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Social determinants of motivation to lose weight among literate obese patients: A qualitative study

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ABSTRACT

Background: The study of motivation is central to understanding and identifying patients who are likely to benefit from obesity interventions. Previous studies have demonstrated the efficacy of an outpatient counseling technique in improving motivation to change among literate obese patients. The reasons for this demonstrated efficacy needs to be explored to guide policy and practice of obesity interventions. **Methods:** A total of 18 obese individuals were recruited by purposive sampling into three groups of six individuals each matched for readiness to change group based on University of Rhode Island Change Assessment Score, age group and gender. Focus group discussions (FGDs) using open-ended questions to elucidate which factors could potentially be correlated with participants' motivation, were moderated between July and October 2012. Data were recorded manually and with an mp3 recorder. Thematic analysis was used to generate themes and a derived model in January 2013. **Results:** The key themes generated from the FGDs include pressure from family, friends and society; dressing, stigmatization and self-esteem; recognition of risk factors for diseases: counseling by the physician: Economic factors: And having a weight loss program in the hospital. **Conclusion:** Mixed extrinsic and intrinsic factors play a role in motivation to lose weight among literate obese patients in a primary care setting. Extrinsic factors (peer, family and societal pressure; cash incentives; counseling by a physician; and hospital weight loss program) were, however, predominant. These findings have implications for clinicians involved in weight management programs, and policy makers seeking public health interventions for obesity prevention need to consider interventions targeted on extrinsic motivations.

KEY WORDS: Focus groups, motivation, obesity, outpatients, weight reduction programs

INTRODUCTION

Obesity, a chronic disease influenced by socio-economic, cultural, psychological, environmental, metabolic, genetic factors, and the "lifestyle" of people, is a major global public health challenge. There has been a recent significant increase in global obesity prevalence in the past 20 years [1]. In 2014, it was reported that close to 2 billion adults were overweight globally, of which 600 million were obese [2].

Overweight and obesity rates differ and are influenced by race/ethnicity, gender, age, and socioeconomic status [3]. In West Africa, obesity mostly occurs in higher socio-economic classes [4]. It has been reported to have a prevalence rate of 13.6% among adults in Ghana [5] and 41% among women in western Nigeria [6]. A prevalence of 23% has been reported in Northern Nigeria [7], and a comparable prevalence of 21.4% in Jos, Plateau State [8].

The increased incidence of obesity and its complications has prompted renewed focus on services to decrease obesity in tertiary care settings. Multidisciplinary clinics have been established in some developed countries in keeping with available evidence [9-12]. However, high attrition rates and poor weight loss outcomes have been reported in some of these clinics, and the patients most likely to develop poor outcomes have not been clearly and consistently defined [13-15]. Early identification of patients who fail to attend, or who continue to gain weight, might allow for the institution of an alternate process of care that optimizes all patients' outcomes.

Motivation is the probability that a person will enter into, continue, and adhere to a specific change strategy [16]. The study of motivation is, therefore, central to understanding and identifying patients who are likely to benefit from obesity interventions. Motivation is an important first step toward any action or change in behavior [17]. People generally will not perform desired behaviors unless or until they are motivated to do so [18]. Motivation is the driving force by which humans achieve their goal, and could be intrinsic or extrinsic [17-21]. The motivation for change involves having the belief that changing one's behavior can influence an outcome [20,21].

Client motivation for change is not a single attribute, but varies in intensity, and is critical for behavioral weight loss programs. The role of the motivational type cognitive process in changing behavior became a question of great importance in the field of psychology in the 1970s [20,21]. This model was next applied to other types of therapy like those involving smokers, weight loss, alcoholics, and phobic patients [20,21]. Research investigating sources of motivation for change typically have compared intrinsic sources of motivation (e.g., feeling a sense of accomplishment, spiritual experiences, and health concerns) with extrinsic sources (e.g., financial incentives, social and situational influences) [22]. In general, internal motivation is associated with greater long-term change than is external motivation [22]. One study found that outpatients with high levels of both internal and external motivation had the highest treatment retention and treatment attendance outcomes. Irrespective of their level of external motivation, outpatients with low internal motivation had the worst outcomes [22]. Clinicians and others can access and enhance a person's motivation to change well before extensive damage is done to health, relationships, reputation, or self-image [18].

