important resource and not merely as a stress factor which is to be reduced (Pitschel-Walz, Bäuml et al 2001). According to the therapeutic guidelines it is now part of standard therapy to integrate relatives already in the beginning of the treatment. In this context, psychoeducation is a very effective measure to inform family members of the background of the illness and the most important treatment elements. During the course of time, many concepts have been developed, particularly concerning schizophrenic psychosis, to train relatives and their patients to have better communication with less stress and more helpful interactions. Through the establishment of a worldwide network, relatives are encouraged to use their knowhow not only alone at home but also in their interaction with professionals and politicians to improve the living conditions of their patients. In this lecture, the historical background and actual findings concerning the empowerment of the relatives will be presented.

Symposium: Postnatal depression and effects of depression on breast milk

S56.01

Service establishment for early diagnosis and prompt treatment of women with postnatal depression in tertiary care facility of Rawalpindi, Pakistan

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The study was conducted in a tertiary care facility in Rawalpindi, Pakistan. The objective was establishment of a service delivery system in a tertiary care facility of Rawalpindi for screening, early diagnosis and prompt management of women with post natal depression. It also evaluated the effectiveness of the service and determined the frequency of Postnatal Depression cases presenting in the postnatal clinic of Rawalpindi General Hospital. This interventional study involved screening and confirmation of diagnosis for Postnatal depression of 908 mothers presenting in the postnatal clinic. The scales used were Edinburgh Postnatal Depression Scale (EPDS) and Hamilton Rating Scale. EPDS showed scores above cutoff of 10 for 318 (35%) mothers. When Hamilton scale was applied, 05 (1.57%) mothers had no confirmed diagnosis of Depression, however, all the remaining 313 mothers (98.42%) had Depression. The prevalence of the post natal depression was found to be 313 per 1000 or 31%. Statistically significant associations were observed on Chi Squared test, between PND and variables like mothers educational status, their working status, number of previous children, mode of last delivery, obstetrical complications during last pregnancy, age group, monthly family income, Effectiveness of the services rendered were evaluated by applying t-test by comparing the mean weekly turn over of PND patients over 35 wks study period and showed statistically significant difference in favor of interventional services with t-statistic of 16.263, p-value of 0.000.

S56.02

Maternal depression and infant growth − A crucial link

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Risk for emotional and behavioural problems are known to be high among children of depressed mothers, but little is known about the impact of antenatal and postnatal depression on the physical health of the infant. Our one-year prospective follow-up study of 320 mothers and their infants in rural Rawalpindi, Pakistan, shows that infants of antenatally depressed mothers have poorer growth than controls. The relative risk for being underweight (weight-for-age z-score $< -2SD$) is 4.0 (95%CI 2.1-7.7) at 6 months and 2.6 (95% CI 1.7-4.1) at 12 months, while the risks for stunting (length-for-age z-score $< -2SD$) is 4.4 (95%CI 1.7-11.4) at 6 months and 2.5 (95% CI 1.6-4.0) at 12 months. Relative risk for ≥ 5 diarrhoeal episodes per year is 2.4 (95% CI 1.7-3.3). Chronic depression carries a greater risk for poor outcome than episodic depression. The associations remain significant after adjustment for confounders by multivariate analyses. It is concluded that preventive and treatment strategies for maternal depression could benefit not only the mother's well-being but also the infant's physical health and development.

S56.03

Effect of maternal depression on intake of breastmilk in infants

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Previous studies have found maternal depression to be a major risk factor for poor growth in infants in Pakistan and south Asia. The mediating mechanisms between maternal depression and infant malnutrition are an important area for research.Studies have shown that maternal depression maybe associated with shorter duration of feeding however the evidence is equivocal. The quantity of breast milk could be another factor which has only been tested with relatively inaccurate methods of clinical scoring and test weighing till date. We aim to study the relationship of maternal depression with duration of breastfeeding and infant feeding practices. Moreover, we would also estimate the breast milk production and intake by the infant in depressed versus normal mothers, using the new technology of isotope dilution, in a rural community in Rawalpindi, Pakistan.

A random sample of 100 depressed and 100 non-depressed women will be recruited for the proposed prospective cohort study. The depressive disorder will be diagnosed antenatlly and 6 months postnatally using validated instruments. The duration of exclusive breastfeeding will be assessed prospectively and infant feeding practices will be assessed at 6 months with appropriate tools. Breast-milk intake will be measured in 30 mothers from each group, using the dose-to-the-mother deuterium oxide method also validated in Pakistan by the investigators. Differences in the two groups of mothers will be estimated using appropriate statistical techniques, while controlling for possible confounders.

