The impact of childhood sexual trauma on intimacy and sexuality needs among people with non-affective psychosis

Jose de Jager a, b, *, Maurice Topper a, Annet Nugter a, Jim van Os b, c, GROUP Investigators

a Mental health care institution GGZ Noord-Holland Noord, Postbus 18, 1850 BA Heiloo, the Netherlands
b Brain Centre Rudolf Magnus University Medical Centre, Utrecht, the Netherlands
c King's College, Institute of Psychiatry, London, UK

ARTICLE INFO

Keywords:
Sexuality
Intimacy
Recovery
Trauma
Childhood sexual abuse
Needs

ABSTRACT

Background: Childhood trauma, in particular childhood sexual abuse (CSA), and unmet sexuality and intimacy needs are prevalent among people with psychosis spectrum disorders. The association between CSA and sexuality and intimacy needs over time in adults with psychosis spectrum disorders were examined.

Method: Patients (n = 1119) were recruited as part of the Genetic Risk and OUtcome of Psychosis (GROUP) study, a representative cohort of patients with non-affective psychotic disorder. At baseline, three-year and six-year follow-up, sexuality and intimacy needs were assessed with the Camberwell Assessment of Needs. CSA was assessed with the Childhood Trauma Questionnaire.

Results: At baseline, sexuality (26%) and intimacy (40%) needs were prevalent; 90% of these needs remained unmet. Cross-sectionally, CSA was associated with sexuality needs (OR = 1.68, 95% CI: 1.13-2.04) and intimacy needs (OR = 1.75, 95% CI: 1.04-1.77). Childhood emotional abuse (CEA) was also cross-sectionally associated with sexuality and intimacy needs. Others forms of trauma were not. Prospectively, CSA predicted incidence of a sexuality need (HR = 2.1, 95% CI: 1.23-3.74) as well as an intimacy need (HR = 1.7, 95% CI: 1.11-2.66), as did CEA (sexuality: HR = 1.8, 95% CI: 1.11-2.89; intimacy: HR = 1.4, 95% CI: 1.03-1.96). CSA and CEA were not associated with persistence of sexuality or intimacy.

Conclusion: CSA and CEA are associated with a higher prevalence and incidence of sexuality and intimacy needs in patients with psychotic disorders. High rates of unmet sexuality and intimacy needs may indicate an underlying need for trauma-related treatment as well as a need for novel interventions targeting these needs.

1. Introduction

The assessment of needs for care is a key component in mental health care (Slade et al., 2005). For mental health professionals, need assessment is helpful in clinical decision making and developing adequate treatment plans. For patients, an accurate need assessment can facilitate recovery, provide a sense of direction, support social rehabilitation and improve quality of life Fleury et al. (2013). For the dyadic relationship between client and caregiver, need assessment may be helpful to provide common ground for communication, collaboration, as well as other non-specific treatment factors such as warmth, respect and understanding (Lambert and Cattani, 2012).

In patients diagnosed with psychosis spectrum disorder, a need for care frequently occurs in the domains of intimate relationships and sexual expression (Drukker et al., 2008; Fleury et al., 2013). In a Swedish sample of 120 people with schizophrenia, 40% had an intimacy need and 33% a sexuality need Bengtsson-Tops and Hanson (1999). The highest prevalence of unmet needs in a study by Wiersma et al. (2009) was also found in the domain of intimate relationships along with company, psychological distress, daytime activities, and physical health (15–28%). Given these findings, it has been argued that mental health care is insufficiently focused on the expression of sexuality and intimacy and related needs (McCann et al., 2019).

Understanding sexuality and intimacy needs, and the factors that impact these needs among people with psychosis spectrum disorder may stimulate the development of interventions that help fulfill these needs. Qualitative studies have highlighted and explored the often unmet needs in intimate and sexual relationships among people diagnosed with psychosis spectrum disorder (de Jager et al., 2017; de Jager et al., 2018). A qualitative systematic review including 21 studies addressing the
views and experiences of people with severe mental illness (Ehrhardt et al., 2002) regarding intimacy and sexual expression identified several factors that contribute to these unmet needs (McCann et al., 2019). These include use of antipsychotics (de Boer et al., 2015), self-stigma, difficulties in social cognition, social isolation and loneliness and sexual trauma (McCann et al., 2019). Findings of a recent systematic review of 43 quantitative studies are largely in line with those reported by McCann and colleagues (Cloutier et al., 2020).

