Danish general practitioners’ professional attention to children of parents with depression

Kirsten Hansen¹, Ole Kristensen², Hans Søgaard¹ & Kaj Christensen³

SUMMARY
INTRODUCTION: Offspring of parents with depression has an increased risk of experiencing somatic and psychiatric diseases. Early child support can reduce this risk. This study aimed to describe general practitioners’ (GPs) professional attention to children of depressed patients.

METHODS: This was a survey study. We mailed questionnaires to randomly selected Danish GPs.

RESULTS: Among the 1,760 GPs invited, 890 (51%) participated. Female GPs accounted for 45% of the respondents and 41% of the total GP population (p = 0.02). Respondents were younger than the mean GP population. A total of 94% of the GPs reported that giving attention to children of depressed parents was relevant, and 85% reported addressing the children’s well-being during the consultation with the parent. A total of 39% of the GPs found that their knowledge about the significance of parental depression for the child was poor, and 41% were highly interested in learning more. Female GPs perceived that they had sufficient knowledge (66%) more frequently than male GPs (56%) (p < 0.001). GPs with sufficient perceived knowledge addressed the children’s well-being more frequently than GPs with poor perceived knowledge (odds ratio = 5.8; 95% confidence interval: 4.14-8.07).

CONCLUSIONS: This study showed a significant, under-utilised potential for improving GPs’ awareness about children of parents with depression. Perceived knowledge of the potential impact of parental depression was crucial for the attention given to the children.

FUNDING: The study was funded by The Central Denmark Region and the Danish National Research Foundation for Primary Care.

TRIAL REGISTRATION: not relevant.

Since the early 1990s, the burden of depression has been rising and approximately 350,000 Danes were estimated to suffer from depression in 2010 (12-month prevalence: 6.9%) [1]. In 2002, a study showed similar depression rates among US parents and the US adult population (12-month prevalence: 7.2% (Diagnostic and Statistical Manual of Mental Disorders, fourth ed., DSM-IV)) [2].

According to a cohort study including 350 general practices in the UK from 1993 to 2007 [3], 39% of mothers and 21% of fathers had experienced a depressive episode by the time their children turned 12 years old.

Children of depressed parents have an increased risk of experiencing psycho-social or cognitive impairments during childhood [4], adolescence [5] and adult life [6] and of experiencing somatic diseases (e.g. allergic and cardiovascular conditions) [6]. They often cope by silent adaptation, leaving them alone in a stressful situation [2, 7], and their risk of developing depression in late adolescence is two- to four-fold higher than the risk for offspring of non-depressed parents [5]. The balance between risk and protective factors is important for a successful outcome in adulthood, and social support may promote resilience, i.e., promote a normal life trajectory despite adversity [8, 9]. A negative pathway may be prevented, and a recent study demonstrated that multiple protective factors may reduce mental health problems in adolescents with a parent with depression [10].

Parents’ reports of a child who internalises problems from two to five years of age may predict internalising in late childhood [11], and early childhood social withdrawal is a risk factor for depression in young adulthood [12]. Headache and feeling stressed [13] can also be predictors.

Children of parents with depression are under-recognised in primary care [14, 15]. A British study demonstrated that only 37% of the children who met the criteria for psychiatric disorder were in contact with any service [15], even if their depressed parents were well-known in general practice.

In Denmark, the local authority’s social services are responsible for supporting these children as necessary; however, we hypothesised that Danish primary care practices have an under-utilised potential for improving the outcomes for children of depressed parents by offering relevant advice to parents in order to promote protective factors [2, 8-10]. Thus, this study aimed to explore Danish general practitioners’ (GPs) professional attention and support to children of parents with depression.

METHODS
This was a survey study performed among Danish GPs.

Questionnaire construction
Based on a literature study and preliminary GP inter-
views, a two-page questionnaire was constructed counting 11 main questions related to the respondents’ demographic data, followed by questions about interests, professional attitudes, perceived knowledge, clinical behaviour, interventions related to children of parents with depression, and potential barriers. The questionnaire is available as an appendix [16].

