltkamp, et al., 2023). In their view, 'lived experience' is an ambivalent resource in youth empowerment through PAR. That said, academic knowledge does not appear in what serves as an empirical basis of their discussion of 'lived experience', leaving us to wonder about how the co-presence of experiential knowledge and academic knowledge in PAR allows a discussion of power differentials in participatory health promotion.

In contrast, building on the works of Foucault (1980), governmentality scientists have strived to understand the existing regimes of power and the ways in which they 'formulate the[ir] truths and link these truths to specific programmes of government where problems are to be named and resolved' (Burchell et al., 1991; O'Malley, 2008, p. 455). This theoretical perspective therefore highlights how representations of facts, feelings or experiences should not be taken for granted but seen as 'truth' claims in power-suffused contexts. In prevention, risk is not technically neutral, rather a governmental technology guided by a governmental rationality, building on the political and moral selection of some forms of knowledge (Douglas, 1992; Ewald, 1991). While governmentality theory allows a discussion of mechanisms of domination involved in risk governance, it also allows, as argued by O'Malley (2008), a discussion of circumstances in which the perpetuation of domination may be avoided, by the building of 'strategic knowledge' (2008:455, drawing on Foucault, 1980) to be used towards the minimisation of domination in risk governance. Yet, O'Malley (2008) shows this is not an easy endeavour: Building on a study on drug harm minimisation programmes in Australia, he argued that, while guided by an inclusive purpose and informed by a nuanced take on drug use as a complex societal (or systemic) issue, harm minimisation was based on decisions meant to select certain forms of harm (defined by socio-medical experts) and discarded other definitions of harm (informed by experiential knowledge of drug use environments). These latter definitions of harm may matter much to some publics affected by the drug harm minimisation programmes. As a result, these programmes do not seem democratic: a well-informed but expert-dominated programme may not minimise domination if they are 'not open to revision' based on other forms of stakeholders' knowledge, including on how risk and harm are defined (See also Renn et al., 2011, p. 243). Nonetheless, O'Malley provides clues for a way forward towards 'democratising risk' (see also Walklate & Mythen, 2011) by including a discussion of how the risks at stake are defined (risk assessment), in particular which risks matter most, what shall be an acceptable level of risk and what constitutes security/desired reduction of risk (2008:465, building on Wynne, 1996; see also O'Malley, 2010).

Along the way, O'Malley triggers us to conceptualise advanced forms of democratised prevention in which the domination of certain forms of knowledge is likely to be minimised. We envision at least three levels in democratised health promotion.

The first-level democratisation is actualised when representatives of target population are invited to explore their experiential knowledge and to suggest citizen-friendly responses to some already identified risks (thereby validating a degree of experiential knowledge to contribute to risk management).

In second-level democratisation, representatives of target populations are invited to add to expert knowledge regarding how the risks at stake are defined (risk definition). Furthermore, we can hypothesise that, if the diversity of knowledge is taken seriously and engagement interventions reveal divergent views, there may be a third-level democratisation, in which the stakeholders negotiate their respective views towards common ground in understanding risk and undesired events, thereby moving away from the domination of a particular kind of risk knowledge (risk negotiation).

Third-level democratisation – carrying out a negotiation between different validated interpretations of risk and undesired events – may sound logical where second-level democratisation comes into the picture. However, it happens that the follow-up work of participatory risk assessment and participatory risk management is usually carried out by one particular set of stakeholders – academic and/or policy experts (Renn et al., 2011) – but possibly community-based organisations, as highlighted by O'Malley (2008) in the case of restorative justice. In such cases, the reduction of power differentials is limited, since engagement interventions do not mean 'to agree on principles and rules that should be respected in the processes and structures of collective decision-making' (Renn et al., 2011, p. 242).

In Table 1, we summarise the three levels that we will further discuss in the remainder of the article.

