School nurses´ and teachers´ perceptions of pain in young immigrants living in Norway

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Abstract

Background

The number of adolescents experiencing pain is increasing. Pain has a major impact on several areas of daily living, like function at school and school absenteeism, loss of appetite and socializing. One out of ten pupils in Norwegian schools are immigrants, and surveys have shown that immigrants suffer from poor health more often than the general population. The aim of this study was to explore how school nurses and teachers experience pain in young immigrants in the school setting.

Methods

A qualitative design using focus group interviews was chosen for data collection. Eleven focus groups (17 school nurses and 25 teachers) consisting of school nurses and teachers in junior high schools (age: 13- 16 years) in Southern Norway were conducted. Data were analyzed using a qualitative content analysis.

Findings

School nurses and teachers experienced communication of pain with young immigrants as characterized by cultural differences and language problems. Immigrants waiting for residency permits experienced pain more often than others. They also experienced that young

immigrants often were absent from school and used pain as an excuse for not participating in classes, but this was not the case at the special school for immigrants. During Ramadan they experienced that immigrant pupils had an increase of pain, especially headaches.

Conclusion

Culture affects the assessment and management of pain and different strategies may assist school nurses and teachers in their encounter with young immigrants with pain. There is a need for education in cultural competence among teachers and school nurses.

Key words: Young immigrants, pain, school nurses, teachers, cultural competence

Background

The number of adolescents who experience pain is increasing. In Norway, pain problems have been reported by 60% of children and adolescents aged 8–18 years, with 21% reporting duration of pain of more than 3 months (chronic pain) (Haraldstad et al., 2011b). Pain have a major impact on several areas of daily living, like sleep, function at school and school absenteeism, loss of appetite, socializing, inability to participate in sports and more (Hoftun et al., 2011, Haraldstad et al., 2011a). Pain is s a subjective phenomenon, and can be defined as: "Pain is whatever the experiencing person says it is, existing whenever he says it does" (McCaffery and Beebe, 1994). Pain is a complex psychosomatic experience, and it is connected to different kinds of stressors, reduced physical activity, sleep problems, poor eating habits, bullying, harassment, schoolwork pressure and being treated poorly by teachers and peers. Shannon et al. described the close relationship between pain and emotional and behavioral difficulties in four categories; psychological comorbidity (like anxiety and depression), childhood adversity (like poverty, violence, abuse or neglect), school stress and functional impairment (Shannon et al., 2010). Research also show that children from families with low socioeconomic status are suffering more frequently from pain (Du et al., 2011).

Based on these previous findings, a qualitative study was conducted to explore how teachers and school nurses perceive and reflect on pain in adolescents in a school context (Fegran et al., 2014, Rohde et al., 2015, Hoie et al., 2017). The present article present and discuss the findings concerning young immigrants.

Immigrants comprise about 15% of the Norwegian population (Statistics Norway, 2015) and one out of ten pupils in Norwegian schools are immigrant children. Surveys have shown that immigrants suffer from poor health more often than the general population (Blom, 2008).

Further, immigrants may suffer from post-traumatic stress disorder (PTSD); a survey from 2014 showed that as many as half of the asylum-seeking boys in Norway aged between 15–18 years struggled with mental illness, i.e., 30% with PTSD, 10% with anxiety disorders, and 16% with depressive disorders (Jakobsen et al., 2014). The immigrant population and their descendants accounted for a higher proportion of important public health problems compared with the general Norwegian population (Abebe, 2010). This indicates that there is an urgent need for community-based and culturally adapted health promotion programs and preventive interventions.

In terms of pain in immigrants, a Norwegian survey (Blom, 2008) showed that almost twice as many members of the immigrant population reported having "ailments" compared with the general population, where the most common complaints were "pain in the body," "headache," and"fatigue."Among adolescents in Denmark, the risk of medicine use for headache and stom ach- ache was higher for immigrants and descendants as compared to ethnic Danes, with the exception of medicine use for headache among girls (Cantarero-arévalo et al., 2014). A Finnish study among adolescents showed that young immigrants were associated with more headaches and abdominal pain (Luntamo et al., 2012). However, a Norwegian study that examined the use of prescribed analgesics found no differences in the amounts of analgesics prescribed to young people whose parents came from countries with a Muslim majority and those with parents born in Norway (Log et al., 2011).

