MODULE 1

Recognition

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Abbreviations

BLIPS	Brief, limited or intermittent psychotic symptoms
BPRS	Brief Psychiatric Rating Scale
CBT	Cognitive behaviour therapies
COPE	Cognitive Psychotherapy in Early Psychosis
EE	Expressed Emotion
EPACT	Early Psychosis Assessment and Care Team
EPPIC	Early Psychosis Prevention and Intervention Centre
EPS	Extrapyramidal side effects
GAF	Global Assessment of Functioning Scale
IRAOS	Interview for the Retrospective Assessment of the Onset of Schizophrenia
NAMI	National Alliance for the Mentally Ill
NSF	National Schizophrenia Fellowship
PACE	Personal Assessment and Crisis Evaluation
PT	Personal Therapy
RPMIP	The Royal Park Multidiagnosic Instrument for Psychosis
STOPP	Systematic Targeting of Prolonged Psychosis
VLD	Very low dose

Preface

Preventive intervention in early psychosis is a relatively new area for most clinicians working in mental health. Thus, much of the basis for intervention is based on first principles and the clinical experience of pioneering early psychosis services rather than on conclusive evidence. Throughout the *Early Psychosis Training Pack* we have cited such data as there are on which our principles and practice are based. In other cases, our recommendations are based on our experience with more than 1,500 first-episode patients since the initiation of the Aubrey Lewis Recovery Programme in 1986 and the subsequent development of the Early Psychosis Prevention and Intervention Centre (EPPIC) in 1992. It could be argued that the development of a training pack of this sort should wait for the systematic generation of data on the outcome of the treatment approaches outlined but we are aware that clinicians need information now and so offer the following modules as a contribution to filling that information gap.

In creating this training pack we have tried to tread a middle path between a comprehensive theoretical text book and a detailed 'how to do it' manual and to develop a series of introductory modules which will give users an indication of the breadth and depth of each subtopic with recommendations for immediate implementation and further reading. The *Early Psychosis Training Pack* is, however, primarily targeted at mental health workers who already work with people with psychotic disorders, and who will have experience in implementing mental health assessments and biopsychosocial interventions. For example, in Module 5 covering specific applications of cognitive behavioural therapy, users who do not already have a background in this area will need to consult other recommended texts for first principles.

We are in the process of establishing a worldwide network of clinicians working in the field of early psychosis. The *Early Psychosis Training Pack* represents a first step in our efforts to share the expertise gathered at EPPIC and elsewhere and we invite you to join us in the development of an international collaboration to further 'best practice' in the care of people experiencing a psychotic disorder.

Acknowledgements

The *Early Psychosis Training Pack* has arisen largely out of the work that has gone into the development of the Early Psychosis Prevention and Intervention Centre (EPPIC) here in Melbourne, Australia. We are therefore indebted to our colleagues at EPPIC and elsewhere for making their contributions to the principles and practices outlined in the Training Pack available to us. We are also grateful to the international panel of reviewers whose constructive comments have been so helpful.

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Key messages

- Early intervention in psychotic disorders is dependent on early recognition of the illness and the initiation of appropriate treatment or management strategies at the earliest opportunity.
- Delayed treatment can have serious consequences for patients and their families.
- Early intervention allows preventive strategies to be adopted. These may reduce long-term morbidity and improve recovery. Untreated patients may experience significant biological, social and psychological deterioration in the early phase of their psychotic illness.
- General practitioners have an important part to play in starting treatment early. They should maintain a high degree of suspicion when treating young people with persistent changes in behaviour and functioning, particularly where other risk factors are present.
- Early recognition of young people suspected to have pre-psychotic symptoms (i.e. in the prodromal phase) is vital. These individuals can then be monitored for the emergence of psychosis. This helps to reduce the delay before treatment is started and allows other problems to be addressed in the meantime, thereby reducing the risk of psychosis developing.

Why early recognition is important

Early recognition of the psychosis allows early intervention and the initiation of appropriate treatment or management strategies at the earliest opportunity. Delays in starting treatment can have serious consequences for patients and their families.

Extent of delays before initiation of treatment

A significant period of time often separates the onset of psychotic symptoms and the initiation of appropriate treatment. A study by Helgason (1990) found that the delay between the onset of psychotic symptoms (defined as onset of obvious, and usually unpleasant changes in behaviour as observed by family members or other sources) and first treatment contact was around 2.5 years in patients with schizophrenia. A similar study by Loebel et al. (1992) found that patients with first-episode schizophrenia experienced psychotic symptoms for a mean of one year before treatment was initiated. A third study reported that many patients with first-episode schizophrenia had multiple contacts with services before effective assistance was provided (Johnstone et al., 1986). This experience resulted in significant distress for patients.