In the general population, experiencing sexual abuse in childhood is one of the most important risk factors for the development of sexual dysfunction in adulthood (Pulverman et al., 2018), and also linked to intimacy problems in adulthood (Roberts et al., 2004). Models that attempt to explain these links have focused on underlying mechanisms such as traumatic sexualization, self-destructive or avoiding coping strategies and physical, affective and cognitive difficulties (Zwickl and Merriman, 2011). There is no reason to assume that these mechanisms would be different in people with SMI.

As systematic reviews indicate high rates of trauma in patients with SMI, including sexual trauma, this is likely even more pertinent to patients with psychosis (Varese et al., 2012). Thus, several studies have suggested that impaired sexual functioning in people with psychosis may be associated with exposure to sexual abuse.

In sum, research indicates that the rates of both sexual trauma and sexuality and intimacy needs are high in patients with psychosis spectrum disorder. It remains largely unclear, however, if and how childhood sexual trauma impacts the sexuality and intimacy needs of adults living with psychosis.

To the best of our knowledge, only one quantitative, cross-sectional study examined the impact of sexual trauma at the level of needs in people with psychosis (Comacchio et al., 2019). The authors found that a history of sexual trauma in both men and women was associated with higher levels of need for care. However, they combined different types of trauma and different types of needs into larger categories, so that specific associations between sexual trauma and sexuality and intimacy needs could not be examined. The current study focuses on the question if and how childhood sexual trauma is associated with sexuality and intimacy needs in adulthood, in both a cross-sectional as well as a prospective framework.

To this end, we examined the cross-sectional and longitudinal association between childhood sexual abuse (CSA) and sexuality and intimacy needs in a large representative sample of patients with non-affective psychotic disorders. More specifically, we assessed the extent to which sexual abuse and sexuality and intimacy needs occur, as well as the percentage of these needs that remained unmet, both absolute and relative to other needs, in order to obtain a reference. To validate the focus on the specific impact of CSA, we hypothesized that CSA would be more strongly associated with sexuality and intimacy needs in comparison with other kinds of childhood adversity, as reported earlier by others (Agaçhanli et al., 2018). Finally, we assessed the extent to which CSA predicted the incidence and persistence of sexuality and intimacy needs.

2. Methods

2.1. Design

The patients in this study were recruited as part of the Genetic Risk and OUtcome in Psychosis (GROUP), a multi-site longitudinal cohort study focused on gene–environment interactions. In this naturalistic follow-up study, 1119 patients with a psychotic disorder, 1057 siblings, 919 parents, and 590 unrelated control subjects were included and examined. In- and exclusion criteria, details on the procedure of recruitment and population characteristics of the GROUP study have been described elsewhere (Korver et al., 2012). Baseline assessment (T0) was followed by a 3-year first follow-up (T1) and again 3 years later by a second follow-up (T2).

2.2. Participants

In this analysis, only the patient sample was included. At T1, 811 patients participated, and 662 at T2. Participants who participated had a diagnosis of non-affective psychotic disorder according to the DSM-IV (Alameda et al., 2015), and their age ranged from 16 to 50 years at baseline. They were selected from representative geographical areas in The Netherlands and Belgium, and identified by representative clinicians whose caseloads were screened for inclusion criteria. Subsequently, a group of patients presenting consecutively at these services either as outpatients or inpatients were recruited for the study.