The questionnaire wording evolved through a process of continuous interaction and refinement with qualitative pilot testing during interviews with seven GPs. The primary quantitative pilot test was performed by mailing the questionnaire to all of the 46 GPs in two small communities. After the relevant clarifications had been made, a second pilot test was carried out among 32 GPs, which revealed no need for further adaptations. The questionnaire was designed to allow optical data recording.

Data collection
The questionnaire was mailed to a random sample comprising 50% of all Danish GPs. Participants were offered a fee. A reminder was mailed, and in case of incompleteness, follow-up was established by telephone or mail. Data from the second pilot test were included in the final dataset.

Statistics
Statistical analyses were performed using STATA (version 11.2). The representativeness was established by means of information from the census of the general practices in 2011, and standard (Pearson’s) chi-squared tests were used for the analysis. The GPs were asked to estimate the frequencies of specified professional actions on a five-point scale or to give self-assessments on a four-point Likert scale with the categories adequate, fairly adequate, limited and minimal, and these answers were subsequently dichotomised.

Factors affecting the GPs’ awareness of and attention to the children were analysed by logistic regression as no data were normally distributed. First, “assessment of relevance” was analysed as a dependent variable combined with GPs’ gender, age and regional location. Second, “perceived knowledge about the significance of parental depression” was analysed in relation to gender, age and “assessment of relevance”. Finally, associations between “attention given” and gender, age, knowledge and assessment of relevance were examined. Data on “topics of conversation” and attitude statements were summarised. Analyses were performed on complete data only.

This study was approved by the Danish Data Protection Agency (R.nr. 2010-41-4604). In Denmark, questionnaire surveys do not require ethical approval.

Trial registration: not relevant.

Results
Of the 1,827 GPs invited, 67 GPs were lost due to incorrect addresses, retirement or absence. The response rate was 51%. Of the 890 respondents, 486 (55%) were male GPs. Male GPs account for 59% of the Danish GP population (n = 3,595). Thus, female respondents were slightly overrepresented (p = 0.02).

Male GPs are generally older (66% > 55 years) than female GPs (39% > 55 years; p < 0.01). Male respondents had a mean age of 54.6 (range: 34-73) years. Female respondents’ mean age was 50.9 (range: 37-69) years.

The age groups among female respondents were representative of the age distribution in the female GP population (p = 0.37). Male respondents were younger than the male GP population (p < 0.01) and, thus, younger males were slightly overrepresented. Follow-up on incomplete answers resulted in missing values ≤ 2% for all variables.

Comparison of early and late respondents showed no group differences [17].

Attitudes towards and attention given to children of parents with depression
In total, 94% of the respondents found it relevant to give attention to the children when a parent is sick-listed for depression (Table 1). Gender differences were evident in the assessment of the relevance of giving attention to 0-1-year-old children and to 15-18-year-old children, as female GPs assessed attention to these age groups to be more relevant than male GPs (Table 1).

In total, 68% of the respondents reported asking about the child’s well-being during a consultation with a depressed parent (Table 1). Gender differences were even more marked in the reports of the child as a topic of conversation than they were in the assessment of the relevance of giving attention to the child during the consultation.

The potential topics of conversation between GPs and parents were assessed by the GPs. The percentages which GPs reported for their consultations are described in Table 2. The most frequently addressed topics were general questions about the child’s well-being and recommendations of openness about the depressive disorder, and a seldomly mentioned topic was child complaints relating to physical health. GP agreement about the statements is shown in Table 3.

Three statements achieved agreement rates exceeding 90%: Children will be affected by parental depression, and they need help to understand their situation; talking about the children and the parental roles is part of the treatment; GPs wish for a possibility to refer the child to a relevant offer.
Furthermore, two thirds of GPs agreed to the following statement: I would find it desirable if, from now on, we could offer help by talking to the children, and the barrier statement with the highest score was: no more GP time.

