

A STUDY TO EXAMINE GENDER VARIATIONS IN DEPRESSIVE SYMPTOMS AMONG TEENS, AND THEIR LINKS TO FAMILY CONFLICT, FINANCES, LIFESTYLE, SCHOOL SATISFACTION, AND HEALTH CARE ACCESS

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Abstract

Adolescent mental health issues, the role of public health nurse, and inter professional teamwork within the school health service are all discussed. We wanted to learn more about adolescents with mental health issues, as well as the risk factors that may contribute to those issues, as well as how public health nurses (PHN) and other health care providers interact with each other when working with students who are struggling with mental health issues. We employed both quantitative and qualitative approaches in our research. Data from Ung data was used, which comprised 8052 adolescents aged 13 to 16 years. Multiple hierarchical regression and descriptive statistics were used to analyze the data. The interviews with the boys were analyzed using qualitative content analysis. Four focus group interviews included a total of 14 participants, including eight teachers, one social worker, one child welfare worker, a psychologist, a PHN, and two highly trained instructors. A content analysis was performed on the interviews. Study IV included 18 PHNs who were interviewed and analyzed using a phenomenographic technique.

Keywords: Adolescents, inter-professional collaboration, mental health, health problems, phenomenographic technique.

1. Introduction

Adolescent mental health issues have gotten more attention in recent years, and schools are frequently the first place where these issues are discovered. Schools' public health nurses (PHNs) are key to identifying adolescents' needs and providing them with assistance. The PHNs rely on inter professional collaboration (IPC) with teachers and other school-based professionals to identify and assist adolescents with mental health issues. There is no one-size-fits-all approach to dealing with mental health issues.

As a result, today's teenagers are expected to excel in a variety of areas, including school, leisure time, and social situations. A rise in the number of teenagers suffering from mental health issues might be a result of this. Mental health difficulties are linked to a variety of stressful life events, including school transfer, family conflict (Lewis et al., 2015), parental

divorce, performance-related stress (Skundberg-Kletthagen & Moen, 2017), and general anxiety and concern (Young & Dietrich, 2015).

According to research, females are more likely than boys to have signs of mental health disorders (Derdikman-Eiron et al., 2011; Schulte-Körne, 2016). It is possible that the differences in gender reflect a pattern of assistance-seeking behaviors, in which boys seek aid less frequently than females (Moen & Hall-Lord, 2018). This may be due to the fact that guys communicate their needs in a different way than girls. This means that the PHN must be aware of this and know how to reach the lads.

Although I've worked in a neonatal, pediatric, and adolescent health clinic, I have no prior experience as a primary health nurse practitioner. An advertisement for a PhD post in the context of a bigger public health nursing initiative with the title "Health promotion in school – inter professional teamwork" kicked off the present PhD research.

Norwegian politicians highlight the importance of health promotion in nursing. This age group is particularly vulnerable to mental health issues, and they are entitled to a healthy lifestyle. As a result, kids must be given priority since they represent the future. Mental health disorders in teenagers can be prevented and promoted by the PHN. The school's health care programmer health promotion and public health are intertwined, and this issue has been overlooked. The school health nurse (PHN) is often the sole health care practitioner in the school. In terms of mental health, there is a lack of research on how PHNs cooperate with other school professionals. This was the driving force for my dissertation.

2. Literature Review

Qualitative (II–IV) approaches are used in conjunction with quantitative (I) methods in this thesis. A variety of methods were employed to meet the various objectives of the thesis. Gender variations in depressive symptoms and the link between demographic data and the visits of teenagers to the health-care service were effectively described by the quantitative research design. It was from the answers to these new queries that qualitative studies based on in-depth interviews and focus groups were born.

Nursing study might get a more thorough understanding of complicated phenomena by utilizing methodologies from many perspectives (Polit & Beck, 2017). Using a variety of approaches might help to bolster the argument. It is possible that the findings of one study can help to improve the validity of results from the next (Polit & Beck, 2017).

Measurement error minimization is known as "validity" in quantitative research. When doing a quantitative study, validity is determined by how well the idea is specified and quantified (Heale & Twycross, 2015; Polit & Beck, 2017).

