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Investigating 'treat culture' in a secure care service: a study of inpatient NHS staff on their views and opinions on weight gain and treat giving for patients in a forensic secure care service

Anita Attala[1] | **Jo Smith**[2,3] | **Amelia A. Lake**[3,4] | **Emma Giles**[3,4]

[1]Dietetics Department, Cumbria, Northumberland, Tyne and Wear NHS Foundation Trust, Newcastle upon Tyne, UK

[2]The Research and Development Team, Tees, Esk and Wear Valleys NHS Foundation Trust, Middlesbrough, UK

[3]School of Health and Life Sciences, Teesside University, Middlesbrough, UK

[4]Fuse, The Centre for Translational Research in Public Health, Newcastle upon Tyne, UK

Correspondence

Amelia A. Lake, School of Health and Life Sciences, Teesside University, Middlesbrough, UK.
Email: amelia.lake@tees.ac.uk

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Abstract

Background: Obesity is a significant health inequality within forensic secure care mental health/learning disability inpatient settings. Patients may be at increased risk of developing preventable long-term conditions/premature death. This study investigated staff views on patient weight gain, how it affects patients and how to better manage patient weight in this setting. Furthermore, the research explored the culture of food being used as a 'treat' and the perceived impact of 'treats' on weight.

Methods: A two-phase mixed methods approach was taken to explore staff views on patient weight gain and the 'treat' culture on adult forensic secure care inpatient wards in one NHS Mental Health Trust in the north-east of England. Phase one was an online survey, and phase two consisted of semi-structured qualitative interviews. The quantitative survey data were analysed using descriptive statistics. Thematic analysis was used for the open-ended survey questions and interview data.

Results: The survey had 49 responses out of a possible 380 (13%). Ninety-two per cent of staff participants viewed patient weight gain as an area for concern, citing a range of reasons for weight gain. Weight gain was considered a risk to developing long-term health conditions and poor mental health. Nine participants were interviewed. Six themes were identified suggesting why patients might gain weight in forensic secure care, for example, patient history, staff behaviours, the surrounding 'treat' culture in this environment, along with suggestions of what could be improved to manage patient weight.

Conclusions: People detained in forensic secure care may be more at risk of weight gain due to their history, the secure care environment and the 'treat' culture adopted in these environments.

KEYWORDS

forensic, learning disability, mental health, obesity, secure care, treat culture, treats

Key points

- There are multiple components which contribute to patient weight gain.
- Staff are concerned about patient weight gain.
- People detained in secure care are more at risk of weight gain due to their history and the secure care environment.
- There is a complex 'treat culture' adopted in these environments.

INTRODUCTION

Forensic secure care services provide inpatient care for people with a mental health condition or learning disability who are currently undergoing, or have previously undergone, legal court proceedings and/or are deemed to be too high a risk of harming others.[1]

It is widely acknowledged that people living with a mental health condition are more likely to die earlier from preventable illnesses.[2–5] In England, 28% of adults are living with overweight/obesity.[6] This may be up to 40%–52% of people with a serious mental illness[7] contributing to a three times excess mortality rate compared to the general population, and a life expectancy 15–20 years lower.[2,5] A systemic review on obesity in adult mental health secure hospitals found that excess weight is more prevalent in this setting, with rates of up to 80% reported.[8] Public Health England (2017) (now Office for Health Improvement and Disparities [OHID]) recommended that organisations work together to improve the obesogenic environment (which encourages increased energy intake and decreased expenditure) in secure inpatient settings, for example, by addressing food policies and food provision, patient access to takeaways and shop product selection.[8] However, in practice there are barriers to healthcare staff restricting patients access to takeaways and snack foods due to the Care Quality Commissions' (CQC) stance on restrictive practice.[9,10] Furthermore, Public Health England (2021) provides guidance on managing a healthy weight in secure care,[11] offering practical suggestions on how to achieve an environment more conducive to managing a healthy weight.

It was observed by the lead author that there appeared to be a culture of 'treats' and 'treat-giving' among staff and visitors. The authors were unable to find existing research on 'treat' or 'treat-giving' to adults in mental health or forensic secure care settings. Current research on 'treats' and 'treat-giving' has mainly been conducted around treats given to children. McCafferty et al.[12] reported that treats were seen as 'energy-dense' and 'highly palatable' foods, and although these foods were acknowledged as unhealthy, parents perceived the treats to be infrequent and therefore easily justified.

The study aims were:

i) to provide insights into the staff's opinions on patient weight gain,
ii) to explore staff perceptions on how weight gain might affect the patient,
iii) to investigate what might help to manage the patient's weight in forensic secure care,
iv) to examine the culture of food being used as a 'treat' in forensic secure care inpatient settings, and
v) to look at the perceived impact of 'treats' on patient weight gain.

This study focused on inpatient forensic secure care (low and medium security) for adult men with either a learning disability (a significantly reduced ability to understand/interpret new or complex information and an inability to cope independently)[13] or a severe mental illness (e.g., schizophrenia, bipolar disorder, other psychoses or personality disorders).

METHODS

This study used mixed methods to explore the 'treat-culture' used by staff members on adult forensic secure care inpatient wards in one NHS Mental Health Trust in the north-east of England. This study used a two-phase design: phase one was an online survey, and phase two consisted of semi-structured qualitative interviews with inpatient staff. Although there are likely multiple components to 'treat-culture', this study only explored that of inpatient staff. Further studies will need to be conducted to look at the impact of carers/visitors on 'treating' patients.

