“I don’t have a six-pack, but I sure have a two-pack!”: Obese children’s use of humor in rehabilitation

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Abstract
Within the social studies of children and childhood, children’s humor is an under-explored area. In this article, I explore the use of humor by children with severe obesity while attending long-term rehabilitation together with their families. In the children’s use of humor, I found a transition from the use of ‘fat jokes’ to ‘biopedagogical humor,’ which involved jokes about instructions relating to food and physical activity as conveyed by the rehabilitation team. I interpret their humor as signifying how they were affected by the biopedagogical messages involved in rehab and how they started self-monitoring their food intake and physical activity. I claim that their humor also can point to a process of medicalization of their condition, where their understanding of themselves as ‘fat’ was set aside for ‘I suffer from obesity.’

Key words:
Social studies of children and childhood, childhood obesity, humor, biopedagogies, medicalization

Introduction
Humor is an important aspect of human behavior (Watson 2015), also of children’s. Even though some sociological and anthropological studies have explored humor indirectly while researching children’s play (McGhee, 1983), humor is an under-explored area within childhood studies (Kunze, 2014). The phenomenon has been more extensively explored in psychology as an indicator of children’s overall development (cognitive skills) (Bergen, 2007, Wimsatt, 2014). Research on children’s use of humor in more naturalistic settings is lacking (McGhee, 1983, Loizou, 2007, Wimsatt 2014). In this article, I try to fill this gap by examining the joking culture of children with severe obesity (6-11 years old) while attending a two-year rehabilitation program together with their families. I explore their spontaneous and situation-specific humor, meaning their

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1 See for example Strandell (1997), Varga (2000) and Bergen (2002).
use of sarcasm, irony, and witty remarks (Janhonen, 2017) during rehab. Highlighting my overall focus on the children’s experiences, I ask: Were the children with obesity’s humor influenced by their social context, and if so—in what way, and what did their humor signify?

My study shows that the children’s jokes revolved around the jocular themes of ‘the fat body’, ‘food,’ and ‘physical activity.’ I claim that their humor can be interpreted in light of their overall experiences during rehab, and that their jokes reveal, or give a glimpse into, how the children were affected by the biopedagogical messages that the rehab team tried to convey.

My work is situated within the social studies of children and childhood, in which childhood is understood as socially constructed and in which children are seen as social actors with agency and the ability to influence the world they live in (James et al., 2009). This framework is combined with the framework of biopedagogies. This is a critical sociological approach that is based on the argument that the ‘obesity epidemic’ and its associated practices depend on a range of biopedagogies that places individuals under constant surveillance and press them towards self-surveillance in relation to food intake and physical activity (Wright 2009).

Most children in my study did indeed adopt self-monitoring strategies by embracing the biopedagogies involved in rehab. This happened even though the parents, and not the children, were considered the main targets for the intervention. It was the parents who were objected to lessons in biopedagogical ‘bios of instructions’², while the children mostly attended physical activities arranged by the rehab team. Still, the children picked up the biopedagogical discourses, concepts, and instructions used by the rehab team and started using them actively. According to the parents, the children also started using their new knowledge about food and physical activity to try to change their own, and their families’, life styles. The changes in the children’s language was also noticeable in the children’s humor, which gradually relied more and more on subtle incongruities of language and concepts connected to the biopedagogies involved in rehab.

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² Bios of instructions involves pedagogical instructions on how to live ‘a healthy life’; for example eating healthy and being sufficiently physically active (Harwood, 2009).
Humor, biopedagogies, and the social studies of children and childhood

Humor is a difficult subject to study (Apte, 1985). Laughter does not necessarily indicate the presence of humor, and people do not laugh at the same things (Janhonen, 2017). Also, humor may serve many functions at the same time (Chapman, 1983), for example creating group solidarity (Apte, 1983), strengthening peer relationships (Cunningham, 2005), separating insiders from outsiders (Fine and Soucey, 2005), regulating people's social behavior (Fine, 1983), relieving social tension, or be used as a bonding mechanism (Bergen, 2007). A single joke can consist of many levels of meaning simultaneously, which can be hard to grasp (Anonymised 2007). Despite humor having many functions for people (Chapman, 1983, Apte, 1985), research on children’s humor has to a large degree focused on exploring humor as an indicator of children's overall development in psychology (Bergen, 2007).