Adolescents spend much time at school, and teachers must relate to the adolescents' experiences of pain. In a study by Logan et al. the teachers tended to have a dualistic (e.g. physical or psychological) view of pain, this affect how they respond to the adolescents' pain in a school setting (Logan et al., 2007). Further, the teachers have to deal with school absenteeism and other consequences of adolescents' pain (Sato et al., 2007).

The relationship between the school nurse and the adolescent with health complaints is important and the level of complaints tend to be reduced as an effect of access to the school nursing service (Svebak et al., 2008).

Culture shapes the values, beliefs, norms, and practices of individuals, including the ways people react to pain, and research has shown that important differences in the patterns and predictors of pain-reducing actions are related to ethnicity (Davidhizar and Giger, 2004). Indeed, Tait et al. highlighted the possible roles of psychosocial factors in future efforts to address the persistent problem of racial/ethnic disparities in pain care (Tait et al., 2014).

Norwegian studies have demonstrated that there is a lack of cultural knowledge among nurses who care for immigrants (Alpers and Hanssen, 2013). Studies have also shown that teachers having ethnic minority pupils in their classes, lack cultural knowledge (Colombo, 2007). Cultural knowledge is part of the process that Campinha-Bacote calls cultural competence, which comprises five constructs, namely cultural awareness, cultural knowledge, cultural skill, cultural encounters, and cultural desire. Cultural competence is the ability to think and behave in ways that support effective interactions with members of other cultures (Campinha-Bacote, 2002). Campinha-Bacote developed a model for understanding cultural competence as an ongoing process where the health care provider should strive continuously to improve their ability to work effectively within the cultural context of the client (i.e., the individual, family, and community)(Campinha-Bacote, 2002).

In multicultural societies as Norway, health professionals and teachers must develop cultural sensitivity in order to meet the needs of young immigrants. Cultural sensitivity is employing one's 1. knowledge, 2. consideration, 3. understanding, 4. respect, and 5. tailoring after realizing awareness of self and others and encountering a diverse group or individual.

Ad 1 Knowledge. To achieve cultural sensitivity, one must have knowledge of cultural differences and values. Ad 2 Consideration. A second attribute, consideration, is defined as "careful thought, deliberation, or taking into account; having concern or caring for others". Ad 3. A third essential attribute is understanding, and it is defined as "perceiving and comprehending the nature and significance of or grasping" Ad 4 Respect. The fourth attribute and a fundamental component of cultural sensitivity is respect. Ad 5 The fifth and final attribute of cultural sensitivity is tailoring. Tailoring is defined as "to make, alter, or adapt for an individual or group" (Foronda, 2008:208-209). Cultural sensitivity results in effective communications, effective interventions, and satisfaction (Foronda, 2008:207).

Aim

Clearly, there is a gap in the literature regarding teachers and school nurses experiences of pain in young immigrants. The aim of the present study is therefore to explore how teachers and school nurses explain and experience the everyday pain of young immigrants.

Method

To obtain knowledge about the experiences of the participants, a qualitative design rooted in phenomenology and hermeneutics was used (Malterud, 2011). Phenomenology focus human experiences and hermeneutics include interpretation. In a phenomenological hermeneutic perspective the researchers interpret participant´s experiences using their knowledge and competence. Focus group interviews comprise a qualitative method, which is highly suitable for gaining insights into experiences. In the study, the dialogue between the participants was a major focus. Participants with similar experiences were given the opportunity to discuss the

issue of adolescent pain in groups. The dynamics between the participants could provide different insights compared with those obtained from individual interviews. This method also allowed the teachers and school nurses to reflect on their own practice (Malterud, 2011). The focus group was led by a moderator and an assistant who fostered an open atmosphere, where the aim was to encourage the participants to feel free to express their personal and possibly conflicting views. The ideal number for a focus group is five to eight participants (Malterud, 2011). In the present study it was not possible to recruit the desired number, therefore the groups comprised three to six participants. On the other hand smaller groups have the advantage that it is easier for the researcher to manage the participants and make them more comfortable (Malterud, 2011). The sessions were formed by a semi structured interview guide, focusing how teachers/school nurses perceive young immigrants and pain, what they do when confronted with the adolescents' pain. Any experienced differences between ethnic Norwegians and immigrants were also asked for.