2.3. Measures

2.3.1. Needs

The Camberwell Assessment scale of Need Short Appraisal Schedule (Slade et al., 2005) was used to assess need for care. The CANSAS assesses health and social needs across the following domains: accommodation, food, looking after the home, self-care, daytime activities, physical health, psychotic symptoms, information, psychological distress, safety to self, safety to others, alcohol, drugs, company, intimate relationships, sexual expression, child-care, basic education, telephone, transport, money, and benefits. Each item was clinician-rated and scored 0 (no problem), 1 (there is a problem/need, that is met given an ongoing intervention) or 2 (unmet need). Questions used to assess intimacy needs were; “Do you have a romantic partner?” “Are there problems within this relationship?” Questions used to assess sexuality needs were; “How is your sexuality?” “Are there any problems concerning your sexuality?”. If needed, follow-up questions were formulated by the interviewer to clarify. An important principle using the CANSAS is client perspective. If not having a partner is not perceived as a problem or unmet need, it is not scored as such. The CANSAS was administered at T0, T1 and T2. Interrater reliability was examined by Andersen and colleagues under routine conditions; overall agreement on areas of need was moderate to very high (Andresen, 2000).

2.3.2. Childhood (sexual) trauma

Childhood trauma was assessed with the Dutch version of the Childhood Trauma Questionnaire Short Form (CTQ) (Thombs et al., 2009), a 25-item self-report questionnaire rated on a five-point Likert scale with good internal consistency, reliability and validity (Thombs et al., 2009). The CTQ assesses: physical abuse (bodily assaults on a child by an adult or older person that posed a risk of or resulted in injury); physical neglect (the failure of caretakers to provide for a child’s basic physical needs, including food, shelter, clothing, safety and health care); sexual abuse (unwanted sexual contact or conduct between a child younger than 16 years of age and an adult or older person); emotional abuse (verbal assaults on a child’s sense of worth or well-being or any humiliating or demeaning behavior directed towards a child by an adult or older person); and emotional neglect (the failure of caretakers to meet children’s basic emotional and psychological needs, including love, belonging, nurturance and support), all occurring before the age of 17. The CTQ was administered once, either at T0 or T1, depending on the research site.

2.4. Procedure

The ethical review board of the Utrecht University Medical Center provided approval of the study protocol, as did a local review board of all participating institutes. Written informed consent was given by all participants in accordance with the committee’s guidelines. Participants were seen for assessments at their own participating regional psychosis department, at a participant’s home or at the academic centers. Interviewers were research assistants, psychologists, psychiatrists, nurses and PhD students with a background in psychology or medicine. Before the start of the study, all interviewers met for three days of training
workshops at one site (Utrecht), to practice the assessments of all measures used in the GROUP project. Over the course of the project, researchers reconvened at 2-month intervals for further training and recalibration to prevent interviewer ‘drift’.

2.5. Statistical analysis

We used descriptive statistics to calculate the prevalence of childhood sexual abuse and sexuality and intimacy needs. To obtain a reference, the number of met and unmet needs in other domains were also reported.

For all other analyses, ‘needs’ were expressed as a dichotomized measure of ‘no needs’ versus a joint category of ‘met needs’ and ‘unmet needs’. In the CANSAS, a met need stands for no/moderate problem because of continuing intervention, thus indicating that a need for care is present although its impact is mitigated.

Multi cross-sectional analysis in which associations between childhood trauma and data on sexuality and intimacy pertaining to all 3 timepoints were included and tested in a single analysis, accounting for intracluster correlations, with the data in the ‘long format’, i.e. each with every person contributing three observations (T0, T1 and T2).

In the analyses, responses to the CTQ were dichotomized: items with a score of 0 were scored as absent and items with a score of 1, 2, 3 and 4 were scored as present. Associations were expressed as relative risk ratios with corresponding 95% confidence intervals. A priori confounders added to all analyses were gender, age and whether or not the person was using antipsychotics (de Boer et al., 2015; Pulverman et al., 2018; DeLamater and Karraker, 2009).

Cox proportional hazard models, including hazard ratios (HR) and associated confidence intervals (CI), were performed to investigate the risk of developing a sexuality or intimacy need in people with and without a history of childhood trauma. Cox proportional hazard models were calculated for all types of childhood trauma that appeared related to sexuality and intimacy needs in the previous cross-sectional analyses. In these analyses, only participants with no sexuality or intimacy need at T0 were included in order to calculate the incidence of new needs.

