

ORIGINAL ARTICLE

Public health nurses' perception of their roles in relation to psychotropic drug use by adolescents: a phenomenographic study

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Aims and objectives. The purpose of the paper was to describe the perceptions of public health nurses' roles in relation to psychotropic drug use by adolescents.

Background. Mental health problems among adolescents are documented with studies indicating an increased use of psychotropic drugs. In Norway, care for such adolescents may fall naturally into the remit of public health nurses.

Design. A phenomenographic approach was used to analyse the data.

Method. A qualitative interview study was made of 20 Norwegian public health nurses, strategically chosen using phenomenographic methodology.

Results. The public health nurses described three categories: *discovering public health nurses* who become aware of psychotropic drug use in the health dialogue with adolescents and choose to either act or not act in relation to psychotropic drug use. Those public health nurses who take action are *cooperating public health nurses*, who cooperate with adolescents, their families, schools and others. If cooperation has been established, *supporting public health nurses* teach and support the adolescent in relation to psychotropic drug use.

Conclusion. The public health nurses who do not act can hinder or delay further treatment. Public health nurses need to acquire knowledge about psychotropic drugs, to fulfil their role in nursing mental health problems among adolescents and the increasing use of psychotropic drugs.

Relevance to clinical practice. The results demonstrated that public health nurses, working in health centres and schools, have the responsibility and the opportunity to identify young people struggling with mental health problems and psychotropic drug use as well as teach and support significant others, e.g. parents and siblings. Intervention studies are needed with regard to health promotion programmes aimed at fortifying young people's mental health.

Key words: adolescents, mental health, phenomenography, psychotropic drug use, public health nurses

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What does this paper contribute to the wider global clinical community?

- Good mental health among adolescents leads to the development of and the capability for managing thoughts, feelings, behaviour and the demands of various aspects of everyday life. The World Health Organization (WHO) recognises that mental health among adolescents is one of the most important areas and will in general be one of the most serious global health problems in 2020.
- Internationally, there has been an increase in psychotropic drug use among adolescents which could reflect an increase in the number of adolescents under mental distress.
- In Norway, the public health nurses (PHNs) who work in the school health services are some of the health professionals who can identify adolescent's mental health needs and provide them with resources for their care. Globally, the PHNs have been named health visitors, community health nurses and district nurses. There is no shared terminology to clarify their role and titles; however, there are similarities in different countries. They are nurses located in community settings with a focus on promoting health and preventing poor health among the population. In some countries among the total population, in others such as Norway, among children, young people and their families.

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Introduction

Mental health problems among adolescents have been documented in several international studies (Kessler *et al.* 2007, Patel *et al.* 2007, Steffenak *et al.* 2012a). In addition, studies indicate increased psychotropic drug use among adolescents (Zito *et al.* 2008, Tournier *et al.* 2010, Hartz *et al.* 2012, Steffenak *et al.* 2012b). Some of those adolescents struggling with mental health problems and psychotropic drug use may need support and different therapies for a shorter or longer period of time (Kessler *et al.* 2007).

Public health nurses (PHN) in Norway play an important role in discovering early inappropriate development of health problems among adolescents. Furthermore, they take the initiative and potentially refer to other authorities (Act of Public Health 2012). Adolescents visit PHNs at their school to discuss and safeguard their own health. Support for adolescents with mental health problems is an area that may fall naturally into the remit of PHNs. They often see the adolescents who struggle at school (Borup & Holstein 2006).

Background

Adolescents in developed countries are generally believed to have good health. They live in a time of low disease burden. However, increasing mental health problems seem to carry a substantial burden of illness and disability, which could lead to poor personal, social and economic outcomes. Mental health problems are the main cause of disability among adolescents, 45% of which are caused by mental stress (Gore *et al.* 2011). Adolescence is the stage at which mental health problems are often detected for the first time (Patel *et al.* 2007).

