



Contents lists available at ScienceDirect

European Journal of Operational Research

journal homepage: www.elsevier.com/locate/ejor

An exploration of solutions for improving access to affordable fresh food with disadvantaged Welsh communities

Yingli Wang^{a,*}, Anne Touboulic^b, Martin O'Neill^c

^a Cardiff Business School, Aberconway Building, Colum Drive, Cardiff CF10 3EU, United Kingdom

^b Nottingham University Business School, Si Yuan Building, Jubilee Campus, Nottingham NG8 1BB, United Kingdom

^c Cardiff School of Social Sciences, Cardiff University, 12 Museum Place, Cardiff CF10 3BG, United Kingdom

ARTICLE INFO

Article history:

Received 12 August 2016

Accepted 28 November 2017

Available online xxx

Keywords:

Community operational research

Inequality

Food deserts

Soft OR

Social capital

ABSTRACT

Our research is rooted in community operational research (community OR) and adopts a qualitative problem structuring approach to exploring potential solutions for addressing inequality in access to affordable healthy food in disadvantaged communities in Wales, UK. Existing food provisions are synthesised and barriers to their effectiveness are identified. A portfolio of actions and commitment packages is co-developed with multiple stakeholders in order to bring about desired changes. Although these solutions address concerns specific to local Welsh communities, they can be generalised and applied in similar settings where food desert problems prevail. We draw upon insights from the literature on inequality, food deserts, and social capital to conceptualise the solutions around both material (providing and accessing) and social (reconnecting and strengthening) aspects. By addressing both material and social aspects simultaneously, we show how community-driven intervention can contribute to reducing inequality in disadvantaged communities. Our research experience reveals that community OR is particularly effective in tackling a 'wicked' problem such as food deserts, and allows researchers to engage with communities, gain an understanding about the problematic situation and guide intervention efforts in a sustainable and systemic manner. A number of methodological reflections are offered as a way to contribute to the development of the field as a whole.

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1. Introduction

Income inequality has been on the rise in most Organisation for Economic Co-operation and Development (OECD) countries, including the UK, for many years and the situation has worsened for the poor (OECD, 2015). Yet the concept of inequality has not received much attention in management research, and when it has, it has predominantly been from the perspective of economic and income inequality (Bapuji, 2015). Without a sufficient understanding of the complex social and economic needs of the poor, initiatives seeking to address inequality, which may be imposed by large corporations or even governments, can have unintended negative consequences (Hall, Matos, Sheehan, & Silvestre, 2012). Community OR (COR) argues that the best way to generate commitment to new practices in order to promote elevation from poverty and social inclusion is to ensure that disadvantaged and vulnerable commu-

nities play a central role in identifying problems, generating and implementing solutions (Midgley & Ochoa-Arias, 2004; Mingers & White, 2010).

COR is well-positioned to respond to such issues of inequality because improving the social welfare of the least powerful is at the heart of both its conceptual contributions and its methodological orientation (Johnson, 2012; Midgley & Ochoa-Arias, 2004). COR considers how inequality can be addressed through the improved provision of goods and services and/or social policy actions. COR demands rigour in boundary critique and flexibility in methodology in order to solve systemic, complex, 'messy' social problems such as inequality (Henao & Franco, 2016; Midgley, Munlo, & Brown, 1998; Wong & Mingers, 1994). Boundary critique suggests that to be systematic, interventions need to encompass reflections about the issues of exclusion and inclusion of the system considered (Midgley & Ochoa-Arias, 2004; Midgley et al., 1998; Midgley, Johnson, & Chichirau, 2017). It is not about generating general comprehensive theories (Midgley et al., 2017) but rather about recognising and critiquing our own boundary and value judgements in order for our analysis and intervention to be more comprehensive

* Corresponding author.

E-mail addresses: WangY14@cardiff.ac.uk (Y. Wang), anne.touboulic@nottingham.ac.uk (A. Touboulic), OneillM2@cardiff.ac.uk (M. O'Neill).

<https://doi.org/10.1016/j.ejor.2017.11.065>

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and to avoid the marginalisation of minorities (Kagan, Caton, Amin, & Choudry, 2004; Ulrich, 2000).

Our research focuses on the issue of inequality in relation to access to healthy and affordable fresh food in Wales, UK and discusses the community-driven solutions that emerged from a participative intervention. Areas where people do not have easy access to healthy and affordable fresh food – and in particular, poor communities where people have limited mobility – are known as ‘food deserts’ (Lang & Caraher, 1998; Wrigley, 2002). Food deserts represent a complex inter-linkages between growing health inequality, disparities in access to food, compromised diet, under-nutrition, and social exclusion (Walker, Keane, & Burke, 2010; Wrigley, 2002).

Studies of food deserts stress that poor access to nutritious food may be linked to poor diets and, ultimately, to obesity and diet-related diseases. Previous studies (O’Neill, Rebane, & Lester, 2004; Zachary, Palmer, Beckham, & Surkan, 2013) identified that local residents from disadvantaged communities, although keen to improve their diets, were prevented from doing so by various barriers, such as lack of access to affordable and healthy fresh produce. These studies call for non-health-care intervention and for effective intervention in retail provision to ensure the availability of diverse and affordable fresh produce (Clarke, Kirkup, & Oppewal, 2012; Zachary et al., 2013). Our project was set in some of most deprived areas of Wales (See appendix 1a), and motivated by the following overarching question:

How can we facilitate the development of community-driven solutions to alleviate the food desert problem that can serve as an integrative basis for social change?

