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A Commercial Determinants of Health Perspective on Hospital Food for Children in High-Income Countries: We Need to Re-Prioritize Health

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A Commercial Determinants of Health Perspective on Hospital Food for Children in High-Income Countries: We Need to Re-Prioritize Health

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Abstract: This paper presents a critical narrative review of issues around hospital food for children in high-income countries. Hospitals in high-income countries do not consistently provide appropriate and healthful food environments to their patients and visitors, especially children and young people. This is concerning, as appropriate food intake is fundamental for children and young people's prevention and recovery from diseases, physical growth, and psychological development. Hospital food environments, both on wards and in hospital-based food outlets, urgently need to be improved. It is evident that the infiltration of powerful corporate operators within healthcare contexts selling and promoting calorie-dense ultra-processed foods should be avoided in order to minimize public health and patient harms. Food options that are appealing and appropriate for children from minoritized ethnic groups and/or different cultural backgrounds must be routinely provided. Hospitals should be sites of resistance from the commercial determinants of health, protecting children and young people from business interests that damage population health. Appropriate funding will be required to achieve structural changes to take place in this realm. And robust evaluation research needs to be carried out on interventions to improve children's food in healthcare settings.

Keywords: hospital food; children; young people; diet; commercial determinants of health; narrative review

1. Introduction

Health problems are typically connected to people's diets and access to appropriate food [1,2]. Research from across disciplines and contexts has highlighted how food in healthcare settings, such as hospitals, is often deemed as poor, which contributes to the perpetuation of poor health [3]. As inequalities continue to widen and pressures on healthcare systems increase, it is time to give due critical attention to food environments and food-related practices in healthcare settings, especially for children and young people. Although many studies have recognized the impact that institutional food can have on children and young people, they have mostly focused on schools [4-9] while healthcare settings have been left out of the picture. This is concerning, as an appropriate food intake is vital not only for the prevention and recovery from diseases, but also for the physical growth and psychological development of young people [10]. Rokach [11] reflects on how the hospital experience is particularly traumatic for children, who are much more vulnerable to the anxiety of understanding and adjusting to a new health condition and to the hospital environment. In this context, food is often the only element that can give a sense of relief, stability and routine. Food, for instance, can be an

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important vehicle for children to express their emotions and feel in control, when they are not able to do so verbally [12-13].

The few available studies on children's experiences of hospitalization reveal the need for a more child-centered approach to food in healthcare [11, 14, 15]. Food served in hospitals has been heavily criticized, not only for its taste and quality, but also its nutritional properties, its lack of sustainability and cultural appropriateness, and even its safety [16]. Carter et al. [17] found that the organization of food provision and food quality were amongst the three major barriers to oral food intake for children admitted to hospital. Furthermore, since the early 2000s, researchers have bemoaned the fact that many hospitals in high-income countries – such as the US, New Zealand, Canada and the UK - have been offering contracts to fast-food chains, convenience stores and vending machines selling and marketing calorie-dense and ultra-processed foods high in salt, sugar and saturated fat [18-20]. The relationship that children and young people form with food during prolonged stays in hospitals is likely to follow them for the rest of their lives, having the potential to perpetrate, increase or decrease social inequalities. A holistic overview of children's hospital food environments and food-related practices in high-income countries is needed to inform recommendations for change and areas for further research.

Contemporary food systems and the Commercial Determinants of Health (CDOH)

This review aligns key factors that determine children and young people's experiences of food in hospitals with the ways in which contemporary food systems entail an increasingly disconnected and mechanized relationship with food and eating [21] and the penetration of powerful for-profit actors and their activities in public settings [22]. The industrial focus on profit and efficiency has shifted society's focus from food quality and food-related pleasure to profit and convenience [23]; the individualization of society and busy work schedules have pushed people to eat increasingly alone rather than in groups [21]; while the standardization of society and food production, prevent individuals and groups who have different food requirements from the mainstream population from accessing appropriate food options, especially in institutional contexts [24,25]. In many hospitals in high-income countries, this has resulted in out-sourced low-quality meals [for inpatients] and fast-food chains [for staff and visitors], limited opportunities for eating socially within the wards, and a lack of provision foods that are appropriate for minoritized ethnic groups, further widening social inequalities.