Setting and participants

A purposive sample was used to ensure variation in experiences with adolescents from multiple cultural and social demographic backgrounds among school nurses and teachers. An information letter and request to participate in the study were sent to fifteen junior high schools (pupils age 13-16 years) in both rural and urban areas. All agreed to participate, and the leaders at the school recruited the teachers, while the head school nurse recruited the school nurses. One of the focus groups was situated at a special school for immigrants and the participants in this group worked only with ethnic minorities (mainly from Somalia, Syria, and Kurdistan, as well as a few from Asia and Eastern Europe). The inclusion criteria

comprised a minimum of two years experiences as a school nurse/teacher for adolescents in junior high schools.

In total, 17 school nurses and 25 teachers gave their informed consent, and 11 focus group interviews were conducted (five groups of teachers, five groups of school nurses and one group consisting of three teachers and one school nurse from a special school for immigrants). All participants were ethnic Norwegians, six of the teachers were male and 19 were female. All of the school nurses were female. The ages of the teachers ranged from 29 to 62 years and they had 3–40 years of experience in schools. The ages of the school nurses ranged from 27 to 65 years with 2–34 years of experience as a school nurse.

Data collection

The interviews were carried out at the participants' workplace. The interviews lasted approximately 90 minutes and all of the participants were active during the focus group sessions. The interviews were organized around a semi structured interview guide. The questions addressed the participants' experiences with the expression of pain by adolescents, how the adolescents handled pain themselves, and what the teachers and school nurses did when they encountered adolescents with pain. All of the groups were asked explicitly about their experiences with ethnic minorities. The interviews were audiotaped and transcribed verbatim by a professional transcriber.

Analysis

The data were analyzed using a qualitative content analysis method inspired by a hermeneutic phenomenological approach, where the experiences of the informants were central and the

previous understandings of the researchers were drawn into the interpretation of the findings (Malterud, 2011).

The analysis was driven by the aim of the study and the texts were read through initially to obtain an overall impression of the topics highlighted as most important by the participants. Kvale's three-step analytical process was used as an analytic tool, where the steps in this process comprised 1) condensation of meaning, 2) meaningful categorization, and 3) meaningful interpretation and generalization (Kvale, 1996). After reading the texts, the five researchers who conducted the interviews discussed their individual findings and reached a consensus, which was used to facilitate categorization and interpretation. We discussed the analysis until we reached a consensus among the research group consisting of the eight authors of this article. The researchers are all nurses with a health promotion perspective, two with a background in psychology (MH, KH), and two public health nurses (SH, BJ).

Ethical considerations

The study was approved by the Norwegian Social Science Data Services (NSD) (Approval number 32829) for safe handling and storing of data. The participants were given written as well as oral information and written informed consent was obtained for participation. The voluntary nature of the study and confidentiality were assured during the collection, handling, and reporting of the data.

Findings

The first impression was that teachers and school nurses had mixed perceptions concerning pain among young immigrants. The final findings are presented in four main themes, as illustrated in figure 1 below:

