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

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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 65% 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.

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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-

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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 incompletion, 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 %[a].

	Age of GPs								
	males				females				
Age of children	< 45 yrs (n = 84)	45-54 yrs (n = 120)	55-64 yrs (n = 237)	> 64 yrs (n = 45)	< 45 yrs (n = 88)	45-54 yrs (n = 178)	55-64 yrs (n = 120)	> 64 yrs (n = 15)	Total (N = 887)
Children of parents with depression is a relevant issue of attention									
0-1 yr	98	93	92	80	99	98*	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
0-18 yrs	91				97				94
Children of a parent suffering from depression is a topic of conversation									
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**				41
To some extent	56				44				51
To a low extent	9				6				8
Not 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 (%).

	Part of consultations, %						
Topic of conversation	≥ 50	> 75	50-75	25-49	< 25	0	Missing
Ask about the child's well-being	575 (65)	366 (41)	209 (24)	129 (14)	142 (16)	42 (5)	2
Ask specifically if the child has physical complaints, stomach ache	189 (21)	51 (6)	138 (15)	174 (20)	372 (42)	149 (17)	6
Ask who talks with the child about the disorder	333 (37)	153 (17)	180 (20)	193 (22)	258 (29)	101 (12)	5
Offer to help the parents to explain the disorder to the child	140 (16)	61 (7)	79 (9)	138 (16)	379 (43)	229 (26)	4
Recommend openness about the disorder	581 (68)	376 (42)	205 (23)	139 (16)	112 (13)	54 (6)	4
Recommend that adults: teachers, pedagogues, in the child's everyday life are informed	375 (42)	163 (18)	212 (24)	160 (18)	247 (28)	104 (12)	4
Recommend that e.g. family network contributes actively to supporting the child	366 (41)	172 (19)	194 (22)	185 (21)	236 (27)	99 (11)	4

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 (%).

	Agreement on statement					
	strongly/mainly agree					
GP statement	total	strongly agree	mainly agree	mainly disagree	strongly disagree	Missing
I do not have time for more	544 (61)	98 (11)	446 (50)	279 (32)	61 (7)	6
I presume that someone else is taking care of the child's situation	412 (47)	25 (3)	387 (44)	410 (46)	62 (7)	6
I prioritise ill patients, not the healthy	288 (32)	39 (4)	249 (28)	403 (46)	191 (22)	8
The municipality has nothing to offer so I find it meaningless to create a need which cannot be met	228 (26)	38 (4)	190 (22)	454 (51)	203 (23)	5
Yes, the child will be affected by the disorder, so it needs help to understand	854 (96)	419 (47)	435 (49)	21 (2)	12 (1)	3
The parents do not want to worry about their child	611 (71)	127 (15)	484 (56)	204 (23)	55 (6)	20
To talk about the child and the parent role is part of the treatment	817 (92)	321 (36)	496 (56)	60 (7)	6 (1)	7
I would find it desirable if, from now on, we could offer better help to talk with the child	574 (65)	146 (16)	428 (49)	262 (30)	44 (5)	10
I would wish for a possibility of referring the child to a relevant offe	830 (94)	512 (58)	318 (36)	49 (5)	5 (1)	6
My knowledge regarding this field is limited – and I must confess that I do not give it much thought	336 (38)	74 (8)	262 (30)	410 (47)	134 (15)	10

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].

TABLE 4

Association between sufficient perceived general practitioner knowledge and attention given to the child during a consultation with the parent[a].

Age group of children	Odds ratio (95% confidence interval)
0-1 yr	5.777 (4.137-8.066)
2-6 yrs	6.269 (4.495-8.744)
7-14 yrs	5.971 (4.349-8.197)
15-18 yrs	6.713 (4.935-9.133)

a) Adjusted for gender, age, regional location and assessment of relevance.

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.

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