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Psychopathology and Quality of Life in Children of Mentally Ill Parents

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1. Introduction

Children of mentally ill parents are considered a high-risk population for the development of psychological disorders although the reported rates of affected children vary between studies. Whether or not a child will develop a mental illness himself depends on risk factors as well as protective factors. This chapter presents findings concerning the mental health status and the quality of life in children of mentally ill parents (N = 86). The results reveal an increased relative risk to develop psychopathological symptoms being 3 to 7 times higher than in children of the general population. At the same time, the quality of life in children with a mentally ill parent is substantially decreased. The psychological disturbances of the children are associated with the parents’ perceived impairments caused by their mental illness. The results support the need for prevention programs for this special group of children.

2. Psychopathology in children of mentally ill parents

Children of mentally ill parents represent a high-risk population for the development of psychiatric disorders (Ramchandani & Psychogiou, 2009). The majority of studies examined the mental health status of children with a parent suffering from depression. The results reveal an increased symptomatology being 3 to 4 times higher compared to control samples (Weissman, Fendrich, Warner & Wickramaratne, 1992, 2005; Fergusson, Lyskey & Horwood, 1993; Gelfand & Teti, 1990). A study with children of parents suffering from diverse psychiatric disorders indicates a three- to sevenfold rate of psychopathology compared to the general population (Wiegand-Grefe, Geers, Plass, Petermann & Riedesser, 2009). Due to the psychiatric illness, psycho-social risk factors accumulate and determine each other (Mattejet, Lenz & Wiegand-Grefe 2011). Financial problems, resulting from an illness-related job loss, for example, constitute an additional burden on the family. In addition, the parent-child-interaction is often impaired, being highly associated with mental health problems in the children and a decreased quality of life. These risk configurations do not directly lead to developmental problems and psychiatric disturbances in the children, but rather interact with the children’s vulnerability and resilience (Noeker & Petermann, 2008). The term resilience characterizes a hardness against extreme stresses and straints that
may emerge within the children’s environments. Resilient children overcome the sometimes potential traumatic conditions in a compensatory manner that allows them to surmount the adversities, displaying a healthy psychological functioning in the long term. Resilient children exhibit a balanced temper, high self-esteem, active coping mechanisms, good problem solving skills and an effective and competent social behavior. They have a secure attachment to at least one attachment figure and exhibit a clear value orientation (Noeker & Petermann, 2008). Resilient children are also very capable of showing empathy and expressing their own emotional states (Lenz & Kuhn, 2011). Which moderating factors can foster the children’s mental health despite adverse living conditions is a central question for the development of effective prevention programs. In families with a mentally ill parent, the parental style of coping with the illness as well as reliable family relations are considered to be crucial protective factors for the children’s development (Wiegand-Grefe et al., 2010a; Wiegand-Grefe, Halverscheid & Plass, 2011).

3. Quality of life in children of mentally ill parents

To date, little research has been conducted to assess the quality of life in children of mentally ill parents (Wiegand-Grefe et al. 2010b; Bullinger, 2011). Research in this area focuses rather on children’s and adolescents’ own somatic or psychiatric illness (Ravens-Sieberer & Bullinger, 1998; Ravens-Sieberer et al. 2006, 2008; Bullinger et al., 2008; Mattejat et al. 2005). Studies have shown that mentally ill children have a lower health-related quality of life (HRQL) than healthy or somatically ill children (Mattejat & Remschmidt, 2003; Ravens-Sieberer et al., 2008). In several Australian cities, N = 3597 children at the age of 6-17 years were assessed in their quality of life (Sawyer et al., 2002). The sample consisted of three psychiatric subsamples (ADHD, major depression and conduct disorder), two groups of children with physical illnesses, and a healthy control group of children. All children were assessed through parental evaluations. Children with mental health problems had decreased levels of quality of life in comparison to healthy children. In four out of five scales, they also displayed poorer rates in quality of life compared to the children with physical illnesses.

In a study with depressive and healthy children, aged 7 to 15 years, HRQL proved to be higher in healthy children (N = 1695) than in children suffering from depression (N = 248) (Kiss et al., 2009). In relation to the children’s self-evaluations, maternal ratings of HRQL in depressive children was lower than in the children’s self-assessments, while mothers of healthy children came up with a higher estimation of HRQL than the children themselves. The children's age and gender had no influence on the agreement between self-assessments and maternal ratings, neither was the mother’s level of education influential.