Two previously reported studies had elucidated the factors predicting readiness to change among a cohort of literate obese patients in primary care [23,24]. The first study revealed that 73.5% were in contemplation stage, the majority (69.1%) were motivated (self - perception) to lose weight, but most (58%) were not confident that they could lose weight (self - efficacy) [23]. The second study, a single-blind randomized intervention showed significantly higher mean University of Rhode Island Change Assessment (URICA) score increase for the intervention group compared to the usual care group (8.52 ± 1.62 to 10.53 ± 5.72, $P \leq 0.001$). A higher proportion of the intervention group was in the preparation to action TTM category compared to the control (35.3% vs. 17.6%, $P < 0.001$). The study concluded that an outpatient counseling technique could improve motivation to change [24]. This study, therefore, aimed to determine, through a qualitative follow-up study, what factors motivated those literate obese patients who had a high readiness to change scores, to lose weight.

METHODS

Clients were initially recruited for an intervention studying the effect of counseling on motivation to lose weight which had been previously reported [23,24]. In the second phase of the study between July and October 2012, focus groups were formed from those who were motivated to change as indicated by their URICA score.

URICA is one of the most widely studied measures of readiness for change (RTC) with higher scores indicating a greater RTC score [25]. URICA can be used to assess a participant's RTC regarding a range of problems including, obesity, diet, and weight management [25]. The URICA 32-item self-report measure includes subscales measuring the Prochaska's transtheoretical model of stages of change PC, C, A, and M (Pre-contemplation, contemplation, action and maintenance, respectively). Responses are given on a 5-point Likert scale ranging from 1 (strong disagreement) to 5 (strong agreement). The subscales can be combined arithmetically (C + A + M − PC) to yield a second-order continuous RTC score with possible scores of +2 to +14, that can be used to assess RTC [25].

Three focus groups were formed with six individuals in each group that were matched for RTC score, age, and gender. All participants were informed as to the time, date and venue of the focus group discussion (FGD) which lasted for 2 h each. Participants were reimbursed for travel to the clinic. The FGD was moderated by two researchers. Notes were recorded manually using notebooks and each session was recorded with an mp3 recorder. Discussions were in the form of open-ended questions to elucidate which factors could potentially be correlated with participants' motivation. The transcripts and field notes were coded by one of the researchers and checked by a separate researcher. Significant differences in coding were resolved by the 3rd researcher. Concepts were developed in January 2013 from the coded categories and a theoretical framework describing various influences on behavioral motivation was developed by the authors using the 6 step guide described by Braun and Clark as: Familiarizing yourself with your data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report [26]. Descriptive statistics are reported to highlight the importance of certain themes.

RESULTS

The participants were mainly between the ages of 31 and 50 years (67.8%). More than half (66.7%) were female, most respondents were married (83.3%), and had a tertiary education (83.3%). They were mainly from professional occupational groups (66.7%) and from higher income groups (61.1%). The majority (72.2%) felt they were motivated to change, but only one-third (33.3%) had a sense of self-efficacy that they would be able to lose weight [Table 1].

Quantitative Analysis

The mean body mass index (BMI) was 37.4 ± 4.3, and based on BMI, two-thirds of the participants were Obese Classes II and III, with Obese Class II being the most common category (44.4%) [Figure 1]. Chi-square testing did not reveal any statistically significant relationship between BMI class and gender ($P = 0.20$), age group ($P = 0.14$), or income group ($P = 0.28$).

The mean URICA score was 9.7 ± 2.8 with a median score of 9.9. Half of the participants were in contemplation stage based on their URICA score and a further 22.2% were in the preparation for action stage [Figure 2].

Qualitative Analysis

Factors affecting motivation to change

Factors affecting motivation toward weight loss were investigated among the respondents and the following findings emerged; all

Table 1: Socio-demographic characteristics of focus group participants

Variable	Frequency (%)
Age group (years)	
21-30	1 (5.55)
31-40	7 (38.89)
41-50	7 (38.89)
51-60	3 (16.67)
Mean age	41.5±8.2
Sex	
Female	12 (66.7)
Male	6 (33.3)
Marital status	
Married	15 (83.3)
Single	3 (16.7)
Educational status	
Primary	2 (11.11)
Secondary	1 (5.56)
Tertiary	15 (83.33)
Occupational group	
Artisan	1 (5.55)
Trader	4 (22.23)
Civil servant	12 (66.67)
Unemployed	1 (5.55)
Monthly income group (Nigerian Naira (₦)	
0-10,000	3 (16.67)
10,001-20,000	1 (5.55)
20,001-30,000	3 (16.67)
30,001-40,000	0
>40,000	11 (61.11)
Estimated mean income - ₦40,833	
Self-perception of motivation to change	
Yes	13 (72.2)
No	5 (27.8)
Self-assessment of efficacy	
Yes	6 (33.3)
No	12 (66.7)
Illness presentation	
Nil	5 (27.8)
Hypertension	8 (44.4)
Arthritis	3 (16.7)
Diabetes mellitus	4 (22.2)
Others (18)	5 (27.8)