Fig 1

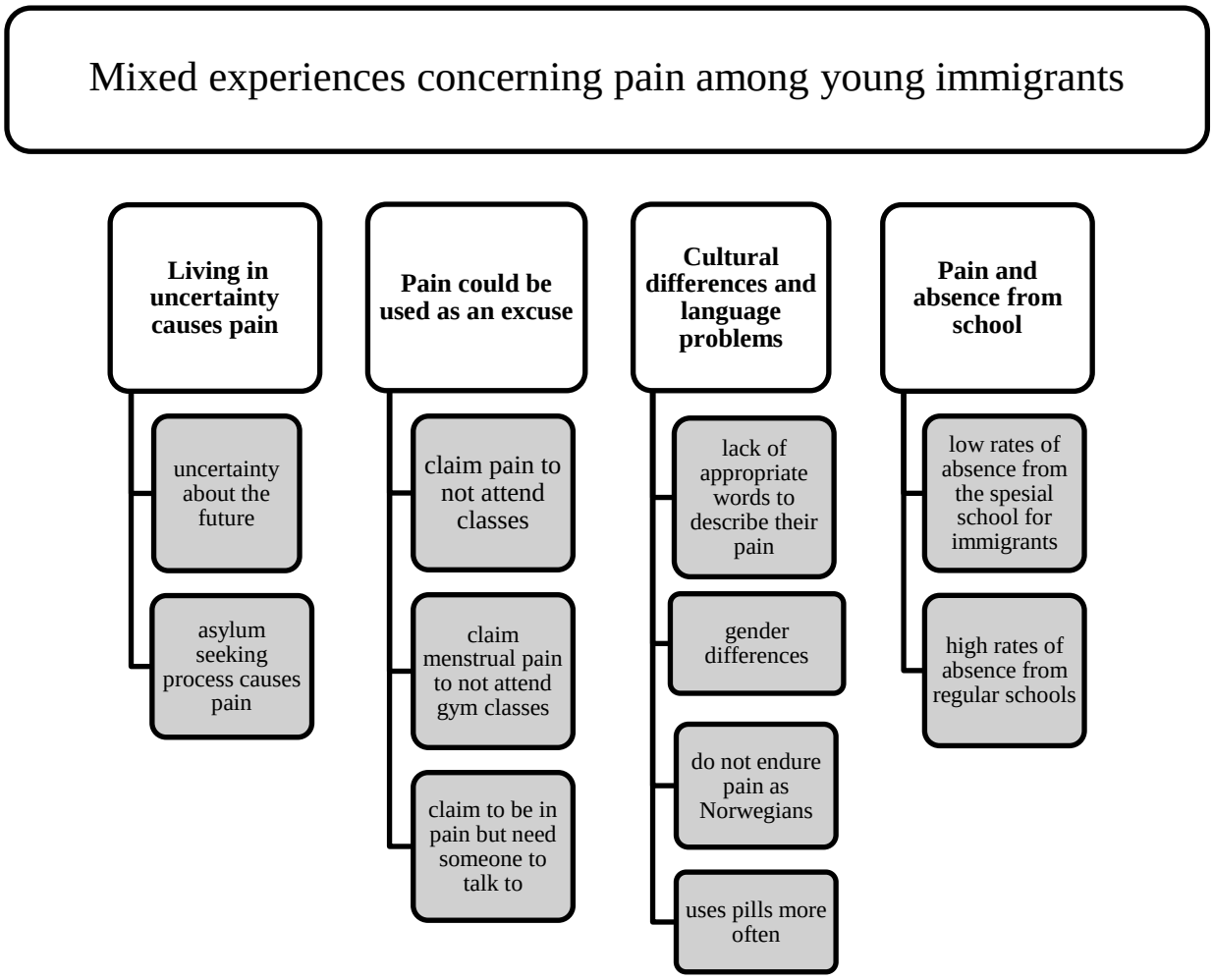

Fig 1. Teachers' and school nurses' experiences with young immigrants and pain- main results.

Living in uncertainty causes pain

The experiences of the teachers and school nurses suggested that many of the immigrant adolescents complained about pain in their bodies. They emphasized that children in families who were seeking asylum were in the most difficult situation. They linked their expressions of pain to uncertainty about their future, i.e., whether they would be granted a residence permit in Norway. They believed that this uncertainty led to tensions and aches, and the participants said that many of the adolescents complained of frequent headaches and stomach pain, while some suffered from back pain. One of the teachers described a boy who expressed his pain in the following manner: "*I have such a pain in my heart and I cannot breathe*." The teachers perceived this as physical tension caused by psychological stress. They believed that asylum seekers have a high level of bodily tension, which makes them vulnerable and thus they experience more pain. Both the school nurses and teachers emphasized the importance of their concerns that the young immigrants experienced pain throughout their lives. A teacher said: "*When they have so much to think about, which they may express through pain, this prevents them from learning. Thus, they are somewhat blocked from learning because they have so many other things to think about*. *Regardless of their ethnic backgrounds, their only concern is the future of their life*." Furthermore, both the school nurses and teachers described how difficult things could be for those refused asylum, they often suffer from pains in their stomach and head, and they dreaded being sent out of the country. One of the teachers concluded by saying: "*In Norway, the residence permits solve the problem and the pains then*

disappear." Both teachers and school nurses pointed at a strong connection between uncertain residence permits and pain.

