

## THREE YEAR OUTCOMES IN AN EARLY INTERVENTION SERVICE FOR PSYCHOSIS IN A MULTICULTURAL AND MULTIETHNIC POPULATION

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### SUMMARY

**Background:** Concern has been expressed that it may be difficult to provide certain interventions to some ethnic groups in an Early Intervention Service for Psychosis, and that as a consequence, three-year outcomes for the different Ethnic Groups may be different in different groups. To test whether there are differences between the three year outcomes of different ethnic groups represented in the patient population of an Early Intervention service for Psychosis.

**Subjects and methods:** The three-year outcomes for the first group of 62 Patients to receive three years treatment in the Early Intervention Service in Luton, Bedfordshire were examined. This group well represented the ethnic mix of the population of Luton.

**Results:** It does not appear that there are major differences between the three-year outcomes of any one of the three groups studied. However the South Asian Patients appear to present earlier, with shorter DUPs, seemed more likely to marry, live with their families, and seem more likely to return to higher education after a first psychotic episode of psychosis compared to the Caucasians. Afro-Caribbeans and South Asians were more likely to be unemployed, but many South Asians were employed, as were Caucasians. The fewest persons employed were in the Afro-Caribbean group. While slightly more South Asians and Afro-Caribbeans were admitted compulsorily under the mental health act over the three years, 60% of each of the two non-white groups were never admitted compulsorily. This is different from the reported national trends of the Mental Health act being used excessively with the Afro-Caribbean population.

**Discussion:** No previous study has looked at the outcomes of Early Intervention Services for First Psychotic Episodes according to the Ethnic Origin of the Clients.

The better outcomes seen with South Asians are probably due to cultural factors among the South Asians born in this country, rather than to issues related to the Psychotic Illness itself.

**Conclusion:** These findings are important in planning services in areas where there is much ethnic diversity. The above conclusions must be understood as relating to patients who are well engaged with services. It would be unwise to extrapolate these outcomes to patients in the general population who have not engaged with services.

**Key words:** Early Intervention for Psychosis – ethnicity - South Asians - Afro-Caribbeans – Caucasians

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Poster first presented at the First International Conference in Transcultural Psychiatry Beijing 2006 at the request of the UK Department of Health. **Conflict of interests:** None of the authors have any conflicts of interest to declare.

**Contributions of Authors:** Dr Mark Agius was clinically responsible for treating the Patients. Drs Samir Shah and Roshelle Ramkisson abstracted data from the clinical files, Dr Rashid Zaman gave general supervision and advice, as head of the team, Dr Suzanne Murphy advised regarding statistical analysis. Albert Persaud gave advice regarding ethnic issues.

## **INTRODUCTION**

Concern has been expressed that it may be difficult to provide certain interventions to some ethnic groups in an Early Intervention Service for Psychosis, and that as a consequence, three-year outcomes for the different Ethnic Groups may be different in different groups. The reasons for this concern were the difficulties we had experienced within our service in adapting our standard early intervention techniques and methods of engagement to work with different cultural groups, and in particular South Asian Patients. These difficulties in engagement have been described elsewhere (Agius 2003).

### **Aim**

To test whether there are differences between the three year outcomes of different ethnic groups represented in the patient population of an Early Intervention service for Psychosis.

## **SUBJECTS AND METHODS**

Early Intervention services have been established throughout England in order to treat patients who have suffered a first psychotic episode, according to the policy of the British Department of Health.

Luton is a very multiethnic community, and there are specific issues regarding engaging with patients of different ethnic groups, many of whom do not come forward for treatment readily, since their explanatory models of psychotic illness may be different from the accepted European view. As a consequence DUP (Duration of Untreated Psychosis) may be long with many patients in Luton. The Duration of Untreated Psychosis is defined as the time between when the patient develops psychotic symptoms and the time when the patient first begins to receive treatment with antipsychotics. A long DUP is known to adversely affect prognosis of Schizophrenia (Marshall 2005).

In order to test whether there were differences in outcomes at three years in different ethnic groups, the three-year outcomes for a group of 62 Patients who had been treated in the Early Intervention Service in Luton, Bedfordshire were examined. These were the first 62 patients to be treated for three years in the Early Intervention Service, and well represented the ethnic mix of the population of Luton.