Cross-sectional study participation rates were 84% and 63% following the elimination of missing information. A strength of this study is that we only included teenagers who had answered all 30 of the questions, therefore there was no requirement for imputation. Findings from large-scale quantitative research may be generalized to a broader

population and used to a variety of different settings and persons (Polit & Beck, 2017). As part of the study, I gathered data from 41 municipalities in Norway, including both urban and rural regions. It's logical to assume that the population of Norway as a whole isn't all that different. The sample's external validity and representativeness may be improved as a result.

The study's adolescent participants ranged in age from 13 to 16 years. During this time, both males and girls' development differs, with girls often being more mature (Jensen & Nutt, 2016). This might have an impact on the responses, so keep this in mind when comparing the outcomes of both sexes are welcome. It's possible to get a more accurate picture by looking at each year individually.

Self-reporting items are used to quantify depressive symptoms. Depressive Mood Inventory and HSCL-derived items were used to generate six items that measured depressive symptoms with acceptable validity and reliability (Derogatis et al., 1974; Strand et al., 2003). Rasch Measurement Theory was employed in a recent research to investigate the six items' attributes. With the exception of "had sleep issues," which was clearly an outlier, and "worried too much about things," which applied to males and girls differently, the items performed rather well. However, the six things all functioned nicely together (Kleppang et al., 2018). In this study, the scale is not regarded a danger to validity because of its high level of dependability. Cronbach's found the internal consistency of these six elements to be 0.88. Ideally, the value should be more than 0.7. (Field, 2013).

It is possible that the lack of validation for the other 24 items in the research is a drawback. It's also possible that factors other than those examined in this study account for more of the variation in depressive symptoms. Other products, such as those used to track one's daily routine, might be considered as well.

Due of the variable response length (from one day to a year), recollection bias may be an issue. One year ago is more difficult to recall than one day previously. There were 172 questions to be answered in one hour, which made it more probable that items in the initial half of the questionnaire would be addressed and less likely that the questions in the latter section would be missed or rushed through. Misunderstandings may result from the information provided on the school health service. It's tough to get a clear picture of how a PHN is actually used because they include information on both the PHN and the school doctor. A primary health care provider (PHN) may be reached far more easily than a school doctor. The PHN is typically the sole provider of healthcare in school settings. A misreading of a question or a lapse in memory might lead to an incorrect answer.

When it comes to credibility, it is all about the details of the plan and analysis. Qualitative descriptive design was judged to be appropriate for the study's objectives in study II. Twelve teenage males with mental health issues who had attended the PHN were subjected to in-depth interviews (II). Six distinct school health services were represented by these students, who were treated by nine different school health nurses. Both rural and urban areas of Norway were represented by the school health services. Students

from 16 to 21 years of age were involved in the study; this might lend credence to the findings. PHN researchers did not invite the initial author of the report to participate in the study, and he had no say in which boys were selected. Because of this, it is possible that the PHNs asked just those guys who had a positive experience with them.

The participants in the focus group interviews (III) had a wide range of backgrounds and experiences with IPC in the special education programmer. In order to get a more complete picture of the subject matter, we planned to conduct at least four focus group interviews (Polit& Beck, 2017). Some individuals were unable to participate because they were unwell. This has the potential to alter outcomes and trustworthiness. Nevertheless, the two- and three-person focus groups provided a useful conversation and a rich repository of data.

There was a wide range of people from rural and urban backgrounds participating in research IV, which is consistent with the phenomenographic method (Marton& Booth, 1997). The participants were selected by the head of the health-care services. The researcher got in touch with the team's leader and requested for help in locating the correct PHNs, but that didn't have any effect on the recruitment process. There is a possibility that the leader hired the most favorable PHNs to work for him. However, the number of PHNs employed in secondary schools varies greatly from one city to another.

Study II's data gathering spanned a period of seven months. A duo was interviewed for a single interview. Both of these young men were given the identical set of questions and given the option to respond individually. As long as they could be interviewed as a team, they were all for it. There's a chance that one's replies swayed the other. All guys were asked the same open-ended question at the beginning. Many follow-up inquiries were required since the lads were not speaking so freely. This might have resulted in a less reliable data gathering. It's also possible to take advantage of the boys' expertise by asking specific follow-up questions based on what they discussed. A strategy to help adolescent guys who may be having a hard time expressing themselves was to use this method. As a result, a wealth of information was uncovered. Using follow-up questions is a good approach to get additional information, investigate topics, evaluate fresh material, and accomplish the study's goal (Rubin & Rubin, 2012).