The most prominent researcher within the field of humor in children is the developmental psychologist Paul McGhee. Inspired by Piaget, he put forward a developmental stage model for children's humor (McGhee, 1983, 2002). In short, he explored children's humor in relation to underlying cognitive developmental changes, meaning that when new levels of cognitive skills are achieved, it leads to new forms of appreciation and comprehension and the production of humor (McGhee, 2013). Several experiments have demonstrated these developmental shifts and there is a general consensus that children do not have the cognitive capacity of modulating their use of humor according to social context before they reach school age (Cunningham 2005).

Some researchers have challenged McGhee’s developmental stage model. For example, Loizou (2005a, 2005b, 2007) found that infants appreciated incongruity and other kinds of ‘surprises’ that resulted in laughter, indicating that their humor reflected more advanced cognitive abilities than formerly believed (Loizou, 2007). Her research showed that the infants’ display of a sense of humor signified an awareness of rules and expectations of their environment, and that they empowered themselves by for example using humor as a means to attract the attention of caregivers and peers (Loizou, 2007). Kunze (2014) has criticized the notion within humor research that younger children’s humor is different from adults,’ which tends to be perceived as more ‘advanced’ and
relying on recognition of subtle incongruities in language and concepts. Instead, Kunze (2014) claims that also children’s humor “can go beyond wordplay and nonsense to draw upon satire, intertextuality and irony” (Kunze, 2014: 7) and that they can “perform original comic content” (Kunze, 2014: 7). Even McGhee (1983) has questioned his own developmental schemata by saying that children’s humor, at any age level, might vary and be influenced by the social situation in which it occurs. He states that more studies are needed to explore whether this is the case (McGhee, 1983). Studying children’s use of humor in more naturalistic settings can therefore provide new insights into humor studies as well as children’s worlds and experiences. The social studies of children and childhood, which is occupied with exploring children’s worlds and point of views (Prout & James 1997), are therefore an applicable site for research.

Within the field of humor studies, it is agreed that humor is a social phenomenon (Loizou, 2007, Carty and Musharbash, 2008). A characteristic of humor is that it is a spontaneous restructuring of sociocultural elements—it involves some form of discrepancy or incongruity (Apte, 1985)—a manipulation with existing cultural codes results in a humorous response (Porteous, 1989). If humor involves a manipulation with such codes, we can discover the underlying norms by analysing the infractions (Porteous, 1989). In accordance with these arguments, analysis of children’s humorous activity can give insight into children’s understandings of “appropriate behaviour and rules and their attitudes towards institutional norms” (Janhonen, 2017: 3). It is adults who often present such rules and norms, and they become ‘behavioural scripts’ for where children maintain relationships with peers (Koch, 2017). Still, children should not be understood as passive subjects to such scripts (Koch, 2017). For example, Koch (2017) has written about children’s use of humor to challenge adult norms and rules in order to affect their own status in their peer-group.

The children in my study should also not be understood as passive subjects to the ‘behavioural scripts’ during rehab. Even though they did not receive lessons in food and physical activity like their parents, they picked up the team’s biopedagogical instructions and starting using them actively to try to change their own, and their family’s, life style according to the parents. This suggests that they were affected by the biopedagogical messages conveyed by
the rehab team. This was also obvious in their jokes, which revolved around food, physical activity, and their bodies, indicating that the social setting they found themselves within influenced the children’s use of humor and behaviour to a great extent.

The notion of biopedagogies builds on Foucault’s concept of biopower, which involves the regulation and governance of populations and individuals through practices associated with the body (Wright 2009). Biopedagogies is a framework used within critical health sociology (Wright 2009) that brings together the idea of biopower and pedagogies (Wright 2009, Harwood 2009). The ideas and discourses involved in the practices of biopedagogies connected to ‘the obesity epidemic’ are believed to place individuals under constant surveillance, which can lead to increased and unhealthy self-monitoring (Wright 2009, Harwood 2009). I have previously challenged the assumption that such self-monitoring is always negative by pointing to the fact that there is a lack of studies of children’s health related behavior in biopedagogical settings. Previous research from other disciplines has also shown that children receiving treatment for obesity achieve better self-esteem, become less depressed, and have a positive change in their eating behavior. In this article, I aim to explore how and in what way the children were affected by the biopedagogies involved in rehab by exploring their humor and what it signified. My findings suggest that the children’s humor can give a glimpse into the process of increased self-monitoring and how their ‘fatness’ was transformed into ‘obesity’ due to a process of medicalization of their condition.

