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Screening and utilization of treatment in mothers with postnatal depression

Summary

With a longitudinal screening-model 772 mothers after delivery were screened for postnatal depression. This model contains the Edinburgh Postnatal Depression Scale (EPDS) and the Hamilton Depression Scale (HAMD). The first screening was 6 - 8 weeks after delivery with the EPDS. Mothers with high scores in first screening had a second screening 9 - 12 weeks after delivery with the EPDS. Time between first and second screening was at least three weeks. Mothers with high scores in both screenings were investigated with the Hamilton Depression Scale (HAMD).

Classification was performed with the DSM IV. After observation until 3rd month after delivery 3.6 % (N = 28) of the mothers had the diagnosis of a postnatal depression. Different methodes of therapy were offered to those mothers. 18 % (N = 5) accepted one or more of these methods of treatment. The rest of the mothers with a postnatal depression refused – mostly for factual of practical reasons. 13.4 % of the mothers showed high scores in the first screening but not in the second. In those mothers a longitudinal observation is performed at the moment to distinguish betwen a depressive episode and a depression with oscillating symptoms.

Keywords: Postnatal Depression, Screening, Utilization of treatment

Introduction

There is a difference between postnatal depression and the so-called baby blues. The main symptoms of a Baby Blues are sadness and affect-lability. About 50 % of mothers suffer from Baby Blus after delivery [15]. Mostly symptoms appear between 2nd and 5th day after delivery and disappear soon after. Are the depressive symptoms persisting or appearing after the first ten days after delivery they can last for weeks or months or may be for years in sever cases. For sure diagnosis of a postnatal depression begin of the symptoms should be during the first two months after delivery.

Prevalence rate of postnatal depression in the literature, which is mostly anglo-american, is about 10 % of delivering mothers [5]. Some authors have higher prevalence rates. Harris found depressive episodes in 15 % of mothers at the end of the 2nd month after delivery [10]. Reighard [20] found 19,9 % of observed mothers with a postnatal depression at the end of the 2nd month after delivery. Other research groups had lower rates. For instance Lee in Hong Kong found 5.5 % mothers with postnatal depressions [16]. Riecher-Rössler after a intensive literature review found, that 10 – 15 % of delivering mothers after delivery have already depressive symptoms or develop a depression [21].

For screening postnatal depressive mothers the Edinburgh Postnatal Depression Scale (EPDS) is widely used. The Edinburgh Scale is a 10-item self-report scale. It was presented first from the scottish psychiatrician J. Cox [6]. Sensitivity of the original scale was 86 %, the specificity was 78 %. Harris [10] could show, that the Edinburgh Postnatal Depression Scale had higher sensitivity and specificity in screening for postnatal depression than the Beck Depression Inventory (BDI). In several countries translations exist, that prooved to have sufficient validity [1,3]. Bergant [1,7] used research criteria for depressive illness of the ICD 10 for validation of the German translation.

Symptoms of postnatal depressions do not differ from symptoms of depressions coming up at any other time. We think that the item „postnatal„ is nevertheless justified for several reasons:

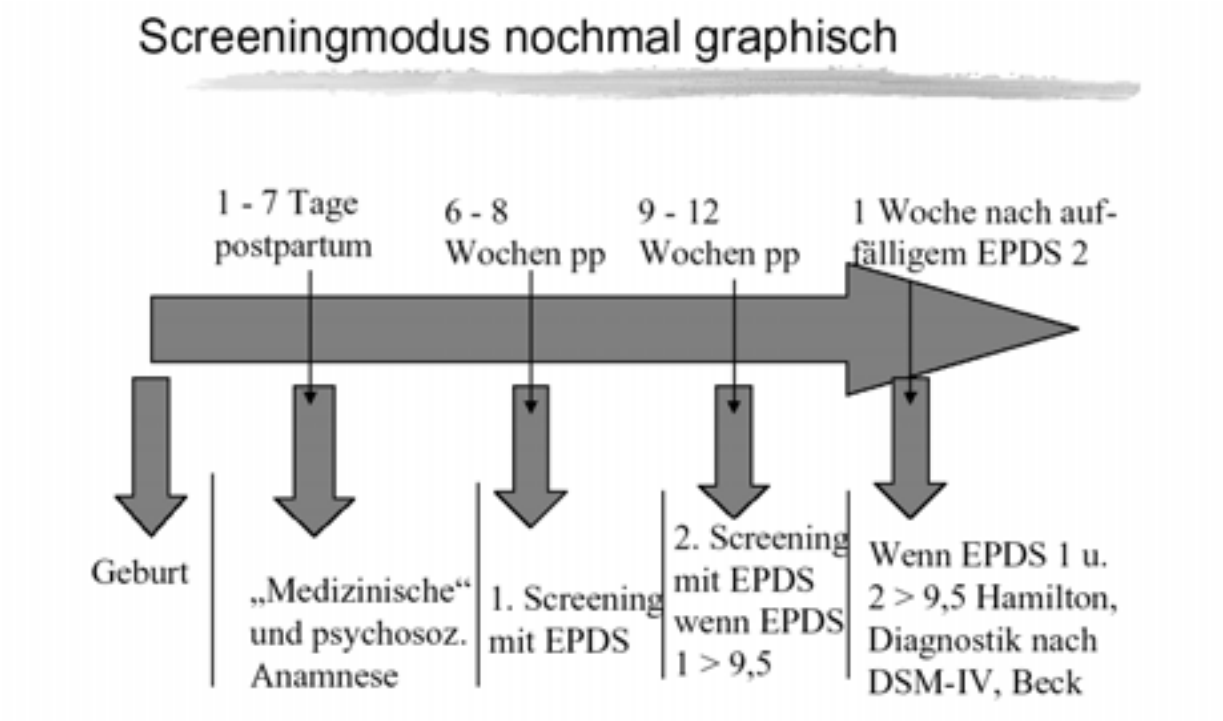
a. The delivery of a child and the first time after that brings a lot of psychosocial stress for the mother (e.c. new situation, change of relations) which is not present in other life periods.
b. Depressions and psychotic diseases start more often during the first months after delivery than at any other time episode of women [19].

c. A correlation between hormonal changes during the first weeks after delivery and the begin of depressions was observed in several investigations [18].
d. Some autors found that child development is affected in case of postnatal depression of a mother [21].

Study participants and method

Screening

Study was performed in collaboration with the Marienhospital in Stuttgart and two community midwives. Mothers were screened consecutively. Mothers who did not speak German were excluded. In the first week after delivery all mothers were investigated for obstetric and social parameters. Interviews were done in the hospital or by telephone. The first screening for postnatal depression was 6 – 8 weeks after delivery. At that time mother had to fill in Edinburgh Postnatal Depression Scale (EPDS 1). The questionnaire was either sent to the mothers or filled by a telephone call. Cut-off was 9.5. All mothers with high scores in EPDS 1 were reinvestigated 9 – 12 weeks after delivery. The time between first and second screening was at least 3 weeks. In case of a second high score a Hamilton interview (HAMD) was performed [4]. With this interview DSM IV classification was possible. The clinical interviews were performed as far as possible in the Research Center for Psychotherapy in Stuttgart. In case of practical complications for the mother the clinical interview was performed in their house. Figures 1 shows the time structure of the investigation.



Delivery	medical & psycho-social history	1. screening	2. screening	if EPDS 1 & 2 > 9.5, then DSM IV diagnostics

Therapeutic help for depressive mothers

Those mothers, who had a postnatal depression with DSM IV criteria, therapeutic help was offered. Therapeutic help consisted of a self-help group, outpatient psychiatric treatment, outpatient psychotherapy or inpatient therapy. Reaction of the mothers was documented. In case of refuse of all therapeutic possibilities, the reasons said by the mothers were noted.

Statistical analyses

For statistical analyses the group of mothers without high screening scores and mothers with clinical diagnosis of postnatal depression were used. Mothers who only had high score in the EPDS 1 were not used. The analyses were performed with the Statistical Package for the Social Sciences (SPSS). The χ^2 -test was used for categorial data.

Results

Screening

The investigations were performed from 1998 – 2000 over a period of 18 months. During this time 2990 children were delivered in the Marienhospital. 149 children were delivered by the community midwives. All together 1102 german speaking mothers were asked to participate the study. 812 of them

decided to participate. 772 had all investigations that were necessary for usable dates. So the participation rate was 73.7 %. The drop-out rate was 4.9 %.

