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Educational Needs among Women Admitted to High Secure Forensic Psychiatric Care

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ABSTRACT

Forensic psychiatric patients’ low educational attainment is a strong predictor for recidivism. However, there is a lack of studies on the educational background among women admitted to forensic psychiatric care. The study aimed to investigate the educational background among women within a high secure forensic psychiatric setting. A mixed-method design was applied. Data were collected from registers, including medical records, forensic psychiatric investigations, and verdicts (n = 93), and by conducting interviews (n = 61) with women admitted to forensic psychiatric care in Sweden. The women’s education length varied between 5 and 18 years. According to interviews and registers, more than 70% of the women were found to have some school-related problems. In the interviews, some women associated school with conflicts, loneliness, and learning difficulties. Others explained how their disadvantageous home environment and many school changes affected their learning and problems developing and maintaining social relationships. Women with a neurodevelopmental disorder were to a higher degree documented with school-related problems than women without such disorders (97% vs. 63%). The educational attainment varied among the women, and consequently, their educational needs were heterogeneous. Therefore, they should be offered tailored education and vocational support to have an increased prerequisite for adjusting to and participating in society.

KEYWORDS

Forensic psychiatry; women; education; neurodevelopmental disorders

Introduction

Forensic psychiatric care in Sweden is responsible for patients with multifaceted needs (Degl’ Innocenti et al., 2014; Howner et al., 2018; RättspsyK, 2019), such as treating patients’ severe mental disorders, reducing their risk of relapse into serious criminality, and supporting the patients’ adaptation into society. According to the national register in Sweden, many forensic psychiatric patients have been homeless, received financial support, and been

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diagnosed with substance abuse disorders and psychoses (Degl’ Innocenti et al., 2014; Rättspyk, 2019). Women admitted to forensic psychiatric care are also found to have a history of physical and sexual abuse (De Vogel et al., 2016; Selenius & Strand, 2017). A majority of the patients in Sweden need help with finances and have a good man or trustee. During their admission to forensic psychiatric care, about 60% of them receive support and training for employment (Rättspyk, 2019). Financial allowance is reported to be related to improved social networks and reduced symptoms of mental disorders (Ljungqvist et al., 2016). International research reveals that the most complex needs are found among forensic psychiatric patients with intellectual disabilities and mental health problems (Lunsky et al., 2011).

Mental health problems at a young age are also related to poor employment (Cook, 2006; Hale et al., 2015), increased risk of poverty (Cook, 2006; Hale et al., 2015), social exclusion (Morgan et al., 2007), and poor educational attainment (Brännlund et al., 2017; Cook, 2006; Hale et al., 2015). The level of education is generally low among forensic psychiatric patients (De Vogel et al., 2016; Nagata et al., 2016; Ribeiro et al., 2015; Selenius & Hellström, 2015; Svensson et al., 2015). Offenders who lack education and/or employment have criminogenic needs, regarded as risk factors for future criminality (Andrews & Bonta, 2010). Low educational attainment among offenders admitted to forensic psychiatric care in Sweden has also been reported to be one of the strongest predictors for relapse in general as well as to violent crimes (Krona et al., 2017).

According to a recent systematic literature review, there is a lack of international research on interventions to increase participation in society after discharge from forensic psychiatric care (Howner et al., 2018). For example, Howner and colleagues highlight the lack of controlled randomized studies focusing on forensic psychiatric patients’ habilitation and rehabilitation. However, qualitative studies with patients and staff call for tailor-made support in education and vocational training to meet their individual needs and strengths (Harris et al., 2020; Samele et al., 2018). Similar findings are also reported in a systematic review of occupational therapy for people with mental health problems (Kirsh et al., 2019). According to Krish et al., occupational therapy that focuses on education and work seems to promote employment, especially when the support is individualized. A review also demonstrates that supported employment, including individual placement, training, and support, has some evidence for encouraging people with severe mental disorders to enter and manage the labor market (Kinoshita et al., 2013).