In the representative German BELLA study with N = 1843 children and adolescents, adolescents with eating disorders showed lower HRQL scores than adolescents with normal eating habits (Herpertz-Dahlmann et al., 2008). In a Dutch study, therapists rated the quality of life of 310 children and adolescents, aged 6 to 18 years, who were either healthy or suffered from one of five different psychiatric disorders (ADHD, anxiety disorders, pervasive developmental disorders, affective disorders or other diagnoses). Overall, children with pervasive developmental disorders were assessed to have the lowest HRQL (Bastiaansen et al., 2004).

Another study conducted by the Dutch research group assessed how quality of life changes relative to fluctuations in psychopathology. It was hypothesized that HRQL can increase
even when the severity of psychopathological symptoms does not change (Bastiaansen et al., 2005a). Thirty-three percent of the 126 children and adolescents aged 7 to 19 years showed improved rates in psychopathology as well as in their quality of life, 28% improved in either one of the two areas, while 38% of the children revealed no changes in both areas. However, 11% of the children and adolescents showed increased rates in their HRQL within the given time frame, while the severity of their psychopathology did not change. Thus, psychotherapy should aim at improving patients’ quality of life even though symptom reduction might not be possible.

In an outpatient-study, various factors besides psychopathology were assessed in their impact on the quality of life in 252 children and adolescents with mental health problems (Bastiaansen et al., 2005b). Within the examined child-related factors, decreased quality of life was associated with low self-esteem, poor social skills and comorbid somatic illnesses. Regarding the parent-related factors, maternal psychopathology and stress were linked with low HRQL in the children. In respect to environmental factors, a slight association between decreased quality of life was found in combination with a low socioeconomic status, little social support, poor family functioning, and stressful life events. The authors conclude that the treatment of psychological disturbances should be complemented by enhancing social competence, self-esteem, family functioning and social support.

Children who experience mental illnesses in their family are exposed to various stressors that are likely to influence their quality of life (Wiegand-Grefe et al., 2010b). Several studies of our work group document reduced levels of HRQL in affected children in contrast to comparative samples (Pollak et al., 2008; Jeske et al., 2009). Studies showed also relationships between children’s HRQL and parental coping mechanisms (Jeske et al., 2009), family functioning (Pollak et al., 2008; Jeske et al., 2010) and parental attachment styles (Jeske et al., 2011).

This chapter presents the results of several studies examining psychopathology and quality of life in children of mentally ill parents. It is expected that the children are assessed by their parents to deal with more emotional and behavioral problems, the higher the parental subjective impairment is. It is also presumed that the quality of life in children of mentally ill parents is significantly lower than in children of the general population. Furthermore, it is expected that the HRQL is decreased with growing severity of parental symptomatology and that children’s quality of life is reduced when the children suffer from emotional and behavioral problems themselves.

4. Study design

In a 9-month pilot study conducted within the project “CHIMPs – Children of mentally ill parents” at the University Medical Center Hamburg-Eppendorf, Germany, all patients referred to the Clinic of Psychiatry and Psychotherapy were registered from August 2005 to May 2006. For all patients, age, sex and diagnoses were recorded. Patients with minor children were examined further when they fulfilled the following inclusion criteria: aged 18-60 years, having at least one minor child between 0-18 years, receiving stationary treatment for at least five days, being sufficiently fluent in German language and giving informed consent for participating in the study. Exclusion criteria were: previous participation in the study in case of repeated hospitalization, a short duration of stationary treatment less than five days, and severe psychiatric or cognitive impairments. The patients were asked to answer questionnaires about their own mental health status and their children’s situation.
When having several children, parents were asked to give only information on one randomly selected child in order to ensure the independence of observations.

5. Sample

Overall, 964 patients were registered. Among this sample, 167 (17%) patients had at least one minor child. Further 558 patients had no children (58%), 104 patients had grown-up children above 18 years (11%) and 135 patients were older than 60 years (14%). Out of these 167 parents, 42 (25%) were not willing to participate in the study and further 39 parents (23%) did not fulfill the inclusion criteria or had to be excluded from data analysis due to a large number of missing data. Overall, N = 86 parents answered the standardized questionnaires about the children’s health-related quality of life, while a reduced number of N = 67 parents assessed the mental health status of their children.