**Methodological and analytical approach**

This article draws on my study of children’s (6-11 years old) experiences of attending rehab for their medical classified condition of severe obesity. They attended rehab together with their siblings and parents. The rehab period extended over one summer camp and additional four long weekend stays spread over a two years period. Families were recruited through a randomized trial.

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4 This point is extensively elaborated in Anonymised (2017).

My fieldwork took place at two different rehabilitation centres in two
different places in Norway with three different sets of families attending (all in
all 32 families, including drop-outs). I attended three summer camps and four
additional long-weekend stays. I used participant observation as main method
for data collection. Child-friendly methods6 often used within the social studies
of children and childhood were not used because they were considered too close
to the intervention and as potentially affecting the outcome of the medical trial. I
performed preparatory studies in order to design my methodological approach.
Then, I found it important to gain insight into child-adult-rehab teams’ relations
and point of views in order to grasp essential elements embedded in and
affecting the children’s experiences of rehab. During my main fieldwork, I
observed and participated in parental activities during one summer-camp and
two long weekend stays. The parents attended individual and group
consultations, lessons in diet and physical activity, and some common activities
together with the children (most often physical activities arranged by the rehab
team). I also worked alongside the team during a summer camp with another set
of families were attending rehab. To grasp the rehab teams’ point of views, I used
their methods and biopedagogical approaches for encouraging life style for the
families.

In accordance with the social studies of children and childhood, my main
focus was on exploring and collecting data on children’s experiences and points
of views and to do so I lived with a third set of families in their common lodgings
during their rehab stays over a period of almost two years. Then, my focus was
on gaining insight into the children’s worlds. To achieve, this, I used the role
configuration ‘the least adult,’ which means to try to put as many aspects as
possible of being an adult aside and trying to enter children’s world(s) as a fully
active participatory member (Mandell, 1991). This method also involves trying
to submit to other adults’ authority (Mandell, 1991). I ate the same food and
attended the children’s activities, and I spent time with them during evenings
and participated in their self-initiated activities until bedtime. While being in the
role configuration of the least adult, I did not initiate conversations about their

6 Children are often involved in research in different ways within the social studies of children and
childhood, like taking photographs, performing role plays, write diaries or create drawing as a means to
explore their views of different topics (Clark 2005).
size, nor did I initiate any activities or put boundaries for the children's interactions. Rather, I tried to blend in by imitating their behaviour and bodily actions in a manner that felt natural to me, and I tried, inspired by Solberg (1996), to put my ideas about age aside, treating the children as my ‘peers’. Because I am slim, I tried to compensate for my body size by performing to the maximum of my physical abilities and by being a good team player. I suffered daily from muscle and stomach aches due to the high level of physical activity and fiber-rich diet, and I lost weight, as did the children. Slowly but surely I was accepted as a member of the children’s group—or maybe as ‘a different adult’ or an ‘ageless’ person and playmate. In this way, I gained unique insight into the children’s worlds.

As mentioned, the aim of my analysis for this article was to bring forth how children with severe obesity were affected by the biopedagogies involved in rehab through exploring their spontaneous and situation-specific humor (their sarcastic, ironic and witty remarks). Laughter from others (other children, parents, rehab team members, and myself) was used to identify jokes. I used a thematic analysis (Fielden and others, 2011). The first step in this analysis consisted of a process of repeated reading (Braun and Clarke, 2006) and subsequent coding phase, where I sorted the data according to their repeated pattern (Fielden and others, 2011). Moments of laughter were highlighted for further analysis. The data was then categorized by theme followed by a detailed analysis (Fielden and others, 2011). This revealed that jokes repeatedly referred to ‘food’ (intake), ‘physical activity,’ and ‘the fat body.’ I also discovered that these jokes were related to the social contexts of the children and I carried out an additional coding phase, where I connected jokes to relevant situations or experiences in order to explain the reasons for the laughter in response to the joke. This was followed by another detailed analysis, and lastly I related my findings to theoretical concepts and perspectives and previous research.