The survey was created using Cumbria, Northumberland, Tyne & Wear NHS Foundation Trust's in-house online survey platform (questionnaire creator V2) and consisted of 17 questions which were 'tick-box' and open-ended questions with space for free text (Appendix A). The questionnaire was piloted by a small cohort ($n = 5$) of dietitians and subsequently adapted. The survey was sent electronically through the staff email system, via administration staff (gatekeeper), to all patient-facing staff (nurses, healthcare assistants, allied health professionals [AHPs], doctors, sports staff, sessional staff [e.g., woodwork]) who work with forensic secure care inpatients. Staff were able to complete the survey at a time and place suitable for them. The survey was sent to approximately 380 staff.

The survey was open for a 3-week period (3–24 June 2021), with weekly reminders being sent twice by the gatekeeper after the initial invitation email was sent.

The survey phase was anonymous, unless staff opted to leave their name and contact details (these were kept in a separate password-protected document) to express an interest in participating in a follow-up interview.

Phase two consisted of qualitative semi-structured interviews (Appendix B) remotely over Microsoft (MS) Teams. MS Teams was chosen due to COVID-19 restrictions; such platforms have been found to be suitable in previous studies for semi-structured interviews.[14] Purposive sampling[15,16] was used to recruit a range of professionals working into either forensic mental health (MH) or learning disability (LD) or both and proceeded until no further themes emerged.[17,18] Written consent was obtained prior to the interview, with further verbal consent at the start of the interview. The interviews lasted between 40 and 60 min and were recorded and transcribed by the interviewer. One interviewer (AA) worked as a dietitian for the forensic secure care service. Although the interviewer was an experienced dietitian, they were new to the forensic secure care service. The interviewer ensured that all questions remained open and endeavoured

to avoid leading questions. The interviewer was trained and supported by experienced qualitative researchers (EG and AAL). The transcriptions were fully transcribed, ad-verbatim using the video recording and transcription setting on MS Teams (by AA). The recordings were accessible only by the interviewer and participant and were deleted once transcribed.

Data analysis

Descriptive statistics were used for the quantitative survey data. Thematic analysis was used for both the open-ended survey questions to analyse the interviews.[19,20] The interview transcripts were manually examined for commonalities and links. The transcripts were coded by AA and then grouped into common themes by the wider team (AA, JS and AAL) along with regular meetings to agree on a thematic framework. A final review of transcripts was conducted to ensure that information collected under each theme was accounted for and that no further themes presented.

Ethical approval was obtained via the Integrated Research Application System (IRAS: 291871), and the study was registered with the Health Research Authority (HRA). In addition, the study gained approval and sponsorship from the Research Department of Cumbria, Northumberland, Tyne and Wear NHS Foundation Trust.

RESULTS

Phase one: survey

Approximately 380 staff work directly with patients in secure care, and of those 13% ($n = 49$) completed the online survey. A higher proportion of staff from the forensic secure care learning disability service (LD 63% [$n = 31$]) completed the survey, than from the forensic secure care mental health (MH 20% [$n = 10$]) wards and staff who cover both MH and LD sites: 16% ($n = 8$).

A range of professionals completed the survey, with the most responses from AHPs. Most staff (30%) were aged between 36 and 45 years ($n = 15$) and were women (59%) ($n = 29$) (Table 1).

Ninety per cent of respondents ($n = 44$) perceived that the patient *did* gain weight while in secure care; and 10% ($n = 5$) did not know. Furthermore, 92% ($n = 45$) either agreed/strongly agreed with the statement '*Patient weight gain is a significant issue in secure care*'; and 8% ($n = 4$) neither agreed/disagreed.

The perceived weight gain in the patient's first year of admittance varied greatly: from some staff saying that they did not know if the patient gained weight to others estimating a gain of five stones (31.75 kg). The most common estimate was one stone (6.35 kg).

TABLE 1 Survey results – age, gender and profession of participants and possible causes for patient weight gain

Gender	Number and percentage of respondents	
Male	$n = 18$	37%
Female	$n = 29$	59%
Prefer not to say	$n = 2$	4%
Prefer to self-describe	0	0
Age range		
18–25 years	$n = 5$	10%
26–35 years	$n = 12$	24.5%
36–45 years	$n = 15$	31%
46–55 years	$n = 12$	24.5%
56–65 years	$n = 5$	10%
65 years+	0	0
Professional role		
Allied health professional (HCPC registered)	$n = 14$	29%
Associate practitioner	$n = 6$	12%
Clinical lead (nursing)	$n = 6$	12%
Doctor	$n = 1$	2%
Healthcare assistant	$n = 8$	16%
Management	$n = 5$	10%
Sessional staff (e.g., sport/ woodwork/gardening/ recovery college)	$n = 4$	8%
Other	$n = 5$ nurse consultant/ psychologist/studentx2/ specialist nurse	10%
Possible cause for weight gain		
Medication	$n = 45$	92%
Lack of exercise	$n = 47$	96%
Snacks, for example, from hospital shop/recovery college/visitors	$n = 47$	96%
Food-based activities, for example, with occupational therapy/recovery college/ward	$n = 35$	71%
'Section 17 leaves'	$n = 22$	45%
Secure outreach transition team	$n = 13$	27%
Poor sleep hygiene	$n = 33$	67%
Emotion	$n = 37$	76%
Trauma	$n = 30$	61%
Genetics	$n = 20$	41%
None of the above	0	0
Other	$n = 20$	41%

Abbreviation: HCPC, The Health and Care Professions Council.

