A STUDY OF ATTITUDES AND KNOWLEDGE CONCERNING OBESITY IN AN URBAN AFRICAN COMMUNITY

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PURPOSE OF THIS STUDY

Recent work[1] has shown that 68·9% of a sample of urban African women weighed 10% or more in excess of American women of the same age and height. If health education to counteract obesity is to be successful, it must be based on some understanding of the existent attitudes and knowledge concerning obesity. This study was undertaken for 2 purposes — firstly to ascertain the beliefs and understanding of urban Africans about obesity, and secondly to see whether these are affected by age, sex, marital status, ethnic group or educational standard.

MATERIAL AND METHODS

Data were obtained by a questionnaire administered by a health educator in Lamontville — an urban municipal housing scheme for Africans. A series of 63 homes from a 1 in 65 sample was randomly selected and all volunteers over 16 years of age in the home were interviewed. Of the individuals in the sample 63% completed questionnaires.

The 112 respondents included 34 men and 78 women, 87 married and 22 single people, 81 Zulus and 28 non-Zulus. Of the respondents, 44 were less than 30 years of age and 29 were between 30 and 40 years; 31 had less than 5 years of schooling, 47 had between 5 and 8 years and 33 had 9 years or more. Discrepancies in the totals are due to incomplete returns. The smaller proportion of men than women in the sample is due to the practical difficulties of contacting working men at their homes.

A 'majority' opinion and a 'strongly-held' opinion are taken as those held by more than 50% and 75% respectively of the respondents and they will be indicated in Tables I - VI by horizontal lines dividing off those with a 75% or more, 50% or more and under 50% agreement.

The minimum number of respondents answering any item was high, viz. 103 (97·2%). The answers were expressed as 'True/false/don't know'. Those statements in which the proportion of 'don't knows' is high are indicated in the tables.

Levels of significance were based on the chi-square test (using Yates' correction).

FINDINGS

Table I lists the statements related to causes of obesity and shows that there is strongly held agreement that obesity is common in urban African women. The majority assert that obesity is associated with wealth, happiness and age and not with worries. Just over half the respondents agree that excess maize, fat or any kind of food will cause obesity. Opinion is equally divided about the effects of inheritance, childbearing, dietary intake in excess of the body's requirements and lack of exercise. A minority of respondents say that too much sugar causes obesity. This would appear to be at variance with the previous view that excess of any kind of food will cause obesity.

TABLE I. CAUSES OF OBESITY

Statement	% *Agreement*
Fatness is commoner:	
—in women than men	96·3
—in towns than in the country	86·5
—in Africans than Europeans	76·14
Fatness is caused by:	
—riches	72·9
—happiness	65·5
Fatness is not due to worries	63·9
Age causes fatness	63·6
Too many vegetables can cause fatness	59·4
Too much sugar can cause fatness	41·8 (17·3% don't know)
Eating too much of any kind of food will make you fat	56·0
Fatness can be caused by sickness	55·8
Too much maize products can cause fatness	55·0
Too much fat can cause fatness	52·7
Eating more than your body needs causes fatness	50·4
Childbearing causes fatness	50·9 (19·4% don't know)
Fatness is inherited	50·9 (19·4% don't know)
Fatness is due to lack of exercise and laziness	47·7

Table II lists the statements on food, eating habits and obesity and indicates strongly-held opinions that the diet of Africans contains excess maize and sugar products, that diet and health are related, that there is variation in the response to similar diets and that individual likes are the

TABLE II. DIET AND OBESITY

Statement	% *Agreement*
Africans eat more maize products than they need	91·0
On the same diet one person can be thin, another fat	80·2
Africans eat more sugar and sweet foods than they need	79·5
Your health is affected by your food	78·7
People should eat whatever kind of food they like	78·3
Africans eat more fat than they need	74·8
Too much food affects your health	73·8
Whenever you are hungry you should eat	68·8
Eating does not help you forget worries	67·0
People should eat as much as they like	66·1
A man should not get the biggest share of the food	63·4
Too little food affects your health	61·7
You should only eat when you have an appetite	60·2
Adults should eat more than children	57·3
Men should not eat more than women	46·8
Boys should eat more than girls	40·5 (17·4% don't know)

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criterion for choice of diet. The majority agree that excess or deficiency of food can affect health, that appetite is a criterion for the time and quantity of meals and that men should not get the biggest share of the food. Opinion is divided whether men and women or boys and girls should eat the same quantities of food.

Table III lists the statements related to obesity and the stages of development of an individual and shows that the majority regard thinness in children and babies as not necessarily abnormal. Opinion is divided on whether

TABLE III. OBESITY AND DEVELOPMENT

Statement	% *Agreement*
A thin child is not a sick child	82·1
A thin baby is not a sick baby	64·8
A pregnant woman can be too fat	55·0
A baby can be too fat	54·5 (20·7% don't know)
A child can never be too fat	48·6
It is good for a woman to be fat when pregnant	48·6
Adolescent girls should get fat	48·1

adolescent and pregnant women should be fat and whether there is an upper limit of what can be regarded as normal fatness in babies and children.

Table IV lists the statements related to the results of obesity and indicates that there is strongly-held agreement

TABLE IV. EFFECTS OF OBESITY

Statement	% *Agreement*
Fat people become short of breath and suffer from joint pains	91·9
Fatness affects the heart	89·2
It is worse for a fat person to get sick	86·1
Thin people live longer than fat people	63·4 (21·4% don't know)
Diabetes is common in fat people	61·1 (26·9% don't know)
Fat women conceive less easily than thin women	57·7 (33·3% don't know)

about the harmful effects of obesity. The majority think that diabetes and infertility may be associated with obesity, and longevity with thinness.