Study III collected data for eight months, whereas study IV collected data for three months. Introductory questions were same for all participants in study III

That's why each participant in trial IV was asked the identical questions. The data obtained from both the focus group interviews and the one-on-one interviews was extensive. Some follow-up questions were modified in both trials.

The likelihood that the results will be meaningful to others in comparable conditions is known as transferability (Lincoln &Guba, 1986; Polit& Beck, 2017). The participants, data collecting, and data analysis have all been detailed in great detail in this thesis and the other research to assure transferability. Studies II–IV are based on data from Norway,

thus their applicability to other countries must be judged in light of the possibility that the setting differs.

3. Research Gap

In the second trial, only boys who had been to the PHN for a mental health issue were eligible for participation. The issue might be anything from a personal challenge to a medical diagnostic. Students in the school health services were approached by the Primary Health Network (PHN). In four counties, the first author made phone calls to PHNs in school health services.

Then, via letter, the organization asks for assistance in recruiting older lads. Responses came from two counties and four municipalities. As soon as the PHNs explained the study to the boys, both orally and in writing form, those who were interested were given the opportunity to participate. The PHN sent an email to the first author with the phone number of a youngster who wanted to participate when he contacted the PHN for the first time. In order to set up an interview, the first author phoned the boy and set up an appointment. Participation in the research was open to twelve boys. Among the participants, the guys ranged in age from 16 to 21, with a mean age of 17. (Median 16.5 years). In total, the guys attended five different high schools, all of which had different academic programmers. It was clear to everyone that they had been to the PHN several times before this. Only a few of people had gone to the PHN on their own. Two of the boys were suggested for treatment by the police, and most of the youngsters were sent to the PHN by their instructors.

Study III was commissioned by a secondary school in Norway's Middle Eastern region to conduct. For teenagers who are having difficulties in school, this school provides a special education programmer for those in the eighth through tenth grades. Because they had been absent from school, the teenagers enrolled in the programmer. Teachers from regular courses and the special school programmer collaborated with the teenagers and their families to determine if the students should attend this programmer. A major goal of the programmer was to get the teenagers back into regular classrooms and finish high school with a minimum number of absences. Teachers and other school employees are in charge of running the programmer. Various specialists, including teachers, psychologists, child welfare workers, PHNs, social workers, and others, work together to help teenagers in the special school programmer.

Within the special school programmer, participants had to work with colleagues from various professions to meet the study's inclusion requirements. Teachers were recruited by the school's programmer director. The leader provided the initial author with information on the school program's associated professionals. Then, the first author made a phone call to the experts and explained the study in detail. As a result, those who want to participate were given written instructions.

4. Research Objective & Methodology

Gender, grade level, education of dads and mothers, and the number of computers in the household were all taken into consideration when conducting research I. According to a self-reported questionnaire, there was no clinical diagnosis of depression. Asked if any of the topics in Table 5 had affected them in the preceding week, teens stated that they had. Using the Depressive Mood Inventory (DMI), which is based on the HSCL (Hopkins Symptom Checklist), these six questions indicate how depressive symptoms are related to each other dependability and validity that meet the standards (Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974; Kleppang, Hartz, Thurston, & Hagquist; Strand, Dalgard, Tambs, & Rognerud, 2003).

To examine gender differences and how depression (n=6) was linked to family conflict and economics, lifestyle behaviors (n=12), school satisfaction, and the use of health-care services among teenagers, 30 items were employed in the first research (Table 5). Prior research on what is connected with depressive symptoms and the literature regarding what teens are most concerned with led to the selection of these 30 items for study I.

Twelve qualitative interviews were performed between September 2018 and March 2019 in total. Qualitative interviews are conducted in order to gain insight into the world via the perspectives of persons being interviewed and to discover the significance of the experiences they have had (Kvale & Brinkmann, 2009). A pair interview and nine one-on-one interviews were conducted. Two boys were interviewed as a pair at their request, and the interview was performed in line with their requests. They'd gone to the PHN together to learn more about the research and were able to do so in a group setting. First author was available for one-on-one conversation after interview. Both refused. The interview was supposed to take place over the phone, but one of the participants had forgotten the date and time. Participants may choose where and when they wanted to conduct their interviews: at a cafe or at the first author's workplace.