Methodology

Given our systemic understanding of childhood obesity twined with a participatory ambition, we investigated the CO-CREATE Alliances as cases of negotiation between different understandings of health risk. We were particularly interested in what we could learn in terms of conditions for advanced democratisation in participatory health promotion, with adolescents in particular. To address these questions, we

Table 1. Different depths of democratisation in participatory health promotion

First level democratised health promotion	Representatives of target populations contribute to risk management strategies
Second level democratised health promotion	Representatives of target populations contribute to risk definition
Third level democratised health promotion	Representatives of target populations and other relevant stakeholders contribute to risk negotiation (in case of divergent views on risk problems at stake)

examined the processes occurring in, and the outputs of, the 15 CO-CREATE 'Youth Alliances', based on a qualitative analysis of 129 structured ethnographic fieldnotes. Over the 2019–2020 school year, CO-CREATE offered a capacity building programme, resulting in 100 policy ideas for childhood obesity prevention, including 29 fully-developed policy proposals (see Bröer, Ayuandini, et al., 2023). This capacity-building programme spanned across 8–20 sessions per Youth Alliance. During these sessions, facilitators sensitised the participating adolescents to the systems approach to childhood obesity, in particular through systems-mapping workshops based on group model building (Allender et al., 2015); we trained them in research methods and in critically reflecting about their situation/environment/social contexts. The participating adolescents were to work with 'policy forms' designed to structure their ideas into a policy plan (including a target group and steps to take to implement this policy) and they did activities in order to fill the policy proposal documents. Each Youth Alliance was run by facilitators (typically early-career researchers with initial education in either sociology, psychology or nutrition) and their collaborators, called co-facilitators (young adult allies, for example school teachers or youth group leaders or members). The co-facilitators were important to bridge the age differences between the adolescents and the facilitators in order to weaken the relationship between (older) age and power/influence. There were 1 to 2 facilitators and 1 to 2 co-facilitators per Youth Alliance. Beforehand, the facilitators and co-facilitators took part in a tailor-made training in PAR and in systems-thinking and mapping. In this sense they were arguably powerful actors commissioned with an empowerment target. Adolescents were recruited based on their willingness to come up with policy ideas on the matter of childhood obesity and based on diversity criteria. Hence, just like in O'Malley's (2008) study on drug harm minimisation, the recruited participants were potentially exposed to childhood obesity but not necessarily to living with overweight or obesity themselves.

The preparation of the policy proposals ran parallel to the collection of different forms of meta-research data devised for diverse process evaluation purposes (Bröer, Ayuandini, et al., 2023; Bröer, Veltkamp, et al., 2023). In particular, one of the questions in the structured fieldnotes' framework was about whether experiential knowledge or scientific knowledge were involved in the interactions during the Youth Alliances sessions, thereby explicitly inviting the facilitators to some reflection exercise on the types of knowledge at stake in the participatory process. Likewise, the initial code book of the Youth Alliance fieldnotes included some codes about knowledge types. The codes 'experiential knowledge' and 'other knowledge' were significantly used in Dutch, Norwegian and Polish fieldnotes, as well as codes such as 'individual talk' and 'system talk'. Moreover, while analysing the fieldnotes – written by facilitators, the first and second authors coded fragments reflecting young people's use of particular forms of knowledge during the Youth Alliance programme.[4] The abductive data analysis presented below is based on several rounds of back-and-forth between CO-CREATE empirical data and academic literature and uses collaboration as a methodology for grounding and validating interpretations intersubjectively (Timmermans & Tavory, 2012).

Findings: Diverse forms of knowledge involved in CO-CREATE Youth Alliance activities

Exploring the kinds of knowledge of childhood obesity that were used in the preparation of policy proposals and that were deemed valid for political action by participating youth, we noted the CO-CREATE fieldnotes were an even richer dataset than expected. In particular, we could observe that, while the data reflected both the traces of academic knowledge of childhood obesity and of experiential knowledge of how the issue of childhood obesity featured in the lifeworlds of the young people, these two descriptors could not fully capture the whole range of knowledge in the discussion of childhood obesity in the Youth Alliances. While many fragments clearly depicted particular forms of knowledge, some other fragments rather pointed to participants' own perspective of the issue, reflecting their 'interpretive frameworks' (Schutz, 1972) often built on their own previous experiences but also on experiences they had heard of, without mentioning from whom.[5]

In all Youth Alliances, our data show evidence of academic knowledge – in particular the complex system perspectives on childhood obesity and overweight, which were brought to the attention of young people through the system mapping exercises. By asking Youth Alliance participants to come up with factors responsible for an increase in the percentage of youth living with overweight and obesity over time, facilitators engaged them in thinking about connections between factors and in defining feedback loops, as well as considering which 'areas' in the system maps were important and possible to change. For example, in a Portuguese Youth Alliance:

> *We opted to ask the youth to describe the factors and their evolution over time orally. [. . .] In general, the suggestions were related to food availability and quality; socioeconomic status; drugs and its control and knowledge; social media influencers and stress. The youth related these factors with its influence on the purchase and interest for certain products, as well as on mental health*. [P_A1_FN02]

In all Youth Alliances, young people started focusing on particular structural topics and the processes lying beyond the control of individuals, such as accessibility of gyms in a UK based Youth Alliance [UK_B2_FN02].

