Health & Place 25 (2014) 34–42

Contents lists available at ScienceDirect

Health & Place

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

Food, eating and body image in the lives of low socioeconomic status rural Mexican women living in Queretaro State, Mexico

Riko Kimoto [a], Dolores Ronquillo [b], Maria C. Caamaño [b], Guadalupe Martinez [b], Lisa Schubert [a], Jorge L. Rosado [b,c], Olga Garcia [b], Kurt Z. Long [a,*]

[a] School of Population Health, University of Queensland, Herston Road, Herston, QLD, Australia
[b] School of Natural Sciences, Universidad Autónoma de Querétaro, Querétaro, Mexico
[c] Cindetec AC, Universidad Autónoma de Querétaro, Querétaro, Mexico

ARTICLE INFO

Article history:
Received 1 December 2012
Received in revised form
25 August 2013
Accepted 7 October 2013
Available online 25 October 2013

Keywords:
Obesogenic environment
Mexican women
Low socio economic status
Obesity and overweight

ABSTRACT

Qualitative research using semi-structured interviews and key informant interviews were used to explore how women from low socioeconomic rural households in Queretaro State, Mexico perceived and reacted to their obesogenic environment. Reduced availability of healthy food options and household financial constraints along with reduced agency of women in this setting were factors that limited women's ability to access and consume diets consistent with the promotion of good health. The cultural values that emphasised obesity as a desirable state for women and the women's social networks that promoted these values were also identified as playing a role in reinforcing certain behaviours. Public health advocates wanting to design interventions in such settings need to be sensitive to the cultural as well as the environmental context described for rural Mexican women.

1. Introduction

The rapid increase in overweight and obesity rates in many parts of the world has become an important public health issue in the last few decades (Caterson and Gill, 2002; World Health Organization, 2003a, 2011b). In 2008, around 1.5 billion people aged over 20 years were reported to be overweight, of which 500 million were classified as obese (World Health Organization, 2011b). It is no longer the case that obesity, formerly known as a "disease of affluence", is mainly a problem in wealthy societies since it has now become an even greater burden in industrialising countries. Mexico, for example, has had a period of rapid increase in obesity in the last 25 years and so now has one of the highest obesity rates in the world (Olaiz-Felnandez et al., 2006). Additionally, nearly 35 million overweight children live in developing nations (Boutayeb and Boutayeb, 2005; Corvalán, 2006; Pan American Health Organization, 2008; World Health Organization, 2011b). This high prevalence is of concern since overweight and obesity are important risk factor for such non-communicable chronic diseases (NCCD) as type 2 diabetes, hypertension, cardiovascular disease, and specific types of cancers (Abegunde et al., 2007; Filozof et al., 2001; Pan American Health Organization, 2008; World Health Organization, 2003a; World Health Organization, 2006, 2011a; Rull et al., 2005).

The World Health Organization (WHO) has emphasised the importance of NCCDs as a neglected international health problem with currently 35 million (> 60%) of all deaths around the world directly attributed to them and this number is expected to increase to 41 million by 2015 in the absence of appropriate policy action (Abegunde et al., 2007). Approximately 80% of all deaths caused by NCCDs in developing countries are due to cardiovascular diseases, cancer, and diabetes with the age of onset and associated mortality occurring much earlier than reported in developed countries (Abegunde et al., 2007; World Health Organization, 2004). Young people who are afflicted by NCCDs in these settings have more frequent and more severe complications due to a longer exposure to such risk factors as hyperglycaemia associated with greater obesity, as well as limited treatment options available from poorly resourced health systems (Boutayeb and Boutayeb, 2005; Rull et al., 2005). Many developing countries have a "double burden of disease" with increased obesity rates occurring simultaneously with a continued high burden of infectious diseases, which places a huge burden on these countries' health systems (Boutayeb and Boutayeb, 2005; Marshall, 2004; World Health Organization, 2003b).

It is important to better understand what barriers exist for following a healthy diet and lifestyle in sites of rapid nutrition transitions by obtaining localised and gendered understandings of food, eating and body image. Accordingly, our study recruited

* Corresponding author. Tel.: +61 7 3665 5404; fax: +61 7 3365 5540.
E-mail address: k.long@uq.edu.au (K.Z. Long).

1353-8292/$ - see front matter © 2013 Elsevier Ltd. All rights reserved.
http://dx.doi.org/10.1016/j.healthplace.2013.10.004

informants among obese women from rural Querétaro, a state located north of Mexico City.

1.1. The obesogenic environment

Characteristics of the physical, sociocultural, economic and political environment that contribute to changes in energy balance and therefore to obesity rates are increasingly referred to within the public health community as the "obesogenic environment" (Caterson and Gill, 2002; Kirk et al., 2009; World Health Organization, 2003a, 2006; Swinburn et al., 1999). Key features of an obesogenic environment have been identified as environmental factors that act as barriers to maintaining a healthy weight such as the promotion of unhealthy food choices and disincentives to engage in physical activity, all of which lead to positive energy balance (Kirk et al., 2009; Swinburn et al., 1999). There has, however, been a call for a more nuanced approach in health geography studies, where place is not simply seen to create conditions for ill-health in a straightforward, top-down way, but interacts with class and gender and race (Kearns and Moon, 2002). In this literature specific stories about, for example, experiences of food and health for African Australian refugee children (Renzaho, 2004), Canadian migrant women (Dyck and Dossa, 2007) and Latino American children (Kaufman and Karpati, 2007) have helped to illustrate a more fluid and responsive relationship between settings and the people that inhabit them.

