

The impact of adolescents' everyday life experiences on their primary hyperhidrosis treatment – a qualitative study

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Title page

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Abstract

Introduction: Hyperhidrosis is a disease affecting around 5% of the western population. The qualitative field within hyperhidrosis among adolescents has been sparsely investigated. The aim of this study was to investigate the impact of adolescent hyperhidrosis patients' everyday life experiences on their hyperhidrosis treatment.

Methods: Qualitative, semi-structured interviews were carried out. In total, 10 adolescents, aged 12–18 years, participated in the study. Data were analyzed using a set of inseparable activities as described by Van Manen.

Results: Three main themes were identified to represent common shared experiences across participants. The first theme was related to the impact of hyperhidrosis on the physical and psychological dimensions of life as it negatively affected both physical abilities and one's self-concept. Having hyperhidrosis was experienced as living a life in secrecy, characterized by individual routines for concealment and isolation in order to protect social identity.

Conclusion: The large negative impact of hyperhidrosis on adolescents is a strong justification for treatment of the disease. The substantial emotional distress suggests that treatment may need to include psychological support.

Keywords: Adolescents, hyperhidrosis, qualitative, everyday life, treatment

Introduction

Primary hyperhidrosis is estimated to affect around 5% of the western population (1-3). However, the true prevalence may be higher due to both underreporting by patients and underdiagnosis by health care professionals. Primary hyperhidrosis is characterized by sweating in excess of what is required for normal thermoregulation. The diagnosis is established when endocrine and malignant diseases, infections, or other organic etiologies are ruled out. The primary locations include the palmoplantar and axillary regions. The etiology of hyperhidrosis is not fully understood, but it may be hereditary as 65–80% of patients have a positive family history of hyperhidrosis (4).

Although largely treated as a problem in adults, clinical features of primary hyperhidrosis usually develop around puberty at a time where sweating naturally increases under hormonal control (5). This is particularly true for axillary hyperhidrosis. In patients with palmoplantar hyperhidrosis, symptoms may occur at an even younger age (6). Around 2.1% of adolescents younger than 18 years suffer from the disorder and both sexes are equally affected (2).

Even though primary hyperhidrosis is considered a benign chronic disease, it introduces a range of challenges to those afflicted. Adolescents can face practical problems such as smudging paperwork from sweaty palms or having a slippery grip when writing, playing an instrument, or using electrical devices (7). Furthermore, malodor, visible sweat stains on cloths, and dampness or dripping of the skin can be particularly distressing for the adolescent going through puberty, where the awareness of physical appearance and body image is increased (8). In addition to the psychosocial aspects, primary hyperhidrosis can increase the incidence of secondary skin diseases, such as infections caused by fungi and bacteria, viral warts, and eczematous lesions (9).

Hyperhidrosis has a large effect on quality of life in adolescents (5, 10). In 377 Swedish children aged 5 to 17 years, the mean Dermatology Life Quality Index (DLQI) score was higher than 11, indicating a ‘very large effect’ on Quality of life (QOL). Adolescents with hyperhidrosis suffer as much as adults or patients with severe psoriasis and acne (10). Hyperhidrosis has a negative impact on daily life activities and causes social isolation (11) and great amounts of stress and anxiety (12). The qualitative impact on the treatment of adolescents with hyperhidrosis is not well characterized. . Therefore, the aim of this study was to investigate the qualitative impact of adolescent hyperhidrosis patients’ everyday life experiences on their hyperhidrosis treatment.

Materials and methods

This was a qualitative study using semi-structured interviews to gain an in-depth understanding of the experiences and perspectives of the adolescents (13). Van Manen’s approach, based on the hermeneutic phenomenological tradition, was adopted to address the question posed in this study (14). Hermeneutic phenomenology is like Husserl’s phenomenology, which is concerned with human experience as it is lived (15). As a research methodology, Van Manen described it more thoroughly as a reflective study of the lifeworld as immediately experienced, entailing both the process of phenomenological description and a hermeneutic interpretation of the meaning of the experiences described (16). The phenomenological notion of lifeworld existentials is used to explore and understand the world of the lived experience. The existential dimensions, including lived time (temporality), lived space (spatiality), lived body (corporality), and lived relation (relationality), were applied as the conceptual framework in the study (14).