Pain could be used as an excuse

Teachers described that Muslim girls had several excuses for not attending gym classes, one participant said: "*Muslim girls and gym, it's not easy.*" The group of teachers claimed that pain was used as an excuse for not participating in gym classes, but the teachers were not convinced that pain was the problem. Instead, they considered that the problem might be that the Muslim girls did not want to undress or they were not allowed to do so by their parents. The teachers also said that pain was used as an excuse when students did not want to participate in physical activities. Another teacher said: "*I have a girl in the class from Somalia. If I just look at her, she says: 'Oh, I have such a bad headache. I have a stomachache, teacher. I cannot bear to do anything today, teacher.' I must admit I don't take it seriously.*" In all of the focus groups, participants talked about girls from non-Western cultures who did not want to participate in gym classes during their menstrual periods. They said that many of them skipped gym classes by claiming that they suffered from frequent pain while menstruating. The teachers said that the pupils were aware that skipping gym classes because of their menstrual period was not acceptable in Norway, but the pupils' parents wrote that they were sick in their "message book." The teachers and school nurses reported greater gender differences among immigrants and pain compared with ethnic Norwegians. They said that it was usually girls who complained of pain, with many complaints of stomach pains. The school nurses said that many girls came to them because they had a stomachache, but they suspected that they actually wanted to be in the company of an adult simply to talk to someone.

The expression of pain was characterized by cultural differences and language problems

The school nurses and teachers perceived that immigrants were less likely to see and understand the connection between physical ailments and mental stress compared with ethnic Norwegians. One school nurse who had worked extensively with immigrants said that it appeared that young immigrants found it very hard to grasp concepts and find appropriate words to describe their pain: "*It does not seem that they understand cause and effect in the same way as we do – they do not know their bodies; thus, they have little anatomical knowledge. They do not understand that things are connected.*" She also said that they used an interpreter, but it was still difficult to talk about pain and distress because their concepts of pain were so different.

The teachers also said that they experienced language problems, where it was difficult to talk to the parents about being sick, experiencing pain, and being absent from school. The parents often wrote a very short message in the "message book" that the pupil was sick, but the teachers did not recognize them as being ill. A physical education teacher said: " *Their parents are not proficient in the Norwegian language, so they only write that their daughter is ill, but they can still sit there in class and run around during recess.*" The teachers and nurses noted differences compared with what they considered to be typical Norwegian behavior: "*We may be perceived as slightly cynical, but I try to tell them that a little pain doesn't hurt. Some would say that it is typical of Norwegians to endure pain and not complain too much. However, not all cultures may have this attitude to the same degree.*"

The focus group participants said that all of the young people knew about paracetamol, but they perceived that the immigrants had a different approach to the use of medication compared with ethnic Norwegians. They considered that they used pills more often and also

said that immigrants asked for pain-killers more often. The school nurses said that the immigrant pupils were horrified when they came to them and could not get a pain killer pill. The school nurses also said that some immigrant adolescents asked for sleeping pills and when they experienced bodily pain, they wanted to be sent to a hospital to be examined by a doctor as soon as possible. One of the teachers said this about Muslims practicing Ramadan: "*They certainly experience headaches and other bodily torments, but they are not supposed to complain. They will not say anything about wanting food or water either, but they are irritable and they cannot do much schoolwork.*" Several Muslim adolescents practiced fasting during Ramadan, and their teachers reported that they often complained of headaches during that time.

Pain and absence from school

There were major differences between the experiences of the staff at a special school for new immigrants and the other schools in terms of their perception of absence from school among young immigrants. The teachers and the school nurse at the special school said that the pupils would not go home if they were sick or in pain because they enjoyed being at school more than being at home. The participants considered that this was because the parents often struggled and talked about painful experiences, the difficult and terrible situation in their home country, and the concerns and problems that they perceived as immigrants. Furthermore, the participants from the special school had the impression that the young immigrants lived in small and cramped accommodation. They believed that the children experienced the same issues as their parents, but that they treated school as a retreat where they could relax and interact with adults who had more time for them. The school nurse explained this as follows: "*Being seen helps greatly for many of the young immigrants. It*

hurts to experience not being seen and heard, and I think that they tell us much about how they are feeling when they suffer from headaches or stomach pains. We can appreciate this more because we have few pupils compared with ordinary schools and we develop close relationships with each of them."