The study was evaluated and considered non-notifyable by the Regional Committees for medical and health research ethics in Norway, and was approved by the Norwegian Social Science Data Services. I obtained informed consent from parents. Children and parents received written and verbal information about my
project and were informed that they could opt out at any time without any consequences for treatment.

The randomized trial was initiated by the Norwegian specialist health care services. My research was conducted as an independent doctoral project, and was financed by the Norwegian Centre for Child Research.

**From fatjokes to jokes involving ‘bios of instructions’**

Amongst the children, a joking culture developed over time. It is somewhat hard to grasp how this joking culture manifested, but jokes in the beginning of fieldwork indicate that the content of humor played upon the fact that the children had a common understanding of attending ‘fat camp’\(^7\). For example, one child uttered the first day, “Welcome to the place of evil!”, resulting in laughter and giggling from the other children. Another child jokingly classified it as “a concentration camp”\(^8\). At the first information meeting with parents and children attending the summer camp, one of the rehab team members talked about what would happen to the children’s bodies if they increased their levels of physical activity—amongst other things “you will build muscles.” A boy then stated: “Well, I don’t have a six-pack, but I sure have a two-pack!”, followed by explosive laughter. These examples show that already in the beginning of rehab, the children’s humor was related to their biopedagogical context.

Already during the first summer camp, a silent consensus seemed to develop about what the children could joke about: The fat body, physical activity, and food. Handelman and Kapferer (1972) identified similar jocular themes in different cultures, and claim they exist within ‘category-routinized joking frames.’ In such cases, people’s joking activity are interpreted as anchored in cultural and normative social conventions and connected to the actors’ identities in a particular social setting (Handelman and Kapferer 1972). Within these frames, there is a high degree of consensus amongst participants about *when* you can joke, *who* is permitted to joke, and *what* you can joke about (Handelman and Kapferer 1972). This issuing of ‘licenses to joke’ is rooted in shared experiences, and there is no need for negotiating every new joking sequences because they

\(^7\) Only the children termed the summer camp as ‘fat camp’. The parents and the rehabilitation team used the ‘proper’ term of ‘summer camp’.

\(^8\) This rehab centre was located in what was previously a military camp.
are already known by the participants of the group (Handelman and Kapferer 1972). Put differently, one can say that the comic discourse becomes ‘historicized’ for the group (Fine and De Soucey 2005).

The ‘two-pack’-joke mentioned above is only one of many examples from the early days of fieldwork for when the children’s fat bodies were the source of jokes. Another example of a ‘fat joke’ happened during a canoeing trip. One of the canoes overturned close to shore, and the whole family got wet from the waist down. Before the adults managed to clear out the water, a boy with severe obesity went back into the canoe, which then sank. This made the other children laugh. Then the boy stood up, held up his arm and started doing hip-hop while the canoe slowly sank to the bottom of the sandbank, until only its top end was visible above the water. This made the children laugh even more, but instead of laughing at him, they were now laughing with him.

Another example of a fat joke from the first summer camp came from a boy who fell off his bike. The following day, he shared in plenum that he had visited the emergency ward for stitches, and he said: “I got a hole in my pants as well—and the fat came pouring out of it!” (laughter). Later that day, another boy shared that he often went to the local swimming pool, and that he sometimes jumped from a three meters high diving board. “And then, I wash all the old ladies onto shore!” (laughter). Another example is when one day when the children, their siblings, and I were playing ‘slåball’—a Norwegian game that resembles baseball and cricket. A boy knew that he would not be able to catch the ball should it come his way. Instead of trying when it did, he ‘ran’ in slow motion, making the other children laugh. By joking, he avoided potential disapproval for not catching the ball.