Sample selection and participants

Participants were recruited from an established hyperhidrosis research database at Odense University Hospital in Denmark. Through this source, we identified 12 eligible adolescents. The adolescents were followed in the outpatient clinic and met the following inclusion criteria: age 13 to 18 years, Danish speaking, and a diagnosis of primary hyperhidrosis according to ICD-10. Those having a psychiatric disorder, intellectual disability, or other major diseases were excluded from the study.

The recruitment process involved sending an informational letter to eligible participants. Two of the participants were excluded since they were not able to attend the interview period. None declined to participate.

Data collection

To gather a narrative that described the participants' experiences, data were collected through audiotaped semi-structured interviews using a flexible interview guide based on the four existentials. The interviews were performed in participants home (n=9) or at the Department of Dermatology (n=1) by one of the first authors (J.H.), who was trained for interviewing. Open-ended questions were formulated, such as 'Can you tell me how hyperhidrosis is affecting your everyday life?' or 'How does hyperhidrosis affect interaction with others?' At the end of the interviews, participants were given the opportunity to offer any further important aspects of their experience that were not already discussed. Following completion of the 10th interview, many of the same issues, notions, and concepts were repeated, and it was concluded that the saturation point had been reached. The interviews lasted between 35 and 50 minutes and were transcribed verbatim.

Data analysis

The main objective of phenomenological research, described as ‘phenomenology of praxis,’ is to transform personal meanings and experiences from interview texts into disciplinary understanding (14). This was done by a set of inseparable activities described by Van Manen (16). In order to reflect on the essential themes that characterized the phenomenon under study, each transcript was read several times, and a short summary was written using a holistic approach. In this interpretive process, the researchers strove to express the fundamental or overall meaning of the text. After understanding the text as a whole, a selective approach was employed in order to isolate thematic statements. Hence, the transcripts were read to identify statements related to the experience of living with hyperhidrosis. Statements with similar meaning were highlighted with the same color and treated as thematic statements. After extraction of general themes, similar themes were clustered. Finally, preliminary findings were discussed among all authors, and three overarching essential themes were captured from the joint unique meaning of living with hyperhidrosis. The reporting of this study was guided by the Standards for Reporting Qualitative Research (SRQR) in order to ensure and improve transparency (17).

Ethical considerations

The study design did not require ethical approval but it was accepted by the Danish Data Protection Agency (**17/33450**) in September 2017. All collected, processed, and stored data for the purposes of this study were maintained in accordance with the Act on Processing of Personal Data. Participants were provided with oral and written information about the study before written informed consent was obtained. Parents signed the consent form for participants younger than 18 years.

Results

A total of 10 adolescents were included in the study (see **Table 1**). The adolescents had developed hyperhidrosis in their early childhood or at the time of puberty. The individual narratives were unique but with recurrent aspects across the experiences, leading to three main themes and six subthemes (see **Table 2**).

Insert **Table 1**

Insert **Table 2**

Sweat that goes beyond the skin—a physical and psychological burden

Reducing physical capabilities

The patients described how their everyday tasks were challenged because of their hyperhidrosis. For some, the challenges became even more evident during summertime since sweating lead to itching, rashes, and cracking of the skin. Hyperhidrosis interfered with the ability to solve tasks at school as sweat soaked the computer keyboard and smudged the paper when writing with a pen. The constant awareness of sweating affected the ability to concentrate and as a result patients felt that their performance at school had worsened, which is evident from the following quotation:

I am really into school. It can be really frustrating when you have an exam, where you are more nervous and sweat even more. It takes me more time, because as well as doing calculations I also have to dry off the sweat. I feel that I could do better, if I didn't sweat so much. (Girl, aged 13)

Whereas palmar hyperhidrosis directly interfered with the performance of tasks, the impairments among patients with axillary hyperhidrosis were similar; however, occurred secondary as an attempt to hide sweat stains from peers:

I would like to be more active during class, but I am afraid to raise my hand, because then someone could see that I'm sweating. (Girl, aged 18)

As patients experienced interference with school they did so with their leisure activities. Regardless of the leisure activities, to varying degrees, they experienced impairment in their functional capability due to the condition. One of the patients explained how his performance level when playing handball was affected since the ball regularly slipped out of his hand when trying to pass it or shoot at the goal. Another patient was challenged as she often slipped on the mat in gymnastics. A third patient had even been forced to quit tennis since he could not hold on to his tennis racket. The obvious impairments faced in school and leisure evoked feelings of discouragement and was experienced as a motivational drain among all of the adolescents.

The impact of treatment

All patients had initiated treatment with topical antiperspirants; however they did not experience a significant effect. Some patients tried alternative therapies such as acupuncture, hypnosis or zone therapy, also with very little success. Being referred to the Department of Dermatology for specialized treatment gave them a sense of hope as the possibilities for other treatment options became available. Nevertheless, treatment with iontophoresis was considered time consuming and ineffective.

It [treatment] has been a disappointment every time. About this electric therapy: I had to do it 20 times although I couldn't feel any difference at all. I wasn't allowed to move on [with a new therapy] before I had tried it at least 20 times (Girl aged 18)

Treatment with botulinum toxin injections was for some patients experienced as more effective, however it created concerns about the pain both prior to treatment and on the long run:

I would appreciate to have other therapy than Botox [botulinum]. I have been very nervous about the injections and the medication. In the beginning, I was happy about the therapy, but then I became nervous of the fate of the medication (Girl aged 14)

Despite this, patients expressed that they would continue treatment, regardless of pain or concerns as long as it had an effect, even on the short term. When treatment had an effect, it was experienced as liberating.

Being an adolescent in regard of treatment was experienced as having restricted access to some available treatments such as microwave thermolysis and botulinum toxin injections.

This often resulted in feelings of despair and disappointment:

The only thing I can do is to wait for me to get old enough to receive treatment with Miradry [microwave thermolysis]. You can't get it before you've turned 18 years. When they [healthcare professionals] told me that, I just had a break down. (Girl aged 17)

Another said the following:

I asked if it could be cured in any way. He [the doctor] told me about Botox and stuff. But this is not something they use on people of my age. I got so disappointed. You feel a bit dejected. I'm still looking for things that could help me. (Girl aged 17)

Receiving proper treatment was considered pivotal in order to live their life as normal as possible. All of the adolescents had a hope for, at some point, to find or receive a treatment that could reduce their sweating. They had no expectation of the sweating to disappear spontaneously, thus treatment was an important aspect in relation to their physical, psychological and social well-being.

A deteriorated self-esteem

During the interviews, patients were asked to share their perceptions on sweating. In this regard, they used adjectives such as 'disgusting,' 'nasty,' and 'repulsive,' and they made associations with a person who was 'insecure,' 'unhygienic,' and 'nervous.' Thus, taking these notions into account, sweating was attached to a stigma. Even though most of the adolescents had experienced discrediting prejudices, it was apparent that they were mostly burdened by their own internalized stigma, which is emphasized by the following quote:

In fact I don't really know how people think, but I have all those negative ideas. It affects the vision of myself and makes me ashamed. Sweating all the time just gives you the feeling of being so gross. (Boy, aged 17)

