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RESEARCH ARTICLE

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# Representation of The Management of Childhood Obesity in Abidjan: Therapeutic and Psychosocial Implications

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## ABSTRACT

**Objective:** This study examines the representations of the management of childhood obesity and their therapeutic and psychosocial implications in Abidjan.

**Methodology:** This was a qualitative study conducted from 21 December 2020 to 31 March 2021 with 67 children and adolescents with obesity in the Nutrition Department of the National Institute of Public Health in Abidjan. A semi-directive interview and a medical record summary form were used to collect the data.

**Results:** The data collected, processed by Pearson's Chi-square of independence, and the results obtained, interpreted in the light of Herzlich's theory of social representations (1969), indicate that these children and adolescents were of both sexes, with a female predominance. They were all in school and their ages ranged from 6 to 18 years. Their perceptions of their care were positive in 05.97% and negative in 94.03%. The former had been able to comply with dietary restrictions and regular physical activity and had good relations with their family and friends, whereas 91.04% of the latter had not managed to do so, with 10.44% of cases of abandonment reported. 34.33% of them developed anti-social behaviour such as stealing food or money to buy food, lying, hetero-aggression and conflicts with siblings and/or parents.

**Conclusion:** Adherence to the management of childhood obesity requires consideration of the representations of the children and adolescents concerned.

## ARTICLE HISTORY

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## KEYWORDS

Representation, Management, Childhood obesity, Abidjan.

## Problematics

Childhood obesity is now a major public health problem worldwide due to its prevalence and its multiple and serious health and psychosocial effects [1]. It presents itself in several clinical forms [2] and is defined as "an abnormal or excessive accumulation of body fat that can impair health" [3,4]. Certain categories of children, such as only children, migrant children and those from low socio-economic backgrounds, are reported to be more at risk than others.

In 2016, it was estimated that there were more than 124 million obese children and adolescents aged 5-19 worldwide, a quarter of whom lived in Africa, with the majority in North Africa [3]. In Côte d'Ivoire, although its exact prevalence is not known, the number is estimated at around 10% with an increasing prevalence [5-7]. It is a frequent reason for consultation and is thus increasingly being medicalised nowadays. Although it is difficult to treat obesity due to its multifactorial origin (biological, psychological, cultural, sociological and economic) [4], the consultation services try to rely on the recommendations in force to propose a multidisciplinary management recognised as being more effective in making the patients concerned lose weight [8,9]. This management is fundamentally based on changing behaviour and habits that are often firmly anchored. It recommends dietary restrictions to stop binge eating as a key factor, and regular physical activity of at least one hour per day. However, as social definitions of obesity differ from medical definitions [10], the disease and its management are variously represented [11,12]. This is generally represented by patients as being so restrictive that it is ineffective for around 70% of them [4,13]. However, representations influence the use of and adherence to treatment [14,15].

In Abidjan, the treatment of childhood obesity is provided at the request of parents by the Nutrition Department of the National Institute of Public Health (INSP), which is one of the references in this field. Here again, young obese patients have their own representations of this care, which they do not request.

The context of the health crisis, in which people suffering from obesity are presented as a population that is doubly at risk and doubly fragile in the face of Covid-19 and its consequences [16,17], prompts us to examine the representations of the children and adolescents concerned.

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Previous studies conducted on obesity among children and adolescents in Côte d'Ivoire are not only insufficient in number, but also and above all, have all focused on the increase in its prevalence [5-7]. They have not focused on their therapeutic approach, and in particular on the psychological aspects, which are not negligible [18,19]. The present study, which is concerned with this concern, proposes to answer the following questions:
-What representations have children and adolescents with obesity formed with regard to the care offered to them at the Nutrition Service of the INSP of Abidjan?
-What are the therapeutic and psychosocial implications of these representations?

These questions form the basis of the present study, which is in line with Herzlich's theory of social representations (1969), which is based on the postulate that human beings always construct a nosological representation of illness that influences their use of care.

It is based on the general hypothesis that the therapeutic and psychosocial implications of obesity management vary according to the representations constructed by the children and adolescents who receive it.

The operational hypothesis states that children and adolescents with obesity who have constructed a positive representation of their care are more likely to adhere to the diet, engage in regular physical activity and maintain good relationships with their environment, while their peers with a negative representation do not.

## Methodology

### Type, setting and duration of the study

The present study is qualitative and was carried out during the care activities of the Nutrition Department of the National Institute of Public Health in Abidjan (Côte d'Ivoire) from 21 December 2020 to 31 March 2021.

## Presentation of the variables

### Independent variable

The independent variable of this study is representations and refers to the symbolic construction, image or opinion that these children and adolescents have of their care. It is qualitative in nature and has two modalities. The first modality, which is positive representations of care, means that the children and adolescents concerned by the study have a positive image of it and see it as a way of losing weight, maintaining good health, and as an affectionate gesture on the part of parents.