> *We asked the young people to specify their area of interest for a relevant policy either in pairs, groups or individually. We let everyone say their area of interest out loud. Reoccurring themes were: mental health, self-esteem (both linked to social media), price and availability of healthy foods, access to gym and sport facilities, transport and time management.*

In addition, in their own research activities, Youth Alliance participants became acquainted with scientific knowledge of obesity, in particular through websites designed to make the science more accessible, including CO-CREATE-related Healthy Voices[6] and World Obesity Day infographics. Polish facilitators mentioned how young participants started to engage with scientific knowledge themselves [PL_B1_FN03]:

> *We were pleasantly surprised that some of the participants took the task to fill out a policy form [. . .] very seriously. They even included some scientific data concerning health effects*

> *of obesity. They indicated that obesity increases risk of major chronic diseases such as fatal and non-fatal cardiovascular disease, metabolic syndrome or type 2 diabetes.'*

Our data also reflect the influences of some experiential knowledge in the interactions at the Youth Alliances. Experiential knowledge was either actively investigated when prompted or informally expressed amid group work, for example to illustrate the worth of some statement regarded as meaningful during the system mapping. For example, in one of the Dutch Youth Alliances, the photograph-based research method Photovoice (adapted from Catalani & Minkler, 2010; Wang & Burris, 1997) led some Youth Alliance members to reframe a strong sense they had had from the start: that their school canteen did not provide much healthy food and canteen practices needed to change [NL_B1_FN05:20]:

> *The Alliance members [made] pictures of the school canteen: they only sold pizza and bread with melted cheese at their canteen. Lili (pseudonym) suggested that pictures could also be made of the furniture and options to sit, since these were also not supportive to live healthy. Another location of this school was offering much healthier food, although a third location did not.*

In addition to academic knowledge and experiential knowledge of how the issue of childhood obesity featured in their lifeworlds, our data also reflected that participating adolescents used other forms of knowledge of childhood obesity in their Alliance work (for more detail see Bröer et al., 2022).

On the more formal, or abstract, side we found that policy was an important source of knowledge that adolescents looked for and shared, for instance while becoming acquainted with existing policy measures and how these policy measures were evaluated. This was typically to confirm the relevance of their initial policy idea, or when performing expert interviews. A facilitator of an Alliance in Portugal noted in the follow-up facilitator survey:

> *The research done [by adolescents] about other policies and initiatives, already in place, was crucial to further develop and strengthen the policy ideas. The Q&A sessions [with experts the young people invited], that helped to put in practice the conversational interview training, were also very important to give new and different insights to the youth alliance members, helping them to define some aspects of their policy ideas. [Facilitator Survey May 2020]*

The existing policy measures reflected a particular understanding of childhood obesity, including academic knowledge endorsed (hence validated) by policymakers but possibly also on un-evidenced values (see Parkhurst, 2017). What Alliance members handled as *policy knowledge*, therefore often consisted of different forms of knowledge. The rationale of some of the consulted measures was in line with 'systems' understandings of childhood obesity (for example sugar-tax related measures). Accordingly, we found that *obesity system map knowledge* (based on group model building) was used as a related form of knowledge. Some young people were inspired by discussing system maps made by other young people as part of CO-CREATE (Savona et al., 2021). In such cases the knowledge involved in their work may be scientific knowledge or peer knowledge and possibly combined with experiential knowledge of obesogenic environments.

Clinical knowledge also appeared to be relevant. While performing their research tasks, some young people came across local experts, such as psychological clinicians or nutritionists. The knowledge they learned from these clinical actors can be seen as hybrid knowledge, partly building on scientifically informed education and partly on the clinical knowledge accumulated over their career (Malterud, 2001; Veltkamp & Brown, 2017) and regarded by themselves as valid for health promotion-related practice.