Needs persistence was defined as a continuation of the rating of the need at the next assessment (i.e. from T0 to T1 or T1 to T2). In order to calculate the incidence of new needs, Cox regression showed that exposure to childhood sexual abuse increased the risk of sexuality needs (HR = 2.1, 95% CI: 1.23–3.74) and intimacy needs (HR = 1.7, 95% CI: 1.11–2.66). This means that participants with childhood sexual abuse were 2 times more likely to develop a sexuality need compared to participants who did not experience childhood sexual abuse. Those with childhood sexual abuse were numbers and percentages of all needs, met and unmet, at baseline. The most noteworthy is the ratio between the met and unmet needs in the field of sexuality and intimacy. Compared to the other categories, these needs had the highest proportion of unmet needs. The percentage of needs that was unmet was 90% for sexuality and 90% for intimacy needs. The percentage of needs that was unmet for the other categories ranged between 2% (food) and 63% (company) with an average of 43%.

3. Results

3.1. Participants

Tables 1a and 1b show the socio-demographic characteristics of the sample. At T2, 811 patients participated, at T3 follow-up 662 patients. Given missing data, a Little MCAR test was performed (Little, 1988) which indicated that data were missing completely at random ($\chi^2 = 0.11, p = .74$).

3.2. Prevalence of childhood sexual abuse

Sexual abuse was reported by 25% of the sample. Women were more likely to report sexual abuse (35%) compared to men (21%).

3.2.1. Prevalence of needs

At T0, 26% of the participants reported a sexual need. Intimacy needs were present in 40% of the participants. At T1, the prevalence of sexuality needs was 16% and 35% for intimacy needs. At T2, 15% reported a sexuality need and 33% an intimacy need. Table 2 shows the

<table>
<thead>
<tr>
<th>N</th>
<th>T0</th>
<th>T1</th>
<th>T2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographics</td>
<td>1119</td>
<td>811</td>
<td>662</td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td>852</td>
<td>623</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>267</td>
<td>188</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest</td>
<td>50</td>
<td>76.1</td>
<td>76.8</td>
</tr>
<tr>
<td>Lowest</td>
<td>16</td>
<td>23.9</td>
<td>23.2</td>
</tr>
<tr>
<td>Mean</td>
<td>27.6</td>
<td>30.6</td>
<td>33.6</td>
</tr>
<tr>
<td>Ethnic status</td>
<td>Minority</td>
<td>215</td>
<td>19.2</td>
</tr>
<tr>
<td></td>
<td>White</td>
<td>830</td>
<td>74.3</td>
</tr>
<tr>
<td>Marital status</td>
<td>Missing</td>
<td>74</td>
<td>6.4</td>
</tr>
<tr>
<td></td>
<td>Not married</td>
<td>950</td>
<td>85</td>
</tr>
<tr>
<td>Education</td>
<td>No</td>
<td>7</td>
<td>0.6</td>
</tr>
<tr>
<td></td>
<td>education</td>
<td>144</td>
<td>12.9</td>
</tr>
<tr>
<td></td>
<td>Primary</td>
<td>341</td>
<td>29.6</td>
</tr>
<tr>
<td></td>
<td>school</td>
<td>270</td>
<td>22.4</td>
</tr>
<tr>
<td></td>
<td>Secondary school</td>
<td>281</td>
<td>25.2</td>
</tr>
<tr>
<td></td>
<td>Highschool</td>
<td>43</td>
<td>3.8</td>
</tr>
<tr>
<td></td>
<td>University</td>
<td>31</td>
<td>2.8</td>
</tr>
</tbody>
</table>

| Other relevant variables | IQ       | 96.1     | 99.2     | 101.7    |
|                         | Duration of illness (years) | 5        | 8.1      | 11.6     |
| Medication               | Currently | 1        | 0.1      | 571      |
|                         | using     | .        | .        | 37       |
|                         | Not using | 1116     | 99.9     | 203      |
| Childbirth               | Yes       | 185      | 16.6     | 176      |
| sexual abuse             | No        | 565      | 50.5     | 509      |
|                         | Missing   | 367      | 32.9     | 135      |

3.3. Cross-sectional relationships

A logistic regression showed that CSA was associated with sexuality needs ($OR = 1.68, 95% CI: 1.13-2.04$) and intimacy needs ($OR = 1.75, 95% CI: 1.04-1.77$). Childhood emotional abuse (CEA) was also associated with sexuality ($OR = 1.68, 95% CI: 1.16-1.98$) and intimacy needs ($OR = 1.75, 95% CI: 1.08-1.72$). Physical abuse, physical neglect and emotional neglect were not associated with either sexuality or intimacy needs.