Staff were asked why they thought the patient might gain weight, by selecting from the following options: medication; lack of exercise; snacks from shops/visitors; food-based activities (e.g., baking with ward staff/ cooking with occupational therapists); section 17 leaves (individuals detained under the Mental Health Act can leave the hospital/ward if granted by authorised doctor/ clinician; this is called section 17 leave[21]); poor sleep; emotion; trauma; genetics and 'other' (with free text for 'other'). Participants were encouraged to select as many options as they liked. Lack of exercise and snacks from the shop/visitors were most selected, followed by medication (Table 1).

'Other' included, for example, '*Boredom*' (*anon*); '*Take-aways*' (*anon*); '*Tension between duty of care v patients' capacity*' (*anon*); '*socioeconomic background*' (*anon*).

Staff were subsequently asked to prioritise which three of the above options did they think were the main issues. Staff perceived the main issues to be:

- Snacking:
  '*The main issue…is the snacking and the weekly purchases of large quantities of sweets, chocolate and pop*' (*anon*)
- Food-based activities:
  '*Activities don't always have to be about food*' (*anon*)
- Lack of exercise:
  '*Patients do minimal exercise, and this is sometimes further reduced by staff shortages which leads to sessions being cancelled*' (*anon*)
- Medication:
  '*Many service users are prescribed antipsychotics and antidepressants. A common side-effect of these drugs is weight gain*' (*anon*)
- Lack of education of staff and patients:
  '*If staff…have a basic knowledge and skills around this (weight management) then they cannot help patients address the problems adequately*' (*anon*)
- A combination of issues:
  '*…no single main issue, it's a combination of them all that creates a perfect storm*' (*anon*)
- Boredom:
  '*I think they get very bored*' (*anon*)
- Emotion and trauma:
  '*If a service user feels hopeless…they may use…the coping mechanism of eating*' (*anon*)
- Lack of patient motivation:
  '*…due to their emotions and mental health as well as motivation*' (*anon*)

Most participants, 90% ($n = 44$), agreed/strongly agreed with the statement '*Patients who do gain weight in secure care are likely to develop long term health problems*'.

In addition, 98% ($n = 48$) agreed/strongly agreed with the statement '*There are health consequences to being overweight/having obesity*'.

All staff were able to name some physical health conditions linked to obesity, including diabetes, heart disease, stroke, cancer, poor mobility, musculoskeletal problems, hypertension, high cholesterol, fatty liver, osteoarthritis, breathing difficulties, sleep apnoea, COVID-19, fatigue, nutritional deficiencies and skin problems. Several staff stated that there were consequences to patients' mental health resulting from obesity such as depression, anxiety, poor mental health, poor self-esteem, poor self-image and poor self-worth.

Staff suggestions regarding *how* to manage patient weight gain included:

- Educating staff and patients:
  '*Education of staff and patients*' (*anon*)
  '*Giving staff training around food so that patients are supported in the right way*' (*anon*)
- Increased exercise and types of activities:
  '*Opportunities to exercise regularly. Making this more varied to include cycling, swimming, team sports and other physical exercises that we have patient interest in*' (*anon*)
- Healthier/less availability of snacks:
  '*Fairly priced healthier snacks in hospital shop*' (*anon*)
  '*Reduce the snacks available…somehow limit money spent on poor food items*' (*anon*)
- Less food-based activities:
  '*Sessions should revolve less around food*' (*anon*)
  '*I think we could change how many activities we facilitate revolving around food. For instance, not winning food treats for bingo – use alternatives such as toiletries*' (*anon*)
- Better hospital food:
  '*Hospital food could be better*' (*anon*)
  '*Balanced hospital menus that patients find hard to resist (visually pleasing) and therefore do not feel the need to supplement their diet with snacks or takeaway*' (*anon*)
- Staff role-modelling:
  '*Staff leading by example*' (*anon*)
  '*Promote healthy eating and exercise for staff too!*' (*anon*)
- 'Best interests'/ability to say 'no' to patients:
  '*The ability to say no to patients (restrictive practice) – this would not happen in a General Hospital*' (*anon*)
  '*Staff support around what can be reasonably done to restrict where necessary*' (*anon*)
- Policies/whole-system strategy:
  '*Need an overarching strategy everyone agrees to…*' (*anon*)
- Non-food emphasis for section 17 leaves:
  '*New focus for leaves*' (*anon*)
  '*Leave not being centred around the garage*' (*anon*)
- Better motivators for patients: '*Find other motivators*' (*anon*)'*A different approach as to what we offer and also how we engage with patients*' (*anon*)

Phase two: semi-structured interviews

Twenty staff opted to participate in the semi-structured interviews: 60% ($n = 12$) from forensic secure care LD wards, 10% ($n = 2$) from forensic secure care MH wards and 30% ($n = 6$) who covered both.

A sample of 12 staff were purposively selected and were invited to interview. The purposive sampling ensured that there was a range of disciplines, grades and worksites. Due to dropouts, a total of nine staff were interviewed, including AHPs, psychologist, psychiatrist, nurse, assistant practitioner, ward manger and sessional staff (e.g., woodwork/sport).