The second modality, negative representations, on the other hand, refers to a negative image of care. Here, the children and adolescents see it as a wish, a punishment, an exclusion, suffering, deprivation and a lack of affection from their parents.

### Dependent variable

The dependent variable is "therapeutic and psychosocial implications" and refers to the health-related behaviours and social interactions that result from these representations. The former refers to adherence to diet and regular physical activity in order to lose weight. The second concerns relations with the family circle. It is also qualitative in nature with two modalities. The first modality, which is the positive implications, reflects healthy behaviours, i.e. the child or adolescent respects his or her diet, practises regular physical activity and maintains good relations with his or her family.

On the other hand, the second modality, negative implications, refers to unhealthy behaviours, which indicate that the child or adolescent does not respect his or her diet, does not practise regular physical activity and does not maintain good relations with his or her family.

All of the above modalities were assessed through the semi-structured interview.

### Presentation of the study sample

The study sample was constituted through purposive sampling during the therapeutic follow-up of children and adolescents with obesity in the Nutrition Department of the National Institute of Public Health (INSP) in Abidjan from 21 December 2020 to 31 March 2021. The children and adolescents were included if they were diagnosed as obese, if they had completed the required biological work-up, if no disability and/or chronic morbid pathology had been detected either clinically or biologically, and if they had expressed their consent with their parents to participate in the study.

Overweight children and adolescents, pregnant and lactating obese adolescents, and other patients not in childhood or adolescence were excluded. Thus, the study sample consisted of 67 obese children and adolescents.

### Data collection instruments

Data collection for the present study was carried out by means of a medical record summary sheet and a semi-structured interview. A summary sheet was developed to analyse the information contained in the respondents' medical records. The data collected concerned the results of the biological check-up, anthropometric measurements and the diet instituted.

The semi-structured interview was structured around three main points. The first point concerned the socio-demographic characteristics of the respondents, the second concerned the current treatment (duration, content, difficulties encountered, coping strategies), and the third and final point concerned their representations and their therapeutic and psychosocial implications.

It was an individual questionnaire that we administered to 67 children at the Nutrition Department of the INSP in Abidjan for an average of half an hour during the study period.

### Analysis and interpretation of the data

The data from the study were analysed using Microsoft Excel and entered into Microsoft Word, giving the following results.

## Results

The results of the study will be structured around the presentation of the socio-demographic characteristics of the respondents, and that of their representations and the resulting therapeutic and psychosocial implications.

**Table 1:** Characteristics of the members of the study sample (N=67).

| Variable | Characteristics | Number | Perrcentage |
|---|---|---|---|
| **Sex** | Boys | 29 | 43,28 |
| | Girls | 38 | 56,71 |
| **Age range** | 06-09 years | 12 | 17,91 |
| | 10-14 years | 34 | 50,75 |
| | 15-18 years | 21 | 31,34 |
| | Average age | 12,01 years | |
| **Educational level** | Primary | 21 | 31,34 |
| | Lower secondary | 29 | 43,28 |
| | upper secondary | 17 | 25,37 |
| **Nationality** | Ivorians | 49 | 73,13 |
| | Non Ivorians | 18 | 26,87 |
| **Rank in siblings** | Only child | 13 | 19,40 |
| | Having at least one brother or sister | 54 | 80,60 |

**Source**: Interview/field survey 21 December - 31 March 2021.

According to this table, there were 67 respondents, 38 of whom were girls. Their ages ranged from 6 to 18 years and their average age was 12.01 years, with a maximum of 10-14 years. They were all enrolled in school, with 31.34%, 43.28% and 25.37% respectively in primary, lower and upper secondary education. With regard to nationality, 73.13% were nationals compared to 26.87% who were non-nationals. 19.40% were only children against 80.60% who had brothers and/or sisters.

**Table 2:** Distribution of the number of respondents according to the representations of their care and their therapeutic and psychosocial implications.

| **Représentations** | | | | | | |
|---|---|---|---|---|---|---|
| **Therapeutic and psychosocial implications** | **Positive** | | **Négative** | | **Total** | |
| | **Number** | **%** | **Number** | **%** | **Number** | **%** |
| **Healthy behaviours** | 03 | 04,48 | 02 | 02,99 | 05 | 07,47 |
| **Unhealthy behaviours** | 01 | 01,49 | 61 | 91,04 | 62 | 92,53 |
| **Total** | 04 | 05,97 | 63 | 94,03 | 67 | 100 |

According to this table, among the 05 (07.47%) of children and adolescents who had adopted healthy behaviours, 03 (04.48%) had built up positive representations with regard to their care, compared to 02 (02.99%) for whom the representations were negative. Conversely, among the 62 (92.53%) who had adopted unhealthy behaviours, 01 (01.49%) had a positive representation, compared to 61 (91.04%) for whom the representations were negative.