Focus group participants reported more than one factor each

Table 2: Factors affecting motivation to change

Factor	Frequency (%)
Financial incentives to lose weight	18 (100)
Family, friends and society	10 (55.6)
Dress, culture and self esteem	10 (55.6)
Pre-morbid factors	9 (50.0)
Counseling and follow up by doctor	7 (38.9)
Economic factors	5 (27.8)
Weight loss program	5 (27.8)

Focus group participants reported more than one factor each

the participants in the FGDs mentioned financial incentives as a motivating factor. More than half (55.6%) were also equally motivated by family and community as well as dressing and self-esteem. Half of the participants (50%) indicated premorbid medical conditions as their main motivators. Overall, only a minority mentioned either counseling by the physician (38.9%) or the availability of a weight loss program in the hospital (27.8%) as motivating factors [Table 2].

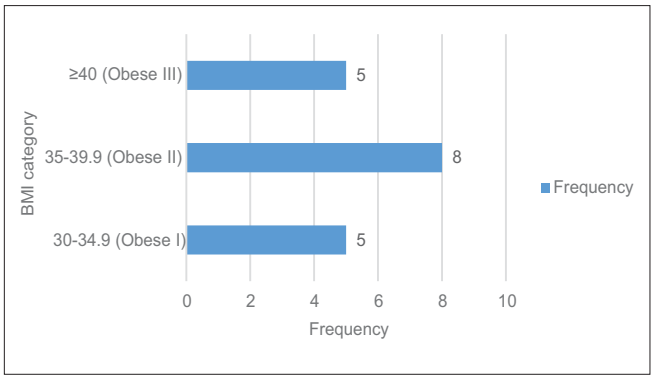

Figure 1: Body mass index distribution of participants

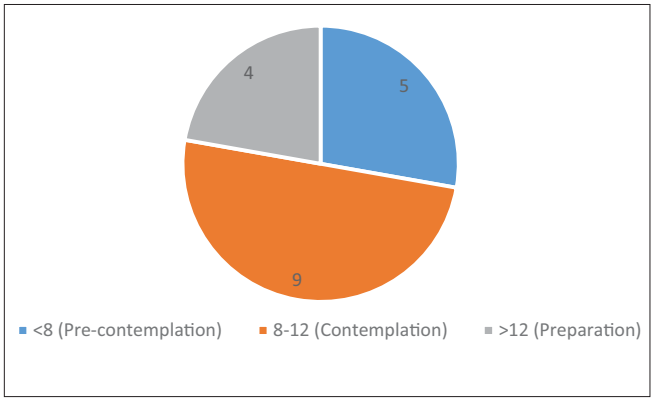

Figure 2: University of Rhode Island Change Assessment score distribution of participants

The key themes generated from these factors that positively affected motivation for change derived from the FGD include Sociocultural factors, recognition of obesity as a risk factor for diseases, access to weight loss programs, and economic factors.

Sociocultural Factors

Pressure from family, friends, and society

Majority of the respondents reported that comments from relatives and friends influenced their perception of their being obese and this further provided motivation for the respondents to lose weight. The study showed that behavioral patterns of the respondents were re-enforced by the actions and reactions of other people who had commented on the weight of the respondents or compared the physical appearances of obese individuals with other individuals of similar demographic characteristics who had less body fat. The study also seems to suggest that female respondents were more likely to be influenced by comments of family members and friends about their weight. Out of the 10 participants who mentioned pressure from friends and family, [Table 2] a total of 7 were female. Below are some quotes from the respondents to illustrate how these responses were expressed.

"One day a patient challenged me, and said hey it is like you are getting out of shape o! Look I am forty but I am looking younger than you." 32-year-old, Female, Nurse.

"People laugh at you because of your weight, it is part of their contribution towards my desire to lose weight." 46-year-old, Female, Businesswoman.

"When I am with people and people say you are looking too fat, I am not all that comfortable." 51-year-old Female, nurse.