The following themes on why weight gain may occur in secure care emerged from the interviews.

Theme 1: the 'forensic patient'

Staff perceived that some traits which might contribute to a susceptibility to weight gain were specific to the forensic patient group, suggesting that people who are detained in secure care often come from deprived backgrounds and therefore may have previously experienced food insecurity and had poor diets prior to admission. Often their lives have been chaotic and abusive, with poor role models and experiences, which would not be conducive to learning how to eat well.

> *'I'm sure that some of them (patients) have had lack of availability of food. I mean, I've seen people coming in who have literally stuffed their faces when they come into hospital. I remember one patient in particular coming in, and it was like he hadn't eaten for a month, he was just ravenous… if I had to guess what was a predominant theme, it would have been neglect and lack of availability of food, even relatively basic food, never mind treats' (P8).*

> *'… they've perhaps had quite deprived… experiences or neglectful experiences' (P7).*

These individuals were seen to be prone to impulsivity and making poor choices. These factors were cited as possibly contributing to their detainment in secure care, and it was assumed that this would also be reflected in food-related behaviours.

> *'They are in our service because they make bad choices, so we try to stop them. … We try to manage their bad choices in respect of their offending behaviour' (P9).*

> *'We know a lot of our patients are prone to being quite impulsive' (P7).*

Patients may also have been mentally unwell and therefore underweight on admission, thus creating an artificial weight increase at the start of their pathway. In addition, mentally unwell people may be unmotivated to change weight-related behaviours.

Some patients may have experienced trauma and may use food as an emotional regulator, particularly around comfort/anger. Emotional eating was often cited as a possible reason for 'binge-eating' snacks. It was questioned whether some patients, particularly those with a learning disability, were able to label their emotion or understand how they feel.

> *'…if you're not able to label your emotions or you're not able to recognise your emotions, and you're applying a coping strategy…that actually ends up in you not feeling very good about yourself, then that's a vicious cycle isn't it?' (P4).*

The change in lifestyle on admission, particularly a reduction in physical activity, was seen as a significant reason for weight gain. For example, some patients may be legally restricted to the ward due to their risk and were likely to have been more physically active prior to admission.

> *'If that individual…was very active beforehand and his mental health has massively declined and is now very inactive and spends most of his days in sedentary pursuits, then that'll have a massive impact on what he's burning through, if he's still consuming the same amount of calories that he was before' (P5).*

> *'I know of instances where people aren't allowed off the ward at all. So that would mean that they won't be able to go to the gym, to the sports hall, anywhere. And I think just being in that day-room… it is a struggle' (P2).*

Staff frequently referred to the patients lacking autonomy, other than money and food, thus making food more appealing.

> *'I think, there's something about… what patients can influence and what choices they can make and what control they have so, I think perhaps in an environment where they there's limited kind of opportunities to exert choice and control in lots of aspects of their life, then that's something that they can' (P7).*

> *'…it's the items that are in your control.… "If it's my money I can spend it on what I want"; "If it's my food I can eat what I want"' (P5).*

Poor sleep patterns and eating snacks late into the night were cited as being unhelpful practices for weight management.

Staff reported that patients might be unaware of their weight gain. This may be due to their mental health or learning disability, but also because many wear stretchy clothing, do not have access to mirrors or buy new clothes.

> *'… how do you know if you've gained weight if you are wearing stretchy clothing? If you can't see yourself in a mirror? Or if you're not going out to the shops to buy clothes and having the experience of them not fitting?' (P4).*

Theme 2: staff confidence and self-efficacy around weight

Staff reported a culture of fear of 'challenging' patients, for example, saying 'no' to food requests or offering advice around food choice. This was partly due to fear of threats and/or violence from patients, but mainly due to the threat of being reported to the CQC. Staff were unhappy about the helplessness they felt when the patients were making poor food choices and gained weight.

> *'…it's restrictive practice, isn't it? And CQC and all of that…there's all those fears and worries… but I think it's led to patients becoming seriously overweight…for me I struggle…because I'm a nurse and I feel I've got a duty of care to patients to… not allow them to become overweight and then have other health conditions associated with that weight gain' (P3).*

It was thought that some staff might use food to reduce incidents; for example, it is easier to give a patient additional bread than to cause an incident.

Staffing levels were mentioned as a reason for patients being unable to have daily walks around the grounds. Some patients require certain escort levels when off the ward, and this cannot always be provided. In addition, the lack of activities, especially at weekends, was seen to contribute to boredom eating.

> *'A lot of patients would love to just go out for a walk every day, even if it was just around the grounds, but some of the time that can't be facilitated for them, which is really quite sad, 'cause it is a fundamental need, I would've said' (P2).*

Participants noted that staff may struggle with their own weight and/or may have a poor relationship with food. It was suggested that staffs' own food beliefs were transferred onto the patients. Furthermore, it was observed that staff can give conflicting/poor dietary advice to patients.

> *'I wonder whether what we're seeing is we're just seeing staff playing out their relationships with food in their care… not necessarily conscious' (P4).*

> *'I think the patient…probably has had a lot of conflicting advice on what is an appropriate diet. I think everybody has an opinion on what's healthy and therefore impose their opinions and values on patients, which isn't always helpful…' (P6).*

It was felt that assessing capacity around food is difficult. Patients often express themselves by violence/aggression, making it difficult for staff to enforce a 'best interests care plan' should capacity around food choice be deemed lacking.