In spite of knowing that their sweating was not self-inflicted, it had a deteriorating impact on self-esteem, both emotionally and socially. Feelings of uneasiness often emerged, especially when engaging in social activities that sometimes force them to withdraw. The reluctance to

take a jacket off or feeling unease when having to shake hands with others lead to social embarrassment and insecurity. Some adolescents felt compelled to hide behind dark colored and oversized clothing, even when this was considered inconvenient. In addition, some showed signs of avoidance behavior. This became especially evident in social occasions where the risk of being ‘revealed’ was present:

I remember that I just felt so bad about myself. It felt easier to avoid it [going out]. I knew the night would be ruined as I had to go to the toilet constantly, to dry myself, and potentially cope with the feeling of people talking behind my back, and say: yuk she’s nasty. (Girl, aged 18)

The impairment of low self-esteem not only affected the adolescents here and now but some of their statements also indicated speculations on whether they would ever be in a relationship or have people care for them:

*‘I have wondered if I will ever have a girlfriend, who will accept me for who I am.’
(Boy, aged 17)*

Another patient said the following:

‘I have a boyfriend now. But it took me a long time to tell him about it [hyperhidrosis]. I was sure that, if he found out, he would leave me and wouldn’t want to have anything to do with me.’ (Girl, aged 18)

Living a life in secrecy

Incorporating daily routines for concealment

On a daily basis, the adolescents feared rejection by their peers as a result of their hyperhidrosis. Thus, subjects struggled to conceal all bodily signs of the condition, making this a prominent aspect of living with the disease. Walking a certain way and carrying deodorants, extra clothes, cloths, and sanitary towels were examples of strategies applied to manage perspiration on a daily basis. Furthermore, for the sweat to go unnoticed, first choices of clothing were bulky, black shirts that subjects would otherwise not have wished to wear. Consequently, they missed out on the opportunity to express their personality, which was considered an important part of being an adolescent. Furthermore, the concealment strategies were associated with a great amount of inconvenience and uncomfortableness:

If we are in town, for example, I always keep my leather jacket on and it's mega hot when there are so many people – you are totally boiling. People don't understand why I don't take off my jacket and then I have to lie and tell them that I am cold (Girl, aged 18)

In the struggle to minimize the visible hallmarks of hyperhidrosis by these incorporated routines, it became clear that the adolescents compromised their spontaneity and their ability to initiate activities on equal terms with their peers.

When loneliness fuels the struggles

Even though the adolescents exerted themselves in order to live with their condition in secrecy, the uncontrollable nature of hyperhidrosis made this difficult and sometimes even impossible. Going to festivals and clubs or being active with friends was explained to

exacerbate the severity of sweating to a degree that the normal strategies became inadequate. When close proximity was added, the discomfort would make them reluctant or even forced them to withdraw from these situations.

We were introduced to folk dancing the other day and immediately I could feel my hands getting sweaty because I knew we were going to hold hands. We are a big group of 160 people and you don't know all of them, so you can't just grab everybody's hands and explain. Actually I chose just to sit out and watch because I felt that I couldn't hold hands with all of them. (Girl, aged 14)

In an attempt to avoid any touch or closeness, they became restricted to the role of a passive observer, missing out on social activities that they would have enjoyed. Undertaking this involuntary role affected their ability to socialize and to be part of the collective. The avoidance behavior fueled the struggles since it evoked feelings of loneliness and the longing for solidarity:

I keep myself to myself a lot. I don't think I would have if I didn't have this problem. I would probably be more outgoing and talk to more people at fitness training. I would probably take more initiative and say "come on, let's be mates". (Girl, aged 14)

Lessening the burden

Getting familiar with the diagnosis 'hyperhidrosis'

The narratives expressed a need for the adolescents to be supported in order to manage their condition more appropriately. However, the ignorance of excessive sweating among themselves, their families, and their practitioners was an obstacle for initiating treatment at an early stage. Adolescents who had discussed their excessive sweating with their practitioners explained how it was trivialized as a natural part of human maturity:

He [the doctor] laughed at it a bit. He couldn't understand that it was a problem.