3.4. Incidence

Cox regression showed that exposure to childhood sexual abuse increased the risk of sexuality needs ($HR = 2.1, 95% CI: 1.23–3.74$) and intimacy needs ($HR = 1.7, 95% CI: 1.11–2.66$). This means that participants with childhood sexual abuse were 2 times more likely to develop a sexuality need compared to participants who did not experience childhood sexual abuse. Those with childhood sexual abuse were
1.7 times more likely to develop an intimacy need. Childhood emotional abuse also increased the risk of developing sexuality needs (HR = 1.7, 95% CI: 1.11–2.89) and intimacy needs (HR = 1.4, 95% CI: 1.03–1.96).

### 3.5. Persistence

Results from the Poisson regression indicated no associations between childhood sexual abuse and the persistence of either sexuality needs (IRR = 0.91, 95% CI: 0.50–1.69), or intimacy needs (IRR = 1.05, 95% CI: 0.74–1.48). Similarly, there was no association between childhood emotional abuse and the persistence of either sexuality (IRR = 1.12, 95% CI: 0.64–1.93) or intimacy needs (IRR = 0.88, 95% CI: 0.65–1.19).

### 4. Discussion

The current study is one of the first exploring the impact of childhood trauma, and more specifically childhood sexual abuse, on sexuality and intimacy needs in adulthood among people with psychotic disorder over time. Childhood sexual abuse was experienced by 25% of the participants. This number is largely in line with earlier findings (Turner et al. (2019)). The prevalence of sexuality and intimacy needs at baseline was 26%, and 40%, respectively. In line with current findings, Bengtsson-Tops and Hansson (1999) found among 120 people with a diagnosis of schizophrenia in Sweden that, using the CAN, 33% had a sexuality need and 40% an intimacy need.

Emotional and sexual abuse were cross-sectionally associated with sexuality and intimacy needs during the 6-year time frame of this study whereas physical abuse and forms of neglect did not appear to be associated with sexuality and intimacy needs. Further analysis showed that the risk of developing a sexuality or intimacy need was higher when patients had been exposed to childhood sexual abuse. Emotional abuse also increased this risk.

Of all the sexuality and intimacy needs that were present, only 10% were met. None of the other needs remained unmet to this degree. The numbers were even higher than those reported by Wiersma and van Busschbach (2001). Among their sample of people with severe mental illness, 73% of the sexuality needs and 50% of the intimacy needs were unmet.

The results suggest that a large proportion of people with psychosis have unmet needs in the areas of sexuality and intimacy. Clinicians may be insufficiently aware and responsive to these needs. This might be the result of the taboo still surrounding sexuality and intimacy in most societies. (Voermans et al., 2012) handed out 176 questionnaires among mental health professionals about talking to patients about sexuality. It appeared that mental health professionals felt shame when initiating a conversation on sexuality and felt incompetent to do so. These findings are in line with the results of a similar study of similar size conducted in the USA (Magnan Morris, 2005). Research also shows that mental health professionals often assume that a discussion about sex is irrelevant because they think that people with a severe mental illness are unlikely to form a relationship (Ford Elizabeth, 2003). As a consequence, mental health professionals are likely to wait for the patient to initiate the topic, while patients often report being too shy to bring up the topic themselves (Katz, 2009). Another issue that might play a role in the large number of unmet needs, is the fact that there is a scarcity of specific