The teachers reported that the children were happy at the special school and they had almost no absences. One of the teachers said: "*I had a girl here last year and I knew every month when she got her period, because she was in such incredible pain, but she would never go home*." Another said: "*We don't want them here when they are sick and they should go home, but most of them will not go home*." The teachers at the special school also reflected on how young people experience high demands in terms of performance, appearance, clothing, etc., and how this may also be associated with experiences of everyday pain. One of them said: "*My niece always has an Ibux in her pocket because she always suffers from headaches, but she's supposed to perform the best at everything and have the right clothes, etc... I don't think we have that kind of pressure at our school where it is normal to be different, and I don't think there are many who are bullied about clothes and stuff at this school*." They believed that this might change when the young immigrants must attend regular schools. This was confirmed by the teachers and school nurses at these schools. They said that the young immigrants were the group with the highest rates of absence from school, and these pupils often complained about pains. When asked about their experiences with young immigrants and their pain, one of the teachers in this group said: "*Oh, <u>they</u> have much pain"* and *"they have more absences than the ethnic Norwegian pupils*." They claimed that young immigrants expressed many aches and that they often sought medical attention. Immigrants asked for medical help for what the teachers perceived to be small problems. One of them said: "*I think that the threshold for being absent from school is lower than that among Norwegian adolescents. They are at home more often. They go home more often and they get acceptance*

for this from their parents." The teachers claimed that many of the young immigrants were absent from school due to minor ailments.

Discussion

The results of this study revealed that school nurses and teachers in regular schools (where ethnic Norwegians and immigrants are mixed) perceived that adolescents with immigrant backgrounds complained of pain more often and they were absent from school more frequently than ethnic Norwegians. These results are in line with previous surveys, which showed that immigrants experience pain more often than the normal population (Blom, 2008), and absence from school is a known indication of pain (Gorodzinsky et al., 2011). The teachers who worked in a special school for immigrants had almost the opposite experience, which was something they reflected upon during the group discussions. They considered that this difference could be related to the fact that achievement and success were not characteristic ideals of the special school for immigrants to the same extent as other schools. This school had a highly diverse group of pupils from all around the world, while the rest of the schools were characterized by a majority of ethnic Norwegians. This might suggest that the experience of well-being and security reduces absenteeism. Another key point highlighted by the staff at this special school was that the problems of the parents (and other family members) caused by traumatic experiences in their home countries and challenges related to the integration process influenced their children. It is well known from previous studies that the social context have major impact on how adolescents experience pain (Shannon et al., 2010, Du et al., 2011).

Psychological aspects are a central part of the experience of pain (Tait et al., 2014) and living with uncertainty is manifested as pain in the body. Many of the young immigrants in the

present study are asylum seekers, and more asylum seekers than refugees have symptoms of PTSD (Jakobsen et al., 2014). The teachers and school nurses also said that the pain would disappear if the young immigrants were granted residence in Norway. The feeling of uncertainty might contribute to pain and stress, whereas a sense of predictability may relieve pain. The bureaucracy in Norway use a long time to process applications for asylum, so reducing this time could be important for preventing the development of pain-related conditions.

Teachers and school nurses claimed that immigrants express pain to a greater extent than ethnic Norwegians, but this might be related to cultural aspects, which is something that they reflected upon. Language problems, lack of knowledge about bodily functions, and gender differences were mentioned as cultural differences when communicating about pain. These differences were also highlighted by Davidhizar et al. who claimed that the verbal expression of pain is an important variable among cultural and racial groups (Davidhizar and Giger, 2004). Furthermore, Davidhizar et al´s strategies might be useful in dealing with immigrant adolescents experiencing pain, for instance recognizing that the communication of pain might not be acceptable in some cultures, and the importance of utilizing knowledge of biological variations (Davidhizar and Giger, 2004).

The participants in this study reported several differences between young immigrants and ethnic Norwegians. Pain is a subjective phenomenon that often defies objective medical assessment, and thus it is particularly susceptible to social psychological influences, such as stereotypes, where negative racial/ethnic stereotypes seem to trigger stereotype-driven judgments (Tait et al., 2014). Davidhizar et al. claimed that it is important to appreciate variations in the affective response to pain, and to develop personal awareness of the values and beliefs that may affect responses to pain (Davidhizar and Giger, 2004). To understand people from other cultures who are in pain, we first need to examine our own cultural beliefs

about pain (Narayan, 2010). This cultural awareness is part of the process of developing cultural competence (Campinha-Bacote, 2002). When we have developed cultural awareness, we become sensitive to the values, beliefs, lifestyles, and practices of others based on explorations of our own values, biases, and prejudices. If teachers and school nurses do not undergo this process in a conscious, deliberate, and reflective manner, there will always be a risk of imposing personal cultural values during encounters (Campinha-Bacote, 2002).