Theme 3: difficulties from living within a secure care environment

The secure care environment can result in restricted movement for many patients; this can be worse at the start of their pathway.

> *'…coming into these sort of environments, you lose your freedom…you automatically don't have the ability to just get up and wander here, there and everywhere as you typically would living out in the community' (P5).*

Onsite shops, canteen and local shops were cited as not providing any/limited healthy snacks. Patients often buy large quantities when visiting these premises, and there are limited options other than food. Patients detained under the mental health act are in receipt of benefits, and this can result in them having large sums of money with very little to spend it on.

> *'…why are we not making it easier for people to make healthier choices?' (P4).*

> *'…I just think £20 a week is a lot for anyone to be spending just on snacks' (P2).*

The Mental Health Act stipulates section 17 leaves are to be part of the therapeutic treatment pathway and must have a purpose.[21] Often, they are used to visit a food outlet, for example, the canteen or the hospital shop. This practice has occurred for many years.

Family and carers can bring in large quantities of food during visits. Due to restrictions of what can be

brought into the secure care environment they may be unsure of what else they can bring their relatives. And, food is often linked to care, love and nurturing.

> *'…we quite often get members of the family bringing up huge stacks of food for people because (of)…the association between food and love and all of that sort of thing and the limited other things that people feel that they can do in order to help their loved one when they're in hospital' (P8).*

Many of the anti-psychotic medications can lead to increased weight gain and increased appetite. Although staff acknowledged this, these were not considered to be the main factor contributing to patient weight gain in the interviews.

Staff reflected that the hospital menu is a cause for distress and unrest among patients. Some staff believe that the portions are too small, resulting in the patient being given additional bread at mealtimes and/or additional snacks. Some patients are in secure care for several years; consequently staff observed the 4-week menu cycle as being monotonous.

> *'…I do feel for them you know, you've been in hospital for X amount of years, you're on a four weekly menu…they must get sick of it' (P4).*

It was perceived that staff provide additional food/meals to compensate for this monotony. Other issues around the menus include the patients not getting what they order on occasion, which can result in the patient becoming upset and binge eating on snacks instead.

Many patients would like to cook for themselves, but the facilities for this are poor. It was also noted when patients do cook for themselves, it can be difficult to manage portion sizes for one.

The treatment focus for patients in secure care is on risk management: trying to ensure that they do not offend again. Therefore, physical health, particularly weight, is often a secondary concern.

> *'…their diet and what they eat is somewhat incidental to the primary role which is risk management of their offense… their past history of offending…' (P9).*

> *'…if that meant that they ate a bit more…you know he eats a bit more and he's a bit overweight but he's not going to go in and do the things he did before – yeah on balance you know how I'm perceiving things that's a win' (P9).*

> *'…and being holistic, I think (staff) who work in mental health…we sometimes forget about that physical health…' (P6).*

Theme 4: how the patient may feel about weight gain

Staff reflected that weight gain might make the patient unhappy, 'lethargic' *(P5 and P6)* and 'sluggish' *(P2)* and may affect their mental health.

> *'I don't think anyone's happy with their weight gain…' (P7).*

> *'I think they don't want to gain weight, but they can't help it…' (P1).*

It was suggested that patients might not understand the consequences of gaining weight, particularly in the learning disability service, and/or that they might not be motivated, might be too unwell or might not know how to reduce their weight.

Many patients have poor self-esteem and body image, and a lot of work is done to improve this. There was acknowledgement that weight gain is likely to make the patient's self-esteem/body image worse.

> *'…most of our patients have got real difficulty with their self-esteem and obviously that is linked to your weight and body-image' (P9).*

Theme 5: complexity around 'treats'

The word 'treat' made all participants think of food, which is usually high in calories, fat and/or sugar. There was a consensus that although non-food treats are possible, they are harder to provide for in secure care.

> Treats were seen as *'pleasurable' (P6) and 'something that gives you a boost' (P3) or that 'makes you happy' (P2).*

> *'(people used food to treat themselves) because it feels good…it's an incredibly reinforcing experience to eat something nice…it's one of life's pleasures, isn't it?' (P8).*

Treats were seen as a reward, something special/extra to make you feel good or to counteract a negative experience. Participants thought that treats were individualised and often learnt from childhood.

'I think it's (a treat) something pleasant, isn't it? It creates a pleasant feeling. A kind of cared for or… caring for feeling' (P4).

To be a treat, it had to be a food which was eaten infrequently. If the food was eaten on a regular basis, then it was thought to become a habit or would have less appeal.

'…something that you may be reward yourself with for doing something well, or you know, for a special occasion or is a bit of a…not a one off as such, but you know rare, not the norm. Not something you would have all day every day' (P6).

'I guess that's what I would say is a treat – something a bit out of the ordinary and because of that, you can maybe get away with it being a bit naughty, shall we say?' (P8).

The consensus was that it is possible for food treats to be part of a healthy diet, but *only* if the overall diet is healthy and balanced. In addition, the frequency and size of the treat is also deemed to be important.

'…you can incorporate something as a treat but it's about balancing it with other things you do, so that kind of balancing the books isn't it really?' (P4).

Some staff held a firm belief that patients would not attend activities if food was not provided. Food treats were seen as an easy option used to 'entice' or 'engage' pateints to attend activities.