Studies indicate that forensic psychiatric patients may have had learning difficulties in school as a high proportion of patients lack functional reading skills (Klinge & Dorsey, 1993; Selenius & Hellström, 2015; Svensson et al., 2015; Taylor & Healy, 2001). Such reading skills are required to cope with reading in everyday life, and patients lacking such skills have probably had
challenges with different school assignments based on reading and writing. Without functional reading skills, the patients will also struggle with assimilating care plans and timetables (Taylor & Healy, 2001). Women with poor reading skills within forensic psychiatric care also perceive themselves as low school performers (Svensson et al., 2017). Moreover, neurodevelopmental disorders, such as ADHD, autism spectrum disorders, specific learning disorders, and intellectual disability (American Psychological Association [APA], 2013), have also been shown to be prevalent among forensic psychiatric patients (Anckarsäter et al., 2008; Degl’ Innocenti et al., 2014; Lin et al., 2017; Ray et al., 2019; Selenius & Hellström, 2015; Stinson & Robbins, 2014). Neurodevelopmental disorders are generally associated with school difficulties (Grigorenko et al., 2020) and low educational attainment compared to peers without such disorders (Breslau et al., 2011; Hale et al., 2015; Ray et al., 2019). Different types of learning disabilities and early behavioral problems are associated with poor educational attainment (Hale et al., 2015) and prevalent among forensic psychiatric patients (De Vogel et al., 2016; Goethals et al., 2008).

In general, there is a lack of studies on educational needs in forensic psychiatric patients. Furthermore, to our knowledge, there is not a single study investigating in depth the educational background among women admitted to forensic psychiatric care. Subsequently, to be able to identify relevant educational and vocational support for women admitted to forensic psychiatric care, there is a need for more knowledge about their educational background. Therefore, with the purpose of being able to meet the educational needs of women admitted to forensic psychiatric care, the current study aimed to investigate the educational background among women within a high secure forensic psychiatric setting.

Research questions

- How prevalent are school-related problems among the women?
- How do the women describe their school experience?
- Do school-related problems differ among women diagnosed with and without neurodevelopmental disorders?

Methods

This study is part of two different projects conducted in high security forensic psychiatric settings in Sweden. One project investigated the risk of future violence among women admitted to high secure forensic psychiatric care (Selenius et al., 2016; Selenius & Strand, 2017; Strand & Selenius, 2019). The other project focused on reading disability and intervention and was conducted in another high secure forensic psychiatric setting (Svensson et al., 2015, 2017). Both projects included data collection regarding women’s schooling. The
regional ethical review boards had ethically approved both projects. The present study is based on a mixed-method design aiming to investigate the educational needs of female patients. Therefore, we have collected qualitative and quantitative data to investigate the women’s educational background. As the two forensic psychiatric hospitals provide care for similar types of patients, have the same security level, and had similar questions in the interview guides, we have merged the samples for the present study.

**Participants**

The present study consisted of women admitted to inpatient care within two high secure forensic psychiatric hospitals in Sweden. Interviews were performed with 61 women recruited from two different projects. There were 13 interviews with women in a project about violence (age: $M = 39.6$ years $SD = 16.0$ years) and 47 interviews conducted in a project about reading disability (age: $M = 27.3$ years, $SD = 7.6$ years). The women were sentenced to forensic psychiatric care or transferred to forensic psychiatric care due to their need for specialized psychiatric care. Their primary diagnoses were 16 (26%) psychotic disorder, 16 (26%) mood disorder, 3 (5%) anxiety disorder, 6 (10%) personality disorder and 20 (33%) neurodevelopmental disorder.

The risk of future violence project consisted of register data of 151 women, where information about educational background was described for 93 of the women who were then included in the present study. They were either sentenced to forensic psychiatric care ($n = 43$, 46%) or transferred to the forensic psychiatric hospital due to an extensive need for high secure forensic psychiatric care ($n = 50$, 54%). Their mean age at admission was 32 years ($SD = 11.4$), and their average care time was 2.5 years ($SD = 3.25$ years). Their primary diagnoses were 20 (22%) psychotic disorder, 14 (15%) mood disorder, 41 (44%) personality disorder, 14 (15%) neurodevelopmental disorder, 1 (1%) eating disorder and 3 (3%) substance abuse disorder.

