Adolescents' mental health, help seeking and service use and parents perception of family functioning

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Abstract

The adolescent population are facing mental health challenges such as depression and anxiety. The aim of this study was to describe and investigate the mental health of adolescents, their relation to their parents, who they contact for help and their healthcare service use. A further objective was to describe and investigate family functioning in parents.

A cross-sectional design was employed using register data from a survey of adolescents (n=46 961), and surveys were conducted of two groups of parents – one group of parents with children with Attention Deficit Hyperactivity Disorder (n=264) and one group of parents with school children (n=157). Descriptive and comparative statistics were used.

5.65% of the adolescents were quite distressed. This group of adolescents would be less likely to seek help from friends and parents than the other adolescents. They were also more likely to use all types of healthcare services, and parents reported that they avoided discussing fears and concerns.

School nurses are low-threshold professionals who can contribute in early support and interventions, providing service to all school pupils with an open door policy. The use of family conversations focusing on strengths and resources may help the families to talk about difficult matters and highlight the resources in the family.

Keywords: Adolescents, mental health, parents, school nurse, service use

Background

The period of adolescence is considered as a difficult stage in the transition process to adulthood and is characterized by significant change mentally and physically. In addition, individual, social and contextual transitions also occur [1, 2]. Mental health problems among adolescents have increased worldwide [3]. In Norway approximately 10−20% of the adolescent population experience mental distress, meaning having symptoms such as depression, anxiety and fatigue [4]. About half of these had more serious symptoms that generate a psychiatric diagnosis or behavior disorders [5]. One of these disorders is Attention Deficit Hyperactivity Disorder (ADHD), with a prevalence of approximately 3−4% in school-age-children in Norway [6] and 5% worldwide [7]. The Youth Studies in Norway show that the prevalence of self-reported mental distress had increased since 2010 to about 20 % in the child and adolescent population [8]. Studies describe girls as more vulnerable to stress, having lower self-esteem, a higher state of depression and greater anxiety than boys [9-11]. Early adolescent depression was found to persist into early adulthood and had negative consequences for health and associated health costs and resulted in increased work impairment [12]. Strategies such as prevention, health promotion and early identification may lead to better health outcomes later in life [5]. The World Health Day 2017 focused on depression with the campaign “Depression: let’s talk” [3].

Adolescents describe the importance of having a good friend and having parents to talk to and feel secure with [2]. This highlights the parental role and family functioning. Family functioning is important in managing everyday life, and can be described as a dimension that

influences the family in relation to problem-solving, communication, roles, behavioural control as well as affective responsiveness and involvement [13]. Family functioning in families with children with ADHD has been described as weaker than in families of secondary school children [14]. Furthermore, perceived social support from the network and from the community health services influence family functioning positively in families with a child with ADHD [15].

Adolescents' use of the health care services and whom they turn to for help if they have a problem or are not feeling well are little described. Discussing personal matters with their GP was reported as difficult for adolescents, and the adolescents with greatest need reported poorer experience of care [16]. Frequent primary health care use by girls has been associated with psychosocial difficulties [17]. The primary health care system in Norway for adolescents consists of school nurses and GPs – services all municipalities are required to have by law [18]. Some municipalities also offer psychological help, while others have to refer to the specialist health service. School nurses in Norway are authorized nurses with a one-year postgraduate education in public health nursing [19]. The school nurse is a low-threshold service providing advice to all school pupils from the age of six to 19 years old. An open door policy, located at the school where the pupils can provide early health care at the lowest possible level [19]. The new national professional guidelines for the school health service in Norway [20] set out school nurses' responsibility for early recognition and referral of adolescents with mental health problems.

The adolescent population facing mental health challenges such as depression and anxiety has increased in recent years. Since the health care services are partly responsible for the health of adolescents, it is important to study adolescents' use of this service. Previous studies have stated that an important factor of quality of life for adolescents are having a good friend and parents to turn to if they have problems or are not feeling well, and a family that functions well. With this in mind, it would be of interest to investigate if there are differences between

the parents of adolescents with mental distress such as ADHD and other parents with regard to family functioning.

The aim of the study was therefore to describe and investigate the mental health of a population of adolescents, their relation to their parents, who they contact for help and their healthcare service use. Furthermore, the aim was to describe and investigate family functioning in two groups of parents.

Methods

Design and sample

The study had a cross-sectional design with use of register data from a survey of adolescents and surveys of two groups of parents.