He thought it was quite funny that I made a big deal out of it. My body was changing, after all. (Boy, aged 15)

Being referred to the Department of Dermatology for specialized treatment was a challenge. Patients explained how they had acted on their own initiative and how they themselves had found the medical term for their condition and presented it to their practitioner. When the diagnosis was established, patients reacted with great relief. Being able to create a new story that incorporated the hyperhidrosis explanation for their excessive sweating was welcomed, even though they wished they had known earlier, since they thought it could have shielded them from the great amount of distress they had felt for many years. The diagnosis enabled them to project the blame of their sweating on a disease state rather than on themselves, positively affecting their self-image. The recognition and support by health care professionals was relieving and even enabled some to be more open about their condition. Furthermore, the diagnosis gave them access to treatment options and supporting networks, such as Facebook groups and the national patient organization, which they had never known existed, giving them hope for a better future.

Disclosure and the sense of relief

All of the adolescents had disclosed their condition to their immediate circle of friends and family, which, in their presence, enabled them to relax and not be anxious about judgmental attitudes. One adolescent explained her home as her ‘safe haven.’

I don't need to hide myself at home because my family doesn't care if I leave wet footprints on the floor. (Boy, aged 14)

Adolescents who had parents who, like themselves, had lived with the condition felt very appreciative as they were able to profoundly relate to the problems they faced on a daily basis. For others, the feeling of being met with genuine understanding supported their confidence to disclose challenges of the condition, making it possible for parents unfamiliar with the condition to grasp the extent of the problem. Receiving support and consideration from their significant others was seen as a pivotal need, not only on a mental level but also by dealing with the practical management of the condition such as proper treatment. The adolescents widely relied on their parents to step up and initiate contact with the health care system, taking time of work to attend doctor's appointments and covering additional expenditures associated with the condition, including out of pocket payment for treatments, new clothing, and other personal hygiene products.

To share the burden of the disease with others outside their inner circle was a desire expressed by most of the adolescents since it helped others to better understand their suffering. As prejudiced behavior was no longer feared, everyday life was described to be less distressing since they did not have to live in secrecy. A minority of the adolescents explained how receiving a diagnosis had encouraged them to disclose the condition to their classmates. Being open had been difficult since it was associated with concerns about the

consequences, but it ultimately turned out to be a positive experience, liberating them from a secret they no longer had to carry on their own:

People could actually relate to my problem. One said my hands also sweat a lot, and another acknowledged the problem by saying that must be very annoying. It felt like a relief, I was able to be myself. (Boy, 17)

Discussion

The current study investigated the lived experiences of adolescents suffering from hyperhidrosis. Our study showed that the disease has physical, emotional, and social impacts on everyday life. Having hyperhidrosis was experienced as living a life in secrecy, characterized by individual routines for concealment and isolation in order to protect social identity. Receiving a diagnosis and starting treatment, gave the adolescents an increased insight into their disease. As they obtained knowledge they became aware of alternative strategies to cope with excessive sweating, which alleviated the burden of the disease.

Several studies have explored young people's experiences of living with a chronic disorder (18); however, little remains known about the population who suffers from hyperhidrosis. In fact, hyperhidrosis is distinguished from other long-term conditions since it is not subject to restricted treatment regimens, such as regular follow-ups and daily injections or medications, as is the case for diabetes, asthma, or epilepsy (19). Thus, the severity of the disease could easily be underestimated and hinder proper treatment. Despite those differences, the current study implies that managing hyperhidrosis, like all chronic diseases, constitutes a challenge for the young individual, who simultaneously has to manage the complex developmental tasks associated with adolescence (19).