Perceived knowledge about the significance of parental depression for the child

In total, poor knowledge of the potential consequences of parental depression for the child was reported by 39% of GPs (Table 1).

### TABLE 1

General practitioners’ (GPs) assessment of children of parents with depression as a relevant issue of attention, GPs’ focus on children expressed during consultation, level of sufficient perceived GP knowledge and interest in learning more about the potential consequences of parental depression. The values are %.

<table>
<thead>
<tr>
<th>Age of children</th>
<th>Age of GPs</th>
<th>Children of parents with depression is a relevant issue of attention</th>
<th>Children of a parent suffering from depression is a topic of conversation</th>
<th>Level of sufficient perceived GP knowledge</th>
<th>GPs’ interest in learning more about the potential consequences of parental depression</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>males</td>
<td>(45 yrs) (n = 84) 45-54 yrs (n = 120) 55-64 yrs (n = 237) &gt; 64 yrs (n = 45)</td>
<td>females (45 yrs) (n = 88) 45-54 yrs (n = 178) 55-64 yrs (n = 120) &gt; 64 yrs (n = 15)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
|                 |            | 0-1 yr 98 96 92 80 96 98 96 93 94 96 93 94 2-6 yrs 100 96 95 91 99 98 98 100 97 7-14 yrs 95 98 95 89 99 98 97 100 96 15-18 yrs 73 83 86 80 89* 93* 93* 100 87 0-18 yrs 92 93 92 85 97 97 96 98 94 | 0-1 yr 67 71 63 62 90*** 84** 78** 60 73 2-6 yrs 66 72 63 69 85*** 82* 76* 67 73 7-14 yrs 61 67 64 69 81** 79* 71 64 70 15-18 yrs 41 51 50 62 69 65* 62* 57 57 0-18 yrs 59 65 60 66 81 78 72 62 68 0-18 yrs 63 73 68 Level of sufficient perceived GP knowledge 0-1 yr 56 52 51 56 79*** 70*** 66** 47 60 2-6 yrs 49 55 53 60 74*** 68* 68** 53 60 7-14 yrs 49 60 60 69 64* 69 66 67 63 15-18 yrs 49 58 68 69 59 67 65 60 62 0-18 yrs 51 56 53 64 69 69 66 57 61 0-18 yrs 56 66 61 GPs’ interest in learning more about the potential consequences of parental depression To a high extent 35 49** 41To some extent 56 44 51To a low extent 9 6 8Not at all 0 1 1 a) Comparison of female and male responses distributed on age groups of GPs and children: *) p < 0.05; **) p < 0.01; ***) p < 0.001.

### TABLE 2

Topics of general practitioners’ conversation with parents of 2-14-year-old children. The values are n (%).

<table>
<thead>
<tr>
<th>Topic of conversation</th>
<th>Part of consultations, %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50</td>
</tr>
<tr>
<td>Ask about the child’s well-being</td>
<td>575 (65)</td>
</tr>
<tr>
<td>Ask specifically if the child has physical complaints, stomach ache</td>
<td>189 (21)</td>
</tr>
<tr>
<td>Ask who talks with the child about the disorder</td>
<td>333 (37)</td>
</tr>
<tr>
<td>Offer to help the parents to explain the disorder to the child</td>
<td>140 (16)</td>
</tr>
<tr>
<td>Recommend openness about the disorder</td>
<td>581 (66)</td>
</tr>
<tr>
<td>Recommend that adults: teachers, pedagogues, in the child’s everyday life are informed</td>
<td>375 (42)</td>
</tr>
<tr>
<td>Recommend that e.g. family network contributes actively to supporting the child</td>
<td>366 (41)</td>
</tr>
</tbody>
</table>
Statistically significant gender differences were shown. Female GPs reported sufficient knowledge more frequently than male GPs, as described in Table 1. Regardless of the existing knowledge, 41% reported to be highly interested in learning more about the significance of parental depression for the child. The gender differences were obvious as half of the female GPs and only a third of the male GPs wished to increase their knowledge. Moderate interest was reported by 51% and little interest by 8% of the respondents (Table 1).