The Early Intervention Service has been described elsewhere, as has the establishment of which outcome measures were to be measured (Agius 2007).

An assertive treatment approach is carried out with the patients, which means that each patient has an allocated care co-ordinator who works with the family and the patient for three years. A key role of the care co-ordinator is to deliver psycho-education (Agius 2007) to both the patient and the family, so that the patient and family can understand the nature of the illness, can identify early signs of relapse, and can avoid behaviours, such as non-concordance with prescribed medication and illicit drug taking which might lead to relapse. Thus the object of psycho-education is to enable the patient and family to understand and manage the psychotic illness (Agius 2007).

The admission criteria to the early intervention service and the treatment outcomes to be measured at three years are listed in the following two tables:

**Table 1.** Assertive case management Early Intervention Team Entry Criteria

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assertive case management / EI Team entry criteria
<ul style="list-style-type: none"><li>• all clients are aged 14-35</li><li>• clients will have psychosis of any diagnostic category</li><li>• all clients will receive service interventions for 3 years</li><li>• clients will not be engaged with any other service</li><li>• clients who have only received anti-psychotic medication for less than a month are included</li><li>• learning disabled and brain injury clients are excluded</li></ul>

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It should be noted that for pragmatic reasons some patients (n = 9) had to be admitted to the service who had early rather than first psychotic episodes.

**Table 2.** Outcome criteria for assertive Early Intervention Team

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Outcome criteria for assertive case management EI Team
<ul style="list-style-type: none"><li>• Client's mental state will improve (By BPRS, PANNS, or KGV)</li><li>• Client's social needs (i.e. housing, support, food etc) will be met</li><li>• Post Psychotic Depression will be addressed</li><li>• Clients will return rapidly to employment or education</li><li>• Clients will continue taking medication throughout the three years of the intervention</li><li>• Medication use will be optimised, including due care of side effects and early use of clozapine if appropriate</li><li>• Relapse rate will be reduced</li><li>• Suicide rate will be reduced</li><li>• Use of the mental health act will be reduced</li><li>• Clients and families will have an increased understanding of psychosis and how to prevent it</li><li>• Families and carers will receive the support they need and high EE will be reduced</li><li>• Illicit drug use is reduced</li></ul>

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The overall outcomes of this service have been partially described elsewhere, compared with a similar group who had treatment as usual within a Community Mental Health Team (Agius 2007), and the full results are submitted for publication (Agius 2007). Two of the patients were Chinese, and were eliminated from the study because there were insufficient patients to form a Chinese group of patients. The rest of the sample was divided into three groups; (1) Caucasians, (2) Africans, and Afro-Caribbeans, and (3) South Asians (including patients from India, Pakistan, and Bangladesh).

The groups could not be split further, because otherwise the numbers would become too small to analyse. There were 26 patients in the Caucasian group, 10 in the African/Caribbean group and 25 in the South Asian Group.

Data was extracted, including Basic Data and Measures of outcomes of treatment at three years.

The patients were treated in a multidisciplinary team consisting of Doctors, Nurses, Social Workers, and Psychologists. They all had a diagnosis in the Schizophrenia spectrum, including Schizophrenia, Schizoaffective Disorder and Acute Psychotic Episode. None of the Patients had a diagnosis of Bipolar Illness.

## **RESULTS**

The Results in the three groups were converted to Percentages, so that comparisons between the three groups could be made. The graphs presented represent real numbers rather than percentages. The results are presented in table 3.

## **DISCUSSION**

To our surprise it appeared that on average, Caucasians presented 2 years later than the other two groups, and South Asians on average presented earlier than the other two groups.

As a consequence, the Duration of Untreated Psychosis (DUP) was four months longer in the Caucasian group than the other two groups.

In all groups the male gender predominated, but 20% of the South Asian group were women, compared to 30 % of the Afro-Caribbean Group, and 26.9% of the Caucasian Group. Therefore somewhat fewer South Asian Women presented, it was unclear if this represented a significant reduction in the number of South Asian women presenting, as has sometimes been suggested would be the case, due to cultural factors.

South Asians were much more likely to be married than the other two groups. Four of the South Asian Patients got married during the three years of treatment.

Much Fewer South Asians had used illicit drugs, particularly Cannabis, before first presenting to services; 24% compared to 70% in the Afro-Caribbean and 76.9% in the Caucasian Group.

