Schoolchildren’s experience of pain—A focus group interview study

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Abstract
Aim: To explore the experience of pain in 10- to 12-year-old children.
Methods: This interview study included students (n = 42) in grade 4–6 in focus groups (n = 10) in southern Sweden (52% girls); mean age, 11.3 years (range 10-12 years). The interviews were audio-recorded and transcribed verbatim and analysed with qualitative content analysis.
Results: The analysis resulted in one theme: Pain as a unique experience for each individual, which was divided into five categories: (a) Feeling bodily pain; (b) Pain related to the school environment and schoolwork; (c) Internal pain related to sorrow and grief; (d) Pain related to conflicts and remorse; and (e) Pain can be good.
Conclusion: The children made distinctions between physical pain and emotional pain. Bullying, noisy school environments, grief and remorse were reported to be linked with headaches, stomachache and heartache.

Keywords
school-aged children, pain, experience, qualitative study, focus group

1 | BACKGROUND

The occurrence of pain in school-aged children is common. Pain is defined as an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage. The investigation ‘Health Behavior in School-aged Children’ showed that, among 11-year-old Swedish children, 32% reported having weekly headaches, 29% weekly abdominal pain and 18% weekly back pain. Eleven year old’s monthly use of analgesics against headaches or abdominal pain was 40% and 17%, respectively. Pain in the form of headaches and abdominal pain and other psychological symptoms in 10-year-old children was associated with tiredness. Psychosomatic complaints (having two physical and/or somatic complaints more than once per week) have increased during recent years, where the rate increased from 30% to 41% in Swedish 11-year-old girls and from 19% to 30% in boys between investigations carried out in 2013/14 and 2017/18.

Pain is a health problem in schoolchildren that needs to be addressed to reduce psychosomatic symptoms. Pain can also mean a deteriorating quality of life and reduced well-being. There is thus reason to ask the children themselves about their experiences of pain. The aim of the current study was to explore the experience of pain in 10- to 12-year-old children.

2 | METHODS

2.1 | Design

This research was an empirical qualitative study with focus group interviews. This study is part of a larger research project ‘Stress, pain, and analgesic use among school-aged children and adolescents’. Further details of the methodology have been published.
elsewhere. A semi-structured interview format was used to provide answers to questions concerning the experience of pain among school-aged children aged 10-12 years. Before the recruitment of informants, a research ethics application was approved by the Lund Regional Ethics Review Board (EPN 2018/842). Written informed consent was obtained from the legal guardians, and assent was obtained from the children. Eligible students were also informed that their participation was voluntary and that data would be kept confidential.

2.2 | Sample

A strategic sample from two different schools with children in urban and rural areas was selected. One school was placed in an urban area with a population characterised by a higher rate of unemployment among the adults and of more people born abroad compared with the rest of Sweden. The other school was placed in a rural area characterised by a population born in Sweden and with low unemployment rates among the adults. The inclusion criteria were that the children should be 10-12 years old (grades 4-6).

2.3 | Data collection

Data were collected through focus group interviews (n = 10) with children (n = 42; 22 girls and 20 boys) in grades 4-6 (mean age, 11.3 years; range 10-12 years) from May to September 2019. The goal was that each focus group should consist of four to six children, and this was the case in eight of the focus group discussions. However, in two cases, the interviews consisted of only two or three children. These two interviews provided rich data and were included in the data collection. The interviews lasted 30-45 minutes and were conducted during school hours at the school. All four authors took part in the data collection; there were always two authors in each focus group. One of the authors was the moderator, and the other was the observer.

2.4 | Analysis

The interview material was analysed using qualitative content analysis. This approach is appropriate when describing differences and similarities in a textual format. The analysis was initiated by the first two authors reading the transcribed interviews several times to obtain a sense of comprehension. The first two authors extracted the meaning units that responded to the purpose and were then condensed by summarising the content without losing its core meaning. This was subsequently entered into a computer template to render the analytical process more transparent. A special column was then created that comprised the labelling of the meaning units in the form of codes. Such a codification method enables the understanding of the context through its relation to the text. All authors have taken part in the analysis material (meaning units, codes and categories) and met to compare their understanding of the codification, thereby identifying similarities and differences. The analysis process went back and forward and resulted in five categories and one overall theme.