These examples illustrate how ‘the fat body’ became a ‘historicized’ and repeated jocular theme within the children’s joking culture. The examples also indicate that the children had a license to joke and make fun of their fat bodies when they found themselves in situations where they otherwise may have been exposed to ridicule or bullying. This license to joke was embedded in the emergent negotiated joking frame, which had roots in the children’s common experiences—not only in rehab, which put a special focus on their large bodies, but also from past experiences, which helped them foster functional strategies to
avoid bullying and ridicule. This can explain why the license for fat jokes was established again and again amongst the children.

Within the children’s joking culture, it was clear who had a license to fat jokes (the children with obesity) and what they could joke about (the fat body). One example that shows a violation of the joking license illustrates this point. One evening when the children and their siblings were playing slåball at the football field located at the rehab center, one of the siblings used his mobile phone to play a Norwegian famous song where the chorus goes like this:

Oh, so fat you have become!
Yes you’ve put on a little weight
You used to be as thin as a tile
Now you have become fat like a Christmas pig
Oh, so fat you’ve become

Two other siblings standing close by started giggling along with the music-playing sibling, but none of the children with obesity laughed or giggled. Instead they responded with a wall of silence and accusatory glances. They found it quite upsetting, interpreting it as a bullying episode. But just a few days later, a boy with severe obesity sung in front of the other children “Oh, I have become sooo fat!, yes I have put on a little weight. I used to be as thin as a tile, but now I have become fat like a Christmas pig...”. This time, both children with obesity as well as the normal weight siblings laughed. This example shows how the license to make fat jokes belonged only to the children with obesity.

Fat jokes were part of the communitas that developed amongst the children. Their jokes about the fat body mediated and created social rupture by drawing borders between ‘us’ (the children with obesity) and ‘them’ (their normal weight siblings) and demarcated difference (Carty and Musharbash 2008) based on the characteristics of, or the social identity, as ‘the fatsos.’ As a consequence, the children’s fat humor contributed to group solidarity and group identity in the first summer camp. It became a bonding mechanism, making it easier for them to share common experiences and negotiating understandings of their ‘fatness.’ An important finding in my empirical data is how the children’s perception of social identity as ‘fat’ changed as time went by due to the

9 No adults were present during this experience (except me).
10 The chorus is from a song made by the Norwegian band Ole Ivars, and is translated into English by the author.
biopedagogies involved in rehab. This became notable in the children’s language, when the phrasing ‘I am fat’ after a while was set aside and replaced with ‘I suffer from obesity’. I claim that this indicates a process of medicalization of their condition. Medicalization is a process “when certain behaviors or conditions become defined as medical problems (rather than moral or legal problem)” (Ourahmoune, 2017), often presented as a ‘disorders’ or an ‘illness’ (Paradis 2016). Through a biomedical lens, people with an excessive percentage of body fat are diagnosed as ‘obese’ and become targets for medical treatment and rehabilitation (Ourahmoune, 2017). This was the case for the children with severe obesity and their families’ in my study, and they were subject to specific ‘bios of instructions’ as means of rehabilitation due to their medically classified condition.

After a while, the children’s fat jokes seemed to wear off and they were gradually replaced with humor involving manipulations of language and concepts connected to the biopedagogies involved in rehab. For example, a girl wanted to show me her family’s lodgings during summer camp. Amongst other things, she showed me their bedroom, and pointed to the upper bunk bed that had the sign “100 kg max.” and said, while laughing: “Well, my father cannot sleep there for sure!” This example indicates that the girl was well aware that her father was obese and weighed more than 100 kilos, indicating an understanding of the concept of (excessive) body weight. Weight became a topic that was increasingly discussed amongst the children during the rehab period. Most often, this happened when no adults (except me) were present. For example, during the first summer camp, the children started to discuss how their pants had become too big around the waist. They also compared how much they needed to tighten their belts. During long weekend stays, I also overheard children asking each other how much weight they had lost since their previous stay at the rehab centre. They also exchanged life style tips for maintaining or increasing weight loss.

Another example signifying how the children were affected by the bios of instructions, is how a girl jokingly stated one morning that “Here (at camp), you

11 ‘Obesity’ (Norwegian: fedme) is not commonly used in Norwegian, but rather a term used within a medical discourse.
12 See also Anonymised (2017).
have to cycle two kilometers before you can have breakfast” (laughter). The audience’s laughter in response originates from a common understanding of the concept of ‘energy in equals energy out,’ which was a point of instruction, repeatedly conveyed by the rehab team, trying to establish an understanding of the importance of a ‘balance’ between food intake and physical activity.