The level of perceived knowledge was associated with the GPs’ attention given to the children: GPs with sufficient perceived knowledge addressed the children’s well-being more frequently than GPs with poor perceived knowledge. The strongest association between perceived knowledge and attention given was shown for 15-18-year-old children (Table 4).

**DISCUSSION**

**Principal findings**

In this study, GPs in general assessed that parental depression will affect children and thus found it relevant to give professional attention, but only two thirds of the GPs actually addressed the children during consultations with depressed parents. The GPs wished for better future help to these children.

Poor perceived knowledge of the potential impact of parental depression was often reported, and perceived sufficient GP knowledge was significantly associated with addressing the children during the consultation with the parent. Female GPs reported a significantly higher focus on these children than male GPs.

**Strengths and weaknesses**

The survey was mailed to 50% of Danish GPs, constituting a large sample. The share of missing values was below 2%, indicating a successful questionnaire construction with well-understood questions.

The individual responses may be biased in more respects: the nature of this survey was subjective, which may predispose respondents to report their ideal intention rather than their actual professional behaviour, i.e., social desirability bias may be present. Recall bias may also be present: respondents were asked to estimate frequencies, but when no routines exist, precise recall is difficult, and both under- and overestimation can be expected. Furthermore, these subjective assessments may vary over time, depending on the prevalence of depressed patients in the consultation.

With responses from 25% of all Danish GPs, the data material is solid. Early respondents and late respondents showed no differences; assuming that there is correspondence between late respondents and non-respondents [17], this study should be representative of the GP population. However, selection bias is present as female GPs and younger GPs were slightly overrepresented in the study; female GPs gave markedly more professional attention to children of depressed parents than male GPs. Similarly, younger GPs were more aware of the children’s needs than older GPs. In conclusion, this study presumably overestimated the professional attention given to children of depressed parents.

**Comparison with existing literature**

In our study, GPs assessed that children will be affected by parental depression and will need support to mini-

---

**TABLE 3**

General practitioners’ (GPs) attitudes to statements concerning attention to children of depressed parents. The values are n (%).

<table>
<thead>
<tr>
<th>GP statement</th>
<th>strongly/mainly agree</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>I do not have time for more</td>
<td>total</td>
<td>544 (61)</td>
<td>98 (11)</td>
<td>446 (50)</td>
<td>279 (32)</td>
<td>61 (7)</td>
</tr>
<tr>
<td>I presume that someone else is taking care of the child’s situation</td>
<td>412 (47)</td>
<td>25 (3)</td>
<td>387 (44)</td>
<td>410 (46)</td>
<td>62 (7)</td>
<td>6</td>
</tr>
<tr>
<td>I prioritise ill patients, not the healthy</td>
<td>288 (33)</td>
<td>39 (4)</td>
<td>249 (28)</td>
<td>403 (46)</td>
<td>191 (22)</td>
<td>8</td>
</tr>
<tr>
<td>The municipality has nothing to offer so I find it meaningless</td>
<td>228 (26)</td>
<td>38 (4)</td>
<td>190 (22)</td>
<td>454 (51)</td>
<td>203 (23)</td>
<td>5</td>
</tr>
<tr>
<td>to create a need which cannot be met</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes, the child will be affected by the disorder, so it needs help</td>
<td>854 (96)</td>
<td>419 (47)</td>
<td>435 (49)</td>
<td>21 (2)</td>
<td>12 (1)</td>
<td>3</td>
</tr>
<tr>
<td>to understand</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The parents do not want to worry about their child</td>
<td>611 (71)</td>
<td>127 (15)</td>
<td>484 (56)</td>
<td>204 (23)</td>
<td>55 (6)</td>
<td>20</td>
</tr>
<tr>
<td>To talk about the child and the parent role is part of the treatment</td>
<td>817 (92)</td>
<td>321 (36)</td>
<td>496 (56)</td>
<td>60 (7)</td>
<td>6 (1)</td>
<td>7</td>
</tr>
<tr>
<td>I would find it desirable if, from now on, we could offer better help</td>
<td>574 (65)</td>
<td>148 (16)</td>
<td>428 (49)</td>
<td>262 (30)</td>
<td>44 (5)</td>
<td>10</td>
</tr>
<tr>
<td>to talk with the child</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I would wish for a possibility of referring the child to a relevant offer</td>
<td>830 (94)</td>
<td>512 (58)</td>
<td>318 (36)</td>
<td>49 (5)</td>
<td>5 (1)</td>
<td>6</td>
</tr>
<tr>
<td>My knowledge regarding this field is limited – and I must confess that</td>
<td>338 (38)</td>
<td>74 (8)</td>
<td>262 (30)</td>
<td>410 (47)</td>
<td>134 (15)</td>
<td>10</td>
</tr>
<tr>
<td>I do not give it much thought</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
mise potential impairment. This assumption is in line with findings in other studies [7, 15, 18]. A British study [18] recommends a possibility for advice from health visitors independently of the children’s age, which is in line with the marked wish in our study for a possibility to refer the child to a relevant offer.