In 2013, the WHO Director Margaret Chan [26] stated: "Efforts to prevent non-communicable diseases go against the business interests of powerful economic operators. In my view, this is one of the biggest challenges facing health promotion." The same year, West and Marteau [27] introduced the term "commercial determinants of health" - which was then further defined by Kickbusch et al. [28] - as a conceptual category to indicate "all the drivers and channels through which corporations propagate the non-communicable diseases pandemic". Maani et al. [29] have recognized how the CDOH are often understated, obscuring and deflecting attention from commercial sector responsibility for health inequalities and population harms. In the past few years, reviews have expanded CDOH definitions to incorporate the social structures and strategies that support the prioritization of corporate profit over population health and have called for specific research understanding how the CDOH operate in different settings [22, 30-34]. Using CDOH as a framework, this narrative review explores how our disconnection from the food system, the prioritization of business interests and the infiltration of powerful economic operators in public institutions affect food environments and practices in healthcare contexts [28].

Understanding and addressing the influence of corporate marketing practices on consumers is especially critical when it comes to vulnerable populations, such as children and young people [31]. Systems approaches that address the CDOH are needed to allow the development of healthier relationships with food and eating, improve population health and reduce social inequalities [22]. This narrative review adds to the current literature by framing the evidence available on hospital food for children and young people in high-income countries around the CDOH.

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2. Materials and Methods

Using CDOH as a framework, we conducted a review of the evidence available on hospital food provision, practices, and environments as well as children's experiences of hospitalization. Peer-reviewed articles were searched using terms such as "hospital food", "hospital food for children", "hospital food environments" and "children hospitalization". Relevant articles were then selected based on their relevance to the conceptual framework. In order to collate an up-to-date picture of the current situation and guidelines regarding hospital food for children and young people, grey literature was also consulted. This included: non-academic articles from newspapers with an international readership, national and international healthcare standards, official reports from private and non-profit organizations, and accounts by hospital food activists. The criteria did not include any restrictions on publication dates and locations. However, since the CDOH have become prominent in healthcare contexts since the beginning of the century and most literature around them has been published in high-income countries [18, 29], only articles published in high-income countries since 2000 were selected as relevant.

After analyzing the above material through a thematic approach, we grouped the issues connected to the CDOH affecting hospital food for children and young people into three thematic categories: hospital food environments; social eating; and cultural appropriateness. The review concludes with some recommendations on how hospitals can protect children and young people from business interests that go against population health.

3. Results

This section may be divided by subheadings. It should provide a concise and precise description of the experimental results, their interpretation, as well as the experimental conclusions that can be drawn.

3.1. Hospital food environments

Many of the modern conditions and illnesses that lead children to hospitalization, such as tooth decay, type 2 diabetes and other noncommunicable diseases, are mostly caused by excessive consumption of certain foods and may therefore be improved or even overcome through carefully planned, healthier diets [35, 36]. Nevertheless, hospitals in high-income countries seem to focus on curing symptoms rather than integrating food into the clinical treatment of patients [37]. Many hospitals are serving unhealthy food and fostering obesogenic environments for their patients, staff and visitors. Several sources in the past few decades have exposed and criticized how hospitals in countries such as the UK and the US have been serving children mass produced, branded food that is poor in nutritional quality and gustatory appeal, often heavily processed and high in salt, sugar and saturated fat [38, 39]. Despite the standards and guidelines aiming to improve the situation that have been designed and, at times, implemented ever since, the CDOH are still operating in many hospitals in high-income countries, where public-private partnerships that provide benefits for businesses at the expensive of public health are still determining poor food provision, practices and environments [22].