**Materials and data collection**

The semi-structured interview data were collected by the first, second, and last authors. One of the questions in the semi-structured interviews was relevant for the present study, and it concerned how the participants had experienced their school time. All interviews were conducted in an undisturbed place. Seventeen interviews were audio-recorded (11 for the violence project and 6 for the reading disability project). For the remaining 43 interviews, careful notes were taken as the women did not want to be recorded (2 for the violence project and 41 for the reading disability project). The interviews lasted for approximately 30 to 90 minutes.
The register data were obtained from forensic psychiatric evaluations, verdicts, and medical records \((N=93)\). The first and last authors collected all data with a coding schema on diagnoses and school adversities, coded as present or absent. The following variables on school-related problems were examined:

- Unfinished elementary school (e.g., not finish 9th grade in elementary school),
- Extensive truancy (e.g., did not go to lessons, dropped out of school due to truancy),
- Reading and/or writing difficulties (e.g., cannot read at all, needs goodman due to not being able to read, difficulties with reading in school),
- Mathematical difficulties (e.g., difficulty with math in school, cannot handle finances due to arithmetic difficulties),
- Intellectual difficulties (e.g., low IQ),
- Unspecified learning difficulties (e.g., difficulties following ordinary education),
- Attention difficulties (e.g., deficient mental endurance at school, difficulties completing school activities),
- Behavioral problems (e.g., disturbing lessons, physically aggressive toward other pupils and/or teachers, expelled from school),
- Remedial class (e.g., removed due to behavioral or learning problems to a special school or class),
- Student assistant (e.g., is provided support in a class by an assistant)
- Bullied at school (e.g., socially excluded, physically or verbally abused by other students).

Besides these dichotomous variables, we coded education length and level of education. Then, based on the variables measuring school-related problems, we constructed three different dichotomous variables on whether the women had or had not experienced learning problems, behavioral problems, or any type of school-related problems. All ten variables on school-related problems were then added and summarized in a school adversity index. The school adversity index had a minimum score of 0 and a maximum score of 10.

**Analysis**

The interviews were analyzed with summative content analysis resulting in both qualitative and quantitative findings (Hsieh & Shannon, 2005). In this type of content analysis, data were coded by identifying specific words and content in the interviews. The first and second authors coded the interview data as to whether the school-related problems were present or absent for each
category. The following categories were used when coding interviews: unfinished elementary school, extensive truancy, reading and/or writing difficulties, mathematical difficulties, intellectual difficulties, unspecified learning difficulties, attention difficulties, behavioral problems, remedial class, student assistant, and bullied at school. These categories are the same variables that were used in the registry study. We calculated the frequency of school-related problems and highlighted each category with quotes from the participants. We explored the contextual use of the specific words and the content and aimed to understand the meaning of the descriptions by the women (Hsieh & Shannon, 2005).

Register data were coded and analyzed using IBM SPSS Statistics version 25. Associations between neurodevelopmental disorders and school-related problems were shown by 2-sided chi2 tests. In analyses with expected values of less than five, Fisher’s Exact Test was used. Phi is reported as a measure of effect size. Differences in the number of school-related problems, measured with the school adversity index, between women with and without neurodevelopmental disorders were analyzed with a Mann-Whitney U test. The effect size is presented with \( \text{eta}^2 \).

**Results**

Based on the same categories, the interviews and register study give a similar picture of challenges with learning and social relations during school time for women admitted to forensic psychiatric care (see Tables 1 and 3). According to the interviews in the present study, 72% of women reported some type of school-related problems compared to 76% of women in the register study.

The summative content analysis of the interviews showed that 11% of the women had mathematical difficulties, 46% described how reading and writing difficulties had affected their schooling, and 20% mentioned that they had attention difficulties (for more details, see Table 1). Furthermore, some women also associated school with conflicts and loneliness. According to the interviews, some women have felt deviant and excluded, which is illustrated by one woman’s description of her memories of school *I simply hated being there, nobody, nobody, nobody liked me* (Participant 33). Others described a lack of support from their teachers, and for example, one woman said *no teacher knew me. I did not invite them, I know, but damn, they did not either* (Participant 16).

In some interviews, the school-related problems are linked to a disadvantageous home environment, mental health problems, and many school changes. The women described how their psychosocial situations affected their learning and how school changes resulted in a lack of continuity in education and difficulties developing and maintaining social relationships. For example, one woman told *I did not have a single friend . . .*
Table 1. Interview data on school problems among 61 women admitted to high secure forensic psychiatric care.