Over 90% of patients in all three Groups showed an improvement in their Mental State as shown by the PANSS scale. Less patients in the Caucasian Group (26.9%) admitted to any positive or negative symptoms compared to the other two groups.

**Table 3.** Complete Outcomes of Early Intervention Service divided into Three Ethnic Groups and expressed as percentages

	South Asian Patients	South Asian %	Afrocari-bean Pts	Afrocari Pts %	Cauc Pts	Cauc Pts %
Total Numbers	25	100	10	100	26	100
female	5	20	3	30	7	26.9
male	20	80	7	70	19	73
single	10	40	9	90	26	100
married	10	40	1	10	0	0
PANSS improvement	23	92	10	100	24	92.3
residual symptoms	10	40	5	50	7	26.9
No residual symptoms	15	60	5	50	19	73
live with family	22	88	7	70	16	61.5
live alone	3	12	3	30	10	38.4
post psychotic depression	4	16	4	40	8	30.7
No post psychotic depression	21	84	6	60	18	69.2
unemployed	8	32	4	40	6	23
on job market/employed	12	48	1	10	17	65.3
at courses	5 all degree level	20	6 (2 deg lev)	60	7 (2 degree)	26.9
compliant	16	64	7	70	16	61.5
non compliant	5	20	1	10	5	19.2
not on medication	5	20	2	20	4	15.3
depot	1	4	2	20	1	3.8
atypicals	18 (2 clozapine)	72	5	50	18 (2 cloz)	69.2
relapses 1	5	20	1	10	5	19.2
relapses2	6	24	2	20	5	19.2
relapses 3	5	20	2	20	4	15.3
relapses 4 +	4	16	2	20	6	19.1
cont psychotic	0	0	2	20	1	3.8
relapses 0	5	20	1	10	5	19.2
readmissions 1	2	8	2	20	7	26.9
readmissions 2+	8	32	1	10	2	7.6
readmissions 0	14	56	7	70	13	50
attempts suicide	3	12	0	0	2	7.6
MHA used	10	40	4	40	9	34.6
MHA never used	15	60	6	60	17	65.3
Client Psycho education	25	100	9	90	24	92.3
No Client Psycho education	0 (2 poor understanding)	0	1	10	2	7.6
Family Psycho education	14	56	5	50	12	46.1
No Family Psycho education	11	44	5	50	14	53.8
Family Work	12	48	1	10	11	42.3
No Family Work	13	52	9	90	15	57.6
Early Signs Done	19	76	8	80	18	69.2
Early Signs NOT Done	6	24	2	20	8	30.7
Used Drugs Initially	6	24	7	70	20	76.9
Not Used Drugs Initially	19	76	3	30	6	23
Stopped Drugs	4	16	4	40	14	53.8
average age	23.7		22.8		25.5	
average DUP	22.9 months		22.2 months		26.6	

A higher proportion of South Asian Patients (40%) and Afro-Caribbean Patients (50%) had residual symptoms than did Caucasian Patients (26.9%).

Rates of Compliance with Medication are similar in the three groups, being between 61% and 70%.

Most patients who were still taking medication at three years were on Atypical Anti-psychotics. Interestingly, only 50% of the Afro-Caribbean Group were on these drugs, while 70% of the patients in the other groups were on Atypicals, including Clozapine.

Only four patients were on Typical Depots., of whom two were Afro-Caribbeans, and one each in the other two groups.

Multiple relapses seemed to occur over the three years in almost equal numbers in all three groups, but, due to our assertive early intervention policy, relapses were usually treated outside hospital. Multiple admissions over the three years were most common among the South Asian Group (32%) as opposed to 10% in the Afro-Caribbean and 7.6% of the Caucasian Group. Only one admission occurred in 26.4% of the Caucasian, 20% of the Afro-Caribbean, and 8% of the South Asian Patients.

On the other hand, 56% of the South Asians, 70% of the Afro-Caribbeans, and 50% of the Caucasians were never admitted to hospital. These figures put national concerns that Afro-Caribbeans are particularly likely to be admitted into secure units into perspective; in our service, both Afro-Caribbean and South Asians were more likely to be entirely treated outside of Hospital.