There is mixed evidence as to there is an increase in rates of mental stress among adolescents over the last few decades (Collishaw *et al.* 2004, Patel *et al.* 2007), with rates ranging from 8–57% in different international studies (Patel *et al.* 2007). Hagquist (2007) reported a significant increase in mental stress from 1985–2005 among Swedish adolescents, particularly girls. The proportions of girls aged between 16–19 years who reported anxiety, worry and anguish increased from 8–29%. For boys, the corresponding figures were 2–7%. Recently, a national survey in Norway reported that adolescents have a good life: they got on well with their family and friends, felt comfortable at school, and looked forward to a promising future. At the same time, several worries and struggles with mental health problems, sleeping problems, hopelessness and bad self-image were identified, with 10% struggling with symptoms of

depression. Girls are affected more than boys and seek help more frequently (Ungdata 2010–2012 2013). Furthermore, another recently published Norwegian study showed 15.5% of 11,000 adolescents reported mental distress (Steffenak *et al.* 2012a). It was estimated in Norway that 70,000 mentally stressed children and adolescents needed treatment (Roy *et al.* 2006, Helland & Mathiesen 2009, Mykletun *et al.* 2009).

The most common mental disorders among adolescents include depression, anxiety disorders, attention-deficit hyperactivity disorder (ADHD), and disorders of substance abuse (Costello *et al.* 2003, Merikangas 2005). There is a high rate of self-harm, and suicide is a leading cause of death among adolescents with mental health problems (Patel *et al.* 2007). After puberty, anxiety and depression are diagnosed the most, 10–15 and 3–8%, respectively. There is a strong correlation between anxiety and depression during adolescence; about 40% of those with depression also have an anxiety disorder (Merikangas 2005). Adults report retrospectively that anxiety generally had its onset in childhood or adolescence (Merikangas & Pine 2002).

In the USA, psychotropic drug use has increased two- to threefold in the past 20 years (Zito *et al.* 2003, Fegert *et al.* 2006). In the Nordic countries, the overall use of psychotropic drugs prescribed by a physician has remained low, except in Iceland, where it is reported to be high (Skurtveit *et al.* 2005, Zoëga *et al.* 2009). In Norway, between 2004–2009, there was a trend for increasing use of hypnotic drugs by Norwegian adolescents (Hartz *et al.* 2012). Furthermore, incident psychotropic drug use seemed to be high among those aged 15–16 years in 2000–2003, with 15% having filled at least one prescription 1–9 years later (Steffenak *et al.* 2012a).

In Norway, the care of adolescents with mental health problems who use psychotropic drugs may naturally fall into the remit of the public health nurse (PHN) within the school health service. Adolescents see their PHNs at school to discuss and safeguard their own health and welfare.

It is difficult to define PHNs in a global perspective. In the past and in different parts of the world, PHNs have been named health visitors, community health nurses and district nurses. There is no shared terminology to clarify the role and titles; however, there are similarities in different countries – PHNs located in community settings with a focus on promoting health and preventing poor health. Knowledge of nursing, social and public health sciences is the basis of community health nursing practices.

In the USA, the community health nurse works in a variety of settings, including state and local health departments.

They work, for example, at schools, migrant health clinics, health centres, senior centres and home care programmes (Meadows 2009). Ellefsen (2002) described health visitors in Scotland who held a central position in the national strategy for health and illness prevention in the twentieth century. In later years, their work expanded into a much wider range of services for clients from cradle to grave and at the same time they specialised in certain areas.

In Sweden district, nurses work within primary health care, home nursing care, infant and preschool child care and they also run nursing care units (Distriktsköterskeförbundet i Sverige 2013). Clancy (2010) stated the following regarding public health nursing: 'Historical development of the services has followed the same patterns in all the Nordic countries despite differences in their titles, tasks and claims' (p. 9).

Norwegian PHNs are registered nurses with postgraduate training in public health nursing (Ministry of Education and Research 2005). Usually, they have their work located to the municipality, at public health centres, school health services and health clinics for adolescents. In 2009, 3510 PHNs worked in these services. Traditionally, they focus on health promotion and prevention of illness, injury or disability for children and adolescents between 0–20 year, and their families (Act of Health & Care 2011). They meet most of the children, young people and their families. The work of the PHNs is regulated by Norwegian laws and regulations (Act of Health & Care 2011, Act of Public Health 2012).