2. The food desert problem and the social capital approach to community disadvantage

Inequality is defined by economic factors (such as pay and income) related to wealth distribution, and by normative aspects and ethical concerns (such as physical isolation and segregation) that cannot be readily measured objectively (Heathcote, Perri, & Violante, 2010; Mohan, 2002). The tangible and intangible aspects of inequality are closely interrelated and have a number of consequences such as poor health, social exclusion and eroding social capital (Ansari, Munir, & Gregg, 2012; Neckerman & Torche, 2007). Our research considers the relationship between inequality, food, and health, and specifically deals with the problem of access to affordable fresh produce. By addressing the problem of food deserts, we assert the utility of COR in tackling a grand challenge in society while developing new theoretical insights from our systemic intervention.

In Section 2.1, we articulate how inequality is linked to residential segregation, which results in difficulties for the disadvantaged regarding accessing affordable fresh produce. We address how mainstream food retail supply chains have worsened the situation as a result of their focus on profit maximisation. We then discuss how the food desert problem has led to social exclusion and negative health consequences. In Section 2.2, we explore the role of social capital in addressing the multidimensional aspect of the food desert problem.

2.1. Food deserts: a multidimensional issue

The metaphor of food deserts was coined to describe communities deprived of access to appropriate fruit and vegetable retailers in the late 1990s (Beaumont, Lang, Leather, & Mucklow, 1995). It denotes the ‘access’ component of food security. Despite a general agreement in the literature about the link between access to fresh produce, diet, and health inequality, and about food deserts being more prevalent in disadvantaged areas, there is no consensus about how food deserts are defined and identified (Wright, Don-

ley, Gualtieri, & Strickhouser, 2016; Wrigley, 2002; Walker et al., 2010). Food deserts emerge in disadvantaged communities due one or more of the following: access disparities, as a result of low income and residential segregation, or supply disparities, as a result of food retailers’ orientation towards profit maximisation – especially that of large corporations (Walker et al., 2010; Wright et al., 2016).

Residential segregation refers to a lack of diversity in the distribution and composition of the population in certain areas (Acevedo-Garcia, Lochner, Osypuk, & Subramanian, 2003). It can designate a separation between the rich and the poor as well as between ethnic minorities and majorities (Cheshire, Monastiriotis, & Sheppard, 2003; Watson, 2009). Where people live determines their social networks (Watson, 2009) as well as their access to local amenities and public goods, such as health care (Cheshire et al., 2003; Kawachi, 2002). Studies found that residential segregation reduces poor people’s access to reasonably-priced fresh produce and consequently, that living in poor neighbourhoods was associated with an increased risk of diabetes (Gaskin, Thorpe, McGinty, Bower, Rohde & Young, 2014; Zenk, Schulz, Israel, James, Bao & Wilson, 2005).

The growth of large chain supermarkets on the outskirts of cities has forced smaller, independent neighbourhood grocery stores to close, thereby creating access disparities for those with limited mobility (Coveney & O’Dwyer, 2009; Michele Ver Ploeg et al., 2009; Walker et al., 2010). Access to fresh produce is a challenge in rural areas due to the lack of supermarkets and distribution challenges faced by small grocery stores (Pinard, Byker Shanks, Harden, & Yaroch, 2016). Wright et al. (2016) and Donald (2013), point out that large chain supermarkets tend to be less interested in opening retail outlets in impoverished neighbourhoods because of their profit-seeking orientation. The lack of consumption scalability prohibits retailers from setting up stores in rural areas. Furthermore, deprived areas tend to have a higher density of fast food restaurants and corner shops selling processed food with high contents of sugar, fat and sodium (Clarke et al., 2012; Hilmers, Hilmers & Dave, 2012). These supply issues compound health problems such as obesity, which are disproportionately high in disadvantaged communities (Cetateanu & Jones, 2014; Rummo, Meyer, Green Howard, Shikany, Guilkey & Gordon-Larsen, 2015; Shaw, 2006). Unequal access to fresh produce leads to nutritional and diet-related inequalities between affluent and poor communities. It also contributes to social exclusion, which in turn reinforces health inequality among the disadvantaged. People from poor neighbourhoods have higher exposure to diseases and feel less happy due to status anxiety (how we think others see us) (Delhey & Dragolov, 2014; Inoue, Yorifuji, Takao, Doi, & Kawachi, 2013).

Therefore, ensuring proximity to local supermarkets is an important strategy for facilitating healthy eating (Apparicio, Cloutier, & Shearmur, 2007). Providing access to fresh produce is an essential step for encouraging people to eat healthily. Affordability coupled with other factors, such as culture, cooking skills, and food knowledge, is key in determining whether people will actually make a purchase (Hartmann, Dohle, & Siegrist, 2013; Pollard, Kirk, & Cade, 2002). However, despite the fact that there are currently multiple ways to shop for food, such as online shopping, access to affordable fresh produce remains a pressing problem faced by the disadvantaged worldwide. It exists across the UK (Clarke, Eyre, & Guy, 2002; Shaw, 2006), in China (as shown later in the article), the USA (Diao, 2015), Africa (Battersby & Crush, 2014), Australia (Coveney & O’Dwyer, 2009), Ireland (Layte, Harrington, Sexton, Perry, Cullinan & Lyons, 2011), France (Shaw, 2012) and Canada (Apparicio et al., 2007; Larsen & Gilliland, 2009). The food desert problem is one of the great challenges that policy-makers worldwide need to address.

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