### Table 1b

<table>
<thead>
<tr>
<th>Demographics</th>
<th>Sexual abuse</th>
<th>No sexual abuse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Count (%)</td>
<td>Count (%)</td>
</tr>
<tr>
<td>Female</td>
<td>66</td>
<td>35</td>
</tr>
<tr>
<td>Male</td>
<td>119</td>
<td>21</td>
</tr>
<tr>
<td>Year of birth</td>
<td>1978</td>
<td>209</td>
</tr>
<tr>
<td>Ethnic minority status</td>
<td>41</td>
<td>23</td>
</tr>
<tr>
<td>White</td>
<td>136</td>
<td>77</td>
</tr>
<tr>
<td>Current marital status</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Married/living together</td>
<td>121</td>
<td>99</td>
</tr>
<tr>
<td>Education</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Primary school</td>
<td>21</td>
<td>11</td>
</tr>
<tr>
<td>Secondary</td>
<td>56</td>
<td>30</td>
</tr>
<tr>
<td>Highschool</td>
<td>54</td>
<td>29</td>
</tr>
<tr>
<td>Vocational</td>
<td>42</td>
<td>23</td>
</tr>
<tr>
<td>University</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>Other relevant variables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cannabis use</td>
<td>No</td>
<td>92</td>
</tr>
<tr>
<td>Mean IQ</td>
<td>96</td>
<td>98</td>
</tr>
<tr>
<td>Mean duration of illness (years)</td>
<td>6.3</td>
<td>5.2</td>
</tr>
<tr>
<td>Medication*</td>
<td>Currently using</td>
<td>122</td>
</tr>
<tr>
<td>Not using</td>
<td>7</td>
<td>5</td>
</tr>
</tbody>
</table>

* Based on T2.

### Table 2

<table>
<thead>
<tr>
<th>Category of needs</th>
<th>No need (%)</th>
<th>Met need (%)</th>
<th>Unmet need (%)</th>
<th>Missing need (%)</th>
<th>% of needs that was unmet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food</td>
<td>706</td>
<td>211</td>
<td>55 (5.7)</td>
<td>147</td>
<td>2.3</td>
</tr>
<tr>
<td>Housing</td>
<td>697</td>
<td>209</td>
<td>78 (7.9)</td>
<td>135</td>
<td>3.2</td>
</tr>
<tr>
<td>Household</td>
<td>589</td>
<td>263</td>
<td>62 (6.8)</td>
<td>205</td>
<td>18.5</td>
</tr>
<tr>
<td>Safety to others</td>
<td>862</td>
<td>98 (9.9)</td>
<td>29 (2.9)</td>
<td>130</td>
<td>22.8</td>
</tr>
<tr>
<td>Safety to self</td>
<td>844</td>
<td>115</td>
<td>35 (3.5)</td>
<td>125</td>
<td>23.3</td>
</tr>
<tr>
<td>Information on condition and treatment</td>
<td>561</td>
<td>310</td>
<td>107</td>
<td>141</td>
<td>25.7</td>
</tr>
<tr>
<td>Child care</td>
<td>814</td>
<td>19 (2.3)</td>
<td>7 (0.8)</td>
<td>279</td>
<td>26.9</td>
</tr>
<tr>
<td>Social life</td>
<td>691</td>
<td>180</td>
<td>82 (8.6)</td>
<td>166</td>
<td>31.2</td>
</tr>
<tr>
<td>Money</td>
<td>638</td>
<td>224</td>
<td>103</td>
<td>154</td>
<td>31.5</td>
</tr>
<tr>
<td>Transport</td>
<td>914</td>
<td>44 (4.5)</td>
<td>26 (2.6)</td>
<td>135</td>
<td>37.1</td>
</tr>
<tr>
<td>Psychological distress</td>
<td>343</td>
<td>385</td>
<td>254</td>
<td>137</td>
<td>39.7</td>
</tr>
<tr>
<td>Psychotic symptoms</td>
<td>125</td>
<td>504</td>
<td>355</td>
<td>135</td>
<td>41.3</td>
</tr>
<tr>
<td>Alcohol</td>
<td>838</td>
<td>84 (8.6)</td>
<td>60 (6.1)</td>
<td>137</td>
<td>41.7</td>
</tr>
<tr>
<td>Physical health</td>
<td>787</td>
<td>107</td>
<td>86 (8.8)</td>
<td>139</td>
<td>44.6</td>
</tr>
<tr>
<td>Hygiene</td>
<td>856</td>
<td>91 (9.2)</td>
<td>43 (4.3)</td>
<td>129</td>
<td>47</td>
</tr>
<tr>
<td>Education</td>
<td>890</td>
<td>42 (4.3)</td>
<td>45 (4.6)</td>
<td>142</td>
<td>51.7</td>
</tr>
<tr>
<td>Payed work</td>
<td>434</td>
<td>243</td>
<td>271</td>
<td>171</td>
<td>52.7</td>
</tr>
<tr>
<td>Telephone</td>
<td>971</td>
<td>6 (0.6)</td>
<td>7 (0.7)</td>
<td>135</td>
<td>53.8</td>
</tr>
<tr>
<td>Activities</td>
<td>418</td>
<td>261</td>
<td>304</td>
<td>136</td>
<td>53.8</td>
</tr>
<tr>
<td>Drugs</td>
<td>715</td>
<td>122</td>
<td>148 (15)</td>
<td>134</td>
<td>54.8</td>
</tr>
<tr>
<td>Side effects of medication</td>
<td>519</td>
<td>199</td>
<td>248</td>
<td>153</td>
<td>55.5</td>
</tr>
<tr>
<td>Company</td>
<td>514</td>
<td>169</td>
<td>287</td>
<td>149</td>
<td>62.9</td>
</tr>
<tr>
<td>Sexual expression</td>
<td>642</td>
<td>23 (2.7)</td>
<td>199 (23)</td>
<td>255</td>
<td>89.6</td>
</tr>
<tr>
<td>Intimate relationships</td>
<td>561</td>
<td>37 (4)</td>
<td>335</td>
<td>186</td>
<td>90.1</td>
</tr>
</tbody>
</table>