<table>
<thead>
<tr>
<th>Category</th>
<th>n(%)</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not finished elementary school</td>
<td>13 (21)</td>
<td>“I did not finish school.” (Participant 24)</td>
</tr>
<tr>
<td>Extensive truancy</td>
<td>15 (25)</td>
<td>“I liked art and design at school and went there for about six years, or something like that.” (Participant 50)</td>
</tr>
<tr>
<td>Reading and writing difficulties</td>
<td>28 (46)</td>
<td>“I remember that I was in the corridor and the leisure center and the schoolyard . . . but not in any lesson . . . there was always a class that had a break . . . so there were people to hang out with” (Participant 31)</td>
</tr>
<tr>
<td>Mathematical difficulties</td>
<td>7 (11)</td>
<td>“Everyone thought I had “dysterlexia”” (Participant 4)</td>
</tr>
<tr>
<td>Intellectual difficulties</td>
<td>2 (3)</td>
<td>“I went to a special school for students with intellectual disabilities. I hated the teachers.” (Participant 52)</td>
</tr>
<tr>
<td>Unspecified learning difficulties</td>
<td>11 (18)</td>
<td>“When I went to secondary school, I thought I wanted to blow myself up and the school. Then I had such thoughts . . . I felt terrible. I was in a sect anyway, as a child. A bit up in my teens and so on, but I was removed from that sect against my will.” (Participant 55)</td>
</tr>
<tr>
<td>Attention difficulties</td>
<td>12 (20)</td>
<td>“I felt stupid almost all the time, no matter what school subject we had” (Participant 28)</td>
</tr>
<tr>
<td>Behavioral problems</td>
<td>9 (15)</td>
<td>“It was not possible to concentrate at school. At home, I could concentrate on painting for several hours.” (Participant 21)</td>
</tr>
<tr>
<td>Remedial class</td>
<td>2 (3)</td>
<td>“I went to a special class for many years” (Participant 21)</td>
</tr>
<tr>
<td>Student assistant</td>
<td>3 (5)</td>
<td>“When I was in primary school, I had a special teacher or whatever it was called. No, it was called student assistant . . . It was because I was messy in class.” (Participant 58)</td>
</tr>
<tr>
<td>Bullied at school</td>
<td>19 (32)</td>
<td>“A student assistant chased me” (Participant 4)</td>
</tr>
</tbody>
</table>

Summary of any type of school-related problems: 44 (72%)
it was a disaster at home, so it still would not have been time to invite friends’ home as well (Participant 19), and another woman said Change school, change teacher, change school again . . . I only liked one teacher, but she stopped working and moved (Participant 3). For some women, negative experiences from elementary school have influenced their willingness to engage in education during forensic psychiatric care. They expressed resistance to go to school, which can be illustrated by how one woman felt It took a long time before I started school here [at the hospital] because I thought that now I have to go to a class. But I get to have a teacher for myself, and I think that’s great (Participant 57).

However, some women were neutral in their descriptions of school performance and emphasized the importance of having schoolmates. There were also women with positive school experiences. They described that their time in school was easy and that they had good grades and friends. One of the women mentioned that I have graduated from elementary school and high school with pretty good grades (Participant 48). Among the positive experiences of school, some women considered school to be a safe place compared to their disadvantageous home environments. The teacher and other staff at school meant a lot to some women; for example, one woman explained I got an eraser she [the teacher] had found on the floor, and after that, it was something precious I had received, but for her, it was just . . . I don’t know . . . I lingered after lessons and so (Participant 53).

According to the register study, 39% of the women were diagnosed with a neurodevelopmental disorder. However, when comparing women sentenced to forensic psychiatric care with women in need of specialized psychiatric care, no differences in the prevalence of neurodevelopmental disorders were obtained (cf. Table 2).

Table 2. Register data on neurodevelopmental disorders among 93 women admitted to high secure forensic psychiatric care.

