Obesity Among Black South African Women

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INTRODUCTION

Obesity is a major public health problem among black African women in South Africa. A national sur-vey conducted in 1998 found that over a quarter (27%) of black women were overweight (BMI 25-29.9) and nearly a third (32%) were obese (BMI 30 or more) **(**Puoane et al., 2002**).** Abdominal obesity was also apparent in 35 percent (WHR >0.85). The health consequences of obesity are increased morbidity and mortality, with significantly increased health care costs (Must et al.,1999; Allison et al.,1999). Obese individuals are at a social disadvantage and may be discriminated against in employment opportunities (WHO, 2000).

On a global level, overweight is listed by the World Health Organization as one of ten leading risk factors in developed countries that contribute to the burden of disease, as measured by disability-adjusted years of life (DAYLs) (WHO, 2002). Previously obesity and associated non-communicable diseases such as Type 2 diabetes, hypertension, and ischaemic heart disease were thought to be problematic primarily in affluent countries, but they are becoming increasingly prevalent in poor nations. Countries in economic transition from undeveloped to developed, such as China, Brazil, and South Africa are particularly affected and have an increased rate of obesity across all economic levels and age groups (Popkin, 1994). The 1998 South Africa Demographic and Health Survey (Steyn et al.,2001), using self reported data from people age 15 and above in African urban settings, found a female prevalence of 14% for hypertension and 4% for diabetes. The World Health Organisation expects that by 2020 two-thirds of the world's global burden of disease will be attributable to noncommunicable conditions (WHO, 2002).

SOUTH AFRICAN CONTEXT

The recent 2001 census counted 44.8 million people living in South Africa, a rise of nearly 10 percent since the 1996 census. The heterogeneous South African population consisted of 76 percent blacks, 13 percent whites, 9 percent of mixed ancestry (coloureds) and 2.5% Indians (Statistics South Africa, 1998). The census also reveals the continuing migration of people from rural to urban areas, with more than 60 percent of the population now living in urban centers. In the last five years alone more than three million people have migrated from rural into urban areas. The largest migrating group are blacks from the rural areas in the so-called "homelands" that were introduced by apartheid law.

South Africa is classified as a middle-income country. However, it remains a very unequal society despite the changes since the introduction of democracy in 1994, with one of the highest Gini -coefficients in the world (Turok, 2001) and half of the population classified as "poor", earning less than R352.53 (equivalent to $60) per adult per month (May, 2000).

The Current Burden of Disease in South Africa

South Africa faces a quadruple disease burden, including poverty-related diseases, non-communicable diseases, injuries and HIV/AIDS. The estimated mortality profile for South Africa for 2000 was 21 percent deaths due to communicable diseases, 37 percent due to non-communicable disease, 12 percent due to injuries, and 30 percent due to HIV/AIDS (Bradshaw et al., 2003). Recent work by the Medical Research Council Burden of Disease unit has shown that noncommunicable diseases are a significant cause of mortality across all nine provinces of the country (Bradshaw et al., 2004). Given that there are considerable differences in socio-economic indicators among the provinces, these similar rates of non-communicable disease mortality gives considerable weight to the premise that these are not diseases affecting only the affluent popula-tion. In fact, data from countries undergoing transition in other parts of the world indicate that noncommunicable diseases emerge as the transition progresses. Emergence of noncommunicable disease is particularly associated with increased urbanisation which is in turn associated with an increase in the risk factors for many of these diseases, including a decrease in physical activity, an increase in high-fat diets, increases in smoking and alcohol intake, and an increase in stress.

The emergence of noncommunicable diseases in the previously disadvantaged groups in South Africa initially occurred in the coloured population, which was the first to experience

urbanisation, industrialization, upward mobility and adoption of the typical western lifestyle. For the black groups, this transition is currently in progress and is occurring predominantly in urban settings. In fact, the degree of urbanisation (expressed as the percentage of a person's life spent in the city) is related to the degree that the risk factors for and precursors of non- communicable diseases are emerging in the black group. For example, in the black group the degree of urbanisation is directly related to consumption of a typical westernized diet, smoking cigarettes at an early age in black women, and the development of diabetes and hypertension (Bourne, 1994; Steyn et al., 1994; Steyn et al., 1996).