S56.04

Comparative study of effect of Lactogouges (Metclopromide) and counselling on breastmilk production in mothers

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The aim of study is to determine the maternal perception of inadequate breast feed and compare possible augmentation of breast

milk with lactogouges (metclopromide) and structured counseling of mothers, using the new technology of isotope labeling in a community in Rawalpindi, Pakistan.A random sample of 200 lactating mothers having complaints of reduced breast milk production is being recruited from well baby clinic of participating hospitals. All should be practicing exclusive breastfeeding with infants from 2-3 months of age. Their perceptions regarding their breast milk production is assessed. They are randomized into four groups. Group one will be given oral metclopromide, groups 2 will be given structured counseling by trained health workers and group 3 will receive placebo whereas group 4 will receive CBT. Breast-milk production will be measured at completion of 4 weeks of intervention by using the dose-to-the-mother deuterium oxide method also validated in Pakistan by the investigators to a limited sample. Differences in the groups of mothers will be estimated using appropriate statistical techniques, while controlling for possible confounders. Outcome of the study would be able to demonstrate that lactogouges, or simple counselling may have an effect on increasing the breast milk quantity of mothers and also effect of interventions on their perceptions. The results of the study could have a major impact on the breastfeeding teachings and practices in our society which in turn has a potential to improve and have a significant impact on one of the main Millennium Development Goals i.e. child mortality and morbidity.

Free Communications

FC03.01

The decrease of prefrontal theta QEEG cordance value predicts response to Venlafaxine treatment in patients with resistant depression

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Backgrounds: Previous studies of patients with unipolar depression have shown that early decreases of prefrontal quantitative EEG (QEEG) cordance in theta band can predict clinical response to various antidepressants. We now examined whether reduction of prefrontal cordance value after 1 week of venlafaxine treatment predicts clinical response to venlafaxine in non-responders to previous antidepressant treatments.

Methods: We analyzed 25 inpatients, who finished 4-week treatment with venlafaxine. EEG data were monitored at baseline and after 1 week of treatment. QEEG cordance was computed at 3 frontal electrodes in theta frequency band. Depressive symptoms were assessed using Montgomery-Åsberg Depression Rating Scale (MADRS).

Results: Eleven of 12 responders (reduction of MADRS $\geq$50%) and only 5 of 13 non-responders decreased prefrontal QEEG cordance value after the first week of treatment. The decrease of prefrontal cordance after week 1 in responders was significant (p=0.03) and there was no change in nonresponders. Positive and negative predictive value of cordance reduction for response was 0.7 and 0.9, respectively.

Conclusion: The reduction of prefrontal theta QEEG cordance value after first week of treatment is a useful tool in the response prediction to venlafaxine.

FC03.02

One-year course and predictors of outcome of adolescent depression

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Background and Aims: The mean episode duration of adolescent major depression is 4 – 9 months among clinically referred youths, recovery rates vary between 35% - 90%, and recurrent episodes are common. In naturalistic studies comprising less selected populations than clinical trials, comorbid psychiatric disorders, poor psychosocial functioning and severity of depression at study entry are among the most consistently reported clinical predictors of less favorable prognosis of youthful depression.

The study aimed at studying the one-year course and at investigating the impact of characteristics of the depressive episode and comorbidity on the one-year outcome of adolescent depression.

Method: A sample of 179 consecutive adolescent (13-19 years) psychiatric outpatients and 17 school-derived matched controls, all with unipolar depressive disorders at baseline, were reinterviewed for DSM-IV Axis I and II disorders at 12 months.

Results: The outpatients had equal recovery rate and episode duration, but shorter time to recurrence than the controls. Fifty percent of the outpatients and 65 % of the depressed controls recovered during the follow-up, 13% of the outpatients and 29% of controls had at least one recurrent depressive episode. Among the outpatients, Axis II comorbidity predicted shorter time to recurrence. Longer time to recovery was predicted by earlier lifetime age of onset for depression, poor psychosocial functioning, depressive disorder diagnosis, and longer episode duration by study entry, with an interaction between episode duration and depressive disorder diagnosis.

Conclusions: Characteristics of depression generally predicted the outcome better than comorbidity. Axis II comorbidity has prognostic value in adolescent depression.

FC03.03

Drug consumption, health service use and outcome in opiate addicts in Europe: An 18-month follow-up from athens to zurich

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