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Total sample</th>
<th>Women sentenced to forensic psychiatric care (n)</th>
<th>Women in need of specialized psychiatric care (n = 50)</th>
<th>chi2</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neurodevelopmental disorder</td>
<td>36 (39)</td>
<td>15 (35)</td>
<td>21 (42)</td>
<td>0.49</td>
<td>.482</td>
</tr>
<tr>
<td>ADHD</td>
<td>24 (26)</td>
<td>7 (16)</td>
<td>17 (34)</td>
<td>3.79</td>
<td>.052</td>
</tr>
<tr>
<td>Autism spectrum disorder</td>
<td>11 (12)</td>
<td>6 (14)</td>
<td>5 (10)</td>
<td>0.35</td>
<td>.556</td>
</tr>
<tr>
<td>Communication disorder</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Intellectual disability</td>
<td>7 (8)</td>
<td>4 (9)</td>
<td>3 (6)</td>
<td>0.36</td>
<td>.700</td>
</tr>
<tr>
<td>Motor disorder</td>
<td>1 (1)</td>
<td>0 (0)</td>
<td>1 (2)</td>
<td>0.87</td>
<td>1.00</td>
</tr>
<tr>
<td>Specific learning disorder</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
Table 3. Register data on school problems among 93 women with and without neurodevelopmental disorders admitted to high secure forensic psychiatric care.

<table>
<thead>
<tr>
<th>School problems</th>
<th>Total sample</th>
<th>Women with neurodevelopmental disorders (n = 36)</th>
<th>Women without neurodevelopmental disorders (n = 57)</th>
<th>chi2</th>
<th>(p)</th>
<th>(\phi)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not finished elementary school*</td>
<td>20 (25)</td>
<td>10 (37)</td>
<td>10 (19)</td>
<td>2.98</td>
<td>.084</td>
<td>−0.19</td>
</tr>
<tr>
<td>Extensive truancy</td>
<td>9 (10)</td>
<td>3 (8)</td>
<td>6 (11)</td>
<td>0.12</td>
<td>1.00</td>
<td>−0.04</td>
</tr>
<tr>
<td>Learning difficulties</td>
<td>52 (56)</td>
<td>31 (86)</td>
<td>21 (37)</td>
<td>21.73</td>
<td>.000</td>
<td>0.48</td>
</tr>
<tr>
<td>Reading and writing difficulties</td>
<td>9 (10)</td>
<td>4 (11)</td>
<td>5 (9)</td>
<td>0.14</td>
<td>.731</td>
<td>0.04</td>
</tr>
<tr>
<td>Mathematical difficulties</td>
<td>12 (13)</td>
<td>6 (17)</td>
<td>6 (11)</td>
<td>0.74</td>
<td>.390</td>
<td>0.09</td>
</tr>
<tr>
<td>Intellectual difficulties</td>
<td>10 (11)</td>
<td>8 (22)</td>
<td>2 (4)</td>
<td>8.05</td>
<td>.012</td>
<td>0.29</td>
</tr>
<tr>
<td>Unspecified learning difficulties</td>
<td>23 (25)</td>
<td>12 (33)</td>
<td>11 (19)</td>
<td>2.34</td>
<td>.127</td>
<td>0.16</td>
</tr>
<tr>
<td>Attention difficulties</td>
<td>31 (33)</td>
<td>24 (67)</td>
<td>7 (12)</td>
<td>29.37</td>
<td>.000</td>
<td>0.56</td>
</tr>
<tr>
<td>Behavioral problems</td>
<td>24 (26)</td>
<td>14 (39)</td>
<td>10 (18)</td>
<td>5.25</td>
<td>.022</td>
<td>0.24</td>
</tr>
<tr>
<td>Both learning and behavioral problems</td>
<td>18 (19)</td>
<td>13 (36)</td>
<td>5 (9)</td>
<td>10.57</td>
<td>.001</td>
<td>0.34</td>
</tr>
<tr>
<td>Remedial class</td>
<td>6 (7)</td>
<td>4 (11)</td>
<td>2 (4)</td>
<td>2.11</td>
<td>.202</td>
<td>0.15</td>
</tr>
<tr>
<td>Student assistant</td>
<td>4 (4)</td>
<td>3 (8)</td>
<td>1 (2)</td>
<td>2.32</td>
<td>.295</td>
<td>0.16</td>
</tr>
<tr>
<td>Bullied at school</td>
<td>27 (29)</td>
<td>11 (31)</td>
<td>16 (28)</td>
<td>0.07</td>
<td>.797</td>
<td>0.03</td>
</tr>
<tr>
<td>At least one type of school problem</td>
<td>71 (76)</td>
<td>35 (97)</td>
<td>36 (63)</td>
<td>14.18</td>
<td>.000</td>
<td>0.39</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mdn (min-max)</th>
<th>Mdn (min-max)</th>
<th>U</th>
<th>(p)</th>
<th>(\text{eta}^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>School adversity index</td>
<td>2 (0–6)</td>
<td>1 (0–4)</td>
<td>455.50</td>
<td>.000</td>
</tr>
</tbody>
</table>