More informally, yet concretely, *peer knowledge* was brought to the fore in many conversations. Some young people were inspired by informal talks with their peers as well as with other people they knew and quoted them as valid sources of information to discuss how likely their environments were to put young people at risk of overweight or obesity.

The adolescents in all Alliances in our study relied on *social media knowledge* as well. In their research activities, some young people were inspired by what they found on the Internet (elsewhere than Healthy Voices), sometimes informed by scientific knowledge or clinical knowledge but not systematically. In this way, some of the young people drew on the experiential knowledge of others (blog of a cook; vlog of a rapper with intimate experience of eating disorder in the case of a Dutch Youth Alliance) or the 'dominant worldviews' (Kohfeldt & Langhout, 2011), of what sounded reasonable or sensible to the young people involved. In the quote below, we can see how social media knowledge and peer knowledge (on children) were used, and also discussed.

> *The group talked about children's role models and they agreed that [a Norwegian blogger] was not a good role model for young people. They discussed that children believed everything their idols said. Storm said, 'The bloggers have credibility' to which Kaia replied that the blogger posted a video saying, 'If you are overweight you will die before you are 40 years old'. Kaia remarked, '[There] should be an age limit on videos on YouTube on sensitive/important themes, like weight, [that] everyone has to respect'. The others were in agreement with her. [NO_A1_FN03]*

This quote suggests that the extent to which such social media knowledge is deemed valid by the involved young people was debated but also that they took such knowledge to be highly influential among – and seemingly valid for – other youths.

Lastly, *PAR-knowledge* reflected a knowledge form that moved between academic and experiential knowledge. In addition to the knowledge gained throughout the project, young people in most Alliances used the outputs of their contributions for knowledge production (Kohfeldt et al., 2011). During one session one of the adolescents in a Youth Alliance in Poland reflected on these survey results (thereby connecting the results to peer knowledge and a critical reflection on information on Internet and social media):

> *In our survey, over 70% of people indicated that they had never used the advice of a dietitian. Even when we talk to our peers, people do not talk about it, because a dietitian is commonly associated with obesity or setting a particular diet [when, for example] someone practices a specific sport, [but] not with healthy habits. [. . .] People also do not have access to reliable knowledge about healthy eating. There are plenty of blogs and information about different diets on the Internet, but not all are reliable and from good sources. [PL_A1_FN04]*

The research training was inspired by social scientific methods but youth-led research activities were not always carried out in a systematic way or analysed as such, hence the outputs of these research rather qualify as 'citizen knowledge' (Schutz, 1946).

In expert-led prevention/health promotion, the knowledge available for sense-making of health risk may be primarily characterised as academic or clinical with, in some circumstances, some access to experiential knowledge of the issue at stake (Baillergeau, 2016). In contrast, we observed that, in the case of a participatory process such as the CO-CREATE Youth Alliances, young people deemed a wider set of knowledges relevant enough to be considered for the preparation of policy ideas for health promotion, deriving from various sources, and stemming from their own environment (peer knowledge) or from their involvement in Youth Alliance work (policy knowledge). Along the way, they partly rehearsed some well-established knowledge but partly also focused on unknown knowledge (that is not yet available to others - Walklate & Mythen, 2011) or somewhat under-considered knowledge. The variety of the knowledge at stake in the Alliances illustrates the extent to which, as denoted by Schutz (1972), knowledge is constructed in societal interactions, whereby individuals often combine more abstract (academic and other) ideal types with more concrete experiences of their own as well as those of others.

Knowledge-related tensions in participatory health promotion

Looking at how the knowledge of childhood obesity was used in the process of preparing policy proposals, the data show that, in most cases, several forms of knowledge were involved.

Because the adolescents were invited to learn about the systemic perspective on childhood obesity since the very beginning of the process, academic knowledge was unsurprisingly present in many initial policy ideas. However, some of these initial policy ideas were more heavily inspired by experiential knowledge. For example, in a Portuguese Youth Alliance, a group of adolescents came up with exploring the feasibility of limiting the marketing of unhealthy food products (P_B1_FN04:FN17):

> *It was possible to perceive that [filling a form after taking a picture of a supermarket's shelf full of candies next to the cashier] made them reflect in the direction they would like to take while developing further their policy idea. They discussed how the products should be displayed in the supermarket's shelves and argued that certain products perceived as healthy, such as 'diet'/'free sugar' cookies or cereals are not that healthy because they are high in salt and fat. [. . .] The group [. . .] agreed that their main aim was to limit the display of unhealthy products in the supermarkets, more specifically in the entry and exit areas.*