A total number of adolescents 46 961 boys and girls aged from 13 to 19 years old, from 97 municipalities across Norway. They responded to “Ung data”, an annual survey of young people in lower and upper secondary schools. “Ungdata” is an important and comprehensive source of information about adolescents’ health and well-being in Norway. (For more information on Ungdata, see ungdata.no). The present study included data from the 2014 survey with an overall participation rate of 80%.

Two groups of parents were included. The first group consisted of 264 (out of 548 randomly sampled) parents of children with ADHD across Norway (group A), giving a response rate of 48.2% (mothers 82.2% and fathers 17.8%). The second group included 157 (out of 584 randomly sampled) parents of children in three secondary schools in three municipalities (group B), with a response rate of 26.9% (mothers 67.5% and fathers 32.5%).

Data collection

The participating adolescents filled in an online questionnaire anonymously during school hours.

The parents in Group A, who were members of the ADHD Association, received a questionnaire with an information letter by postal mail. An employee at the Association had the coding key for the randomized sample and two reminders were sent. The parents in group B were sent an information letter and the questionnaire by postal mail. The researcher (ØLM) contacted secondary school headteachers, and received lists of parents from which a sample was drawn.

Questionnaires

The adolescents:

*Background question*s with regard to gender and school level.

Relationships with their parents, ten items (see Table 1). The items are answered on a four-point scale from 1=suites very good, 2= suites fairly good, 3=suites fairly bad, 4=suites not at all. A total mean score was calculated by adding item scores and dividing the sum of the number of items.

Advice and help when they experience a personal problem or feel unhappy and sad, with the question: "Imagine you have a personal problem. You feel unhappy and sad and need someone to talk to. Who would you talk to or turn to for help?" offered five alternative responses: parents, other family members, friends, other adults and nobody. The response options are 1=certainly, 2=maybe, 3=no.

Use of the health care services during the previous 12 months. The question "How many times have you used the following health care services during the last 12 months?" had five

alternatives: School nurse or school doctor, Health centre for youth, General practitioner (GP), Psychologist or psychiatrist, and acute and emergency unit (A&E). The response options were 1=never, 2=one to two times, 3=three to five times and 4=six times or more.

Hopkins Symptom Checklist (HSLC-10) [21, 22], was used to measure the adolescents' degree of mental distress (primarily symptoms of anxiety and depression) within the previous two weeks. The items were answered on a four-point scale 1=not at all, 2=a little, 3=quite a lot and 4=extremely. To capture more serious mental distress, a dichotomous variable was used where the cut-off set at 3.0 classified quite distressed adolescents in one group and (Group 2) and adolescents with lower scores (Group 1) in another group. This cut-off score has been used in previous population studies in Norway [8, 23].

The parents:

Background questions included the parents' age and gender. And the age of their child.

The Family Assessment Device (FAD) was developed by Epstein, Baldwin [24]. In this study, the subscale "General Functioning" with 12 items measuring family climate and functioning was used. The items are answered on a four-point scale from 1 (totally agree) to 4 (do not agree at all). A total FAD mean score was calculated by adding item scores and dividing the sum of the number of items. The lower mean score, the better family functioning.

Ethical considerations

The study was approved by the Regional Ethical Committee for Medical and Health Research in Norway in respect of the parents of children with ADHD, and approved by the Norwegian Social Science Data Services (NSD) for the other group of parents. The "Ungdata" survey contained only anonymous data and no approval was therefore needed. The entire research

process was guided by ethical research principles on confidentiality, non-maleficence and justice [25].

Statistics

Statistical analysis was performed using IBM statistics version 22. Descriptive and comparative analysis were used. An independent-sample t-test compared for differences between boys and girls in terms of measures of depression and anxiety, and the total mean score measured the relationship with parents. An independent-sample t-test analyzed the two groups of adolescents (one group of adolescents who were not distressed − group 1, and one group who were quite distressed − group 2) with regard to the items measuring the relationship with their parents. The two groups of parents were compared for differences with regard to the total FAD mean score. The Mann-Whitney *U*-test was run in order to compare the two groups of adolescents in terms of the items concerning their relationship with their parents, and the items measuring advice and help when experiencing a personal problem or feeling unhappy and sad. Furthermore, the Mann-Whitney *U*-test was used to compare the two groups of parents on the FAD items [26]. All tests were two-tailed with a p-value of <0.05.