*Missing data on 14 participants (9 with a neurodevelopmental disorder and 5 without such disorder).
The results from the register study confirm that there were women with high educational attainment as well as women with several school-related problems (see Table 3). For example, 56% were described as having learning difficulties at school, and 26% were characterized by behavioral problems at school. Furthermore, 29% of the women were being bullied at school.

The length of education was documented in the registers for 71 of the 93 women and varied from 5 to 18 years ($Mdn = 11.0, M = 10.7, SD = 2.6$). The register data also showed that 7 (8%) of 79 women had attended university, 20 (25%) had not completed ninth grade in elementary school, and 24 (26%) lacked secondary education.

When comparing women with and without neurodevelopmental disorders in terms of school problems, it emerged that those with neurodevelopmental disorders had more frequent school problems related to both learning and behavior (see Table 3). The results showed that almost all (97%) women with a neurodevelopmental disorder had some documented school-related problems compared to 63% among women without a neurodevelopmental disorder.

**Discussion**

For many women admitted to forensic psychiatric care in Sweden, their time in school has been fraught with several challenges. Results from both register data and interviews show experiences of learning difficulties, behavioral problems, and exposure to bullying. According to the results from the register data, 76% had at least some type of school-related problems, and 39% were diagnosed with a neurodevelopmental disorder. Similarly, the interviews showed that 72% had at least one school-related problem. However, in the interviews, some women described a good educational background and had only experienced some trouble with social relations in school. For some women with disadvantageous home environments, the school was the only safe place to grow up. Others believed friends to be more important than education. Despite school being a safe environment for some women, it did not help them gain the necessary educational skills.

Although low educational attainment is a strong predictor for future criminality (Krona et al., 2017), less than 30% of the forensic psychiatric patients in Sweden have education, or work-related efforts, in their risk management to reduce the risk of future recidivism (RättspysK, 2019). Nevertheless, education should not only be regarded as an important risk management strategy to prevent future criminality, but it is also a fundamental human right for all (UNESCO, 2003). Education is essential for everyone to access their human rights and make the most of their lives. Necessary reading, writing, and arithmetic skills are central to learning and work. These skills are essential in democratic and social processes (UNESCO, 2018) and are needed for
participation in society. Education is also regarded as a meaningful activity during forensic psychiatric care (Svensson et al., 2017). Women admitted to forensic psychiatric care with low educational attainment should be provided basic education to attend further education, find work, learn to manage their finances, and keep in touch with family, friends, and authorities. Thus, the present study results support the importance of organizing education and investing resources in school activities in high secure forensic psychiatric care.

The results from the present study also show that educational attainment and school experiences vary, and consequently, the educational needs of the women admitted to forensic psychiatric care. Some previous studies have highlighted the need for tailored educational and vocational support for forensic psychiatric patients (Harris et al., 2020; Samele et al., 2018), supported by the present study results. Because women admitted to forensic psychiatric care were characterized by severe mental disorders and multifaceted difficulties in previous education, they probably need teachers with special educational competence. Such teachers are educated for adjusting instructions and tailoring educational interventions, and they might be able to provide the female patients with prerequisites to cope with education and vocational training.

