Facilitating Healthier Eating at Restaurants

Restaurants are understudied yet increasingly important food environment institutions for tackling diet-related diseases. This scoping review analyzes research and gray literature (n = 171 records) to assess which healthy eating promotion strategies have been implemented in restaurants and the associated motivations, barriers, and outcomes, compared by restaurant type (corporate/chain vs. independently owned restaurants) and initiator (restaurant-initiated vs. investigator-initiated). We found that the most commonly reported strategy was the increase of generally healthy offerings and the promotion of such offerings. Changes in food availability were more common among corporate restaurants and initiated by restaurants, while environmental facilitators were more commonly initiated by investigators and associated with independently owned restaurants. Aside from those associated with revenue, motivations and barriers for healthy eating promoting strategies varied by restaurant type. While corporate restaurants were also motivated by public health criticism, independently owned restaurants were motivated by interests to improve community health. Revenue concerns were followed by food sourcing issues in corporate restaurants and lack of interest among independently owned restaurants. Among reporting sources, most outcomes were revenue positive. This study shows the need for practice-based evidence and accounting for restaurant business models to tailor interventions and policies for sustained positive changes in these establishments.

1. Introduction

Foods away from home have been associated with poor dietary behaviors and diet-related health outcomes [1], leading to the implementation of policies and interventions aimed at improving the consumer food environments in restaurants. These interventions have focused on improving the foods offered and facilitating healthier eating through promotion, portion control, and other environmental changes within the establishment [2][3][4][5][6][7][8][9][10][11][12]. Past review studies have focused on specific interventions, in particular, menu calorie labeling [13][14] and nudges for healthier choices, where customer behavior is intended to be altered by how choices are presented to them [15][16]. When examining consumer health and eating behavior outcomes in restaurants, these reviews have shown neither change in a reduction in calories, nor key nutrients of concerns (saturated fat, added sugar) [16], and mixed-effects from menu labeling, with some promising effects in fast food restaurants [13], or a small effect [14].

Restaurants are complex and dynamic contexts, making intervention and policy design and implementation particularly intricate. More research is needed to understand the restaurant context, and the business-focused priorities, as factors that can facilitate or hinder the successful implementation of healthy eating promotion interventions, resulting in healthier food environments. This assessment is needed, given that most of the existing review studies focus on consumer health outcomes, as briefly reviewed above. One notable exception is the review by Blake et al. (2019), examining business outcomes reporting in healthy retail strategy evaluation research studies. The review underscored the lack of emphasis on business perspectives, where reports of retailer perceptions were described as limited and mostly addressed community stewardship, or perceptions of how the business impacted health behaviors and outcomes and the level of satisfaction with the intervention [17]. Moreover, the review merges restaurants within other food retail sources, failing to fully examine restaurants as distinct contexts.

This scoping review aims to increase understanding of the restaurant context as a site for healthy eating promotion strategies. We examined consumer-facing innovation strategies restaurants have used that may promote or facilitate healthier eating. While previous reviews have focused on public health interventions described in academic journals, we have expanded our sources by incorporating media sources and gray literature that presents the business perspective. By going beyond academic, peer-reviewed sources, we are able to document real-world practices happening outside research contexts and examine differences by change initiator (investigator vs. restaurant-led strategies). Additionally, we

also aim to expand knowledge beyond chain-based, corporate restaurants to include data regarding independently owned restaurants. This emphasis is important given the distinct differences in business approaches that exist between restaurants, which may impact how they approach the promotion of healthier eating.

2. Development and Findings

The goal of this scoping review was to examine the engagement of a wide range of restaurants in strategies or innovations to facilitate healthier eating, calling attention to independent as well as corporate or chain restaurants. Expanding beyond investigator-initiated research sources, and specifically with the inclusion of media and gray literature sources, this review provides insights from the perspective of the restaurant—a research gap in the existing academic literature as noted in pasts reviews [17]. Our assessment of real-world practices suggests that restaurants are responding to the increased customer demand for healthier offerings [18] and that this response varies according to restaurant type and who initiates the change.

Changes initiated by restaurants, mostly in corporate-owned restaurants, sought to increase the availability of healthier offerings, in general. Investigator-initiated changes and those in independently owned restaurants were mostly environmental in nature, notably the promotion of available healthier choices. This may be due to these changes being driven mostly by investigators seeking to work with healthful offerings already offered (rather than telling restaurants what foods to offer). While our review does not provide confirmation on the rationale behind this difference, this may be potentially due to investigators seeking to lower the risk of participation for the restaurants or the tangible and intangible costs involved in creating new dishes. This trend concurs with past reviews focusing on community-based restaurants, where the point of sale promotion and provision of information was the more salient intervention, compared with the increase in healthier offerings [8]. Compared with independently-owned restaurants, corporate restaurants have more resources to develop and test new offerings, respond to perceived consumer trends or avoid alienating the healthy eater in the party [19]. Independently owned restaurants often cater to a smaller customer base and operate under much narrower profit margins that can limit the experimentation with new offerings unless it is driven by an intrinsic motivation to innovate. Future research can best be used to explore these differences, examining the innovation processes driving innovation in restaurants, examining in greater detail these processes while accounting for restaurant type, such as corporate vs. independently owned, as well as categorizing establishments by price-point and target clientele. This information will provide public health practitioners more information from the business perspective, highlighting leverage points when seeking to collaborate with restaurants in future interventions.

While the changes in offerings may be encouraging, less reporting was found when examining the increase of specific health-promoting foods, as in the case of fruits, vegetables, whole grains, and salads. The innovations or changes in regards to offerings demonstrated the restaurant response to food trends, including changes made in concordance to diet "fads", as in the case of low carb or high protein offerings, which respond to popular diets as in the case of the Atkins diet or Keto diets, among others [20], and in concordance with concerns over environmental sustainability and additives in the food supply, where restaurants were seeking to promote plant-based diets, as well as dishes made with local foods or additive-free ("clean") offerings [21][22].