The sample consists of 43 fathers and 43 mothers, aged between 23 and 59 years (M = 41 years, SD = 7.9). Forty-four patients are married (51%), 19 parents are single or divorced (22%) and one parent is widowed (1%). The most frequent school leaving certificate is a graduation from senior high-school (41%), followed by graduations from intermediate secondary school (31%) and secondary general school (20%). Two parents are without school degree, 2 parents have another school leaving certificate. Regarding the qualifications, vocational trainings (39%) and University degrees (24%) are the most prevalent qualifications, 15% of the parents have no further qualification, 7% hold another qualification. Thirty-one percent are white-collar employees, 20% blue-collar workers, 16% homemakers, 12% self-employed, 3% retired, and 2% each are students or trainees.

Fifty-five parents (63%) live together with their child, the remaining 31 patients (36%) do not live with their children but have frequent contact to them (at least every two weeks). Here, a striking gender-specific effect can be observed: while 88% of the psychiatrically ill mothers live together with their children, only 53% of the fathers do so ($\chi^2 = 9.46, p = 0.002$). The children who are not living with their mentally ill parent live either with the other parent (N = 21, 68%), with relatives (N = 2, 6%), in foster- or adoption families (N = 2, 6%), in institutional care (N = 3, 10%) or in their own apartment. The examined children are aged between 4 to 18 years (M = 11 years, SD = 4.49), the distribution of boys and girls is equally balanced (50% each).

As primary diagnosis according ICD-10 (WHO, 2000), 27 patients (32%) are diagnosed with an affective disorder, 23 parents (26%) suffer from either anxiety disorders, an obsessive-compulsive disorder or PTSD, further 20 parents (23%) engage in substance abuse (mostly alcohol) and 14 patients (16%) are affected by schizophrenia. Two parents have a personality disorder (PD), namely a Borderline PD and an emotional-instable PD. Overall, 61% of the here examined parents have a comorbid psychiatric diagnosis.

6. Measurements

The mentally ill parents were asked to which extent they feel impaired by their illness through the German version of the Symptom-Checklist-14-R (SCL-14-R, Prinz et al., 2008). This self-report constitutes a short version of the SCL-90-R (Franke, 1995) and is used as a measure of general psychiatric symptomatology. It comprises 14 items on a 5-point Likert Scale, indicating the degree of symptomatology in the last seven days (not at all (0), a little...
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bit (1), moderately (2), quite a bit (3), extremely (4)). The SCL-14-R includes three subscales: Depressiveness, Somatoform Complaints and Phobic Anxiety. The total score is measured with the Global Severity Index (GSI). The GSI has proven to be a good indicator for the actual symptom severity.

The psychiatric diagnoses of the parents were given by the attending psychiatrists in accordance with the diagnostic criteria of the ICD-10 (WHO, 2005).

For the assessment of emotional and behavioral problems in the children and adolescents, parents were administered the Child Behavior Checklist/4-18 (Working Group German Child Behavior Checklist, 1994). On the CBCL, parents rate their children on 113 specific problem items using a 3-point scale (not true (0), somewhat/sometimes true (1), very/often true (2)). The resulting scales comprise a total problem score, two broadband scores (internalizing and externalizing problems) and eight syndrome scales (social withdrawal, somatic complaints, anxious/depressed, social problems, thought problems, attention problems, delinquent behavior, aggressive behavior).

The health-related quality of life of the children and adolescents was assessed by their parents with the KINDL\textsuperscript{R} questionnaire (Ravens-Sieberer & Bullinger, 2000). The KINDL\textsuperscript{R} comprehends 24 items on a 5-point Likert scale. The resulting subscales are: physical well-being, emotional well-being, self-esteem, family, friends, and everyday functioning (school or nursery/kindergarten). Psychometric results revealed a high degree of reliability (Cronbach’s a ≥ 0.70 for most of the sub-scales and samples) and a satisfactory convergent validity.

7. Results

7.1 Parents’ subjective impairment by the mental illness

All parents indicate to feel at least “a little bit” impaired by their illness. The Global Severity Index (GSI) lies around M = 1.7 (SD = 0.79). While “depressiveness” represents the greatest impact for the patients, phobic anxiety influences the here examined parents to a lesser degree. In comparison to the clinical norm sample (Prinz et al., 2008), the mentally ill parents display higher mean values on all scales, reaching significant differences in t-tests on the GSI, “depressiveness” and “phobic anxiety”. On the scale “somatization”, the parents differ only in comparison to the general population (Geers, 2006).