The use of the chi-square statistical test resulted in a calculated value of 18.56. This value is higher than the theoretical X2 (6.6349) and is significant at the probability threshold $P \geq 0.05$ and at 1 degree of freedom (Ddl).

This result, which indicates a significant difference, allows us to maintain that the representations of the management significantly influence the health behaviours and social interactions of obese children and adolescents followed up at the Nutrition Department of the NIPH of Abidjan.

### Interpretation and Discussion of The Results

The objective of this study was to examine the representations of management and their therapeutic and psychosocial implications among obese children and adolescents in Abidjan. To do this, we focused on presenting their socio-demographic characteristics and exploring their representations of their care and the therapeutic and psychosocial implications that arise from it. The findings confirm the hypothesis that children and adolescents with obesity who have developed a positive representation of their care are more likely to follow a diet, engage in regular physical activity and maintain good relationships with their peers, whereas their peers with a negative representation do not.

This variety of social and health behaviours observed among the respondents in the light of Herzlich's [20] theory of social representations can be explained by the diversity of their representations with regard to their care.

Thus, the positive representations of care in 04.48% had influenced the adoption of healthy behaviours in them. They saw their treatment as a means and an opportunity to lose weight, to improve their health and well-being and to be accepted in their family environment by escaping mockery, stigmatisation and rejection from family and friends, and sometimes even from strangers who gave them nicknames such as "the fat man or woman; elephant, fat pig".

They tended to be older and better educated and had a better understanding of the severity of their condition and its prognosis. Their level of knowledge and understanding had helped them to build their positive representations of their care. Thus, they adhered to the therapeutic recommendations made to them, namely the consumption of recommended foods and rations and the regular practice of physical activity outside the school setting. Karate, judo, swimming, football, basketball, tennis and dance were cited as the physical activities practiced.

The other 02.99% who had adopted healthy behaviours despite their negative representations, increased parental supervision and dissatisfaction with their figure, especially among girls, could be the reason. They were encouraged by the involvement of mothers who were also overweight and also had the intention of losing weight for themselves. This parental support, linked to genetic predisposition and low self-esteem, was a factor favouring the adoption of healthy behaviours, as reported by OCM, a 16-year-old girl: "I recognise that taking charge is difficult, but as I am not alone in doing it and my parents were also there before me, I feel supported. But it is when you are the only one to start and do the diet or sport that you feel abandoned".

The 91.04% who had negative representations of their care adopted unhealthy behaviours. They saw their care as a punishment, a wish, a deprivation, a suffering, an alienation and a lack of affection from their parents, as reported in the following testimonies:

AN, 08-year-old boy: "The diet is a punishment from my parents. You eat something else, something you don't like, while everyone else eats the same thing and what you like".

AL, 17-year-old girl: "The care is something that makes people's lives tired. I feel too supervised and controlled by my mum who doesn't encourage me. She goes through my cupboard, my school bag to look for biscuits or chocolate and I don't like it".

They therefore did not understand the meaning and value of making efforts to develop healthy behaviours such as diet monitoring and regular physical activity in order to lose weight. As such, they continued to increase their consumption of unhealthy foods such as sugary, fatty and fried foods in a disordered manner, with high rations and a tendency to refill at the table. They did not control their meals, and snacked between main meals. They had often not informed the school canteen staff, for those who had lunch there, of the existence of their diet so that it could be taken into account. These food compulsions, combined with irregular physical activity, very often limited to physical education and sports at school, disrupted their relationships with their family and friends and encouraged the emergence of anti-social behaviour, as was the case for 34.33% of them.

Among the remaining 01.49% who adopted unhealthy behaviours despite positive representations regarding care, lack of will despite a good understanding of the interest of the care instituted, and overprotection linked to their status as only child, were reported as explanatory factors for the absence of change in behaviour.

These results corroborate those of many previous studies which indicate that social definitions of obesity differ from those of medicine [10]; that it is difficult to manage obesity because of its multifactorial origin (biological, psychological, cultural, sociological and economic); that this management is influenced by the various representations that are constructed [11,12] and that it is generally represented by patients as being so restrictive that it proves ineffective in about 70% of them [4,13]. They are similar to the results of studies which report that representations can be an obstacle to adherence and compliance with treatment [21]; and that it would be advantageous for carers to change them in order to reduce resistance to behavioural change among obese patients [15].

## Conclusion

The objective of this study was to examine the representations of childhood obesity management and their therapeutic and psychosocial implications among the children and adolescents concerned in Abidjan. The evidence shows that these representations influence their health behaviours and social interactions, but in variable ways. Thus, positive representations imply healthy behaviours, while negative representations imply unhealthy behaviours.

This is why we suggest paying attention to the representations of young patients with regard to their care, and especially to change those that are negative in order to increase their adherence.

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