A number of studies [15, 19] have demonstrated a lack of recognition of child and adolescence mental illness and these studies describe a large group of children of parents with depression. This study differs as it focuses on children at risk of developing mental illness.

Our study concentrates on facilitation of support to general protective processes in the children’s everyday lives in order to prevent the development of mental illness.

In our study, the two most important reported barriers were lack of time and perceived poor knowledge, which is in line with the findings in a US study among paediatricians [18] in which lack of time to identify and treat mental health problems as well as lack of feeling secure and lack of training in treatment of mental health were described as the most important perceived barriers for recognising and treating problems in children of depressed mothers.

**Implications**

In this study, the GPs expressed a marked interest to offer better future support to children of parents with depression, which indicates an individual motivation to improve these children’s situation.

An increased organisational awareness could facilitate the individual, professional GP efforts.

Recommendations for good clinical practice are encompassed in the official clinical guidelines for diagnostics and treatment of depression in general practice [20]. However, the guidelines provide no information about and give no focus to the potential impact of parental depression on a child. Incorporation of the child focus into the guidelines is highly recommendable. Furthermore, distribution of information regarding risk factors and potential support methods for these children should be integrated into medical education at different levels.

The burdens experienced by these children can be reduced by offering them age-appropriate information about depression, by conveying to them that they have no responsibility for the parental depression and by telling them that relevant adults help the parent to overcome the depression [2].

Given the actual conditions, possibilities for GP support to these children exist. GPs could give information and advice to a parent in order to ease the child’s situation by reducing stress, concern and loneliness and thus improve the child’s well-being [7].

Social support to these children is of great importance [8], and GPs can encourage the parents to ask their family network and other adults in the children’s everyday lives to contribute actively to supporting the children and give them the opportunity to maintain their usual activities [9]. Multiple supportive and caring factors in combination (in home, daycare and school) will increase the protection of the child [10].

**CONCLUSIONS**

This study showed a significant potential for improving the attention given by GPs to children of depressed parents. The overwhelming majority of GPs assessed that giving attention to these children was relevant, while two thirds of the GPs actually addressed the children. Sufficient perceived knowledge of the potential impact of parental depression was crucial for the attention given to the children.

**CORRESPONDENCE:** Kirsten Hansen. E-mail: barn.i.klemme@gmail.com

**ACCEPTED:** 14 May 2018

**CONFLICTS OF INTEREST:** none. Disclosure forms provided by the authors are available with the full text of this article at www.danmedj.dk

**LITERATURE**

10. Collishaw S, Hammerton G, Mahedy L et al. Mental health resilience in...