<table>
<thead>
<tr>
<th>SCL-14-R Scales</th>
<th>Study Sample</th>
<th>Comparative clinical sample</th>
<th>General population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Symptom Severity Index (GSI)</td>
<td>M 1.66 SD 0.79</td>
<td>M 1.15 SD 0.77</td>
<td># #</td>
</tr>
<tr>
<td>Depressiveness</td>
<td>M 2.26 SD 1.05</td>
<td>M 1.49 SD 1.05</td>
<td>M 0.45 SD 0.58</td>
</tr>
<tr>
<td>Somatoform Complaints</td>
<td>M 1.38 SD 1.07</td>
<td>M 1.20 SD 1.01</td>
<td>M 0.46 SD 0.63</td>
</tr>
<tr>
<td>Phobic Anxiety</td>
<td>M 1.05 SD 1.13</td>
<td>M 0.59 SD 0.88</td>
<td>M 0.17 SD 0.39</td>
</tr>
</tbody>
</table>

Table 1. SCL-14-R values of the study sample (N=62), a comparative clinical sample and a representative sample of the general population (from Wiegand-Grefé, Geers, Plass, Petermann & Riedesser, 2009).

Annotation: M = mean value, SD = standard deviation, # = not specified.
7.2 Psychopathology in children of mentally ill parents
The children’s emotional and behavioral problems, assessed through the CBCL scales, are
listed in table 2 as T-values, taking age- and gender-specific aspects of emotional and
behavioral development into account.

<table>
<thead>
<tr>
<th>CBCL Scales</th>
<th>M</th>
<th>SD</th>
<th>Minimum</th>
<th>Maximum</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Withdrawal</td>
<td>58.11</td>
<td>9.08</td>
<td>50</td>
<td>88</td>
<td>61</td>
</tr>
<tr>
<td>Somatic Complaints</td>
<td>57.62</td>
<td>9.32</td>
<td>50</td>
<td>81</td>
<td>60</td>
</tr>
<tr>
<td>Anxious/Depressed</td>
<td>58.90</td>
<td>9.17</td>
<td>50</td>
<td>83</td>
<td>60</td>
</tr>
<tr>
<td>Social Problems</td>
<td>58.00</td>
<td>8.29</td>
<td>50</td>
<td>84</td>
<td>58</td>
</tr>
<tr>
<td>Thought Problems</td>
<td>56.37</td>
<td>9.36</td>
<td>50</td>
<td>80</td>
<td>60</td>
</tr>
<tr>
<td>Attention Problems</td>
<td>58.90</td>
<td>8.98</td>
<td>50</td>
<td>83</td>
<td>60</td>
</tr>
<tr>
<td>Delinquent Behavior</td>
<td>57.33</td>
<td>6.95</td>
<td>50</td>
<td>75</td>
<td>61</td>
</tr>
<tr>
<td>Aggressive Behavior</td>
<td>59.31</td>
<td>9.68</td>
<td>50</td>
<td>95</td>
<td>62</td>
</tr>
<tr>
<td>Internalizing Problems</td>
<td>57.33</td>
<td>11.83</td>
<td>38</td>
<td>82</td>
<td>61</td>
</tr>
<tr>
<td>Externalizing Problems</td>
<td>57.58</td>
<td>10.42</td>
<td>35</td>
<td>84</td>
<td>62</td>
</tr>
<tr>
<td>Total</td>
<td>58.92</td>
<td>11.47</td>
<td>38</td>
<td>86</td>
<td>61</td>
</tr>
</tbody>
</table>

Table 2. Distribution of T-Values of the CBCL subscales and main scales (N=62) (from
Wiegand-Grefe et al., 2009). Annotation: M = mean value, SD = standard deviation,
N = sample size.