In adolescence, normality and peer acceptance play a significant role in everyday life and the psychosocial development (20). This is reflected in the literature, which places a considerable emphasis on the theme of normalization (19, 21). Rigid treatments, physical limitations, visible signs of disease, etc. challenge the individual's view of normalcy and how striving for this 'ideal' can become a paramount obsession (22-24). In our study, this obsession also appeared as a prominent aspect of the adolescents' lives; however, this was significantly challenged by the stigmatizing effects of sweating, which could explain the social vulnerability and insecurity they experienced. The attachment of hyperhidrosis to a stigma has been demonstrated in earlier studies and has been explained by social norms dictating that visibility of sweat is both unsightly and undesirable (12). Erving Goffman was the first to formulate the concept of stigma, and he identified it as a feature that devalued persons who possessed certain traits that were considered socially or morally unacceptable and were revealed through the presence of bodily signs (25). Stigmatization exacerbates negative emotions, low self-esteem, and negative body image. Even though stigma has the power to spoil one's identity in the eyes of others, stigma seemed to spoil the identity in the eyes of the study participants themselves. This was especially emphasized as adolescents perceived themselves as nasty and dirty, adjectives that reflected the presence of self-stigmatization. Among adolescents self-stigma leads to social exclusion and prevents social integration processes (26, 27). This is problematic due to the personal development that is prevalent during adolescence, when autonomy and independency develop (28), and peers have an important role. Furthermore, how well young people manage or cope with their disease during adolescence may have an impact on their health outcomes in adulthood (29).

In our study, the feelings of differentness evoked by the attached stigma seemed to be balanced by adopting various adjustment strategies. Changing cloths, being constantly focused on how body parts were placed, and even withdrawing from activities were some of the strategies that were used with the purpose of ‘passing’ as a normal teenager, thus protecting social identity (30). This is consistent with research among adults affected by hyperhidrosis. In addition, the adolescents in our study tried to hide their disease due to embarrassment and fear of rejection. With Goffman, this could point to the fact that having hyperhidrosis is also a source of body stigma. Hiding visible signs or symptoms, in this case sweating, and facing insecurity regarding whether someone might find out adds even more tension to the situation. Management then becomes about tension management with the purpose of reducing this tension. Goffman refers to this as ‘covering.’ Some of the adolescents succeeded in their attempt to ‘cover’ their sweating in order to avoid peer rejection. As a result, the tension that arose during social activities or interactions became the object of management. These strategies, however, compromised their spontaneity and their ability to engage in social activities, creating feelings of disconnectedness and loneliness.

Thus, not only the untreated disease itself but also the stigma that was related to it posed a dominant and severely limiting impact on the adolescent’s lives, influencing their conduct and approach to nearly all daily activities. As a result, while protecting their social identity patients seemed to compromise their social life.

Adjustment strategies are frequently applied in adolescents living with stigmatizing diseases such as psoriasis, inflammatory bowel disease, epilepsy, and diabetes (31-34). Strategies designed to normalize or minimize the impact of psoriasis on appearance affect self-confidence and social functioning (34). This is consistent with our findings since patients

were hesitant to engage and form new social relations as they feared stigmatization and rejection by their peers. With this in mind, it is no matter of surprise that levels of social isolation and loneliness are high in adolescents with hyperhidrosis (35). Based on the abundant evidence that these mental states are associated with negative health outcomes, hyperhidrosis research has, not surprisingly, suggested an increased prevalence of anxiety and depressive disorders among adults, including suicidal ideation (36).

To create the foundation for the wellbeing of adolescents with hyperhidrosis, our findings imply the need to disclose rather than conceal, which is in line with the association between disclosure and improved psychosocial health, including decreased distress, improved interpersonal relationships, and increased self-esteem (22, 37). Interestingly, some of the adolescents described how disclosure was perceived as a liberation from a secret they no longer had to carry with them. Disclosure is beneficial for psychological and physical health (38) and may resolve in the acquisition of social support. In our study, the adolescents explained how peers reacted positively by acknowledging their problems and how some could even relate. Therefore, disclosure of the condition should be encouraged since concealment strategies in this study were dysfunctional strategies, potentially leading to psychological comorbidities, which could follow them into adulthood, affecting their ability to live life to the fullest extent possible.