The observable changes in the children’s behavior are also supported by stories told by the parents during parental group conversations with the team. Here, they shared stories about how most children took, or tried to take, a lot of responsibility for the family’s life style change process between rehab stays, for example by harassing their parents on the importance of buying the healthiest options at the grocery store or trying to make the whole family become more physically active. Many parents admitted to struggle to maintain the rehab team’s recommended life style changes over time, making the children use different strategies to get the family to do or uphold the changes.

Empirical examples of ‘food jokes’ also show that the children were affected by biopedagogies involved. In the beginning of rehab, jokes involving food was mostly performed while eating or in relation to conversations about food amongst the children, suggestive of their ‘common love of food.’ For example, a girl made a ‘beard’ out of pasta (without sauce), creating a light humorous atmosphere amongst the children present during the first day at camp. The second day I overheard some children discussing what was for dinner, and a girl said that it was veal. Then a boy joked: “Too bad for the calf, hurray for us!” (laughter). Another day during early days of fieldwork a boy stated that he wanted to rebuild a soft ice cream machine into a lasagna machine, followed by affirmative grins by the children. But as time passed, such food jokes were replaced with food jokes involving elements from ‘bios of instructions’ as conveyed by the rehab team. For example, halfway through the summer camp, a boy yelled out loud before going on a long outdoor trip, “I need motivation!!! I need Burn!!!”, causing hysterical laughter in the children. The children’s overwhelming laughter response is hard to understand without knowing about their previous experiences at camp. Firstly, it was clearly associated with how

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13 In Norwegian, veal is termed as ‘kalvekjøtt’, i.e. ‘calf meat’.
14 Burn is an energy drink.
the rehab team often used the word ‘motivation’ in relation to ‘physical activities.’ The children picked up these biopedagogical concepts and their interrelation and started using them actively (and humorously). Secondly, it was related to how the rehab team often talked about the importance of avoiding high calorie drinks. Again, this joke signifies an awareness of the link between food intake and physical activity, pointing to the biopedagogical message of ‘energy in equals energy out’.

I also observed a family rehearsing making a weekly plan for all their meals as instructed by the rehab team. When discussing what to eat for Saturday, the mother suggested popcorn. The dad disapproved by stating it could not be classified as ‘food’. Then their son with severe obesity said: "Well, corn is a vegetable!", making the whole family (and me) laugh. The boy’s statement was especially funny because this specific family hardly ate any vegetables before starting rehab—a topic that had been discussed with the rehab team on several occasions.

In general, all the children attending rehab were urged to eat more vegetables. For dinner, they were supposed to follow ‘the plate model’ recommended for children struggling with obesity and which is supposed to hold a quarter carbohydrates, on quarter proteins, and half vegetables. One day during the end of summer camp, a boy made a witty remark in the canteen to his mother, holding his plate of dinner above his head and yelling: “Look mommy, look mommy—I am eating the plate model!”, making people grin and giggle. Instead of eating dinner (together with his mother) he was claiming to eat an abstract concept, which originated from the bios of instructions conveyed by the rehab team (Anonymised, 2017).

Jokes about food and food constituents became increasingly common as time passed. For example, a boy proclaimed during a long weekend stay that “I have a new nickname now: Brelett!”. During a trip to the local go-cart park close to the end of the first summer camp, one boy proclaimed that everyone should drive with their mouths open to eat the vast amount of mosquitos in the air “to get enough proteins” (laughter) (Anonymised, 2017). The children’s

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15 In Norway, Saturday is considered the only day during the week when children can eat sweets.
16 Brelett is a light margarine that contains fewer calories than ‘ordinary’ butter.
laughter suggests a rather advanced, and common, understanding of the concept of animal protein, which stemmed from their' new knowledge about the plate model and its constituents (Anonymised, 2017). Yet another episode happened while a team member talked about the importance of drinking milk (but within certain limits). A girl then made this ironic remark: “And if you don’t like milk, you can eat a milk chocolate bar!” Her joke was followed by laughter due to her creative wordplay separating the word ‘milk’ from ‘chocolate bar’, making an ‘unhealthy’ food item into partly ‘healthy’ and in this way somewhat fulfilling the rehab team’s bios of instructions of food.