The Coordination Reform (Norwegian Ministry of Health and Care Services 2012) was recently introduced in Norway, which emphasises 'proper treatment – at the right place,' better coordination between professionals, and increased focus on health promotion and prevention. Insufficient coordination may be one reason why adolescents with mental health problems lose out in the current health-care system (Andersson & Ådnanes 2006). Studies describe PHNs needing to be more visible, promoting child and adolescent health (Clancy 2007), and their roles are described as complex and dependent on their fellow workers (Ellefsen 2002).

Public health nurses may play an important role in preventing mental health problems among adolescents, in particular supporting those who use psychotropic drugs. It is essential to acquire knowledge about the different ways in which PHNs become aware of mental health problems and psychotropic drug use by young people and for them to consider their role in relation to this.

Few studies have focused on the role of PHNs in relation to psychotropic drug use. The aim of this study was to

describe their perceptions of their roles in relation to psychotropic drug use by adolescents.

Method

Design and sample

A qualitative and explorative approach – phenomenography – was used to describe the qualitative variations in PHNs' perceptions of their role in relation to psychotropic drug use by adolescents. The aim of such a study is to identify and describe the different experiences of people (Marton 1986, Marton & Booth 1997). Compared with the phenomenological method, in which the focus lies on finding the essence of people's experiences of a phenomenon (Giorgi 2000), in the phenomenographic method, the focus is to reveal the variation in people's perceptions of a phenomenon, i.e. in the qualitatively different perceptions of the phenomenon (Marton 1981). In the current study, the phenomenon is PHNs' perception of their role in relation to psychotropic drug use by adolescents. Phenomenography seeks to characterise, understand and conceptualise the variations in experience, using interviews as the foundation for the collected data (Marton 1986).

Using traditional phenomenographic methodology, participants were strategically selected and differed in background characteristics. Twenty PHNs working with adolescents in various primary health services were included in the study, including PHNs working in junior high schools ($n = 3$), high schools ($n = 12$), public health centres for adolescents ($n = 6$), internet sites for adolescents ($n = 1$), follow-up services for adolescents who have dropped out of school ($n = 1$), and a 'family team' ($n = 2$). Some of the PHNs may work at several sites during a day or the week. All participants were women aged between 35–63 years. Their experience as registered nurses was in the range 14–33 years and as PHNs 3–27 years. All except one had additional training as a PHN.

The recruitment was carried out by contacting the leaders of the PHNs in different municipalities, in three counties and two county state authorities in the eastern part of Norway. The leaders were asked to identify PHNs working with adolescents; a letter with information about the study was sent to the participants. Thereafter, the researcher (first author) telephoned potential PHNs to confirm participation in the study. Finally, an appointment for an interview was made. Twenty-two PHNs were asked to take part in the study; two declined.

Measures

Individual interviews were carried out by the first author from October 2011–March 2012. These were conducted at either the PHN's workplace ($n = 19$) or home ($n = 1$); they used a conversational style and lasted from 15–45 minutes. The interview included two main questions:

- 1 What is your perception of your role in relation to psychotropic drug use by adolescents?
- 2 How do you perceive your role in relation to psychotropic drug use by adolescents?

Individually adapted follow-up questions were asked, e.g.

- Can you give me an example?
- Can you tell me more about that?
- Can you explain that a little more?

The interviews were recorded and later transcribed verbatim by the first author, and analysed using the phenomenography approach. To ensure coherence, rigour and trustworthiness, the three co-authors read the interviews and participated in the analysis. Each step was discussed by the authors. The first interpretation of the interviews occurred in the real interview situation, followed by four steps of analysis and interpretation (Alexandersson 1994).