'I think it's (food at activities/sessions) a sure-fire way of getting people to attend groups' (P2).

'So I think sometimes it food can be used as a bit of a carrot to try and entice people to engage in, kind of, therapeutic activities or things like that' (P7).

However, some staff reflected that there was no difference in patient attendance if food was/was not provided; perhaps providing a treat was more for the clinician's confidence rather than for patient engagement.

'No! No difference (to a patient attending a session). I think maybe there's a comfort… or a confidence for you as a clinician that if I do this (provide food) then people will definitely do it' (P4).

Food treats were viewed as cheap, available to all and do not require much staff time or resources. They do not require much thought; most people are able to participate and are interested in eating.

'Food as a treat is easy, it's accessible, doesn't cost very much, and either monetarily or in staff in-put and time' (P9).

The participants observed that some people enjoy feeding people, that food is seen as love/care/nurture. It was agreed that, overall, most staff are caring, compassionate and like doing something enjoyable for the patients, such as cooking or providing food treats.

'…it feels like a nice thing to do for the patients…if you can see that the patients enjoy kind of eating or having kind of treats…' (P7).

'…it's (treats/food) tied into feeling loved, it's tied into having a special experience…it's tied into the family and…the staff appearing to care for someone…I think it's got its fingers quite deeply embedded in lots of fairly profound areas and that's why it's so powerful' (P8).

In contrast, staff thought that sometimes food might be used as a tool or motivator to get patients to behave in a certain way and that food might be used to appease patients and/or to keep the peace.

'…maybe people use it (treats)…for a bit of an easy life…because it does normally – it wins people over doesn't it?' (P6).

'To keep the peace; keep them settled…. I mean, there's not much more you can say… that really is it in a nutshell' (P1).

'Now, I'll guarantee that wards will not have much… not many problems on the night that they're gonna have that takeway because they know if they, if they misbehave or if they have to do something that they shouldn't do, the chances are that they could be stopped from having that take away, so it'll be settled' (P1).

Theme 6: improvements to make managing weight in secure care easier

Staff proposed that earlier intervention in the patient pathway in secure care could be paramount to minimise patient weight gain. They felt that once a patient has

gained a significant amount of weight, it may seem too big an undertaking to manage.

> *'I guess quite a lot of them are quite significantly overweight, it perhaps feels like kind of where do you…? This is too… big a task to try to undertake' (P7).*

There were recommendations that collaboration was needed by *all* staff, making it a whole multidisciplinary team (MDT) issue. Staff felt that delivering a whole system approach, such as an ongoing health promotion campaign throughout the year, suggesting that more dietitians were required to support this. The involvement of staff in health-related activities by role-modelling was seen as an important step to support patients.

Alternative interventions which use a more behavioural approach rather than a medical model were recommended. This would also involve work around emotions and emotional eating.

There were several proposals for the need to make it easier to facilitate healthier choices and more difficult to make less healthy choices in the on-site facilities, for example, hospital shop. The hospital menu was almost unanimously seen as an area which required modification and change.

Section 17 leaves are often used to visit food outlets/destinations, for example, hospital shop/canteen/local shop. It was recommended that alternatives are given so that patients maintained a purpose for their leave but without the leave being food focused.

It was perceived that both staff and patients required training and education on weight management, to ensure that consistent messages are given. Restrictive practice verses duty of care was seen as a blurred area, and clear guidance and training on this is essential.

DISCUSSION

This study shows that a high proportion of staff in secure inpatient services are concerned about patient weight gain and highlights the helplessness perceived by staff when patients gain weight, referring to fear of repercussions from the CQC.[9] Although the CQC's recommendations on providing the least restrictive care are important, it is a complex area for staff to navigate with certainty. This may have a significant impact on patient weight gain and consequential health impacts.

This study has shown that staff perceive there to be several environmental issues which might contribute to patient weight gain, for example, lack of available healthy options in hospital shops, section 17 leaves to shops/food outlets and food-based activities. Furthermore, the results indicate that there may be traits specifically related to patients detained in secure care that increase their vulnerability to increased food intake and weight gain, including previous trauma, deprivation, impulsivity or being prone to making poor choices.

Patients in secure care can be harder to engage,[22] often staying in their rooms for long periods of time. This study has shown that food is often used as an enticement to participate in activities, therapeutic or otherwise. However, individual patients can be subjected to this 'enticement' using food on numerous occasions in any given day/week.

Although obesogenic antipsychotic medications, such as clozapine and olanzapine, are often used as a first choice of treatment in this setting[11] and were seen as a legitimate cause for weight gain, many staff did not view them as being the only reason. The primary reason cited was the large volume of snacks, often purchased on-site, often as part of section 17 leave from the ward, granted under the Mental Health Act.

The recent review by the Department of Health and Social Care on hospital food[23] highlighted that long-term inpatients in mental health hospitals may become fatigued by a rotational menu. This research aligns with the existing evidence, reporting that not only are patients bored of the food choice, but some of their behaviours that challenge may also be as a direct result of the monotony. In addition, staff are seen to provide alternative meals, often in large volumes and energy-dense, to break the repetitiveness.