In order to assess how many children display psychological problems in the clinical (T ≥ 64),
subclinical (T between 60-63) or normal range (T ≤ 59), the T-scores have been categorized
accordingly. On the syndrome scales, 14 % of the children and adolescents are seen to have
somatic complaints, 13 % suffer from clinical or subclinical levels of anxiety and depression.
On the main CBCL scales, 31 % of the parents report internalizing problems and further 9 %
see subclinical internalizing problems. Regarding externalizing problems, 29 % of the
parents report behavioral problems in the clinical range, another 16 % see externalizing
symptomatology in the subclinical range. Overall, 40 % of the parents report at least
subclinical problems in the internalizing domain, and 45 % of the parents see externalizing
behavior to an at least subclinical degree. Considering the total problem score, 52 % of the
children are rated to lie within the normal range of emotional and behavioral difficulties,
while 32 % are seen to display subclinical symptoms and 14 % to exhibit clinically relevant
symptomatology. Sixty-six percent of the examined children are reported not to display any
clinically relevant symptoms on the syndrome scales. The remaining 32 % of children and
adolescents suffer from clinically relevant symptoms on at least one dimension measured by
the CBCL.

When comparing the relative frequencies of children of mentally ill parents, lying in the
subclinical or clinical range on the CBCL syndrome scales, with those of the general child
population (with the top 5 % constituting the subclinical range, and the top 2 % defining the
clinical range), it can be stated that on all syndrome scales, children of mentally ill parents
display 1.5- to 7-times heightened rates of clinically relevant symptomatology (table 3). It is
striking that the children are especially prone to suffer from somatic symptoms (relative
risk, RR = 7.26). Besides, they have a 6-fold risk to display thought and attention problems
(RR = 6.45) and are five times more likely to engage in social withdrawal in comparison to
the general child population (RR = 5.65).

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CBCL Subscales

<table>
<thead>
<tr>
<th>CBCL Subscales</th>
<th>Subclinical and clinical range</th>
<th>Clinical range</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reference value in the general population: 5 %</td>
<td>Reference value in the general population: 2 %</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>relative risk</td>
</tr>
<tr>
<td>Social Withdrawal</td>
<td>16.13</td>
<td>3.23</td>
</tr>
<tr>
<td>Somatic Complaints</td>
<td>19.35</td>
<td>3.87</td>
</tr>
<tr>
<td>Anxious/Depressed</td>
<td>24.19</td>
<td>4.84</td>
</tr>
<tr>
<td>Social Problems</td>
<td>17.74</td>
<td>3.55</td>
</tr>
<tr>
<td>Thought Problems</td>
<td>20.97</td>
<td>4.19</td>
</tr>
<tr>
<td>Attention Problems</td>
<td>17.74</td>
<td>3.55</td>
</tr>
<tr>
<td>Delinquent Behavior</td>
<td>14.52</td>
<td>2.90</td>
</tr>
<tr>
<td>Aggressive Behavior</td>
<td>24.19</td>
<td>4.84</td>
</tr>
</tbody>
</table>

Table 3. Relative frequencies and relative risk in children of mentally ill parents (N = 62) displaying CBCL scores in the subclinical or clinical range in comparison with children of the general population lying in the clinical range (top 2 %) and subclinical/clinical range (top 5 %) (from Wiegand-Grefe et al., 2009).

7.3 Parents' subjective impairments and the psychological difficulties of their children

Since a positive linear association is expected between the parents’ subjective impairments and the children’s psychopathology, SCL-14-R and CBCL scale values are correlated (table 4). Significant positive correlations exist between the parent’s global severity index (GSI), the SCL-14-R dimensions somatization and phobic anxiety, and all main scales of the CBCL. The correlative association between parental “somatization” and the children’s “internalizing problems” represents the highest association with \( r = .302 \) indicating a small to medium sized linkage between the variables. No association has been found between parental “depressiveness” and psychopathology in children.