Analytic strategy

Become familiar with the data and gain an overall impression

To ensure that the recorded interviews were correctly transcribed, they were listened to. The transcribed interviews were read several times to identify statements related to the questions mentioned earlier. All the statements were identified, e.g. in the way in which the situations were described, emphasised or talked about throughout the interview.

Note similarities and differences in the statements

Then more systematic work was started to try to identify and contrast patterns of similarities and differences described by the PHNs. Alexandersson (1994) describes this as 'pendulating between the inner and the outer perspective to find the form where they amalgamate' (p. 126). This related to a question about understanding the individual statement on its own terms. When all statements were analysed, the intention was to understand the PHNs' perceptions, and draw attention to the different parts of the whole and how they relate to each other.

Determine descriptive categories of perceptions

The identified perceptions were collected into categories with similar interpreted content. In this way, an overall

view of the different descriptions was collected and the links between them considered. The descriptions resulted in preliminary descriptive categories.

Examine the underlying structure of the system of categorisation

Last attention was given to the relationship between the descriptive categories and the whole of each transcript. The transcripts were scrutinised to ascertain whether they agreed with the PHNs' perceptions in confirming the attributes of each descriptive category (Alexandersson 1994). This particular outcome captures the roles of the PHNs. Three descriptive categories were found revealing distinctive ways in which PHNs perceived the phenomenon of psychotropic drug use by adolescents.

Ethics

The participants were given written and verbal information about the voluntary nature of participation and the right to withdraw at any time, with no need to explain. Informed consent was obtained from all participants before the start of the study, and confidentiality was assured (Northern Nurses' Federation 2007). Approval for this study was received from the Norwegian Social Science Data Services AS (2012).

Results

The phenomenographic analysis resulted in three, horizontally ordered, qualitatively different, descriptive categories: the discovering, cooperating and supporting PHNs. The three categories are equal in relation to each other – at the same level and not overlapping. The discovering PHN who becomes aware of psychotropic drug use in a health dialogue with an adolescent chooses to either act or not act. Those PHNs who take action (cooperating PHNs) continue to cooperate with the adolescents and/or their families, schools and other health professionals in different ways. If cooperation has been established between the PHN and the adolescent, the supporting PHN teaches and supports the adolescent in relation to psychotropic drug use (Fig. 1). Each descriptive category is presented by an introductory description of the labelling of the category, followed by the PHN's perceptions. Further, quotes are chosen to illustrate the category in question.

The discovering PHN

The discovering PHN offers the adolescent health dialogues, during which psychotropic drug use could be

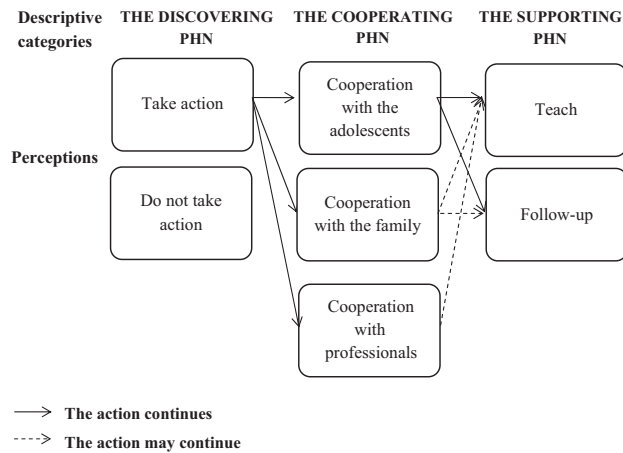


Figure 1 Public health nurses' perception of their roles in relation to psychotropic drug use among adolescents – the action chain.

discovered. Generally, there is no routine way to ask about this drug use, but the discovering PHN chooses either to take or not to take action once psychotropic drug use has been established.

Take action in relation to psychotropic drug use

Public health nurses who take action are aware of this drug use by adolescents. They register increasing use of psychotropic drugs, especially among the oldest adolescents. When adolescents express mental health problems, PHNs ask about their medicine use:

Throughout the years working as a PHN I have seen some adolescents using psychotropic drugs, in my opinion there has been an increase during the last years, particularly the last five years. I have an impression of a more liberal prescription policy now than some years ago. It is used to a greater extent (PHN 9).