Table 1:
Sociodemographic parameters of the investigated mothers (N = 772)

summary of investigated mothers	772
nationality	German: 84,2 % other countries: 15,8 %
firstgravidae	47,7 %
mean age (mean value)	31,3 years (minimum 17, maximum 45)
deliveries in hospital	96 %
deliveries at home	4 %
married	83 %
not married - in partnership	11,8%
alone	5,2 %
sex of the newborn	male: 49,2% female: 50,8%

Table 1 shows sociodemographic data of the 772 investigated mothers. In the first screening with the Edinburgh Postnatal Depression Scale (EPDS 1) 132 mothers (17 %) showed high scores over 9.5. 640 mothers had normal scores. The second screening of the 132 mothers with high score in the first screening showed, that 28 mothers (3.6 %) had high scores in the Edinburgh Postnatal Depression Scale (EPDS 2) again. All these mothers had DSM IV criteria for depression.

Table 2: Comparison of psychosocial and obsteric parameters in mothers without depressive symptoms and mothers with postnatal depression.

Parameter	**without depressive symptoms N = 640**	**postnatal depression N = 28**	**χ^2 -test p-value**
mode of delivery:			
spontaneous delivery	63%	71%	>= 0,05 n.s
forceps	8%	7%	>= 0,05 n.s
Caesarean section	29%	21%	>= 0,05 n.s.
number of deliveries:			
para 1	58%	36%	not possible
para 2	31%	50%	not possible
para >2	11%	14%	not possible
location of delivery:			

hospital	96,7%	92,9%	>0,05 n.s.
home	3,3%	7,1%	>0,05 n.s.
sex of the newborn:			
male	49,8%	35,7%	> 0,05 n.s.
female	50,2%	64,3%	> 0,05 n.s.
mode of partnership:			
Alone	4%	7%	> 0,05 n.s.
partnership – not married	12%	14%	> 0,05 n.s.
married	83%	79%	> 0,05 n.s.
support from the partner low or not present	12,3%	39,3%	<= 0,01 **
psych. history:			
with depressive episode during the pregnancy	2,8%	10,7%	<= 0,05 *
with psych. illness in the history	12%	32%	<= 0,05 *
with depressive episode in the history	7,0%	21,4%	<= 0,05 *
family disposition	21%	29%	> 0,05 n.s.

n.s.: not significant * : significant **: highly significant

Comparison of psychosocial and obstetric parameters could show, that the group of mothers without depressive symptoms and the mothers with postnatal depression had differences in some factors but no differences in others (table 2). The mode of delivery had little influence on prevalence of postnatal depression. Mothers delivered by caesarean section had lower rate of postnatal depression than mothers that delivered spontaneously. The difference was not significant. The status of partnership had little influence on prevalence of postnatal depression. But significant was the difference concerning support by the partner of the mother. Those mothers who had a postnatal depression, complained more often about low or no support by the partner (39.3 %) than mothers without depressive episodes after delivery (12.3 %). The difference was significant.

Therapeutic help for depressive mothers

Those mothers who showed postnatal depression during a 3 months period after delivery, therapeutic help was offered. 5 of these mothers accepted one or more of these therapeutic possibilities. Mostly factual or practical reason for refusal of therapeutic help were given by the women. 39 % of the mothers refused for factual reasons (for instance: „I refuse all psychiatric or psychotherapeutic help, because I don´t think, they help me.„), 26 % refused for practical reasons (for instance: „I don´t have time.„). 35 % of these mothers didn´t give any reason for refusal of therapeutic help.

Case reports from the group of high scored women

In the following three exemplary cases are described. To keep anonymity metaphors were used to characterize the women.

Case report 1 – „The sad, black swan„.
The para 1 mother is 34 years old, southerner, marriaged and busied in a social job. A couple of years ago she was in a Gestalt psychotherapy because of couple relation problems. The psychotherapy has been positive for her. At that time she had another partner. Until the fifth month of pregnancy she suffers from vomiting and from time to time she must stay at home from job. Her son is born with 4300 gramm by Caesarean. At first she feels well, from the fourth day postpartum she has nightmares and feelings of anxiety; so the clinical psychologist has to come two times. At the first screening she has high scores, at the second screening she feels much worse – she is very depressive. She comes to a clinical interview – the DSM-IV criteria are reached. Apart from her husband nobody knows about her bad state. He supports her, but being self-employed he has little time. They dispute frequently. During the interview professional help is offered to her. She decides to a behaviour psychotherapy at that psychologist, who has seen her in the hospital. We make the contact for her; in spite of a good psychotherapy experience in her history, she needs helpful support from us to make this step. The psychotherapy takes a succesful course and is finished about one year after delivery. She feels much better, is engaged in her job and is very active in her free time.