In this Youth Alliance, from the start significant emphasis was placed upon on exploring experiential knowledge, whereby three policy ideas were initially inspired by additions that participating adolescents made to a systems map imported from another youth group. The idea development process included other forms of knowledge. In particular, the Photovoice activity led the participating adolescents to reflect on their exposure to unhealthy food marketing and helped clarifying the aim of their policy idea. Later on, the knowledge learned from a nutritionist – building on both academic and clinical knowledge – interviewed at a Q&A session led them to refine their ideas. All in all, the initial ideas, inspired by their experiential knowledge, survived, but were complemented by bringing in other forms of knowledge.

In this example, even though different forms of knowledge of childhood obesity were involved in the formulation or development of a policy idea, the process was very much in line with the assumption that childhood obesity is a risk for NCDs that should be approached from a systemic perspective. As such, the policy idea development process brought largely compatible understandings of health risks.

However, our data show that in some groups, being invited to explore their own perception of what matters with childhood obesity led some adolescents to views that were less in line with systemic assumptions.

First, childhood obesity was discussed as a label that may work as a cause/risk for another form of undesired event that mattered (stigma), in addition to NCDs. For example in a Norwegian Youth Alliance:

> *They talked about healthy vs skinny bodies, and how the media/influencers affect people. Mari: 'I am afraid of talking about overweight and obesity if I talk to people with overweight or obesity. It is offensive and it is taboo. One cannot go to a person and say to them that they are obese'. Lasse: 'I do not go to friends and ask them about overweight'. Mari: 'I get uncomfortable because I do not like the feeling that others will think that they are not good enough'. Lasse: 'If people with overweight think they are perfect and someone ask them about overweight they could get another impression of themselves'. Mari: 'It is not important if you have some excess fat if you have a healthy body. […] The media should have the blame because they portray that the perfect body is not about having a healthy body, but a skinny body'. Lasse: 'Body weight pressure has always been present'. [NO_A1_FN03]*

In another Norwegian Youth Alliance, the participating adolescents were clearly engaged in a debate amongst themselves about the influence of stigma and taboo on overweight:

> *One person talked about body positivity as something positive, but an over acceptance can be negative. The rest of the group are agreeing to this factor. [NO_B1_FN01]*

In this example, young people pondered fighting childhood obesity with jeopardising the self-esteem of fellow young people. Likewise, in a Polish Youth Alliance:

> *The group started a discussion on a global campaign called 'Real Beauty' conducted by [a soap producer], whose main aim was to break stereotypes about female beauty and strive to strengthen self-esteem, as well as build self-acceptance among women. Participants noticed that these types of activities, apart from the positive effects, can also cause negative effects-obese people may misinterpret the message and come to the conclusion that they do not have to change their lives, don't have to lose any weight, do any sport because their body is beautiful the way it is. [PL_B1_FN02]*

In these cases, the more critical experiential perspectives on conflicting and nuancing notions of the relationships between health, weight, body norms and stigma pointed us to the underlying reasons why some initial ideas were seen as worthwhile or clear enough for the adolescents and/or for the (co)facilitators to invest in and vote for, and not others. Whereas the exact motives to place a stronger emphasis on some initial ideas rather than others remained somewhat unclear in our data, we did see a trend that the policy ideas deemed most promising by the adolescents in a number of cases aligned rather closely with the expertise of their (adult) facilitators.

In some other Youth Alliances, childhood obesity was discussed (and evaluated) as a risk for NCDs albeit not to be addressed as a systemic issue. In particular, in one of the Dutch Youth Alliances, while some students also embraced the systemic approach, being invited to regard childhood obesity as a social and political issue proved problematic for other students. Facilitator 1 reported:

> *Flam questioned why they needed to propose an idea that is healthy, and promote a healthy environment. Should they, as a group, do what [facilitators] envision as healthy? Why? What is health and according to whom? Who has designed this project? [I] acknowledged that these were good questions and that he took a critical position. Flam confirmed. [I] mentioned that you can indeed take different positions in this, and informed him that this project was on the one hand designed to promote health and well-being of the youth population, according to governmental and scientific institutions, but that they could pursue their own path here, and express their stance in this. Flam mentioned that he did not want to force or influence other people.*
>
> *Both Flam and Sara [continued to] argue in a fierce way, with some emotion/indignation, that weight, doing sport and eating is up to an individual (and the parents), and they did not want to force or influence anyone. Sara made a reference to herself and her own choices [stating that she does not want to miss out on the food she likes, regardless of her body shape], and Flam made a somewhat vague reference to his mother. Marlon and Esmeralda agreed to this standpoint. [NL_B2_FN07:FN28]*

Such discussions challenge the assumption that childhood obesity was a systemic risk that should be prevented by political action. As such, this opening indicates that the practice of participation not only contributed to problem solving but also to problem analysis, hence second-level democratisation. However, we also note how the opening to consider divergent understandings was followed by negotiation towards a co-created understanding of the problem and how to approach it, which would suggest third-level democratisation.

In the case of childhood obesity being debated in terms of stigma, although occurring in several Youth Alliances and reported in the data (hence acknowledged as relevant by the facilitators), the issue did not seem to lead to any policy ideas. In the Youth Alliance where the influence of stigma and taboo on overweight was discussed, participants chose completely different ideas to continue working with ones which they had barely discussed. There might have been different reasons for the divergent understandings of childhood obesity-related harms not being followed-up as policy ideas: Were they not deemed important enough (by young people) compared to other policy ideas inspired by visions of other (adult) expert driven forms of knowledge? Or did it seem too difficult to respond to the expressed harms? Or perhaps it seemed impossible to follow in the frame of the CO-CREATE Youth Alliances, causing the young people for whom obesity stigma was deemed important to leave the project? Unfortunately, our data do not allow a conclusive discussion here.

In contrast, our data show how other divergent understandings were followed up, such as where childhood obesity was discussed as a risk for NCDs but not to be addressed as a systemic issue in a Dutch Youth Alliance. The facilitators invited the young people to a series of debates regarding the causes of childhood obesity, for which they were to refine and document their position (using knowledge to back their argument). Facilitator 1 reported (NL_B2_FN09:FN28-29-30):

> *Overweight as individual responsibility was present in all the debates […]. The discussion around sporting activity against overweight was mostly about whether sporting activity helps and whether individuals (should) do it. In the discussion about support to buy vegetables, there was the assumption that people can work, or they can 'ask for' a vegetable garden (at the municipality). In the discussion about billboards, the youth agreed about people being responsible for what they choose to eat (including fast food) and they get what they want anyhow.*
>
> *Systemic references were nevertheless also present in all the debates […]. Regarding playing sport against overweight, it was mentioned that there are funds for youth to pay for sport (to counter the argument that people have no money to go to the gym). In the discussion about support for vegetables, it was mentioned that not everyone can work (for example due to diseases), vegetables are expensive for many people, support is needed […]. In the discussion about forbidding the marketing [of unhealthy food and drink], there was an acknowledgement that marketing, as well as fast food prices, influences eating and overweight.*

At the same session (NL_B2_FN09:36):

> *[…] Marlon and Flam argued for the government forbidding marketing on fast food and Tamara and Vanessa said in turn that it is up to an individual what choices he/she makes, and Flam confirmed: yes, we think so too, which was the end of the debate. Esmeralda and Adam argued that people with limited financial means should not be given money to buy fruit and vegetables, because they can work, or ask the municipality for a vegetable garden.*

Such debates addressed different forms of knowledge and this enhanced a co-created understanding of the issue at stake (and reported as such by Facilitator 1 who felt there was space to explore with them further). Unfortunately, due to circumstances on the day and soon after with the outbreak of the COVID-19 pandemic in March 2020, this group could not go as far as developing a policy proposal. Nevertheless, the process went far enough for us to learn about the conditions for such a negotiation.

In particular, the debates showed that the divergent understandings of childhood obesity involved were partly based on experiential knowledge (Sara who said she did not want to miss out on food she likes) or experiences of very close relatives (Flam said something that pointed to people not needing to influence his mother – it remained unclear why exactly he brought her to the fore).