The growth of national income is associated with an increase in the prevalence of obesity among low socioeconomic status (SES) groups while simultaneously remaining elevated in high SES groups (Corvalán, 2006; Hawkes, 2006). Women from low SES households are at greater risk of becoming obese when a country's economic development passes the US$2500 per capita GNP threshold (Hawkes, 2006; Monteiro et al., 2004). Poverty can enhance an obesogenic environment due to the low quality diets consumed in low SES households (Caballero, 2005; Tanumihardjo et al., 2007). These households rely on energy-dense and nutrient poor (EDNP) foods since they are cheaper than healthy diets, which include fruits and vegetables and sources of lean animal protein (Caterson and Gill, 2002; Drewnowski and Darmon, 2005; Kennedy et al., 2004). The trend for low income groups to consume poorer quality diets is exacerbated by the impact globalisation has had on food systems worldwide as well as the marketing of food (Chopra et al., 2002; Kennedy et al., 2004).

What is less often explored is how a gender perspective – and its biological, social and economic dimensions – can help to illustrate the heterogeneous experience of populations undergoing rapid nutrition transition. An examination of factors affecting the health and nutritional status of women in one such setting of "double burden of disease" has highlighted their elevated vulnerabilities to micronutrient deficiencies and excess body weight due to the interaction of a range of both biological (early nutritional deprivation, multiparty) and social factors (exclusion of married women from the workforce, limitations on women's movement outside the home, low intake of "high status" foods), and economic constraints (Hansford, 2010).

1.2. Mexico

Mexico is now at an advanced stage of the nutrition transition, which involves complex interactions of economic, demographic and environmental processes that influence patterns of diet and physical activity and changes in body composition (Corvalán, 2006). The Food and Agriculture Organization (FAO) has reported that the average energy intake among Mexicans from 2003 to 2005 was 3270 kcal per capita per day, well in excess of the 1850 kcal daily minimum requirement (Juares and Gonzalez, 2010). This excess underlies the dramatic increase in the prevalence of overweight and obesity in Mexico. Amongst the population aged 30–60 years, 71.9% of women and 66.7% of men are either overweight or obese (Olaiz-Felnandez et al., 2006). As a consequence, NCCDs are placing a huge and increasing economic burden on the country's health system with diabetes now estimated to cost US$2.6 billion annually (Garcia-garcia et al., 2006; Rull et al., 2005).

There is a greater prevalence of overweight and obesity in rural areas of Mexico which contrasts with the lower prevalence found in rural areas in other countries (Caterson and Gill, 2002). However, it is the marginalised communities in Mexico that have the highest obesity prevalence, similar to patterns seen in other middle-income countries, such as Turkey, South Africa and Brazil (Fernald and Neufeld, 2006; Garcia-garcia et al., 2006; Monteiro et al., 2004).

The globalisation of food production that was formalised in Mexico with the introduction of the North American Free Trade Agreement (NAFTA) in 1994, as well as the acceleration of Foreign Direct Investment (FDI) from the US, is believed to have contributed to the rapid nutrition transition and the deleterious shift in the quality of the Mexican diet (Hawkes, 2006). US Corporations invested US$5.3 billion in the food processing industry in Mexico in 1999, more than double the US$2.3 billion in 1993 (Hawkes, 2006). This increased investment has led to rapid increases in the consumption of imported American fast foods and soft drinks (Hawkes, 2006).

1.3. Women in Mexico

Mexican women have a reported Gender Inequality Index (GII) of 0.382, despite the country's recent economic and social development, and there is evidence that some dimensions of gender inequality may be even more pronounced in rural areas (Frias, 2008; United Nations Development Programme, 2013). In Mexican society, gender-based violence is not uncommon, with 67% women aged over 15 years having had some experience of being mistreated (Instituto Mexicano de Investigarción en Familia y Población, 2010). One study of the health of women across seven rural Mexican states has shown relatively high prevalence of depressive symptoms, highlighting the need for more attention to poverty alleviation and improvement of educational opportunities for women (Fleischer et al., 2007).

While it is clear then that many Mexicans are exposed to an obesogenic environment as illustrated by the high proportion of the population that is overweight/obese (Olaiz-Felnandez et al., 2006), little attention has been paid to exploring lay perspectives, including women's viewpoints on this topic, despite the scale of the public health problems. This study, therefore, sought to better understand the perspectives of rural Mexican women on the topics of food, eating and body image within one particular rural location.

2. Research methods

A qualitative methodology was used based on grounded theory (GT) which aimed to provide a more comprehensive understanding of the nutrition and food-related phenomena from the participants' point of view (Harris et al., 2009). Thus the situation specific theory was formulated from data collected in interviews and from documents, which was then further revised after examining new data (Harris et al., 2009). This approach provided insights into the social and cultural environment that related to food use, dietary issues and health behaviours among women in these rural communities and so helped to clarify how these women perceived and reacted to their obesogenic environment (Harris et al., 2009).