Twelve percent of the South Asians and 7.6% of the Caucasians attempted suicide within the three years. There were no fatalities. The higher rates of suicide attempts among the South Asians was probably due to one particular patient who made several attempts.

In three years, compulsory admission to hospital via the Mental Health Act occurred with 40% of the South Asians and 40% of the Afro-Caribbeans, but with 34.6% of the Caucasians. Thus, while slightly more South Asians and Afro-Caribbeans were admitted compulsorily to hospital under the mental health act over the three years, 60% of each of the two non-white groups were never admitted compulsorily. This again is different from the reported national trends of the Mental Health Act being used excessively with the Afro-Caribbean population.

More South Asian patients (88%) lived with their family by three years after their first presentation than Caucasian Patients (61.5%). The Afro-Caribbean Patients (70%) took an intermediate position regarding this. This probably reflects traditional values among the Asian patients and their families.

Post Psychotic Depression was more common with the Caucasian (30.7%) and Afro-Caribbean Patients (40%) than with the Asians (16%). This may relate to different concepts of 'depression' among the different groups.

More Patients were unemployed at three years in the Asian (32%) and the Afro-Caribbean (40%) groups than in the Caucasian Group (23%).

On the other hand, there were a surprisingly large number of patients in the Asian group who were engaged in courses of higher education at degree level – 5, or 20%; and this number in itself accounted for the particular success our service has achieved in returning patients to university. This may reflect a greater drive among second-generation Asians to succeed. It should be noted that the two Chinese patients who were in our group of patients were both young male university students who both achieved degrees.

Employment rates are highest in the Caucasian group (65.3%), followed by the South Asian Group (48%), and lowest in the Afro-Caribbean Group (10%).

Patient Psycho-education was delivered to between 90 and 100% of patients in all groups. However family psycho-education or other more structured work could in effect be only be delivered to about half of each group. This was because many patients did not live with their families or because families did not engage with us. Thus, family psycho-education occurred in 46% of Caucasian Patients, 56% of South Asian Patients, and 50% of Afro-Caribbeans. Similar figures apply to more complex family intervention work. This reflected the fact that many families of all groups did not engage with us as the patients did. The figures do not suggest that there were particular difficulties in engaging with families of any particular ethnic group. Between 70 and 80% of patients in all groups had, as part of their psycho-education, the formal identification of early signs of relapse. The lowest number of patients where early signs were done was in the Caucasian group (69.2%). Early signs were identified in 76% of the South Asian Group and 80% of the Afro-Caribbean Group. Again it does not appear that there were particular problems in engaging with patients of any particular ethnic group regarding this.

It is noteworthy that a good number of patients stopped using illicit drugs. The drugs were usually Cannabis, but other drugs such as cocaine were also involved from time to time. We believe our success in helping patients stop using illicit drugs was as a result of the psycho-education which they received. This occurred with 40% of Afro-Caribbean Patients, 53.8% of Caucasian patients, and 16% of south Asian patients, but it must be born in mind that only 24% of South Asians used illicit drugs at the beginning of treatment, as opposed to 70% in the Afro-Caribbean and 76.9 % in the Caucasian Group.

Because Early Intervention Services for Psychosis are a relatively new development in Mental Health Services in England, there have been no other specific studies describing the outcomes of these services in terms of other ethnic groups, and therefore there can be no comparisons made with other services or other published papers. Thus the work described above must be described as pioneering work. Often, we have had to adapt standard methods of psychosocial interventions and psycho-education flexibly in order to achieve engagement with patients of different ethnic groups. This is the subject of another paper presently under review. What is clear is that, despite the differences in Ethnic Groups in a very poor Inner City area of the UK, our service appears to have been able to provide effective interventions to all our patients.

## **CONCLUSION**

It does not appear that there are major differences between the three year outcomes of any one of the three groups studied. Patients in all groups appeared to benefit from the assertive approach of the Early Intervention Team.

However the South Asian patients appear to present earlier, with shorter DUPs, and seem more likely to return to higher education after a first psychotic episode of psychosis compared to the Caucasians. This is probably due to cultural factors among the South Asians born in this country, rather than to the Psychotic Illness itself.

The above conclusions must be understood as relating to patients who are well engaged with services. It would be unwise to extrapolate these outcomes to patients in the general population who have not engaged with services.

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