Table V lists those items related to attitudes to obesity and shows strongly-held opinions that obesity is undesirable, both from the health and aesthetic points of view, but opinion appears to be equally divided whether or not

TABLE V. ATTITUDES TO OBESITY

Statement	% *Agreement*
It is not healthy to be too fat	91·0
Fatness is worse than thinness	77·5
Fat people are not attractive	75·0
A fat man is not better than a thin man	68·5
It is a sign of health to be fat	48·1

fatness is a sign of good health. The majority (68·7%) do not want to change their weight in either direction.

Table VI lists items related to weight reduction and shows that the majority agree that fat people should reduce

TABLE VI. WEIGHT REDUCTION

Statement	% *Agreement*
The best person to help in reducing weight is the doctor or nurse	95·4
An *inyanga* (witchdoctor) is not the best person to help in reducing weight	90·8
To reduce weight you must exercise more	84·9
A fat person should reduce in weight	74·5
To reduce you must eat less	68·2 (19·1% don't know)

by consulting medical personnel, increasing their exercise and decreasing their dietary intake.

Table VII shows that there are a few significant differences between men and women, single and married persons, and poorly and highly educated individuals regarding some of the causes of obesity, dietary requirements and normal weight standards.

DISCUSSION

It has been shown that death rates are higher for obese persons than for those of normal weight or below.[2] In communities in which obesity is a clinical problem it is therefore important that weight control or reduction should be acceptable.

Every cultural group has its own set of attitudes, beliefs and knowledge concerning diet and health. These will directly affect their response to attempts at weight control or reduction. In addition, eating habits and the criteria of the food requirements of the two sexes and of individuals at different stages of development are also culturally influenced.

Bryant[3] in his description of the Zulu people as they were before the White man came states that men 'with corporations' and women with 'substantial buttocks' were especially admired. It is possible that these views may be undergoing modification as a result of urbanization and industrialization and diffusion of new concepts of health and disease. This would appear to be so from the fact that the majority of the respondents agree that thin, rather than fat, people are attractive, that it is not healthy to be too fat, that fatness is worse than thinness, and that it is worse for a fat person to get sick. The association that is accepted by the majority between fatness on the one hand and riches and happiness on the other may possibly mean that obesity is favourably regarded as a visible manifestation of material and emotional well-being.

The community in this study has received health education as a part of the comprehensive medical and health care programme of the Institute of Family and Community Health of the University of Natal.[4] * It is possible that consequently their knowledge concerning obesity is slightly more advanced and sophisticated than that of other urban African communities who have not yet received this kind of health education.

Briefly, the strongly held views may be summarized as follows: Diet and health are related, obesity produces

* This Institute closed down on 31 January 1961, after this article was written.

TABLE VII. SIGNIFICANT OPINION DIFFERENCES

Statement	Associated with	Respondents	Agreement No.	Agreement %	Level of significance of differences
	(a) Sex				
Lactation causes obesity	Men	34	6	17·6	P<·01
	Women	76	34	44·7	
Lactating women should be fat	Men	34	13	38·2	P<·02
	Women	67	45	67·2	
	(b) Marital status				
Childbearing causes obesity	Single	18	7	47·0	P<·05
	Married	67	46	68·6	
Boys should eat more than girls	Single	17	3	17·6	P<·01
	Married	73	41	56·2	
Men should eat more than women	Single	15	2	13·3	P<·02
	Married	76	39	51·3	
	(c) Education				
Sign of health to be fat	Less than 5 years	28	19	67·8	P<·05
	5 years and more	74	31	41·9	
A baby can never be too fat	Less than 5 years	32	21	65·6	P<·01
	5 years and more	77	27	35·1	
Adolescent girls should be fat	Less than 9 years	71	45	63·4	P<·01
	9 years and more	25	6	24·0	
	(d) Ethnic group				
Obesity caused by eating too much fat	Zulu	70	48	68·6	P<·05
	Non-Zulu	21	8	38·1	

harmful effects, fatness is not attractive, the diet of Africans contains excessive maize and sugar products, exercise is necessary for weight reduction, and people should eat whatever kind of food they like. This final statement that an individual's likes should be the criteria for choice of diet might explain some of the difficulties experienced in modifying the eating patterns of obese patients.

It is necessary to point out that this study did not define obesity and that the criteria of what constitutes obesity still have to be determined in this community. It is possible that what is regarded as the upper limit of normal weight may be very much higher than clinically established norms.

It would appear that the factors of sex, age, marital status and educational standard do not influence to any great extent attitudes, beliefs and knowledge about obesity.

SOME PRACTICAL IMPLICATIONS

There would appear to be acceptance of health promotive attitudes and knowledge about obesity in the urban African community which was studied. The aspects which seem to require further health education are the relationship between dietary excess and obesity, the maximal limits of normal weight for the individual at different developmental stages, e.g. infancy, adolescence, and pregnancy. The need for more knowledge on methods of weight control and reduction is indicated. Finally it appears that there is no necessity for specific programmes for the different sexes, age groups or educational levels in the community.

SUMMARY

The findings of a study of attitudes, beliefs and knowledge of urban Africans about obesity are presented and some of the practical implications discussed.

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