For the following questions, a semi-structured guidance was used: How did you like your visit to the PHN? Please tell me how you discovered that you could visit the facility. In addition, we conducted follow-up questions to get more specifics. "Can you please tell me about the first time you visited the PHN?" "Can you please tell me about the first time you visited?" Can you describe your experience at the PHN? The lads found it difficult to continue the conversation without being probed more. The interviews were done by the paper's primary author. From 17 to 56 minutes, the interviews lasted a total of 26.6 minutes, with an average time of 26.6 minutes.

5. Data Analysis & Findings

Only two answers, 'How much time do you spend watching TV?' and 'Many people expect me to achieve well at my school,' indicated substantial disparities between the sexes. Girls reported increased symptoms of depression on all six items compared to males, on all six measures. 'Felt like everything is a battle' and 'Worried too much about things' were the most significant disparities. As indicated in Table 7, there were substantial disparities

between boys and girls in family conflicts and finances, lifestyle habits, school satisfaction, and health-care services, except for two categories. According to a survey, boys spent a greater percentage of their time playing computer games on mobile devices and using computers outside of school than girls. Girls also reported using the school nurse/school doctor much more often than males did.

Self-reported symptoms of depression are greater in girls than in males. Most adolescents seek school health services for mental health issues, although boys are less likely than girls to do so, on average (I). Several factors might be at blame for this. When it comes to finding a school health nurse (PHN), boys report encountering several obstacles. It was challenging for them to talk about mental health issues with both the PHN and their peers. Often, the lads had only one close buddy they could confide in. As a result, males described the school's health services as more suited to girls than guys (II).

Neither the lads nor the PHNs were unaware of how difficult it was to communicate with one of these professionals (II, IV). It was difficult for the boys to get in touch with the PHNs because of the lack of exposure and accessibility of the organization (II). To be effective, the school health nurses (PHNs) stressed the need of being available and making themselves visible. They also had to put in a lot of effort to be accepted into the International Primary Curriculum (IPC) in schools (IV). When it came to teamwork, the PHAs found that they had little effect, but that others' efforts made them feel included. Coincidences that occurred when many professions collaborated might make IPC difficult. The degree of cooperation will be determined by the number of participants (III, IV).

Confidentiality was a major impediment to collaboration. II, the school programmer professionals (III), and PHNs also pointed up this fact (IV) (IV). While confidentiality may be a hurdle for IPC (III, IV), it is critical for boys who attend the PHN (IPC III) (II).

The findings reveal that teenagers with mental health issues are more likely to seek help at school and through the school health department. The mental health of teenagers, particularly females, may be influenced by their level of school satisfaction (I). Adolescents must be given the finest care possible, and this can only be achieved via close cooperation among school personnel (III, IV).

6. Conclusion

Boys and girls report different levels of mental health issues, and girls are more likely than boys to see a PHN in the school health service.

The boys found it challenging to open up to the PHNs about their mental health issues. PHNs may benefit from the findings of research II in terms of how they interact with and assist teenage males.

In order to better serve their needs, the lads wanted the PHN to be more visible and available at all times. In order to participate in IPC, PHNs and other experts must be

easily available. The PHNs' role in school health can be strengthened with this information.

Visiting the PHN required the boys to have faith in the PHN's responsibility of secrecy. Adolescents and their parents' willingness to participate in IPC without disclosing personal information might be a problem.

A crucial role is played by the PHN when it comes to teenagers' mental health. Few of the boys went to the PHN on their own, and the boys profited from the experience. This suggests that implementing IPC in schools is critical if we are to properly identify boys who are suffering from mental health issues.

IPC differed from one example to the next and was viewed as erratic. This just serves to highlight IPC's intricacy.

Ungdata's questionnaire for assessing depressive symptoms found significant disparities between males and girls. Gender variations in teenage boys' and girls' mental health concerns must be explored further through study.

32.5 percent of the variation in depressive symptoms was explained by hierarchical multiple regression. There's more to it than that, though. Further research on other possible causes of depression in males is required.

There are gender inequalities in school health service visits, and this study focused on the experiences of male students. We may learn a lot by looking at a girl's perspective on her trips. It may be possible to improve the way PHNs operate in school health by hearing from the girls themselves.

Teachers, in particular, need to have their perspectives on IPC with the PHN better documented. Teachers must now cooperate with school health services under a new punishment, thus this might be of relevance going forward.

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10. Authors' contributions:

Xiumei Ma was principally responsible for the conception and design of the study. Zaidah Binti Ismail and Satheesh Babu Natarajan supervised and monitored the project.

11. Ethics approval and consent to participate: NA (Not applicable).

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