The adolescents indicated that their symptoms were neglected by their general practitioner and perceived as a normal period of adolescence. This is consistent with existing research (11) and indicates that there is substantial lack of knowledge about hyperhidrosis, not only in public but also among health care professionals. Neglecting symptoms that, to patients, are experienced as having a negative impact on everyday life may result in uncertainty and add

even more stigmatization to the situation (39, 40). Not being taken seriously or not being believed or understood in encounters with health care professionals may result in struggling for one's self-esteem and preserving dignity (41). Consequently, access to optimal treatment largely depends on patients taking personal charge of the problem, which seems like a paradox, taking the potential of far-reaching consequences of hyperhidrosis into consideration. A proper diagnosis and treatment can reduce the physical and psychological impairment of hyperhidrosis (42). Our current findings support the need to raise awareness about hyperhidrosis as a means to eliminate prejudice about excessive sweating and to ensure patient acknowledgement and early diagnosis to prevent long-term impairments.

Hyperhidrosis has its onset in early childhood or adolescence, however, the majority of patients do not receive treatment until adulthood (43). Adolescents had experienced several treatment failures and a restricted access to some treatment options. Therefore discussing this during consultations could reduce feelings of disappointment or unmet expectations. It could also be discussed, whether patients should be offered off-label treatment e.g. with botulinum, which is used also in childhood for other indications.

Strengths and limitations

A limitation of this study was that the participants were collected from one research database. This could have an impact on the transferability of the findings. However, this ensured the opportunity to strive for maximum variation in the selection of participants and that participants were selected randomly, thus not excluding someone based on personal preferences. Another limitation is the relatively small sample size. However, qualitative research is concerned with the deepening and understanding of a phenomenon and not with numerical representability (44). The qualitative approach is considered a main strength of the current study were the in-depth interviews produced rich and nuanced perspectives on how

hyperhidrosis affects the lives of Danish adolescents. Including the appreciation of emotional aspects through qualitative research may lead to more confidence in patients' health care providers. Further, it can inform clinical practice strengthening the relationship between adolescents and health care professionals and thus, the overall treatment satisfaction (45). We only recruited adolescents who had already initiated medical treatment. For that reason, our findings could be different had we recruited adolescents not yet in treatment. The majority of the interviews were performed in the participant's homes. While this was considered a safe environment, it might have resulted in less privacy due to the risk of interference from other family members. The consequence of family members being close by could have underestimated the effects of hyperhidrosis since participants' openness about their thoughts and feelings could have been toned down.

In conclusion, our study emphasizes that the negative impact of hyperhidrosis on adolescents should be a strong incitement to increase awareness about the disease and the importance of proper treatment. As evident in this study, coping with hyperhidrosis by oneself could result in dysfunctional coping, leading to substantial emotional distress and the risk of developing psychological comorbidities. This study stresses the need to provide health care services that take adolescents seriously, keeping in mind that the visible nature of the disease, on top of the ongoing developmental processes, can be particularly challenging.

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Disclosure statement

The authors have no conflicts of interest to declare.

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Table 1. Participants' characteristics.

Participants (n=10)	
Sex	
Boys	4
Girls	6
Age	
13	2
14	2
15	1
17	2
18	3
Hyperhidrosis localization	
Axillary	1
Multifocal	3
Palmoplantar	6
HDSS score	
1	–
2	–
3	2
4	8

Table 2. Overview of the themes and subthemes.

Sweat that goes beyond the skin: a physical and psychological burden	Reducing physical capabilities The impact of treatment A deteriorated self-esteem
Living a life in secrecy	Incorporating daily routines for concealment When loneliness fuels the struggles
Lessening the burden	Getting familiar with the disease Disclosure and the sense of relief