<table>
<thead>
<tr>
<th>Mean Values of SCL-14-R-Scales</th>
<th>Internalizing CBCL-Scale (T-values)</th>
<th>Externalizing CBCL-Scale (T-values)</th>
<th>CBCL Total Score (T-values)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>r  .297 **</td>
<td>.275 *</td>
<td>.287 *</td>
</tr>
<tr>
<td></td>
<td>p  .100</td>
<td>.015 *</td>
<td>.012</td>
</tr>
<tr>
<td></td>
<td>N  61</td>
<td>62</td>
<td>61</td>
</tr>
<tr>
<td>Depressiveness</td>
<td>r  .204 *</td>
<td>.176</td>
<td>.182</td>
</tr>
<tr>
<td></td>
<td>p  .06</td>
<td>.09</td>
<td>.08</td>
</tr>
<tr>
<td></td>
<td>N  61</td>
<td>62</td>
<td>61</td>
</tr>
<tr>
<td>Somatoform Complaints</td>
<td>r  .302 **</td>
<td>.233</td>
<td>.264 *</td>
</tr>
<tr>
<td></td>
<td>p  .009</td>
<td>.03</td>
<td>.02</td>
</tr>
<tr>
<td></td>
<td>N  61</td>
<td>62</td>
<td>61</td>
</tr>
<tr>
<td>Phobic Anxiety</td>
<td>r  .221 *</td>
<td>.279 *</td>
<td>.299 *</td>
</tr>
<tr>
<td></td>
<td>p  .043</td>
<td>.014</td>
<td>.010</td>
</tr>
<tr>
<td></td>
<td>N  61</td>
<td>62</td>
<td>61</td>
</tr>
</tbody>
</table>

Table 4. Correlative association between the SCL-14-R-Scales and the main CBCL-Scales (N=62) (from Wiegand-Grefe et al., 2009). Annotation: \( r = \) Pearson product-moment correlation coefficient; \( \rho = \) Spearman rank correlation coefficient; \( p = \) level of significance; * \( p < .05 \); ** \( p < .01 \); \( N = \) sample size.

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7.4 Health-related quality of life in the children
The total score of the KINDL® was transformed with “0” indicating the poorest and “100” indicating the maximum value of health-related quality of life (HRQL). In the examined population of children of mentally ill parents, the total score of HRQL lies by 70.91 (SD = 12.88). The children’s overall score on the dimension physical well-being lies by 71.01 (SD = 18.64), the “emotional well-being” lies around 71.28 (SD = 18.55). The KINDL® subscales range between 67.50 on the lowest end (self-esteem, SD = 17.22) and 74.26 constituting the maximum value (friends, SD = 13.77). The scales family (M = 68.51, SD = 19.33) and school (M = 70.00, SD = 18.24) rank in between. In comparison to the reference sample of the general population, the here examined children of mentally ill parents display low values in the total HRQL-score that can be explained and specified by poor results on the scales emotional well-being, family and school (Jeske et al., 2010, Wiegand-Grefe et al., 2010). When comparing the ratings of mentally ill mothers and fathers, it can be stated that no differences were found in their assessment of the HRQL in their children.

7.5 Subjective parental impairment and quality of life in the children
Slight negative associations have been found between the subjective parental impairment, as measured by the SCL-14-R, and the children’s HRQL dimensions emotional well-being, self-esteem, family, school and the overall total score (table 5).

<table>
<thead>
<tr>
<th>Mean Values of SCL-14-R-Scales</th>
<th>KINDL® Total Score</th>
<th>Physical well-being</th>
<th>Emotional well-being</th>
<th>Self-esteem</th>
<th>Family</th>
<th>Friends</th>
<th>School</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Global Symptom Severity Index (GSI)</strong></td>
<td>r</td>
<td>ρ</td>
<td>p</td>
<td>r</td>
<td>ρ</td>
<td>p</td>
<td>r</td>
</tr>
<tr>
<td>Depressiveness</td>
<td>-.274</td>
<td>-.149</td>
<td>-.259</td>
<td>-.267</td>
<td>-.038</td>
<td>-.019</td>
<td>-.253</td>
</tr>
<tr>
<td>ρ</td>
<td>-.008**</td>
<td>.094</td>
<td>.048*</td>
<td>.012*</td>
<td>.009**</td>
<td>.373</td>
<td>.017*</td>
</tr>
<tr>
<td>N</td>
<td>77</td>
<td>80</td>
<td>79</td>
<td>75</td>
<td>78</td>
<td>76</td>
<td>70</td>
</tr>
<tr>
<td>Somatoform Complaints</td>
<td>-.261</td>
<td>-.179</td>
<td>-.160</td>
<td>-.289</td>
<td>-.027</td>
<td>-.019</td>
<td>-.305</td>
</tr>
<tr>
<td>ρ</td>
<td>-.006**</td>
<td>.059</td>
<td>.028*</td>
<td>.086</td>
<td>.005**</td>
<td>.408</td>
<td>.005**</td>
</tr>
<tr>
<td>N</td>
<td>77</td>
<td>80</td>
<td>79</td>
<td>75</td>
<td>75</td>
<td>76</td>
<td>70</td>
</tr>
<tr>
<td>Phobic Anxiety</td>
<td>-.261</td>
<td>-.169</td>
<td>-.325</td>
<td>-.248</td>
<td>-.207</td>
<td>-.135</td>
<td>-.133</td>
</tr>
<tr>
<td>ρ</td>
<td>.011*</td>
<td>.084</td>
<td>.002**</td>
<td>.014*</td>
<td>.337</td>
<td>.043*</td>
<td>.337</td>
</tr>
<tr>
<td>N</td>
<td>77</td>
<td>80</td>
<td>79</td>
<td>75</td>
<td>75</td>
<td>76</td>
<td>70</td>
</tr>
</tbody>
</table>