One of the main results from the present study is that women with neurodevelopmental disorders were characterized by more school-related problems than those without such a disorder. A similar pattern is also demonstrated in non-clinical and non-criminal samples (Breslau et al., 2011; Hale et al., 2015; Ray et al., 2019). The clinical picture of neurodevelopmental disorders may vary from forensic psychiatric patient to another, particularly women with autism spectrum disorders characterized by complicated behavioral patterns (Anckarsäter et al., 2008). Therefore, potential comorbidity between neurodevelopmental disorders should be identified in order to identify appropriate treatments and interventions for these women. Anckarsäter et al. (2008) emphasized the importance of assessing forensic psychiatric patients for autism spectrum disorder to avoid misunderstandings and respond appropriately. Subsequently, special educational support may be required when the teacher meets the patients and plans and organizes the teaching to suit each patient’s needs for entering education and employment. For example, there are pedagogical strategies such as providing activities that support impaired executive functions, which are reported to be prevalent among people with neurodevelopmental disorders (Johnston et al., 2019; Nyrenius & Billstedt, 2020; Roselló et al., 2020).

The education of persons with learning problems needs to be based on general principles such as being explicit, individualized, comprehensive, and contain differentiated instructions with adjusted intensity (Grigorenko et al., 2020). Teaching with explicit instructions consists of clear explanations of both concepts and new knowledge. Teachers should provide examples,
strategies for learning, and continuous feedback. The student’s development of knowledge is cumulative. The teacher, therefore, needs to individualize instructions, so these are adjusted for the individual learners’ strengths and needs in the learning process. According to Grigorenko et al. (2020), it is recommended that teachers use comprehensive interventions that refer to holistic teaching where not only specific skills are trained. Differentiated instructions, where all students in a classroom can carry out the same assignment based on their prerequisites and knowledge, are important for the teacher to consider when planning and carrying out teaching. Also, persons with learning problems may need adjustment in intensity and arrangement of interventions. For example, the teacher could extend the intervention time or reduce group size to increase learning outcomes.

In general, students who have experienced school failure tend not to believe in their abilities and avoid school assignments (Schunk, 2012). Therefore, women admitted to forensic psychiatric care should be provided education by teachers whom they can trust. In this way, they receive personal support to break negative patterns of school failure, feelings of loneliness, and exclusion at school. The women with school-related problems and low educational attainment might need emotional support to dare to start an education or handle a school assignment after repeated school failures and poor social relations at school. Consequently, it is crucial to start educational efforts by building trust between the teacher and the learner, so that female forensic psychiatric patients can experience that they can succeed and can feel safe (Taylor & Healy, 2001).

During the interviews, 47% of the women mentioned reading and writing difficulties, whereas, in the register study, 10% of the women were noted as having such difficulties. None of the women in the register study had been diagnosed with dyslexia or reading and writing disabilities in accordance with the criteria in DSM-IV-TR (APA, 2000). The lack of such diagnosis is a bit surprising as the prevalence of reading and writing disabilities has been reported to be about 11–53% among forensic psychiatric samples (Selenius et al., 2006; Selenius & Hellström, 2015; Svensson et al., 2015). However, this discrepancy between register data and interviews might also be related to the women’s negative beliefs about their reading and writing ability rather than actual reading and writing disability (Svensson et al., 2017). Unidentified reading and writing disabilities might also have been considered as unspecified learning difficulties. Reading and writing disabilities are hidden disabilities (Nalavany et al., 2015). Persons with such disabilities are characterized by emotional difficulties that might result in internalizing and externalizing behaviors (Livingston et al., 2018). Our results show that it is essential to ask questions about how it was in school and how women perceive their ability to read and write to avoid lost basic information in forensic psychiatric care.
According to Samele et al. (2018), forensic psychiatric patients are characterized by a double burden when entering the labor market. They must handle both the stigma of severe mental health problems and being convicted of a severe offense. The present study results also express that many carry an additional burden due to low educational attainment. Subsequently, it is vital to identify and evaluate interventions that break further marginalization. A few studies evaluate pedagogical interventions, but there is, to our knowledge, only one study on improving reading ability (Svensson et al., 2017). According to Swedish authorities, there are also trials of teaching forensic psychiatric patients to make personal budgets (RättspsyK, 2019). Undoubtedly, there is a great need for further studies investigating the educational needs of women admitted to forensic psychiatric care and scientifically evaluated different types of educational support and interventions. These educational efforts need to be effective and perceived as motivating and relevant by women within forensic psychiatric care.

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