Other views commonly regarded as reasonable, meanwhile, such as the assumption that people can work or can apply for a vegetable garden – converging with 'individual talk' – were also involved, and seemed quite powerful. The pervasiveness of the idea of individual responsibility regarding overweight and obesity is, in itself, not very surprising, as many public health measures remain solely focused on encouraging behavioural change. This has been noted to varying degrees in other Youth Alliances, and in almost all countries involved. In the case of this Dutch Youth Alliance, mostly populated by young people growing up in adverse circumstances, we note that the individual responsibility narrative regarding overweight and obesity aligns with the sensitive issue of their agency: often contested by outsiders, they feel they are not regarded as fully fledged citizens and they praise individual agency as their only coping strategy in the face of adversity in a world of shrinking welfare states (see Silva, 2013). Overall, our data reflect diverse forms of knowledge involved, either complementing and reinforcing each other or leading to controversies within the Alliances. We will begin the discussion section by considering what do these controversies tell us about democratisation in participatory health promotion.

Discussion

Engagement interventions in the area of health promotion provide an illuminating view of the diverse forms of knowledge involved in risk prevention where risk causation is complex, as well as a basis to discuss the extent to which participatory health promotion is actually democratic. Examining the participatory practices towards co-created responses to childhood obesity prevention involving adolescents in Europe allowed us to illustrate the two first levels; and to sketch the third level and to further conceptualise the flows between these levels.

First-level democratisation – through which representatives of the target population contribute ideas to risk management – strongly resonates with the principles of PAR (Kohfeldt & Langhout, 2011) and echoes the steps taken in many patients and public involvement projects across the globe (Brown & Bahri, 2019; Fox, 2015). Our findings indicate that the co-created responses built upon experiential knowledge as expected, but also on other forms of knowledge, including academic knowledge acquired through 'training' activities but also sometimes created thanks to participants' own research activities under the auspices of PAR. Participatory practices geared at first-level democratisation pertain to citizen-friendly responses to some undesired events identified by others.

In contrast, second-level participatory practices led representatives of the target population to contribute to knowledge regarding how the undesired events and risks at stake were defined (risk assessment), hence ahead of designing responses (risk management). Second-level democratisation may seem more self-evident for participatory practice in which target groups are already organised (Callon et al., 2001; Harting et al., 2022) than for participatory projects where they are not, like CO-CREATE. Besides, second-level democratisation does not seem self-evident for projects starting with an already identified topic drawing on academic knowledge, such as childhood obesity in the case of CO-CREATE. However, our data show discussions that challenged the initial understanding of health risk based on academic knowledge. This shows that there was some space allowed by facilitators but also by young participants for introducing other forms of knowledge involved in their own perceptions as worthwhile for analysing the issue at stake, even when it was not in line with the academic knowledge framing the initial project. While providing such knowledge a sense of validation, the participatory process led different forms of validated knowledge to be set side by side. This may also happen in participatory budgeting projects where participants are involved in problem analysis (Fox, 2015; Gonçalves, 2014).

Endorsing such an approach may entail some tensions. How these tensions are handled is at the nexus between the second and the third levels. Even if target populations are invited to take part in risk definition, it may well be that they are not involved in how their inputs are handled, hence not being in control of the fate of what they proposed. In providing space for debate, engagement interventions may move towards settings where, in the sense of O'Malley (2008), the domination of certain forms of knowledge is likely to be minimised, hence the third level is reached. In the case of CO-CREATE, dissonant voices were provided with an opportunity to further elaborate their views into a debate in which the rule was that all should seriously consider other forms of understandings, including expert knowledge. The opportunity was seized by all participants. In this sense, we suggest that third-stage democratisation was partly encountered and that the conditions for this are: a critical appraisal of the power-suffused validation

processes in the making; and an openness to consider other forms of knowledge validation and creativity to handle the consequences of taking seriously the diversity of knowledge validation processes involved in engagement interventions. Indeed, negotiation entails that the outputs of engagement interventions are not only left up to the discretion of one particular set of stakeholders.

The CO-CREATE Youth Alliances, just as any other YPAR project, bore some limitations from which we can derive some lessons and some suggestions for future research and policy-making. Limitations to this research are first that a large part of the data (fieldnotes and observations) were generated by facilitators and co-facilitators, thereby including their interpretations of and perspectives on what happened during the Youth Alliance activities. We dealt with this by encouraging the (co) facilitators to include adolescents' quotes in the fieldnotes, by discussing and analysing the fieldnotes within and across research teams, and by triangulating the fieldnotes with surveys (including open ended evaluation questions) and feedback forms filled in by the adolescents. Yet, the strong role of the (co)facilitators in the fieldnote production has surely influenced our data. Another limitation can be seen in using proposed activities for capacity building in the Youth Alliances. We purposefully gave adolescents some input and control regarding the possibility to prioritise, change or ignore the pre-suggested activities. Nevertheless, system mapping and developing policies in a structured policy form both willingly (capacity-building) and unwillingly (steering) framed and embedded these activities within our forms of knowledge and scientific or organisational 'ideal types' (see Schutz, 1972).