Results

Adolescents

The adolescents' measurements on symptoms of depression and anxiety gave a mean score of 1.82 (SD=0.70), a mean score of 1.89 (SD=0.73) on depression and a mean score of 1.52 (SD=0.65) on anxiety. The girls reported significantly more depression (M=2.10, SD=0.74) than the boys (M=1.68, SD=0.63) (t=116.425, p=0.001). They also reported significantly higher anxiety (M=1.77, SD=0.72) than the boys (M=1.28, SD=0.47) (t=103.33, p=0.001).

The adolescents' responses to the items relating to their relationship with their parents are reported in Table I. Overall, the total mean score (M=2.43, SD=0.38) revealed that most of the adolescents, 82.5%, are pleased or very pleased with their parents. No significant differences between the boys and the girls were found.

The adolescents were divided into two groups – one with adolescents who were not distressed (group 1) and one with those who were quite distressed (group 2). The group of quite distressed adolescents represented 5.65% of the adolescents. Comparisons between the two groups in relation to their responses to the items regarding their relationship with their parents are shown in Table I. There were significant differences between the two groups in all the ten items. The group of quite distressed adolescents (Group 2) argue more with their parents, than the group who were not distressed (Group 1). The parents of the distressed adolescents (Group 2) also argue more with each other compared with the adolescents who are not distressed (Group 1).

Please insert Table I about here

Most of the adolescents answered that they seek advice and help from their friends (certainly, and maybe 88.5%), their parents (certainly, and maybe 82.1%) and other adults (certainly, and maybe 40.9%) when they experience a personal problem or feel unhappy. The two groups were compared with regard to the items measuring who they seek advice and help from when they experience a personal problem or feel unhappy and sad. There were significant differences on all five items, which revealed that Group 2, with quite distressed adolescents, responded that they would less likely seek help when having a personal problem or were feeling sad and needed someone to speak to (Table II). They (Group 2) would also

more likely not seek help from anyone compared to the adolescents who were not distressed (Group 1).

Please insert Table II about here

The quite distressed adolescents (Group 2) would more likely use all types of health services (Figure 1). In general, most of the adolescents did not use the health centre for youths, 64.1% did not see the school nurse or school doctor, and 37.5% did not see the GP. However, 24% had seen the school nurse or school doctor one to two times the previous 12 months and 37.3% saw the GP one to two times. Some 14.3% saw the GP three to five times and 6% saw the GP more than six times. Altogether 92.7% of the adolescents who were not distressed (group 1) had not used the services of a psychologist or psychiatrist, while 2.3% of this group had used this service six times or more during the previous 12 months. The quite distressed group (group 2) 58.9% did not use this service at all, but 23.4% had seen a psychologist or psychiatrist more than six times in the last year. Furthermore, the girls used all health services significantly more often than the boys (p>0.001).

Please insert Figure 1 about here

Parents

The parents in Group A (n=264) had a mean age of 41.6 (SD 5.96) and their child's mean age was 12.2 years (SD 2.24). The mean age of the parents in group B was 46.1 (SD 5.51) and their child's mean age was 13.9 years (SD 0.84). There were significant differences between the two groups of parents in terms of FAD. Group A reported a weaker family functioning on the total FAD mean score (M=1.98, SD=0.52) than group B (M=1.65, SD=0.39), (t=7.47, p=0.001). There were significant differences between the two groups regarding 11 (out of 12) items. Only the item "We avoid discussing our fears and concerns" revealed no significant difference between the groups (Table III).

Please insert Table III about here

Discussion

The main findings in this study's reveal that girls reported more anxiety and depression than boys, as is also reported in other studies [10, 11]. The group of adolescents who feel quite distressed also quarrel more with their parents, and they are less likely seek help from their parents, friends or other adults than the other group of adolescents who were not distressed (Group 1). Furthermore, Group 2 used more of all healthcare services during the previous 12 months than Group 1. The parents of children with ADHD reported weaker family functioning than the other parents.