If PHNs discover psychotropic drug use, they ask the adolescents about the treatment and 'a plan for the treatment,' (PHN 14) emphasising the obligation that nurses have for the use of medication. Sometimes they tell adolescents to reconsider their psychotropic drug use with their physician.

Do not take action in relation to psychotropic drug use

Public health nurses who do not act do so as a result of limited knowledge about psychotropic drugs or drug use by adolescents. They perceive that they have little knowledge and experience, and that psychotropic drug use is not part of their professional work. Thus, they do not ask adolescents about it:

I have to say, my experience with adolescents using psychotropic drugs is very limited, but I do not ask them either. There is something there, I have not thought of asking ... (PHN 18)

... the physicians prescribe the psychotropic and have the responsibility to follow it up (PHN 2).

The cooperating PHN

Cooperating PHNs work with adolescents and demand cooperation from the others responsible for the adolescents' health. They cooperate with one or another individual/service, such as the adolescent's family, school, family doctor, primary health care and specialist health care. Cooperating PHNs have a central role-taking initiative, as part of the cooperation with adolescents who use psychotropic drugs. Such PHNs perceive that they are the closest health professional to adolescents struggling with mental health issues and psychotropic drug use.

Cooperation with adolescents in relation to psychotropic drug use

Public health nurses describe an increasing number of adolescents coming to the office with questions about psychotropic drug use. Several adolescents have regular dialogues with them about these concerns and one PHN said: 'The majority of these adolescents remain my responsibility.' (PHN 10) PHNs can cooperate with adolescents over a long period also with involvement from others. They can also work with adolescents so that the adolescents are able to cooperate with others, e.g. specialist health care. PHNs draw attention to the adolescents' age and their right to make decisions about their own health.

Cooperation with the family in relation to psychotropic drug use

Family cooperation is seen as important: 'When an adolescent has a hard time, is suffering, we have a close relationship with the family, too.' (PHN 16) However, the older the adolescent, the more rarely the family is involved. PHNs are engaged in arranging appointments with adolescents and their families before referring to physicians or other health and social workers. To make plans and decisions for treatment and follow-up of adolescents, PHNs arrange meetings between adolescents, including the family and school, and the physicians or specialist health care.

Cooperation with professionals in relation to psychotropic drug use

Public health nurses cooperate with several professional groups: teachers, family doctors and specialist health services. They cooperate with the teachers to make a joint plan with the adolescents on how they can attend school

while receiving treatment. They help to integrate appointments into the school day and specialist health care in such a way that 'The appointments do not come into conflict with school activities.' (PHN 8) PHNs see themselves as making contact with other authorities in different circumstances:

Adolescents prescribed psychotropics may remain on the psychotropic drug for a long time and we have to get in touch with the prescriber. This happens when it comes to other types of cooperation too. (PHN 5)

Public health nurses describe routines for referral to specialist health care. Neither the specialist health care nor the family doctors have a duty to ask for the PHNs' cooperation:

The specialist health care called me and asked if I had followed up a girl because she was a pupil at the school I was responsible for. They had written in the epicrisis that she needed to be followed up. But I had not seen the epicrisis. It was sent to the family doctor and I have no professional cooperation with him. (PHN 3)

The supporting PHN

Supporting PHNs support adolescents in managing their mental health problems and psychotropic drug use by teaching and following up. They have personal interactions that vary from providing a space for reflection and learning to direct and active teaching.

Teaching about psychotropic drug use

Public health nurses teach adolescents about psychotropic drugs, how to take them, and their side effects. They give adolescents information to equip them to make their own choices and decisions. Some PHNs not familiar with psychotropic drugs recommend that adolescents contact their family doctors with questions.