Hospitals, as institutions, are pressured to increase efficiency, optimize space and reduce costs. Consequently, they have been increasingly outsourcing meals for their inpatients from catering companies rather than cooking them on site [37]. Although this solution may reduce equipment and labor expenditure, it has many downsides: outsourcing contributes to the perception of food as service that is separated and has lower priority than clinical treatment and where cost-savings can be achieved, shifting the focus from healing, quality and pleasure to convenience and efficiency. Furthermore, outsourced meals are often made with ultra-processed ingredients, which have been linked to adverse health outcomes such as heart, kidney and liver disease, cancer and depression, especially if eaten from a young age [40, 41]. Although there may be benefits in outsourcing food provision, recent healthcare guidelines claim that these benefits do not outweigh the risks of

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implementing a culture where cooking from scratch is no longer prioritized and practiced, and therefore urge hospitals to bring back kitchens wherever possible [37, 42, 43].

Hospitals in many high-income countries have also been engaging with food retailers to attract private capital and maximize their income, offering in-hospital contracts to convenience stores, fast-food outlets and vending solutions selling and promoting ultra-processed foods that are high in sugar, salt and saturated fat to hospital staff and visitors. In 2000, an article regarding the opening of a McDonalds in the Starship Children's Hospital in Auckland (New Zealand) exposed the general concern around the health effects of fast-food on children, but also around the way the public health system is increasingly prey to the predations of private enterprise, transforming patients – even at a young age – into consumers [18]. A study surveying the food services and health programs available in a number of Canadian and US children's hospitals found that that most of them hosted fast-food franchise outlets or other outlets selling items of less nutritional value [such as convenience stores and soft drink vending machines], determining a suboptimal nutrition environment for patients and their families, as well as employees [19]. Sahud et al. [20] found that the presence of McDonald's outlets within hospitals, beyond being associated with significantly increased purchase and consumption of McDonald's food by outpatients, was also associated with the belief that the McDonald's Corporation supported the hospital financially, and higher rating of the healthiness of McDonald's food itself. This final point is key in understanding the severity of the consequences of infiltrating the CDOH into healthcare contexts, not only on patient health, but also in distorting their perceptions of for-profit brands and their aims.

The 'obesogenicity' of an environment has been defined as 'the sum of influences that the surroundings, opportunities, or conditions of life have on promoting obesity in individuals or populations' [44]. Obesogenic food environments are comprised of different elements, such as availability and accessibility of unhealthy food as well as food advertising and marketing and are perceived to be a driving force behind the obesity epidemic and other noncommunicable diseases [44]. Apart from the abovementioned studies [18-20] - published at the beginning of the century, when tendencies to compromise between health and economic goals through franchising were just becoming prominent [18] - there is a lack of peer-reviewed literature examining hospitals as obesogenic food environments. This is concerning, as many more hospitals have hosted fast-food chains, convenience stores and vending machines selling and promoting calorie-dense foods and drinks ever since. Some hospital guidelines have already emphasized the moral and health implications of having certain kinds of convenience stores, fast-food outlets and vending machines – some of the main components of obesogenic environments – inside public institutions that are aimed at practicing and promoting health and wellbeing, especially when it comes to children and young people [37, 42, 43, 62]. Thinking about these food environments through a CDOH lens can be useful in bringing attention to how corporate profit is being prioritized and how, even hospitals, are having to compromise between health and economic interests.

3.2. Social eating

Kickbush et al. [28] explain how the individualization of food and eating is both a consequence and a facilitator of the "strategies and approaches used by the private sector to promote products and choices that are detrimental to health". Fischler [21] also recognized how individualistic approaches to eating – deemed as a consequence of the reorganization of modern industrial life – have resulted in Western societies eating increasingly alone rather than in groups. A CDOH framework can be used to explain this decline in commensality: in the past decades social norms have been shaped in favor of commercial interests [34], determining contemporary society's perception of food as a commodity to be marketed and sold to individual consumers, rather than an occasion for learning and building relationships. Fischler [21] argued that this significant decline in commensality is associated with the rise of obesity, associated pathologies and other problems involving public health.