These settings have influenced the level of openness towards different forms of knowledge that were able to come to the fore. Positionality can also be seen in the age differentials: even though the team of researchers included somewhat younger facilitators and co-facilitators (often in their early 20's) with co-facilitators in the function of supporting the adolescents and bridging age differentials, many of the adolescents at times expected the facilitators or co-facilitators to educate them and to take a leading role.

In terms of opening up the analysis of the problem to a diversity of points of view and following up on possible differences of opinion we found at the same time that (co) facilitators did have a role here in the degree to which they enabled and facilitated openness to contestation of the risk framework underlying the chosen approach. The settings in which the Youth Alliances took place also had an influence, since co-facilitators who were the teachers as well could step in and solve contestations in an alternative way, thus acting to restore order and a 'productive' learning environment for all adolescents in class, but therefore silencing more critical voices in the process.

Conclusion

Participatory health promotion entails a range of knowledge validation processes, including chiefly individual (Berger & Luckmann, 1966), bilateral (Brown, 2009) but also collective knowledge validation processes. These combine together in different formats to potentially nurture health promotion in varied ways. In the article above we have presented and empirically illuminated three levels of risk democratisation, including risk management, risk definition and risk negotiation. Focusing on interactions ranging beyond one-way forms of information giving, these three levels complement Rowe and Frewer's (2005; see also Brown & Bahri, 2019, p. 1183) typology of three levels by questioning target group

participation in risk and science decision-making with more nuance and participatory depth. Analysing the power differentials involved meaning-making processes of health risk in participatory health promotion allows us to further specify the processes through which 'citizen voice' is substantiated (or not) in participatory health promotion.

Building on O'Malley (2008), our exploration of attempts to minimise processes of domination in risk governance suggest that participatory practices geared at advanced democratisation of prevention include opening up the analysis of the problem to a diversity of points of view and to collective follow-up of possible differences of opinion. Indeed, it matters that the diverse knowledge and their holders are invited to a debate – and capacitated if need be by advocacy training – and ensure that the debate flows into a negotiation process – the rules of which should have been agreed upon by all stakeholders – towards a common understanding and towards inclusive collaboration of knowledge of health issues. This may be a way to use inclusive deliberation techniques towards a 'smooth risk management process' (Renn et al., 2011, p. 242).

With respect to future research, we suggest that engagement interventions start the co-creative process more explicitly by asking participating stakeholders about the perceived undesired events and the related risks, their reasoning behind them, and the proposed solutions, and potential solutions they deem fruitful. From there, engagement interventions should seek to cultivate a debate in inclusive terms, with space for a diversity of views among the various stakeholders and for the experiential and value perspectives they might have gained meanwhile from participating in the process. Engagement interventions may then head towards processes of collective knowledge validation, acknowledging that no knowledge should be excluded; neither experiential knowledge nor academic knowledge, nor the forms in between. Ultimately, observing such engagement interventions may reveal further levels within the democratisation of health promotion, beyond the three elaborated in this article.

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Notes

1. Not only. In line with Parkhurst (2017), we regard prevention policy as heterogeneous, building on academically validated knowledge but also un-evidenced views.
2. In this article we largely use health promotion and prevention as synonyms. Therefore, our understanding of prevention is rooted in the health promotion movement of the 1970s in the wake of the Lalonde Report (1974) leading up to the Ottawa charter of 1986, with increased consideration for social determinants in public health.
3. http://www.co-create.eu
4. Alongside the 129 structured fieldnotes, we considered the 29 policy proposals; the feedback forms filled by participating adolescents and the minutes of follow-up meetings involving facilitators and co-facilitators one year after completion of the Youth Alliance programme.
5. In such fragments it was hard to judge which form of knowledge was involved in the reasoning so they could not be included in our analysis.
6. https://www.worldobesity.org/healthy-voices

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