Case report 2 – „The glossing over woman„.
The Dutchwoman is over thirty and has a daughter of three years. She is marriaged. She rembers a longer depressive mood six years ago. After a job change she feels better and her relation works better too. She is out of job since the birth of her daughter three years ago. Her husband comes home from job late in the evening – so his support is low. She has a good pregnancy and delivers her son at home without complications. She has high scores in the first screening – she suffers from fear, mourning guilty and depressive feelings; sometimes she has thoughts of suicide. At the second screening she has high scores again. Subsequently she tries to gloss over her state at the first screening. The clinical interview takes place at home – no symptoms existing two weeks ago can be proved. Her state is astonishing much better. So we offer no treatment. The midwife however reports that the woman has repeatedly depressive phases. The mother has experienced a postnatal depression with oscillating course. Maybe the interview takes place in a good phase; we had the impression that she tends to gloss over her state.

Case report 3 – „The blocked power woman„
The 33-year old marriaged dynamic graduate delivered her first child. Her couple relation is existing a long time and is very positive. Her husband helps

her with the child objectively seen enough - subjectively seen not enough. Her job is important for her and she likes it – she seems to be successful and ambitious. In her case history she had a psychanalytic treatment because of a boulimia; now she feels well in this point, the psychotherapy is seen of her ambigiously. She has a good pregnancy. Her daughter is born by Caesarean – the narcosis was a nightmare for her followed by hallucinations and in the week on the gynecology station she is all mixed up, cries a lot. There is a long talk with us on station with the offer to turn to us if need. So she calms down. The daughter gets three-month-colics. At the first screening she has high scores, she suffers from fear and overtax and has sometimes suicide thoughts. At the second measurement she feels much better and has very low scores. 13 monthes after postpartum she answers again because of her bad state. She comes to an intensive talk and it becomes clear that that she has had a severe depression in the last thirteen monthes with an oscillating course. She says it would have been better to get professional help. Now she intends a psychotherapy; but after christmas she feels much better and that is stable. This case is a pointer that following the symptoms over the third months makes sense.

Discussion

Occurence of depressions

Basing on WHO data depressions are one of the important deseases in the developed (?) countries. The „Kompetenznetz Depressionen„ assumes that in Germany about 5% or 4 million people of the population suffer from a depression which should be treated [12]. Using self-appraisal instruments for the calculation of frequencies the numbers waver between 11% and 26% [8]. Using clinical interviews the frequency is clearly lower – 2% until 13% [11]. The data for women are double high as the data for men. Wittchen and v. Zerssen assume a 6-month-prevalence from 3% for men, for women 4,5% until 9,3% [22].

Frequency of postnatal depressions

Many studies have only one time point to measure the occurence of postnatal depression. This point is mostly at the end of the second month. In our study there is a second screening in the third month after delivery. Cox [6] recommends this procedure. In our collective the most mothers with high scores at screening 1 (EPDS 1) have normal scores in the course of third month postpartum. This is the observation of Cox [Cox] too. In our opinion this second screening is important to differentiate women with depressive mood from women with postnatal depression.

A depressive mood could also be an indicator for oscillating symptom course. At the moment we have long-term observation with as many as possible women with high scores at the first screening to clear this.

The prevalence of postnatal depressions basing on DSM-IV criteria is 3,6% by observing women three months after postpartum. This could be an indicator that postnatal depressions have a lower frequency in Germany than in Anglo-American countries; there the prevalence data are mostly about 10% [5] or higher [13]. The newest data from Bavaria show a prevalence of 3,3 % over the whole first year after delivery basing on DSM-IV criteria [14]. These data fit well to our foundings. However it is to take in consideration that in the Bavarian study the diagnosis is given retrospectively seven years after delivery.

Some authors suppose that a Caesarean section is a risk factor for getting postnatal depressive symptoms [18]. Such correlation could not be found in our collective. Mothers with Caesarean sections and spontaneous deliveries showed about the same rate of high scores.

Utilization of therapeutic treatment

There are many epidemic studies of utilization of therapeutic alternatives concerning mental diseases. In the „Mannheimer Kohortenprojekt„ – a study about the occurence of mental diseases in the general population was found following: only 3% of those persons who were considered as should be treated decided to psychotherapeutic treatment on their own. If be motivated the rate was 33% [9]. In the „field study Oberbayern„ the utilization of psychiatric treatment by people having a depression was examined [17]. There was found that only 23,9% get treatment. May be the motivation of women with postnatal depression is lower because of their special situation after delivery. In an American study 21,4% women with postnatal depression get therapy [2]. This is corresponding the 18% women in our collective, who used therapeutic help.

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