Adolescents in general use the health care services to a lesser extent than adults [27]. The adolescents in this study also used the health care services to a small extent. Hence, the adolescents who felt quite distressed (Group 2) used all kinds of health services more than the other adolescents did, and they turned to their parents and friends for help to a lesser extent than the other group of adolescents (Group 1). This survey focused on all parts of the health service. This reflects the school nurse's legal responsibility to have routines for cooperation with GPs, other personnel in schools, pedagogic psychological services (PPS) and the psychiatric specialist health services [19]. The school nurse is a low-threshold service and may be the first professional the adolescents turn to. However, school nurses have described the uncertainty as to who their collaborating partners are, who they can turn to for collaboration on mental health matters in the case of adolescents, and the difficulties in collaborating with the GP [28]. The collaboration with the psychiatric specialist service has been described as varying in quality and person-dependent [29]. Therefore, school nurses often have to depend on their own clinical judgement as to whether they can handle such problems themselves before consulting with and referring to a mental health specialist [30]. The school nurses' confidence

when addressing adolescents' mental health issues is highlighted in another study [31] in which school nurses asked for more supervision and decision-making tools with regard to mental health issues.

Adolescents describe the relationship with peers and having a good friend as vital to their quality of life as well as having parents they can talk to [2]. The relationship with parents has proved to be a determinant of adolescents' psychosomatic problems [32]. Parents can create an essentially secure base in life, as a "life coach", and the family is essential if it functions well [33, 34]. The parents may also play a role in in assessing treatment and support for their adolescent child [33].

Parents of children with ADHD reported significantly lower family functioning than the other parents in this study. Family functioning was shown to be influenced by the child's behavior, social support, sense of coherence and support from the community health service in a study of parents with children with ADHD [15]. It is questionable whether the parents of children with ADHD perceive family functioning differently from parents of adolescents with mental distress. However, other studies report weaker family functioning in families with adolescents having a psychiatric diagnosis[35, 36]. Hence, in this study, there was no significant difference between the groups of parents regarding the item "We avoid discussing fears or concerns". The quite distressed adolescents reported that they less likely seeks help when having a personal problem. If the parents do not discuss fears and concerns the problems they see in their adolescent may not be raised as a focus. Parents may try to reduce conflicts and thereby avoid talking about their concerns [37].

Having an adolescent with mental distress may be difficult for the parents to handle, and support from the network and community health service may strengthen them. The school

nurses must be available for the adolescents, and sometimes they might be the first person the adolescents have dared to speak to about difficult topics in life [38]. School pupils may have depressive thoughts related to the experience of being an ordinary young person who is not unhealthy, but who nevertheless needs to speak to a professional [38]. Not all mental health interventions are complex and only able to be delivered by specialized personnel [39]. The school nurse can be a supportive adult with a professional relationship to adolescents with depression or other mental distress. On the other hand, adolescents suffering from mental distress stated that they did not necessarily find the school health services easily accessible. The school nurse's office was often hidden in a back entrance and walking through the corridors made pupils feel that they were being observed by others [40]. A study in Norway revealed that the school nurse was present at the school two days a week [41]. The adolescents live in the present and may not be able to wait several days before seeing the school nurse. The recommendation for improvement is to expand the service so that the national intentions of early intervention, including prevention and promotion can be met. It is also important to have clear guidelines for cooperation with other professions when there is a need.

School nurses use different approaches. Clausson and Berg [42] used 'family support conversation intervention sessions' to improve schoolchildren's mental health in order to strengthen the parents in their role and reveal the family's resources. This may lead to stronger family functioning, promoting a family climate with internal support, expressed emotions, acceptance, decision-making and the courage to talk about fears and concerns [13]. The school nurse supported the families and encouraged them to talk about difficult matters using 'family support conversation intervention sessions' [43]. The conversations focused on both the adolescent's and the parents' view of the situation and how the family can support the adolescent.

Other interventions focus on strengthening adolescents as a group. Garmy, Jakobsson [44] evaluated a universal school-based programme employing cognitive-behavioral strategies. This intervention was used for strengthening adolescents on a group level. This might then inspire the adolescents to be a supportive friend.

The present study had strengths as well as limitations. The strengths of the study were the use of nationwide recruitment, both in the adolescent group and in one of the groups of parents (Group A). This study contributes knowledge from a national survey and generates knowledge from this population. The cross-sectional design limits the causality of the study results. The response rate from the parents were low especially from the fathers. How to get fathers to respond is a question raised by other researchers [45].

Conclusions and further research

This study highlights the quite distressed group of adolescents' avoidance of seeking help from friends, parents and other adults and their health care service use in Norway. It may, however, have transferability to other parts of the world where school nurses provide health services for adolescents. Mental distress in adolescents is a high priority topic in the rest of the world, and the World Health Organization has put depression on the agenda. The use of family intervention sessions with family strength and resource conversations may help the families to talk about difficult matters, to reveal a common understanding of the problems and highlight the resources in the family. Further research with the use of 'family support conversation intervention sessions' in families with adolescents and young adults with mental distress is needed.