3 | RESULTS

The children distinguished between physical pain and emotional pain. The analysis resulted in one theme: Pain as a unique experience for each individual, and five categories were identified: (a) Feeling bodily pain, (b) Pain related to the school environment and schoolwork, (c) Internal pain related to sorrow and grief, (d) Pain related to conflicts and remorse, and (e) Pain can be good.

3.1 | Pain as a unique experience for each individual

The children reflected that the pain is manifested as unique experiences for each individual. The children thought about the difference between the pain itself, and the feeling of pain, and that pain had different consequences for different people. The children had noticed that some students had to go home from school when they were in pain or when they were hurt, while other children continued as usual in school despite having been involved in the same thing. For the children, the pain itself was constant and objective, while the experience of how it felt varied depending on who you were, but also if you had experienced worse pain in the past:

’Some people do not feel as much pain as others do. For example, if you fall and start bleeding. Some are crying and unable to stay in school anymore. And for some, it does not happen much at all’

(Focus group no 9)

‘Yes, everyone feels just as much pain, but some do not think it hurts, but what they still feel is just as much pain, because they have been through something much worse before’

(Focus group no 10)
The notion of children's unique experiences of pain is further described and exemplified in the following category sections.

3.2 | Feeling bodily pain

The children reflected on the strange nature of pain; that sometimes, you can have pain in different places in the body without knowing why. They do not receive clear answers even when asking an adult or health professional:

'It's a bit strange with me here, because I sometimes have a stomachache and sometimes I have a headache. And the doctors cannot ascertain what it really is'

(Focus group no 10)

The children reflected on how different body sensations and needs could cause pain. Hunger was one example mentioned. The children also mentioned that underlying illnesses could cause pain, but it could be difficult to know whether it was a physical illness, hunger, or if it was due to stress:

'Yes, usually when I'm hungry, I get stomach pain'

(Focus group no 7)

'You may have a disease that causes you pain, or if you are very stressed that causes you stomach pain'

(Focus group no 3)

3.3 | Pain related to the school environment and schoolwork

The children expressed how school-related stress, sadness and pain are linked with one another. The children said that if you are stressed, you can get headaches, and then, the situation becomes worse:

'That is why you combine [school related] stress and pain, if you are stressed you can get a headache, and everything gets really bad'

(Focus group no 3)

'When I have a headache [at school], I'm not happy'

(Focus group no 6)

The children also told that pain during the school day made it harder to concentrate on schoolwork:

'It can be different things, but if, for example, you had a hard day at school, maybe if there was a lot of noise and you are not really well and tired, it is usually easier to get a headache or stomachache'

(Focus group no 3)

3.4 | Internal pain related to sorrow and grief

Pain could also be experienced in the form of internal pain. Several of the children had experienced that someone close to them had passed away. They expressed a type of pain that could not be touched and without a rapid cure. They experienced a grief that was deeper than bodily pain. They were also affected by how others in their vicinity feel:

'It is quite difficult to get rid of the internal pain; it is almost as if it has to calm itself. For example, my grandmother, who has died, then I became very sad when she died, and there is nothing I can cure just like that'

(Focus group no 3).

Internal pain was linked to difficult personal events in life. The children told about their parents' divorce, death and illness among their relatives, and that the children were then physically hurt in various parts of the body, even though they knew that the pain was because they felt sad:

'You get hurt both physically and mentally. For example, when you got hurt or when my parents got divorced. Then I was sad and felt pain inside'

(Focus group no 4)

'When you lost someone, for example, my grandmother, she died last summer. I kind of got a heartache then. That someone important in my life was gone. You get sad and get a stomachache. You may not be able to go to school because you think about that person all the time'

(Focus group no 7)

3.5 | Pain related to conflicts and remorse

The pain could also be of an ethical nature. The children told how they could get hurt inside if they did something that they regretted afterwards, for example, if they were unpleasant to a friend or their parents, then they could get physical pain in the stomach afterwards:
‘You can have pain inside if you have done something awkward that you regret. And then you put it on yourself, and you get hurt inside’

(Focus group no 5)

‘You feel bad in your heart for something you may have done, sort of’

(Focus group no 8)

‘So you can feel pain if you have done something bad at school. Done something mean against a pal or something’

(Focus group no 7)

The children also expressed pain if they were exposed to bullying, if other students teased them or said nasty things to them. Some of the children had experienced a broken heart when they were with someone they liked, and the relationship ended.