The teachers and school nurses highlighted the importance of "seeing and hearing" the adolescents. Thus, pain might be reduced if young immigrants experience that they are being cared for in this manner. Luntamo et al. found that victimization and the school environment were important factors related to pain and many adolescents with pain experienced that they were not being cared for by their teachers (Luntamo et al., 2012). Being seen and cared for should consider cultural aspects, and we can use strategies that support culturally appropriate assessments that facilitate the management of pain to understand the impact of culture on pain (Davidhizar and Giger, 2004). Even if pain in children is common, this is still an understudied topic, and there are few intervention studies in non-clinical populations, but recent studies have shown that psychological therapies (e.g. cognitive behavioral therapy) can help people to cope with pain (Eccleston et al., 2014).

In addition to absences from school, nonparticipation in gym classes was another aspect that teachers and school nurses often highlighted as a cultural difference. They claimed that pain is often used as an excuse for not participating in gym classes, but they did not consider why this was more frequent in young immigrants than ethnic Norwegians. This difference might be connected to cultural values because Norwegians value physical activity as very important whereas immigrants might have a more skeptical attitude toward physical activity when

suffering pain (Lfvander et al., 2004). Pain due to menstruation is normally not accepted as an excuse for not participating in gym classes in Norwegian schools, but this might be perceived differently in other cultures (Liu et al., 2012).

The participants in this study describe a difference between ethnic Norwegians and immigrants, where they claimed that ethnic Norwegians value pain endurance. Studies have demonstrated that there are ethnic differences in sensitivity to physical pain, where people from Western countries are perceived to have a higher pain threshold and greater tolerance (Davidhizar and Giger, 2004). However, this might be changing because several studies have found that adolescents from Western countries complain often about pain (Du et al., 2011, Haraldstad et al., 2011a). Studies have also suggested that previously documented ethnic differences in pain responses may actually reflect differences in acculturation (Chan and Hamamura, 2015). This might be the reason why Log et al. found no differences in the amounts of analgesics prescribed to young people whose parents came from countries with a Muslim majority and those with parents born in Norway (Log et al., 2011).

Methodological considerations

A possible limitation of this study is that young immigrants with pain were treated as a homogeneous group, thereby ignoring the specific details of their different ethnicities and cultures. However, the aim of the present study was to explore how teachers and school nurses experience and reflect on young immigrants with pain. Another possible limitation is that "everyday pain" can include different medical diagnoses, but diagnoses were not in focus in this study. Further studies should examine how the young immigrants themselves describe living with everyday pain. Results were not sent to participants to review and confirm, by doing this, a higher degree of trustworthiness would have been obtained. A strength of our

study is the input from a relatively large group of participants across a range of ages and work experience. The teachers and school nurses represent schools from both rural and urban areas, representative of Norwegian schools in general. The whole research group participated in the analysis process to validate the findings.

Conclusion

In this study, teachers and school nurses described their experiences in dealing with adolescent immigrants who had pain. The communication of pain between school nurses/teachers and young immigrants was characterized by cultural differences and language problems. School nurses and teachers claimed that immigrants waiting for residency permits and those who lived with uncertainty experienced pain more often than others. They also said that young immigrants often were absent from school and that they used pain as an excuse for not participating in classes. This was not the case at the special school for immigrants. Pain is a complex phenomenon, and culture affects the assessment and management of pain. Different strategies (like having regular talks with the pupils and intentional interviewing) may assist school nurses and teachers in their encounter with young immigrants with pain, but this requires a high proportion of cultural competence. It is important to provide culturally congruent health care to these immigrant children who suffer from pain.

Further research is needed to reveal the level of cultural sensitivity and competence among teachers and school nurses, using a quantitative approach. There is also a need to explore the differences revealed in this study when it comes to be a pupil at a special school for immigrants unlike regular schools with a majority of Norwegians.

Declarations:

Ethical approval and consent to participate

The study was approved by the Norwegian Social Science Data Services (NSD) (Approval No. 32829) for safe handling and storing of data. The participants were given written as well as oral information and written informed consent was obtained.

Competing interests

The authors declare that there are no competing interests.

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