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Table I The adolescent−parent relationship

Assertions[a]	Total Group M (SD)	Group 1[b] M (SD)	Group 2[c] M (SD)	*Z*[d]	*p*
"My parents trust in me"	1.48 (0.72)	1.34 (0.63)	1.90 (0.95)	-5.56	0.001
"I trust my parents"	1.37 (0.67)	1.25 (0.56)	1.87 (0.97)	-6.53	0.001
"We help each other in the family"	1.54 (0.71)	1.38 (0.64)	2.04 (0.94)	-2.60	0.009
"We do not betray each other in my family"	1.60 (0.79)	1.45 (0.74)	2.11 (0.97)	-3.06	0.002
"My parents accept me as I am"	1.44 (0.72)	1.32 (0.66)	1.93 (0.95)	-11.63	0.001
"My parents often tell me how good I am"	1.72 (0.76)	1.68 (0.76)	2.20 (0.98)	-9.42	0.001
"I often argue with my parents"	2.76 (0.82)	3.36 (0.78)	2.43 (1.04)	-12.06	0.001
"The adults in my family are often arguing"	3.05 (0.80)	3.56 (0.72)	2.77 (1.15)	-33.21	0.001
"My mother/father often tells me how stupid and hopeless I am"	3.49 (0.80)	3.54 (0.84)	3.03 (1.00)	-11.47	0.001
"My parents are disappointed in me"	3.48 (0.78)	3.57 (0.80)	2.89 (1.00)	-14.26	0.001

[a]Assertions Answered on a four-point scale with the smaller mean the better, except for the negative assertions.
[b]Group 1: not distressed
[c]Group 2: fairly distressed
[d]Mann-Whitney-U test

Table II Comparing groups of youths with psychological distress and less psychological distress: Who would you turn to and seek help from when you have a personal problem or are feeling sad and need someone to speak to?

Questions	Group 1[a]	Group 2[b]	Mann Whitney U-test	
	n=40917	n=2452	Z	*p*
	Mean	Mean		
Parents	1.71	2.28	34.99	< 0.001
Other family members like siblings, grandparents or others	2.10	2.47	23.56	< 0.001
Friends	1.59	1.80	13.49	< 0.001
Other adults	2.53	2.56	4.12	< 0.001
No one	2.46	1.96	30.66	< 0.001

Questions answered on a three point scale 1=certainly, 2=maybe, 3=no
[a]Group 1: not distressed
[b]Group 2: fairly distressed

Table III Comparing the groups of parents in questions on family functioning

FAD[a] questions	Group A[b] n=260 M(SD)	Group B[c] n=156 M(SD)	*Z*[d]	*p*
Planning family activities is difficult because we misunderstand each other	2.21 (0.85)	1.68 (0.62)	-6.54	<0.001
In times of crisis we can turn to each other for support.	2.14 (0.84)	1.65 (0.65)	-5.93	<0.001
We cannot talk to each other about the sadness we feel.	2.00 (0.80)	1.76 (0.77)	-3.19	0.002
Individuals are accepted for what they are.	1.88 (0.70)	1.57 (0.65)	-4.74	<0.001
We avoid discussing our fears and concerns.	1.98 (0.79)	1.86 (0.70)	-1.48	0.139
We can express feelings to each other.	1.76 (0.71)	1.59 (0.61)	-2.36	0.018
There are lots of bad feelings in the family.	2.04 (0.80)	1.49 (0.67)	-6.98	<0.001
We feel accepted for what we are.	2.00 (0.73)	1.53 (0.53)	-6.50	<0.001
Making decisions is a problem for our family.	2.14 (0.80)	1.74 (0.73)	-5.18	<0.001
We are able to make decisions about how to solve problems.	2.03 (0.67)	1.71 (0.69)	-5.03	<0.001
We don't get along well together.	1.71 (0.66)	1.45 (0.57)	-4.09	<0.001
We confide in each other.	1.90 (0.74)	1.75 (0.68)	-2.13	0.033

[a]Family Assessment Device, scores could range from 1 (most favourable) to 4 (least favourable)
[b]Group A parents with a child with ADHD
[c]Group B parents of children in secondary school
[d]Mann-Whitney U test

Figur 1 Adolescents Health care use divided in two groups quite distressed and not distressed