Other factors contributing to the development of obesity in transitional countries include environmental, socio-economic, behavioral and cultural factors (WHO, 2000). Poverty, lower educational attainment and low status employment increase the susceptibility to obesity and exacerbate its progression (Ball, 2002; Kumanyika, 1993). These factors will be discussed in further detail.

Environmental Influences

The high obesity rates in adult South Africans reflect globalisation, which is the primary driving mechanism in the replacement of traditional diets rich in fruits and vegetables with diets both rich in animal fats and low in complex carbohydrates (Mollentze et al., 1993). As people move from rural to urban settings, their food choices are influenced both by what is available in their immediate environment and by aggressive marketing strategies used to promote certain products, including food prices. Urbanised populations are increasingly exposed to 'fast foods' and high-calorie carbonated drinks. In 1940, Fox reported that the African population consumed a typical traditional diet, where fat intake was only 16 percent of the total calories (Fox, 1940). By 1990 the fat intake in an urban African community had increased by more than half, to 26 percent (Mollentze et al.,1993). Results of further analysis showed that those people who had lived in cities for most of their lives were already consuming a typical westernised diet, with 30 percent of calories from total fat, while those who had spent less than 20 percent of their lives in the city consumed only 22 percent of calories from total fat (Bourne, 1996).

Beliefs and Attitudes

To many black women, being overweight is a desirable. This belief is now exacerbated by the idea that being thin can be equated with HIV/AIDS virus infection. A qualitative study by Mvo et al. (1999) has shown that large body size in the African community in South Africa was perceived to reflect affluence and happiness. This has also been confirmed in data from the urban township recently collected by the authors, who found that obese and overweight women believed that their body size reflected on a husband's ability to care for his wife and family.

Table 1: Self-reported perceptions about body weight compared to actual BMI

Body weight category	*BMI*	*% Self reported*	*% Actual*
Underweight	>18.5	16. 4	5. 6
Overweight/obese	25.0-34.5	21. 1	56. 6

Extracted from: Puoane et al. (2002).

Puoane et al. (2002) reported that although the prevalence of obesity was the highest among African women, fewer perceived themselves to be obese compared to their actual BMI (Table 1). Similar findings have been reported in the National Health Interview Survey in the USA (Dawson, 1988) This incorrect perception of body weight is also related to the participant's level of education, with the least educated women showing the greatest discrepancies between perceived and actual categories of BMI.

Socio-economic Status

Although South Africa is a middle-income country, many South African households live with poverty, and these poor households often have unsatisfactory access to clean water, energy, health care and education (May, 2000). The World Health Report 2002 states that poverty, violence, rapid social and economic changes, lack of education, inadequate services and urbanisation contribute as much to increasing cases of noncommunicable disease as they do to HIV, tuberculosis, and other communicable diseases. For example, rapid and unplanned urbanisation accelerates changes in traditional diets, physical inactivity, ready access to tobacco products, and consumption of unhealthy foods-all risk factors for noncommunicable diseases.

OTHER SIGNIFICANT CONTRIBUTORY FACTORS

Accessibility to Cheap Unhealthy Foods

Due to lack of employment, numerous street vendors set up stalls selling cheap fatty meat and fatty snacks such as "vet koek" (equivalent to

donuts). Local shops sell a limited selection of healthy food choices. For example, many only sell full-fat milk, and fruit and vegetables are often of poor quality and expensive. There are few supermarkets in many areas and most households make only a monthly trip to buy basic food supplies because it involves considerable transport cost (Puoane, 2004).

Barriers to Physical Activity

Physical activity in the westernised concept is cultural different for this population. Historically, physical activity was performed while doing agrarian related activities-tending to animals, fetching water, distant walking in lieu of car/bus transportation and additional cooking relate activities. In addition to cultural factors and beliefs related to fear of losing weight, poor environmental conditions such as a high crime rate and over-crowding, coupled with lack of resources, contribute to minimal physical activity (Puoane, 2004).

Case Study

To bring the situation into sharper focus, we provide an example of a specific urban case study which illustrates the complexity of developing strategies to prevent obesity in this population.