---

*Table 2: Percentages of no needs, met needs and unmet needs at T1, per need category.*
such as antipsychotic medication. More frequent measurement mo
tions would have allowed to more effectively isolate variable associa-
tions. Secondly, to asses incidence, only those without a sexuality or
intimacy need at T0 were included. Those who already developed a
sexuality or intimacy need at T0 were excluded from this particular
analysis. It could be argued that this selection would have resulted in a
‘healthier’ subsample for incidence analysis, which may have led to an un-
derestimation of the impact of childhood sexual trauma of sexuality
and intimacy needs. Future studies should use a longitudinal design
starting from the incidence of childhood trauma to avoid this issue.
Third, it is important to note that the data used for this study was
gathered between 2005 and 2013. The last decade however, the re-
covery framework, which put a strong emphasis on the client as a whole,
has received more attention. With the advent of this framework, more
attention towards quality of life in all aspects may have ensued,
including sexuality and intimacy. In other words, replication in the
current era of psychiatry is required. Nevertheless, other studies using
more recent data have reached similar conclusions regarding the posi-
tion of sexuality and intimacy in mental health care (Cloutier et al.,
2020; McCann et al., 2019). Lastly, sexuality and intimacy needs were
analyzed quantitatively, but not explored qualitatively. It therefore re-
mains unclear what these needs really represent in the lives of patients.
Other studies have explored the content of sexuality and intimacy needs of
people with psychosis more extensively. Some examples of these needs are:
the desire to find a partner and develop the skills required to
functions as an outcome measure in studies focusing on the treatment of
PTSD in people with severe mental illness. Since PTSD may play a role
in the onset of sexual problems (and needs), it may be hypothesized that
sexual functioning will concurrently improve as an outcome of suc-
cessful PTSD treatment (Schnurr et al., 2009).

Future research should also focus on other factors that might affect
sexuality and intimacy needs in people with severe mental illness so that
the research community may gain more knowledge on which underlying
concepts play a part. For example, even though there is no evidence
suggesting that sexuality and intimacy needs differ between in- and
outpatient, it could be argued that barriers towards sexuality and in-
timacy may be higher among inpatients. This difference should be
incorporated in future studies. With this, the development and testing of
interventions that address sexuality and intimacy issues in clinical
practice may come closer. A recent development in this field is a CBT-
based module focusing on socio-romantic skills for men with psychosis
(Hache-Labelle et al., 2020). Including the concept of needs in inter-
vension studies may represent a valuable avenue. Peer support groups as
well as skills training trauma focused treatment or stigma interventions
may prove effective in reducing the high rate of unmet needs.