Although there are limited studies on treat-giving in this setting, there is some literature regarding treat-giving behaviours between parents/grandparents and children. Pescud and Pettigrew (2014) found that parents treated their children daily to 'control their children's behaviour, to demonstrate love and affection, and to address deprivation beliefs'.[24] Similarly, findings in this research suggest that treats may be used in this way for patients in secure care. The results of this study align to those seen of treat-giving by adults to children.[12] There appear to be similarities between treat-giving to children by parents and grandparents[12,24–26] and the 'treat-culture' in these environments. This type of paternal caring for adult individuals may make the patients feel like they are having things 'done' to them, rather 'with' them.[27]

Treat-giving in secure care is often seen to provide pleasure to patients, often to reward and entice them to undertake therapeutic activities, in a similar way to that seen by Pankhurst et al.[25] suggesting that grandparents 'spoil their grandchildren with excessive amounts of discretionary foods'.

Existing evidence indicates that patients detained in secure care settings are more likely to become overweight or obese than the general population.[5,8] Staff attributed patient weight gain to multiple factors, which closely aligns to previous research findings.[28] However, the existing evidence base is derived from patient-reported data. This is, as far as we are aware, the first study exploring inpatient staff's perceptions on patient weight gain in a forensic secure care setting. As staff are integral

to the food culture in this environment, it is important to understand the staff perceptions on patient weight gain to address these fundamental issues.

LIMITATIONS OF THE STUDY

This study was conducted in one NHS Trust and, as such, the findings may not be generalizable to all NHS forensic secure care settings and patients. Due to the impact of COVID-19, phase one of the study was conducted as an online survey, avoiding face-to-face contact. This may have excluded some staff groups who do not access their emails regularly. In addition, the gatekeeper for survey dissemination was via line managers; as such, some staff may have been missed, and it was not clear how many staff received the survey.

The survey asked for participants' profession. Due to the small number of staff in some professional areas, it may have been possible for the researcher to identify individuals. Some staff verbally reported they did not want to participate for this reason.

Participants were recruited to semi-structured interviews (phase two) through expressions of interest following the survey. Some clinical staff may have required clinical cover to participate in the interview. Consequently, some staff may have needed to disclose their participation to other staff/managers. These factors may have resulted in recruitment bias.

The researcher conducting the interviews was a dietitian who works alongside the participants, which may have influenced participants' responses.[29]

CONCLUSIONS/ RECOMMENDATIONS

This is one of the first studies to explore staff views and staff perceptions on patient weight gain, understanding 'treat-culture' and the use of food treats given to patients in secure care.

The findings indicate that there are multiple factors which may influence patient weight gain, such as the patient's history, staff behaviours and the secure care environment. Staff are concerned about the impact weight gain has on patients' physical and mental health and yet can feel helpless about patient weight gain. The study suggests that treats are an enjoyable part of life which may be incorporated into a healthy diet. However, the frequency and volume of treats in secure care may tip that balance. The treats in the forensic secure care environment were perceived to have become habitual, making the patient's diet high in fat, sugar and calories.

There is a requirement for clear guidance on what restrictions are reasonable and proportionate in supporting patients with their weight. Secure care services need to provide holistic care, recognising that the patient's complex history may contribute to their relationship with food and healthful behaviours. It is important that there are discussions with patients regarding changes to their food/activity. Communication between disciplines and shifts could help minimise the frequency of treats. Thought must be given to menu variety, the wider trust food environment and food activities provided. Alternatives for section 17 leave which does not involve a food outlet are required. There is a need for a whole system approach to weight management/health promotion[11] which focuses on the patient pathway and staff values, in which staff's own health beliefs need to be recognised. Staff as role models, participating in health promotion and healthful activities, is an important consideration for patient participation in these initiatives.[4]

TRANSPARENCY DECLARATION

The lead author affirms that this manuscript is an honest, accurate and transparent account of the study being reported. The lead author affirms that no important aspects of the study have been omitted and that any discrepancies from the study as planned have been explained.

AUTHOR CONTRIBUTIONS

Anita Attala conceived the idea for this research, applied for ethical approval, collected and analysed the data. Anita Attala, Jo Smith and Emma Giles designed the study. Amelia Lake advised on the study design and write-up. All authors contributed to the writing of this paper.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

ORCID

Jo Smith http://orcid.org/0000-0002-9300-1920

PEER REVIEW

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AUTHOR BIOGRAPHIES

Anita Attala is a dietitian with experience in weight management, bariatric surgery, diabetes, public health and mental health. Her research interests are in weight management and mental health.

Jo Smith is a consultant dietitian (clinical academic) with extensive experience in the field of mental health and learning disabilities. Her research interests are in weight management and food insecurity.

Professor Amelia Lake is a dietitian, a nutritionist and Associate Director of Fuse. Her research examines how the environment interacts with and shapes behaviours around food, the food system and food environments.

Dr Emma L. Giles is an associate professor, and co deputy-lead of the Fuse Behaviour Change Theme. Her research interests are in public health, mental health and lifestyle behaviour change.