The lack of research around commensality in hospitals suggests that healthcare institutions are rarely places where social eating is considered, practiced or prioritised. In such settings, the

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individualization of eating characteristic of contemporary Western society is in fact exacerbated and amplified by impediments such as health conditions, dietary/intake mode requirements, staff and/or time restrictions, mobility impairments and lack of physical spaces and infrastructure. For children who are inpatients, this can have a severe and negative impact on their own as well as their families' wellbeing. Coyne [14] found that most of the fear and anxieties hospitalized children expressed stemmed from the separation from friends, families and familiar routines, of which social eating was a key component. Gelber [45] noted how parents should be more involved and allowed to feed their own children in hospitals, and that food should be provided to them as well as young patients so that they can eat together in the ward. The fact that commensality in the workplace has been linked to better staff cooperation, performance and wellbeing [46], suggests that creating opportunities for hospital staff and young patients to eat together could potentially develop reciprocal understanding and relationships. Some hospitals have been setting up collective dining rooms in order to encourage social eating amongst older patients, which proved to be successful for improving their physical and psychological wellbeing as well as increasing their food intake [47, 48]. However, while there have been interventions to facilitate social eating in schools, there is no evidence of initiatives to enhance children and young people's commensality being implemented within hospitals.

Social eating has been correlated to improved young people's dietary quality and psychosocial wellbeing [49-51] and a stronger sense of unity and cohesiveness amongst families [52]; it has been associated with enhanced mealtime experience, social learning and intrapersonal relationship development [53] as well as establishing children's sense of normalcy, consistency, and routine [6]. Such evidence suggests that social eating should be explored as part of hospital treatment, especially for children and young patients. This means facilitating social eating amongst young patients, but also directing funds to providing food to parents, allowing them to eat with their children rather than having to leave the bedside to go and buy their own food from private businesses within hospitals [45].

3.3. Cultural appropriateness

In high-income countries, lack of access and knowledge around culturally appropriate foods often contributes to creating barriers to the inclusion and wellbeing of migrants and ethnic minorities [54, 55]. Hospitals constitute no exception to this. Although the importance of respecting cultural diets in healthcare has been highlighted [56], hospitals' food offering still reflects the ethnocentrism of high-income societies and their markets. Raj [57] exposed how the lack of culturally inclusive food options in Western healthcare has harmful physical and psychological health effects on individuals from various ethnic minorities, such as Black, Asian and Muslim communities. A study carried out in a hospital in Norway, for instance, showed how staff's lack of knowledge around Muslim appropriate diets caused patients' distrust about the preparation and content of the food served [58]. Jaeger et al. [59] explained how, although EU hospitals tried to improve their approach to multicultural patients through the "Migrant-friendly" hospital initiative, they still lacked in care for them, especially from a paediatric perspective. In the book chapter "Going Without: Migrant Mothers, Food and the Postnatal Ward", De Souza [60] looked at the experience of migrant mothers in New Zealand postnatal hospitals, exposing the absence of culturally appropriate foods and connected challenges, such as having to prepare one's own meals in times of distress/fatigue and lack of in-ward facilities to prepare/reheat meals.

Different reviews giving recommendations for better hospital food [37, 61, 62] emphasise the urgency of designing menus that meet the needs of specific patient groups, such as individuals from Black, Asian and other ethnic minorities and children. Being served culturally inappropriate food can be particularly problematic for children, who usually have high food neophobia (defined as the reluctance to eat non-familiar foods) and are less capable than adults of expressing their cultural dietary requirements to healthcare staff [63]. Their lack of power in this realm makes them vulnerable to Western imposing narratives around food and health. In her study on hospitalised children, Coyne [14] found that food from home was among the aspects that children missed the most while in

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hospital, and that many complained about the limited options on the menu, which mostly included meals that were unhealthy and inappropriate for many cultures. The standardised outsourced meals and the Western fast-food outlets found in hospitals are unlikely to be able to provide culturally appropriate food options for children from different cultural backgrounds and ethnic minorities, causing additional distress to both young patients and their families. Paichadze et al. [31] state that the harms caused by the CDOH are amplified for vulnerable populations, such as children and young people or individuals from ethnic minorities. This is exacerbated for patients that belong to more than one vulnerable population at the same time, such as children from minoritised ethnic groups and different cultural backgrounds.