Table 5. Correlative association between SCL-14-R and KINDL® (N=62) (from Wiegand- Grefe et al. 2010). Annotation: r = Pearson product-moment correlation coefficient, ρ = Spearman rank correlation coefficient; p= level of significance; * p <.05; ** p <.01 (1-sided); N = sample size.

Further significant correlations exist between parental „depressiveness“ and the children’s HRQL in the total score and the areas of school functioning, family, and emotional well-
being. Somatoform complaints of the parents are associated with poor “self-esteem” and decreased values on the dimensions school, family and the total score. No linear association was found between the HRQL in children and parental “phobic anxiety”.

### 7.6 Psychopathology and health-related quality of life in the children

When regarding the association between the children’s psychopathology and their health-related quality of life, considerable negative associations can be found between the main CBCL scales and all KINDL® dimensions. According to the results, parents see substantial losses in their children’s HRQL with increasing emotional and behavioral problems (table 6).

<table>
<thead>
<tr>
<th>CBCL Scales (T-values)</th>
<th>KINDL® Total Score</th>
<th>Physical Well-being</th>
<th>Emotional Well-being</th>
<th>Self-esteem</th>
<th>Family</th>
<th>Friends</th>
<th>School</th>
</tr>
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<tbody>
<tr>
<td>Total Problem Score</td>
<td>r</td>
<td>-.611</td>
<td>-.522</td>
<td>-.347</td>
<td>-.442</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>p</td>
<td>.000***</td>
<td>.000***</td>
<td>.002**</td>
<td>.003**</td>
<td>.000***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>67</td>
<td>67</td>
<td>66</td>
<td>66</td>
<td>66</td>
<td>65</td>
</tr>
<tr>
<td>Externalizing Problems</td>
<td>r</td>
<td>-.492</td>
<td>-.445</td>
<td>-.396</td>
<td>-.296</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>p</td>
<td>.000***</td>
<td>.000**</td>
<td>.000***</td>
<td>.004**</td>
<td>.000***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>66</td>
<td>67</td>
<td>66</td>
<td>66</td>
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<td>65</td>
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<tr>
<td>Internalizing Problems</td>
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<td>-.694</td>
<td>-.667</td>
<td>-.272</td>
<td>-.561</td>
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<td></td>
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<tr>
<td></td>
<td>p</td>
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<td>.000***</td>
<td>.000***</td>
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<td>.012*</td>
<td>.000***</td>
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<tr>
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<td>66</td>
<td>66</td>
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<td>65</td>
<td>66</td>
</tr>
</tbody>
</table>

Table 6. Correlative association between CBCL and KINDL® (N=67) (from Wiegand-Grefe et al., 2010) Annotation: r = Pearson product-moment correlation coefficient, ρ = Spearman rank correlation coefficient; p = level of significance; * p <.05; ** p <.01; N = sample size