Cape Town - An Urban Case Study

Cape Town is a city on the southwest tip of South Africa with a population of approximately 3.3 million. There are vast disparities between the wealthy areas, where residents live in first world conditions, and the poorest areas, where residents live in conditions found in developing countries. The apartheid history of the country has led to the poorer communities being located in discrete geographical areas on the outer limits of the city, known as the Cape Flats. The city itself is divided into 11 health districts; Khayelitsha and Nyanga are the two in which most of the African black population reside.

Table 2: Socio-economic data for urban Townships in Cape Town 2002

Indicators	*Nyanga*	*Khaye-litsha*	*Total Cape Town*
% Informal dwelling	64	80	20
% No electricity	54	33	13
% Unemployed	50	47	27
% Household below poverty	57	54	25

Source: SOPH (2004)

The socio-economic indicators shown in Table 2 are worse for Khayelitsha and Nyanga than for any of the other districts.

Work carried out by the Equity Gauge Project based at the School of Public Health, University of the Western Cape, has clearly shown that residents living in these districts bear the greatest overall burden of premature mortality. They have the highest rate of communicable diseases, injuries and HIV/AIDS, and a significant amount of noncommunicable disease (Scott et al., 2001).

A recent survey of 624 household in the townships by the School of Public Health and PLAAS at the University of the Western Cape found that about two thirds (64%) of adults were unemployed. Those who received any form of income lived below the official poverty line of R352 per adult equivalent per month. Not only are wages low, but income is unstable, with employment unreliable. For example, in 32 percent of households, the main breadwinner had lost his/her job at some point during the last year, and 31 percent of households suffered the permanent loss of a full-time job during the last five years. Poor people in this study spent 30% of their salaries on food. Eighty percent of households experienced insufficient volume of food, 70% reported hunger, 54% rarely or never consumed meat and eggs, 47% rarely or never consumed fruit, and 34% rarely or never consumed vegetables (de Swart, Puoane and Tsolekile, 2004). In this situation, in spite of high levels of unemployment and poverty, obesity emerged as a problem for women. Of those women interviewed, 71 percent were overweight or obese, with only 27 percent in the normal weight range (Table 3).

Table 3: BMI of females in Cape Town urban case study 2002

BMI Ranges	*Number per category*	*Percent affected*
> 18.50	11	2.5
18.5-24.9	117	26.7
25-29-9	106	24.1
30+	205	46.7
Total	439	100.0

Source: de Swart et al. (2004).

CONCLUSION AND RECOMMENDATIONS

Both research and case studies indicate that environmental and socioeconomic factors contribute to the emergence of obesity in urban black African women. The World Health Organization' Global Strategy for prevention and control of noncommunicable diseases as well as obesity includes:

- Increasing fruits and vegetable consumption
- Limiting amounts of fat, salt and sugar in foods
- Increasing availability and affordability of health foods
- Simpler labelling of benefits and potential harmful effects of foods
- Increasing physical activity
- Maintaining healthy body weights (WHO, 2003)

These recommendations are critical for prevention, but the challenge is how to implement them with poor urban populations. More research is needed if obesity and related diseases are to be controlled in South Africa. Policies aimed at prevention and control should focus on population-based strategies and additional steps should include policies to protect children against advertisements of unhealthy food such as carbonated drinks and fatty salty snacks. Intersectoral collaboration at local and national levels should advocate for physical activity to be a requirement in all school curricula, and sports facilities available in all communities. A challenging aspect of obesity prevention in black South African, is the positive perception that both women and men attach to a large body size. Finally, it is vital to communicate the consequences of the impending obesity epidemic to all stakeholders, policy makers, health care providers and the public so that the necessary steps to reduce this disease burden can be realised.

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ABSTRACT Obesity and associated non-communicable diseases such as Type 2 diabetes, hypertension, and ischaemic heart disease were previously thought to be diseases of affluent countries, but they are becoming increasingly prevalent in developing nations. Accessibility to cheap unhealthy food, global trade and market development influence nutrition transition towards diets with high fat and sugar contents. A decrease in physical activity due to urbanization and other environmental factors such as crime and violence are thought to lead to an increased risk of obesity. Positive beliefs about body weight among black African women, together with the idea of association of thinness with HIV/AIDS virus infection are believed to fuel the obesity epidemic amongst this population This paper describes some of the contributory factors which black South African women are faced with in making choices about healthy living. A multisectoral approach will be needed to fight the epidemic of obesity and associated diseases.

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