Follow-up in relation to psychotropic drug use

Public health nurses follow up adolescents in an enabling process, as one of the PHNs said: 'We try to encourage, guide, and sustain adolescents in different ways.' (PHN 12) During the period of referral, the physicians in the school health service or the family doctor may have prescribed a psychotropic drug for the adolescent. In this period, 'while waiting for an appointment I am in dialogue with the adolescent,' (PHN 12) the PHN follows up the psychotropic drug use.

If adolescents were prescribed hypnotics, PHNs took the responsibility to follow this use up. As distinct from hypnotic drug use, antidepressants were more often the

physician's responsibility: 'The physicians prescribe the antidepressants and have the responsibility to follow it up.' (PHN 7) Adolescents with depressive or anxiety disorders were defined as belonging to specialist health care. PHNs perceived that these adolescents needed closer contact than they could give, and also that they were not professionally qualified to follow them up.

Discussion

The findings reveal and exemplify PHNs' perceptions of their roles in relation to psychotropic drug use by adolescents. The three roles that have been identified are equivalent and shape the outcome – a horizontal action chain. All three may have significant consequences whether or not adolescents receive treatment: the discovering PHN who chooses whether or not to act, the cooperating PHN who chooses cooperation, and the supporting PHN who teaches and follows up those not receiving help from specialist health care. These three categories do not have an order of rank, but appear to be of equal importance.

The discovering PHN

Discovering PHNs are vitally important to adolescents' further progress with regard to follow-up. They discover increasing psychotropic drug use in their dialogues with adolescents; this corresponds to epidemiological studies describing increased use of psychotropic drugs, especially hypnotics, among Norwegian adolescents (Hartz *et al.* 2012, Steffenak *et al.* 2012b). In the current study, there is a variation in PHNs' perception of whether or not to take action. This is based on their knowledge and perceptions of what responsibilities are.

The Act of the Patients' Rights (1999) and the UN Convention on the Rights of the Child (CRC 1989) underline adolescents' right to health services. The CRC 'recognise the right of the child to the enjoyment of the highest attainable standard of health and facilities for the treatment of illness and rehabilitation of health.' An adolescent who visits a PHN at the school health service has the right to the best possible treatment and help in rehabilitation. The PHN who does not take action chooses to disregard the adolescent's need for help in relation to psychotropic drug use and can hinder or delay further treatment. The action chain is thus broken. In spite of this, other PHNs act legitimately and conclude that the issue is their primary responsibility: safeguarding adolescents and their families according to health and welfare, health promotion, and support (Act of Patients' Rights 1999).

Public health nurses who chose to act in relation to psychotropic drug use continue to cooperate with adolescents and other cooperating partners. PHNs at schools in Norway are in a unique position to cooperate with adolescents because they can reach all of them (Norwegian Directorate of Health 2010). In the current study, PHNs perceive comprehensive cooperation with adolescents: meeting the adolescents one to one for health dialogue may represent opportunities to make relationships and to engage with them (Buber 2003). This can be the start of a fruitful cooperation. It is hypothesised that improved communication and cooperation of adolescents, PHNs, other school professionals and families facilitate the promotion of the mental health and well-being of schoolchildren (Ahl nas 1999).

The cooperating PHN

In the current study, when an adolescent is referred to other health professionals, cooperation by services/individuals for adolescents is seen by PHNs to be problematic. They see themselves as the ones who take the initiative. According to the Coordination Reform (2012), cooperation and coordination have been recognised as a problem in the Norwegian health services for some time and are a target for the central authorities.

Usually, the family doctor is the person who refers, but occasionally there is formal cooperation between PHNs and the family doctor. The PHNs perceive that doctors have limited opportunity to cooperate. Clancy (2010) described doctors as an important cooperative partner for PHNs before the family doctor system was introduced in 2001. In the current study, PHNs perceive that they work alone, which gives little room for cooperation and furthermore gives a closed service, with problems in cooperation. This conclusion is supported by Clancy (2010) who found that PHNs in Norway work in their own professional networks, which may strengthen the lack of cooperation with other health professionals (Clancy 2010).