### 8. Discussion

In comparison to the general population, children of mentally ill parents have a substantial risk to develop psychopathological symptomatology. On the main scales and the syndrome scales of the CBCL, the children’s relative risk to develop clinically relevant symptomatologies is three- to sevenfold. In the existing literature, children of mentally ill parents are reported to be assessed up to five times more likely to exhibit psychological difficulties (Kölch, Schielke, Becker, Fegert & Schmid, 2008). In the study at hand, 32 % of the parents see clinically relevant symptoms in their children. When including the cases of subclinical symptomatology, even 47 % of the examined children are regarded to be somehow affected by emotional and behavioral problems. This rate goes along with reported frequencies in comparable studies (Beidel & Turner, 1997; Hill, Locke, Lowers & Connolly, 1999; Kelley & Fals-Stewart, 2004; Lapalme, Hodgins & La Roche, 1997; Merikangas, Dierker & Szatmari, 1998). It may be argued that the percentage of affected children might even be higher considering the fact that many parents undergo feelings of guilt and shame and therefore tend to minimize difficulties in clinical evaluations. It is...
striking, for example, that adolescents often report more difficulties in self-reports than the parents indicate in the according ratings (Najman et al., 2000). Thus, it might be expected that adolescents with a mentally ill parent might even exhibit higher rates of symptomatology than in the examined parental assessments. In respect to the characteristics of the parental illness, positive associations were found between the severity of the illness, parental anxiety and somatic complaints and children’s psychopathology. This result is analogous to other studies showing that the severity of parental symptomatology goes along with increased psychopathology in the children (Brennan et al., 2000; Hammen, Burge, Burney & Adrian, 1990; Keller et al., 1986; Weissman et al., 2005). It is rather astonishing that, contrary to other studies (Mattejat et al., 2000), no association was found between depressive symptoms in parents and emotional and behavioral difficulties in the here examined population of children. It can be assumed that parents with phobic anxieties and somatic complaints are especially sensitive for their children’s difficulties. It is interesting that parental somatization is related to psychological problems in children on all CBCL main scales. This finding underlines that somatic complaints and illnesses in parents stand in a close relationship with children’s mental health (Romer & Hagen), although somatizations have to be distinguished from severe somatic illnesses. Since patients with somatizations and anxieties tend to be over-sensitive towards potential difficulties, the results, indicating increased symptomatology in the children, should be cautiously interpreted. In the present study, children with a mentally ill parent display a decreased quality of life in comparison to the general population. The overall quality of life in children is especially associated with the global severity of parental symptomatology, as well as parental somatization and depressiveness in specific. With increasing degree of perceived impairment, parents rated their children’s HRQL to be poorer. In a previous study, it was found that children, who were exposed to a parental mental illness for a longer time frame, exhibited higher quality of life scores on the KINDLR scale “friends”. Presumably, these children might have mastered their situation by compensating their familial difficulties with peer group activities. The psychopathology of the examined children is substantially linked to the quality of life, as indicated by high correlations between the KINDLR and the CBCL scales. In respect to methodological constrictions, it has to be underlined that the assessment of the children’s psychopathology and quality of life is solely based on the parents’ view. The informative validity of assessments by mentally ill parents has not yet been explored sufficiently. Hitherto, studies have examined response patterns in parents with depression and anxiety disorders. Overall, the findings do not allow drawing specific conclusions in respect to potential response biases. In general, the most credible source for internalizing disorders are self-assessments of children and adolescents, while externalizing problems are best assessed by parents (Fombonne, 2002). In the consequent CHIMPs project, families will be examined as a whole, which will allow contrasting the evaluations of mentally ill parents and partners with the children’s self-reports. The suggestion to include teacher reports (Thiels & Schmitz, 2008) would certainly be promising and beneficial, but forms an obstacle in the shame-related area of parental mental illness.

9. Implications for clinical practice

The present chapter deals with the mental health status and the quality of life of children with a mentally ill parent. The impairments resulting from the mental illness are associated
with the children’s mental health and their quality of life. The heightened rates of psychopathology in the children underline the need to implement appropriate prevention programs. In the development of such preventive measures, the improvement of the children’s quality of life should constitute a central component next to the reduction of psychopathological symptoms.

10. References


In the book "Mental Illnesses - Evaluation, Treatments and Implications" attention is focused on background factors underlying mental illness. It is crucial that mental illness be evaluated thoroughly if we want to understand its nature, predict its long-term outcome, and treat it with specific rather than generic treatment, such as pharmacotherapy for instance. Additionally, community-wide and cognitive-behavioral approaches need to be combined to decrease the severity of symptoms of mental illness. Unfortunately, those who should profit the most by combination of treatments, often times refuse treatment or show poor adherence to treatment maintenance. Most importantly, what are the implications of the above for the mental health community? Mental illness cannot be treated with one single form of treatment. Combined individual, community, and socially-oriented treatments, including recent distance-writing technologies will hopefully allow a more integrated approach to decrease mental illness world-wide.