Many of the examples mentioned above illustrate how the children’s humor also was a form of ridicule of the biopedagogies involved in rehab. One can therefore ask if their humor represented a form of resistance towards the bios of instructions conveyed by the rehab team, indicating that the children did not internalize them uncritically. On the other hand, this ridicule might just represent a ‘break’ from the social structure surrounding them (Douglas 1968)—as a means of relieving social pressure or tension (Driessen 2001). In many ways, rehab represented a ‘made up-world’ for the families—an ‘ideal world,’ aiming at learning them how to become ‘healthy citizens.’ The behavioral scripts were strict and very different from their everyday lives. Many parents talked about rehab stays as ‘being in a bubble,’ indicating that it was a different world than their own. The children with obesity also seemed to be aware of this. During a fishing trip, one of the rehab team members gutted and prepared a fish, and at a certain point, he cut out the eyes and showed the children how it was possible to see the world “upside down through it’s eyes.” Then a boy stated: “Well, the world [here] is up-side down!”, followed by affirmative grins and giggling by the other children.

**Discussion and concluding remarks**

In this study, I have explored the use of humor by children with severe obesity while attending long-term rehabilitation for their medical classified severe obesity together with their families. The goal was to explore if, and in what way, the children’s humor was affected by the social context (rehab), by using

17 In Norwegian we use the frazing ‘melkesjokolade’ for ‘chocolate bar,’ which is directly translated as “milk chocolate”.

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participant observation as method to explore the children's world(s). Scholars from the social studies of children and childhood are occupied with the importance of listening to children's voices in order to gain insight into their lives, learning, and experiences (Harcourt and Einarsdottir, 2011). As my data show, the children's humor during rehab changed from using fat jokes to involving humorous incongruities originating from the bios of instructions involved in rehab. I claim that this change can be understood as signifying how the children were affected by the biopedagogies conveyed by the rehab team and developed self-monitoring strategies to cope with their condition. Their biopedagogical humor can also offer a glimpse of insight into how the children went through a transformation in their social identity from 'being fat' to 'suffering from obesity' due to the medicalization of their condition. The identifiable changes in and within the jocular themes suggest this, as they gradually relied more on the biopedagogies involved. An important point is that these biopedagogical discourses relied on a biomedical constructed view of obesity as an 'illness' or 'condition'.

My findings have several implications. Firstly, my research can provide new insight into humor studies in regards to how children's humor is linked to the social environments children are located in, i.e studies of children's humor in naturalistic settings. Secondly, it can contribute to the social studies of children and childhood, were children's humor is an under-explored area (Louizou, 2007). Above all, it can contribute to future studies exploring humor and children's learning within different childhood settings and how it might affect them, creating new knowledge about children's worlds. Third, my research offers insight into how children with obesity are affected by the biopedagogies within rehabilitation of child obesity settings.

Within the theme of children's humor and the social studies of children and childhood, there are many gaps that could be explored further, for example if there are observable gender differences in joking. Research suggests that boys express more humor than girls (Bergen, 2007). This was also the case for the children in my study, but beyond the scope of examination in this article. Another interesting approach could be using insights from 'children's play' in order to develop a framework for exploring children's humor in naturalistic
settings. Louizou (2005a) claims that humor is closely connected to play because it is a form of ‘playful activity’, involving playful production of fantasy incongruities (Louizou, 2005). Still, play does not trigger laughter the same way as humor does. Insight from children’s learning in other childhood settings within the field of the social studies of children and childhood might be another interesting approach.

What is clear from my research is that children’s humor is complex and advanced, and that the children performed ‘original comic content’ as stated by Kunze (2014). My research also shows that their humor can signify processes of how children strengthen or maintain peer relations or use humor as a means of reflection over experiences of their surrounding social environments. Humor is an important tool for communication for children and should be taken more seriously.
References
Anonymised (2007)
Anonymised (2017)