Dressing, stigmatization and self-image

Many of the respondents felt they needed to lose weight when their clothes became ill fitting and this resulted in some respondents having to change their wardrobe periodically. Respondents reported experiencing stigma from public transporters who either ignored them or requested that the respondents paid higher transport fee. Issues of self-image were also observed as respondents reported the need to be "smart" as a motivation for weight loss. Some quotes from the focus groups discussions include:

"This dress is not fitting on you, even children when they see me they say big belle, so I decided to become their clown each time they see me. So these factors made me say I need to be smart." 43-year-old Female, Businesswoman.

"I noticed that each time I wear my fanciful clothes my tummy will bulge out and I thought something was wrong. I have changed my wardrobe within the shortest time." 46-year-old Male, Banker.

"Most women don't even want the fat; because you know that our clothing styles and the rest would not fit properly." 32-year-old Female, Secretary.

"Losing weight will make me to be smarter and enable me carry out my duties more effectively." 35-year-old Female, Community Health Worker.

"You will be ashamed to move about because of the stigma of the society. Sometimes public transporters particularly "okada riders" tend to ignore me and refuse to transport me. Some "okada riders" and taxi drivers request that I pay a transport fee for two due to my size." 42-years-old Female Businesswoman.

Recognition of risk factors for diseases

Some of the clients decided to lose weight when they recognized that excess body fat was a risk factor for many diseases. The study also revealed that respondents who felt their genetic conditions made them susceptible to chronic diseases felt a heightened need to lose weight. Quotes from the respondents include:

"When you have a lot of weight you are prone to having many illnesses, like diabetes, high BP and other forms of sicknesses. For one to live long you have to shape up yourself." 37-year-old Female, Secretary.

"I considered the fact that my parents are hypertensive and that if I don't lose weight I will further expose myself to the risk of being hypertensive." 45-year-old, Male, Pharmacist.

Increased Access to Weight Loss Programs (Counseling by the physician along with the presence of a weight loss program in the health facility).

Some of the respondents reported experiencing chronic ailments such as heart conditions which necessitate their visits to their health practitioners. These respondents reported that the interactions with their family physicians served as a major motivation to lose weight. Specific aspects of these interactions that influenced motivation include the quality of counseling given, the practical plan for follow-up, and perceived reasonable weight loss targets of losing 1 kg per month, discussed during counseling. Quotes from the FGDs include;

"When I met my family doctor, I said doctor, honestly, I would prefer you give me a medication, so that I can remain the way I am. I don't want to lose or add weight.' Then he said 'but your heart, if you want to live longer you have to do something about your weight because your weight will affect your heart.' So it was on that basis that he convinced me." 51-year-old Female, Nurse.

"When I met with my family physician, He pointed out the risk factors to me so I decided to lose weight," "I was having problems with heart enlargement, so I came here and met with the Doctor" 42-year-old, Male, Banker.

Some of the respondents reported that the weight loss program situated in the health facility has motivated them to lose weight. As the program is accessed alongside their treatment and management of health conditions in the health facility. Key components of the program such as counseling on exercise regimens and follow-up by the doctors further strengthened motivation among respondents. The study also seems to suggest that the monitoring of these programs by the medical practitioners serves as motivation even when immediate physical results have not been observed by respondents.

"For me every aspect of the program has been helpful. The advice on exercise, the follow up has been very helpful to me." 37-year-old Female, Secretary.

"This program has really encouraged me, even if I have not seen the result I will continue doing it." 36-year-old Male Businessman.

Economic Factors

This study suggests that economic factors had both negatively and positively affected motivation toward weight loss in many of the respondents. Some of them did not have the economic means to purchase an adequate/healthy diet that would meet their daily nutritional needs. However, other patients reported that their low economic status had ensured that they consumed fewer quantities of unhealthy foods, such as fast foods and carbonated drinks.

"And so it has affected us because we don't have money to eat all what we used to eat before. So I can say that the effect is both negative and positive."35-year-old Female, Community health worker.

"The lack of money helps one to stay away from fattening foods which tend to be expensive. So it is both positive and negative." 44-year-old Male, Pharmacist.

The Derived Model from Themes Generated from the FGD

The derived model from the themes generated from the FGD showed that there were both intrinsic and extrinsic factors that affected motivation for life style change. Extrinsic factors included: Peer, family and societal pressure; cash incentives, counseling by the physician and presence of a hospital weight loss program. Intrinsic factors included: Dressing, stigmatization, self-esteem, and recognition of health risks.