Twitter

Needs for care concerning sexuality and intimacy are prevalent in
people with psychosis. 90% of these needs remains unmet. Childhood
sexual and emotional abuse increase the incidence of these sexuality and
intimacy needs in patients with psychosis.

Funding

The infrastructure for the GROUP study is funded through the
Geestkracht programme of the Dutch Health Research Council (Zon-Mw,
grant number 10-000-1001), and matching funds from participating
pharmaceutical companies (Lundbeck, AstraZeneca, Eli Lilly, Janssen
Cilag) and universities and mental health care organizations (Amster-
dam: Academic Psychiatric Centre of the Academic Medical Center and
the mental health institutions: GGZ Ingeest, Arkin, Dijk en Duin, GGZ
Rivierduinen, Erasmus Medical Centre, GGZ Noord Holland Noord.
Groningen: University Medical Center Groningen and the mental health
institutions: Lentis, GGZ Friesland, GGZ Drenthe, Dimence, Mediant,
GGNet Warnsveld, Yulius Dordrecht and Parnassia psycho-medical
center The Hague. Maastricht: Maastricht University Medical Centre
and the mental health institutions: GGzE, GGZ Breburg, GGZ Oost-Bra-
bant, Vincent van Gogh voor Geestelijke Gezondheid, Mondriaan, Vir-
enze riagg, Zuyderland GGZ, MET ggz, Universair Centrum Sint-Jozef
Kortenberg, CAPRI University of Antwerp, PC Ziekeren Sint-Truiden, PZ
Sancta Maria Sint-Truiden, GGZ Overpelt, OPZ Rekem. Utrecht: Uni-
versity Medical Center Utrecht and the mental health institutions
Altrecht, GGZ Centraal and Delta).

Declaration of competing interest

All authors declare that there is no financial or personal relationships
with other people or organizations that could inappropriately influence
(bias) the work.

Acknowledgements

All contributors meet the criteria for authorship.

We are grateful for the generosity of time and effort by the patients,
their families and healthy subjects. Furthermore, we would like to thank
all research personnel involved in the GROUP project, in particular:
Joyce van Baaren, Erwin Veermans, Ger Driessen, Truda Driesen, Erna
van’t Hag.
References


Jose de Jager is a licensed clinical psychologist and cognitive behavioral therapist who combines clinical work in Flexible Assertive Community Outreach (FACT) teams with research focusing on the recovery of people with SMI. He has a background in psychology and medical anthropology and teaches in the postdoctoral education for health care psychologists.

Maurice Topper (Ph.D.) works as a licensed health care psychologist and researcher for a mental health institution in the Netherlands (GGZ-Noord-Holland-Noord). He has a background in clinical psychology and methodology. His dissertation focused on a preventive intervention that aims to prevent the development of depression and anxiety disorders by targeting excessive worry and rumination in adolescents and young adults (Mindresolve). Recently, he collaborated on a number of randomized controlled trials, questionnaire validation of transdiagnostic processes such as experiential avoidance, and a school-based prevention program for anxiety disorders and the promotion of prosocial behavior through jujitsu.

Annet Nugter is head of the research department of the mental health care organization GGZ Noord-Holland-Noord in the Netherlands. She has a background as psychologist and is a senior researcher in psychiatry. Clients with recent onset schizophrenia and their parents formed the subject of her PhD. As senior researcher she is involved as a supervisor of several research projects in mental health care that concern clients with severe mental illness, like schizophrenia. In addition, she is an expert on the subject of routine outcome monitoring.
Jim van Os is Professor of Psychiatric Epidemiology and Public Mental Health, Head of Division Neuroscience, Utrecht University Medical Centre, Utrecht, The Netherlands. He is also a visiting professor at King's College London, Department of Psychosis Studies. He has a background in Epidemiology and Psychiatry. He was member of the Psychosis Group of the DSM-5 Task Force. In his clinical area of psychiatric epidemiology and public mental health, he is part of an international movement overseeing extensive pilots of recovery-based and e/ mHealth-based disruptive mental health service transformation in the Netherlands and elsewhere in the world.