‘Love, or when your boyfriend broke up’

(Focus group no 1)

‘If someone says mean things to you’

(Focus group no 3)

‘Or, if someone has said something mean to you that may not be so mean actually, you can get stomachaches because you couldn’t let go of it, then you feel a little bad about it in the evening’

(Focus group no 6)

3.6 | Pain can be good

Although many negative things were discussed about pain, the children also talked about how pain could be perceived as positive. The children told about notions of pain that harden. The children reported that they had heard from others that if you hurt and recover, you will be healthier and stronger than you were before. The children also reflected on the experience of pain as important and inevitable for living, and for learning to avoid certain injuries later in life. The children wondered when pain could be good and educational:

‘Some people say that when you hurt yourself or so and then when you get well again, you become even stronger, or so. And that may be true’

(Focus group no 8)

‘You have to hurt yourself sometimes so you don’t do it again because then you know how it feels’

(Focus group no 1)

When the children discussed when pain could be good, some children talked about the fact that pain can sometimes be bad in the short term, but ultimately good in the long term. They mainly talked about when someone in their vicinity was seriously ill and needed to undergo treatments or surgeries that could cause pain.

‘For example, if you have had cancer and then you need surgery. It hurts to be treated, but then you get well. And then it can be something good’

(Focus group no 4).

Muscle fatigue was the kind of pain that all the children considered positive. Although the children were aware that their muscles could hurt after exercise, there was an awareness that it was doing good for the body. The children expressed that they knew that they had done something good when they felt pain after exercise. A sense of pride could emerge, and they perceived themselves as capable.

‘The coaches want us to have muscle fatigue, so they know that we have done our best. For those who may not have it may not have done their best’

(Focus group no 2)

Another type of pain that the children described as positive was growing pains in the legs, knees and feet. They agreed that everyone grows a lot differently and that everyone might not get growing pains. They talked about growing pains as positive since they are aware that every child needs to grow to feel good.

‘Growing pain and muscle fatigue, it is pain that is good actually because you have to grow, and exercise is good. It hurts, but it still feels a little better than other pains when you get hurt because you know it will hurt and this is nothing strange, and it is good’

(Focus group no 6)

4 | DISCUSSION

The children distinguished between physical and mental pain, which is in line with a literature review of qualitative studies on pain in children.11 Our results show that physical pain is mainly headaches and abdominal pain, while the psychological pain is expressed by sadness and anxiousness. A study from Turkey found that chest pain among adolescents is associated with depression and impaired emotional and social functioning.12 Pope et al13 found that children in pain need to feel secure, and there is a need to support children to engage in activities that they enjoy to help take their minds off their pain. That negative stress is related to pain is found in our study, and is in line with a recent review.14 Ragnarsson, Myleus15 found that recurrent pain in children reduces their ability to cope with the demands of school. Furthermore, Gustafsson, Laaksonen4 found that school
health care should introduce early individual efforts by both girls and boys to discuss what unhealthy habits could lead to. It is important that the children gain insight into and think about what their pain (e.g., headaches or stomachaches) might be due to. If the problem is noticed and taken care of, the children can, through their environment inside and outside the school, achieve improvement. The pain could otherwise create negative patterns, such as school absenteeism. Education is important for the children's development and future; thus, the good health of the children is of great importance.

A limitation of the focus group study design is the risk that the participants do not dare to express their thoughts and opinions in the group, and for this reason, individual interviews could be an alternative. Although these are the limitations it seems that many voices and thoughts of children are expressed here. In two out of ten cases, only 2 or 3 children came to the focus group interview. These children wanted to participate in the interview, and therefore, we conducted the interviews, although it could be questioned if an interview with 2 participants could be defined as a focus group.

The findings that pain is a unique experience for each child demands a person-centred approach. This means that healthcare providers should actively listen to the children's narratives about daily life with pain, co-create a health plan and encourage the children to participate as partners in their own care.

Pain experienced by children is linked with health and learning. Pain related to noisy school environments and bullying must be prevented. Future studies are called for to develop and evaluate school-based interventions to promote healthy school environments that reduce the risk of pain.

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CONFLICT OF INTEREST
None declared.

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