The extrinsic factors appeared to have a relatively stronger effect on motivation than the intrinsic factors [Figure 3]. Overall the extrinsic factors were identified 45 times from the FGDs while intrinsic factors were mentioned 19 times.

DISCUSSION

The qualitative analysis revealed factors affecting motivation for change. This study showed that a combination of intrinsic and extrinsic factors motivated clients to lose weight. Some intrinsic factors such as dressing, self-image and recognition of health risk were responsible for motivating patients to lose weight. Extrinsic factors, e.g. stigmatization, pressure from family, society, and friends; counseling by the doctor and economic factors also made patients to want to lose weight and appeared to be more significant associated factors in the study.

An earlier study found that internal motivation was associated with increased client involvement and retention in treatment, but a combination of internal and external motivation seemed to promote an even more positive treatment response [18]. Our study showed that extrinsic factors were more significant in motivation for change. This is consistent with some literature from Africa which argues that extrinsic factors are more important. It may be that this is because African cultures are more "shame" motivated than "guilt" motivated [27,28].

Some of the participants said they had low self-esteem because of obesity. Numerous arguments for a negative relationship between overweight and self-esteem have been forwarded, but researchers have found somewhat mixed support for this relationship [29,30]. They also reported that where this relationship exists, the strength of the relationship varies with socioeconomic status, ethnicity, age and gender. Negative correlations between weight and self-esteem were reported for children, adolescents, and college students while concerns about appearance were associated with better weight outcomes [29,30].

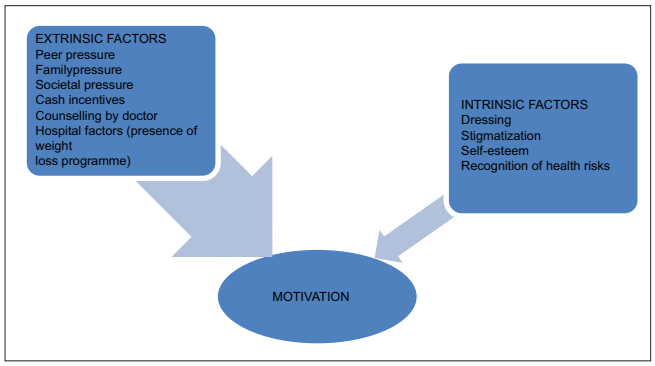

Figure 3: Derived model from themes generated

Our study showed that some of the participants were negatively affected by stigmatization. Obesity is associated with significant social consequences [31] and it was not surprising that for some patients stigmatization was one of their motivating factors. Other researchers had indicated that a person who is stigmatized is often ascribed stereotypes or other deviant labels leading to unfair treatment, prejudice and even discrimination [32]. These stereotypes have led societies to attribute multiple negative characteristics to obese individuals, including the beliefs that they are lazy, lack willpower, are incompetent, unclean and undisciplined. Weight-related stigmatization is known to assume various forms including repeated teasing, bullying, harassment and hostility. The finding of stigmatization as a motivator to lose weight is in contrast to some Nigerian studies which show that obesity in Nigerian cultures is associated with affluence and considered as a sign of wellbeing. In some cultures in Nigeria, young women are known to go to fattening rooms to put on some weight before they get married [33]. It is possible that our study environment, been more urban and with mixed cultural identities did not conform to this general perception of obesity hence the sense of stigmatization reported.

Some of the participants reported that it was the observations made by their families and friends that they were fat that made them to seek help for weight loss. Some researchers had shown that family and friends can be especially helpful in mobilizing and sustaining behavior change because they can monitor the client and model and reinforce new behavior [34]. They can keep track of the client's whereabouts and activities, involve the client in new social and recreational activities, and are a source of emotional and financial support. The family also plays a huge role in health seeking behavior in Nigeria as reported by Ojofeitimi *et al.* [33]. The study also showed that economic factors affected motivation both positively and negatively. While some participants felt unable to modify their diets and lifestyle to healthier forms because of the cost involved, others felt that inadequate resources prevented them from taking too much "junk food."

CONCLUSION

Most (72.2%) of the study participants were in pre-contemplation or contemplation based on their URICA scores. There were mixed factors (extrinsic and intrinsic) playing a role in motivation to lose weight among literate obese patients in a primary care setting. Extrinsic factors, however, appeared to be predominant. These findings have implications for clinicians

involved in weight management programs, and policy makers seeking public health interventions for obesity prevention.

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