There are currently very few examples of success relating to children's hospital food highlighted, especially examples that have been evaluated. The Memorial Sloan-Kettering Cancer Centre (New York, US) improved physical and phycological patient recovery after prioritising the recreation of children's favourite foods in its wards, while Ontario's SicKKids hospital (Canada) replaced outsourced frozen meals with food cooked from scratch, prioritising children's needs and preferences, as well as local procurement and catering staff ownership. Both cases happened under the lead of professional restaurant chefs and activists Pnina Peled and Joshna Maharaj, who were on a mission to improve hospital food and prioritised spending time with children and their families, discussing food preferences, personalising menus, and recreating beloved foods from different cultures [25; 64-66]. While these examples are inspiring and demonstrate the primary role of catering staff in the delivery of good, nutritious, safe, sustainable and culturally appropriate food, they are single interventions that lack in a strategic, holistic, and reproducible approach. We also have no systematic measurement of the results that these changes achieved in the long-term. Rather than leaving it to the discretion of individual food activists, who have limited tools and scope to make long-lasting change, governments should take responsibility and invest in designing evidence-based interventions and policies that can be robustly evaluated.

4. Conclusions

This review has looked at various aspects of food in hospitals through the lens of the commercial determinants of health [CDOH]. The commodification of food and eating in high-income countries has reached the point where the interest of for-profit operators is prioritized over public health. The power of for-profit actors and their activities has managed to penetrate public institutions, such as hospitals, that are meant to promote and protect health. This is particularly concerning when it comes to children and young people, who are more vulnerable to the CDOH. Many of the causes of children's hospitalization, such as tooth decay, are determined by the CDOH in the first place [29]. The CDOH are now preventing children and young people from accessing healthy food environments, opportunities for social eating and culturally appropriate food even inside the public institutions that are meant to heal them.

Hospitals are increasingly being pressured by the commercial determinants of health [28]. It is extremely important to resist these pressures and to protect patients, especially children and adolescents, from the marketing and selling of foods that have been proven to be addictive and harmful [67, 68]. The commercial world harnesses Western neoliberal narratives that construct children as consumers, and this tendency is reflected in how food is dealt with in public spaces [12]. McDonald et al. [19] state that the adverse effect of unhealthy hospital food environments may be magnified because hospital staff, patients, and their families represent a relatively captive consumer market, while Washington [39] speaks of modern hospital patients as the "ultimate captive audience". Institutions that are meant to protect children and young people – such as schools and hospitals - should be sites of resistance from the CDOH. Beyond being an ethical obligation, this is also likely to be better for the institutions themselves. While saving money on food and offering high profit contracts to popular convenience stores and fast-food chains may seem a quick solution, it will in fact cause the healthcare system to incur much greater costs in terms of increased hospitalizations, slower recovery rates and aggravated social inequalities in the long-term.

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A culture shift and system-wide change needs to occur: food can no longer be seen as a leverage space where to maximize efficiency and reduce costs or as an opportunity for profit, but needs to be considered just as important as clinical treatment. As pinpointed by Smith [69], any genuine attempt to promote health must recognize the importance of the total social environment in which health behavior is entrenched and, rather than focusing on individual short-term solutions, we challenge the collective, structural causes of health exclusion in all their interconnected aspects. Appropriate funding should be provided to ensure a healthy, fair, sustainable, affordable, and culturally appropriate food environment for hospitalized children and their families. Beyond being a moral obligation for hospitals, this is likely to pay back in the long-term, through decreased hospitalizations, improved recovery rates, reduced social inequalities and healthier children as well as adults. UNICEF [67] advocates for governments to develop and enforce policies and regulations that ensure nutritious and affordable food and healthy and sustainable food environments for all children. Hospital food environments could, and should, be one of the most important drivers of change in this realm. In the meantime, they should resist the excessive infiltration of the CDOH in public settings, protecting children and young people from business interests that go against population health [28].

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