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Appendix A: the survey

SECTION 1: about you

1. **Do you identify as?** *(drop-down box)*

- ☐ Male
- ☐ Female
- ☐ Prefer not to say
- ☐ Prefer to self-describe

2. **Which age range are you?** *(drop-down box)*

- ☐ 18–25 years
- ☐ 26–35 years
- ☐ 36–45 years
- ☐ 46–55 years
- ☐ 56–65 years
- ☐ 65 years and above

3. **What best describes your role?** *(drop-down box)*

- ☐ Allied health professional (HCPC registered)
- ☐ Associate practitioner
- ☐ Clinical lead (nursing)
- ☐ Doctor
- ☐ Health care assistant
- ☐ Management
- ☐ Sessional staff, for example, sport/woodwork/gardens/recovery college and so on
- ☐ Other

If 'other' please state how you would describe your role_____

4. **How long have you worked in secure care services?** *(drop-down box)*

- ☐ 0–1 year
- ☐ 2–5 years
- ☐ 6–10 years
- ☐ 11–15 years
- ☐ 16 years or more

5. **Which site do you work onto?** *(drop-down box)*

- ☐ Northgate Hospital
- ☐ Bamburgh Clinic
- ☐ Both Northgate Hospital and Bamburgh Clinic

SECTION 2: your views and opinions on patient weight gain in secure care services

6. **In your opinion, does a patient generally gain weight while in secure care services?** *(drop-down box)*

- ☐ Yes
- ☐ No (please go to Q8)
- ☐ Don't know (please go to Q8)

7. **If 'yes' to question 6, in your opinion, how much weight does an average patient gain in the first year as an inpatient in CNTW's forensic services?**

_____-_____

8. **Please indicate your agreement to the following statement '*Patient weight gain is a significant issue in secure care*'** *(drop-down box)*

- ☐ Strongly agree
- ☐ Agree
- ☐ Neither agree/disagree
- ☐ Disagree
- ☐ Strongly disagree

9. **Please can you explain your answer to question 8?**

_____-_____

10. **In service users who do gain weight while in CNTW's forensic inpatient services what, in your view, might have caused this? Please tick all that apply**

- ☐ Medication
- ☐ Lack of exercise
- ☐ Snacks, for example, from hospital shop/recovery college/visitors
- ☐ Food-based activities, for example, with occupational therapy/recovery college/ward
- ☐ 'Leaves'
- ☐ Visits with Secure Outreach Transition Team (SOTT)
- ☐ Poor sleep hygiene
- ☐ Emotion
- ☐ Trauma
- ☐ Genetics
- ☐ None of the above
- ☐ Other

If 'other' please state_____

11. **Out of the issues you identified in the previous question (Q.10) which, in your opinion, is/are the main issue(s) and why?**

SECTION 3: your views and opinions on obesity and health

12. **Please indicate your agreement with the following statement '*Patients who do gain weight while in secure care are likely to develop long-term health problems*'.** *(drop-down box)*

- ☐ Strongly agree
- ☐ Agree
- ☐ Neither agree/disagree
- ☐ Disagree
- ☐ Strongly disagree

13. **Please indicate your agreement with the following statement '*There are health consequences to being overweight|having obesity*'.** *(drop-down box)*

- ☐ Strongly agree
- ☐ Agree
- ☐ Neither agree/disagree

- ☐ Disagree
- ☐ Strongly disagree

14. **If you have selected 'strongly agree' or 'agree' to Q.13, in your view, what are the health consequences of being overweight/having obesity? (please list as many as you like).**

SECTION 4: your views and opinions on what could be done to minimise patient weight gain

15. **For patients who do gain weight while in CNTW's forensic inpatients what, in your opinion, could be done to reduce the amount of weight gained?**
16. **Please comment if you have anything that you would like to add/discuss further**

SECTION 5: taking part in a semi-structured interview

17. **Following on from this survey, interviews are going to be conducted to explore views and opinions on patient weight gain further. Would you like to receive further information on the interview process, to inform you whether or not you would like to take part in an interview?**

- ☐ Yes
- ☐ No

If 'yes', please leave your **name and email** so that you can be sent some further information to help you decide if you want to take part in the interview at a later date.

Name:_____

Email:_____

If you would rather not leave your contact details here but would like to participate or find out more about the interviews please do not hesitate to contact me Anita Attala, Advanced Dietitian, directly on: email: anita.attala@cntw.nhs.uk or telephone: 07812 483999

Thank you!

Thank you for taking the time to complete this survey. I appreciate the time that you have taken.

Should you have any comments or questions, please feel free to contact any of the research team using the details on the participant information sheet.

Appendix B: the semi-structured interviews

Section 1: for the purposes of the recording, please can you say your **name, your position and where you work.**

Section 2: thinking about patient weight gain

Case study: Patient X, 32-year-old male who gains 2 stone (15 kg) in his first 6 months as an inpatient.

1. What in your opinion are the reasons for the weight gain seen in patient X?

- Anything else…

2. How do you think patient X feels about his weight gain?

- Do you think staff may have contributed to this feeling in anyway?

3. What safety-nets or systems could be put in place to avoid/minimise the weight gain seen in this patient?

Section 3: now thinking about 'treats'

4. How would you define a 'treat' (prompt: both food and non-food)?
5. In your opinion, can food treats be used as part of a healthy lifestyle? Please explain you answer further…
6. People often use food as a way to treat themselves, why do think that is?
7. In your opinion, how do staff use food in relation to patient care? (prompts: to treat/coercion/easier shift)
8. Why do you think food treats/activities are used?
9. How could patients have treats without food? Can you give examples?
10. Do you think that there's a link between treat giving and patient weight gain?

Section 4: ideas/comments

11. Do you have any ideas/comments on treats/treat giving/patient weight gain which we've not covered?

Thank you Thank you for taking the time to complete this interview. I really appreciate the time that you have taken. If you have any comments or questions, please feel free to contact me using the details on the participant information sheet.