In the current study, PHNs perceive the expectations of specialist health care as follows: they are seen as available to follow adolescents up every day after their treatment by specialist health care. Lack of agreement and routines make this cooperation difficult. However, each individual municipality is responsible for putting in place the precise guidelines for cooperation between professionals in the municipality, e.g. family doctors and PHNs, and between them and professionals at other levels (Norwegian Directorate of Health 2003).

The supporting PHN

Last in the action chain, the supporting PHNs teach and follow up adolescents who use psychotropic drugs, as laid down in their brief to counsel, supply information to, and be a supervisor for adolescents (Norwegian Directorate of Health 2003). Receiving advice and information is seen as useful; it gives adolescents the opportunity to discuss their health individually and openly (Borup & Holstein 2010), and to receive information about the drug used, in a supportive way. PHNs in the current study emphasise adolescents' capacity to obtain, process and understand basic information, and that it is more appropriate for them to make their own decisions about psychotropic drug use. Burns and Rapee (2006) have shown the importance of adolescents' ability to access, understand and use information in ways that promote and maintain good health, which is also supported by other studies.

Nevertheless, PHNs still divide their follow-up according to psychotropic drug use. When adolescents were prescribed antidepressants, PHNs perceived that the follow-up process was the responsibility of the prescriber, because they may not have enough knowledge about these drugs. For adolescents who are prescribed hypnotics, PHNs perceived that they had the responsibility to follow up, which may be explained by the tradition of PHNs counselling children and adolescents on different topics (Tveiten & Sverinsson 2005) such as sleep problems (Norwegian Directorate of Health 2003). However, sleep problems are a common symptom of depression (WHO 2010). When PHNs follow up on adolescents who are depressed they may help them move towards a healthier lifestyle.

Methodological considerations

Use of a phenomenographic study approach (Alexandersson 1994) to study different perceptions of PHNs' roles in relation to psychotropic drug use by adolescents was important because of PHNs' uncertainties about their role.

A strategic sample was used to ensure credibility. PHNs in different municipalities and counties and of different ages and doing different kinds of work were interviewed. However, we do not claim to have captured all the variations of PHNs' perceptions of psychotropic drug use by adolescents. To ensure transferability, descriptions of the data collection and the steps in the analytical process were followed and reported according to Alexandersson (1994). The three co-authors read the interviews and

participated in the analysis, each step being discussed by the authors.

Wilhelmsson (2010) says that it is a risk not to acknowledge the preconceived ideas brought into the investigation by the researcher. If factors that might bias the results are not carefully considered, important aspects of the phenomenon under study may be lost. One of the current researchers has for several years worked as a PHN. It can be argued that it will be impossible for a researcher who has spent many years within the professional fold not to be biased. This was balanced by the analysis work, which was carried out by all four authors – scrutinising the data and developing the system of categories. Furthermore, the authors repeatedly considered and reconsidered the emerging system of categories; by providing quotations from the interviews, we tried to support the relevance of the perceptions.

Conclusion

This study shows that PHNs perceive three roles in relation to psychotropic drug use by adolescents: PHNs take action, cooperate and safeguard the support of the adolescents. The PHN who does not act, cooperate or support chooses to disregard adolescents' need for help and can hinder or delay treatment. This may be a result of the PHN's lack of knowledge about psychotropic drug use, perception of issues that are his or her respon-

sibility, and lack of agreement at different administrative levels.

Relevance to clinical practice

Public health nurses need to acquire knowledge about psychotropic drugs in line with the prevalence of mental health problems and the increased use of psychotropic drug by adolescents. Intervention studies are needed with regard to health promotion programmes aimed at fortifying young people's mental health as well as studies investigating adolescents' experiences of psychotropic drug use.

Disclosure

The authors have confirmed that all authors meet the ICMJE criteria for authorship credit (www.icmje.org/ethical_1author.html), as follows: (1) substantial contributions to conception and design of, or acquisition of data or analysis and interpretation of data, (2) drafting the article or revising it critically for important intellectual content and (3) final approval of the version to be published.

Conflict of interest

None.

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