The analysis revealed four factors that were found to influence restaurants' ability to engage in healthy eating promotion strategies: perceptions regarding customer demand, expectations concerning revenue, views concerning community health, and food sourcing. Perceptions concerning demand and profitability were salient as both motivation and barrier, demonstrating the potentially subjective and context-dependent nature of this important factor. Glanz et al. conducted a study on menu planning where they documented the reluctance to increase healthier offerings if consumer demand is low, as these offerings can also risk spoilage and may need additional labor in preparation [19]. The sourcing of fresh ingredients, as in the case of fruits and vegetables, can also be inconsistent, further increasing the risk for these healthier offerings, which may not be viewed as profitable in the first place. At the same time, our findings concerning reported outcomes reveal that engagement in health-promoting strategies can be good for business, given the reported increase in profit, consumer acceptance, and business visibility. While our examination of outcomes was not systematic and limited to what was reported in the source, this finding concurs with Blake et al. scoping review of the effect of health-promoting strategies on business outcomes, where 45% of sources reported favorable business outcomes and only 15% were unfavorable (34% classified as "neutral"). These included retailer satisfaction, perceived customer satisfaction, and those influencing profit (i.e., Amount spent by transaction) [17]. Public health research articles focused mostly on consumer-related outcomes, including acceptability and purchasing behaviors. In concordance with Blake et al., outcomes were not well reported in terms of revenue or profit, especially in public health intervention studies [17]. These were mostly assessed relying on restaurant-provided sales data, presenting logistical barriers for researchers to obtain.

Aside from business outcomes, our findings revealed the importance placed on community health—a factor that may also be subjective and highly personal. While restaurants may be nudged to engage in healthy eating promotion strategies, by policy mandate or an investigator-led effort, the success and sustainability of such strategies will depend on the value restaurant owners place on health and whether owners perceive restaurants have a role in improving health in their communities. Lack of interest was an important barrier in sources describing investigator-led strategies, underscoring the importance of ownership and engagement when working with restaurant stakeholders. Creating the change needed cannot be sustainably done by public health interventionist plea or imposition.

Our examination of sources describing healthy restaurant business models reveals potential case studies for future research where we see a confluence of key motivations, resulting in healthy restaurant environments. These restaurants are the result of a recognition of healthful offerings as profitable, meeting perceived market demand, while also being driven to improve community health. Our examination of these restaurants was facilitated by the inclusion of gray literature, as these were not featured as part of academic intervention studies. Moving forward, building on this approach, future research can continue to examine healthy restaurant business models, gather potential lessons learned for other restaurants wishing to undertake changes to follow, and document these as success stories that can help model desired behaviors for other restaurants in the future.

Strengths and Limitations

This review used a scoping methodology, expanding the review to include new sources of information seldom incorporated in systematic reviews of interventions. This allowed us to examine changes restaurants have undertaken, independent of a public health intervention, as a business decision. The results show the trend in the industry to cater to perceived growing customer demand for healthier options in restaurants and potential changes in social norms concerning restaurants being viewed primarily as a site for indulgence. At the same time, our study is limited by publication bias and lack of reporting on key aspects, including outcomes, barriers, and motivation. We also cannot link specific strategies to their corresponding barriers, motivations, and outcomes. Our results are also limited to the US context. Our exclusion of non-US sources was primarily driven to provide a homogeneous context to our analysis, but our search and screening process yielded a relatively low number of English records, to begin with (n = 30), showcasing the need for more research in other context and reviews examining sources in languages other than English. Lastly, the sources included in this review were compiled across two decades preceding the onset of COVID-19. While this allowed us to examine changes implemented before the pandemic, the restaurant industry has been changing, responding to the pandemic and a climate of uncertainty, underscoring the need to further research how these adaptations may influence the implementation of future healthy eating promoting strategies.

3. Conclusions

This scoping review contributes to food environment research by going beyond more commonplace disciplinary boundaries used in other review studies focused on public health research articles. Our review demonstrated that most of the evidence to date was found in the real world and not in academic, peer-reviewed sources. We were able to bring forth practice-based evidence, showcasing the business perspective, as an important consideration when seeking to change food environments. This approach can be considered in future work seeking to understand system dynamics shaping food environments and persisting diet-related disparities, pushing researchers to engage in interdisciplinary and intersectoral collaborations to assess and learn from real-world practices. Our approach also allowed us to examine key differences by restaurant type, underscoring the importance of tailored approaches when seeking to address independently owned versus corporate restaurants. The former is in need of incentives-based approaches, such as subsidies or tax incentives, to create healthful changes.

The engagement of restaurants in healthy eating promoting strategies and innovations demonstrates the growing recognition of demand and need for these innovations [18]. This is further evidenced by restaurants designed with healthy eating in mind, as found in the subsample of records regarding these restaurants [23][24][25][26][27][28][29][30][31][32][33][34][35][36][37]. At the same time, these strategies, particularly those involving changes in offerings, do not seem as widely adopted in independently owned restaurants compared to corporate ones. More work is needed to create incentives that facilitate such changes, potentially including policy interventions that support these restaurants, while recognizing their important role in local communities and needs as businesses. The COVID-19 pandemic has highlighted the fragility of the restaurant industry [38], but also the adaptability of the sector when faced with the need to innovate. More research is needed to examine whether the innovations examined in this study will continue to cater to healthy eaters, or if these efforts will be halted given business-related concerns, issues with the food supplies, or the uncertainty of regulations targeting the industry, in response to the pandemic.

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