The delays that precede initial treatment for psychotic disorders are characterised by two phases:

1. prodromal period prior to the onset of florid psychotic symptoms
2. period of undiagnosed and untreated psychosis
   (McGorry et al., 1995).

In patients with schizophrenia, the prodromal period (from first noticeable change in behaviour to first appearance of overt psychotic symptoms) lasts on average for around two years. As mentioned earlier, the period of untreated psychosis in these patients is usually around one year (Loebel et al., 1992).

Although shorter delays are reported for other psychoses, they are still sufficient to cause concern.

Consequences of delayed treatment

A growing body of evidence suggests that delays in providing effective treatment for patients with psychosis has significant effects on medium and long-term outcome (Loebel et al., 1992; Johnstone et al., 1986; Wyatt, 1991). Adolescents and young people are most frequently the ones affected by first-episode psychosis. These individuals are particularly vulnerable to disruption of their developmental pathways. Delays in starting effective treatment may diminish their chances of complete recovery and/or slow the recovery process. There are a number of other consequences arising from delayed treatment for psychotic symptoms (see box).

Consequences of delayed treatment:

- slower and less complete recovery
- poorer prognosis
- increased risk of depression and suicide
- interference with psychological and social development
- strain on relationships; loss of family and social supports
- disruption of patient's parenting skills (for those with children)
- distress and increased psychological problems within the patient's family
- disruption of study, employment and unemployment
- substance abuse
- violence/criminal activities
- unnecessary hospitalisation
- loss of self esteem and confidence
- increased cost of management.

The 1990 study by Helgason mentioned earlier followed 107 patients with schizophrenia over a 20-year period. Patients who sought treatment earlier tended to have better outcomes, whereas patients with longer delays before seeking treatment were more often admitted to hospital, and required longer periods of inpatient care (Helgason, 1990). Loebel et al. (1992) in their study of 70 patients with first-episode schizophrenia concluded that the duration of illness prior to treatment is independently associated with slower and less complete recovery from the initial episode of psychosis. Johnstone et al. (1986) found that delays in receiving treatment for schizophrenia are independently associated with a greatly increased risk of relapse over the following two years.

Another possible result of the delay in seeking antipsychotic treatment is treatment resistance (Wyatt, 1991). It is worth remembering that, aside from any detrimental effects on outcome, one of the consequences of delaying antipsychotic treatment is that the cost of such treatment when it is finally initiated may be higher than if it had been started earlier (Moscarelli et al., 1991; Lincoln and McGorry, 1995).

Strategies for reducing delays in starting treatment

The diverse and potentially serious consequences of delaying the introduction of antipsychotic treatment underline the importance of early recognition as a means of facilitating early treatment intervention.

Ways to reduce treatment delays

- *Improve recognition*
  - *educate primary care providers – raise awareness of the early signs of psychosis*
  - *educate the community – reduce the stigmas associated with psychotic disorders (these can deter patients and their families from seeking help)*
- *Increase referrals*
  - *provide a responsive, user-friendly service*
  - *reduce the fear and stigma associated with psychiatric services*
- *Provide easy access to psychiatric services*
  - *rapid response*
  - *flexible approach*
  - *assertive outreach.*

Potential benefits of early intervention

The main reason for seeking to improve early recognition of psychotic symptoms and for reducing delays in starting treatment is to maximise the potential benefits of early intervention. The patient's condition and environment can deteriorate significantly in the first two to five years after the onset of symptoms. Estimates of relapse rates vary, but a one-year figure of 15–35% and a two-year figure of 30–60% are suggested (Birchwood et al., in press). Early intervention may help to reduce this deterioration.

Potential benefits of early intervention

Reduced delay in starting treatment may lead to:

- *less medium-term disability and lower risk of relapse*
- *reduced risk of suicide (many patients attempt suicide in the pre-treatment period)*
- *fewer forensic complications (also in untreated/pre-treatment period)*
- *reduced vocational/developmental disruption*
- *less trauma during assessment and the start of treatment*
- *lower doses of antipsychotic medication needed*
- *reduced need for inpatient care*
- *lower medium-term health costs*
- *reduced family disruption and distress.*

More intensive early treatment may lead to:

- *improved recovery (Birchwood and MacMillan, 1993; McGorry et al., 1996)*
- *more rapid and complete remission (Loebel et al., 1992; McGorry et al., 1996)*
- *better attitudes to treatment*
- *lower levels of expressed emotion (EE)/family burden (Stirling et al., 1991)*
- *less treatment resistance.*

Opportunities for prevention

Early recognition and intervention provides opportunities for prevention early in the course of the illness (Table 1). This approach can help reduce later morbidity and promote better recovery.

Typically, the course of the first psychotic episode can be thought of in three phases (see Figure 1):

- pre-psychotic (prodromal) phase
- acute phase (florid psychotic symptoms emerge)
- recovery phase.

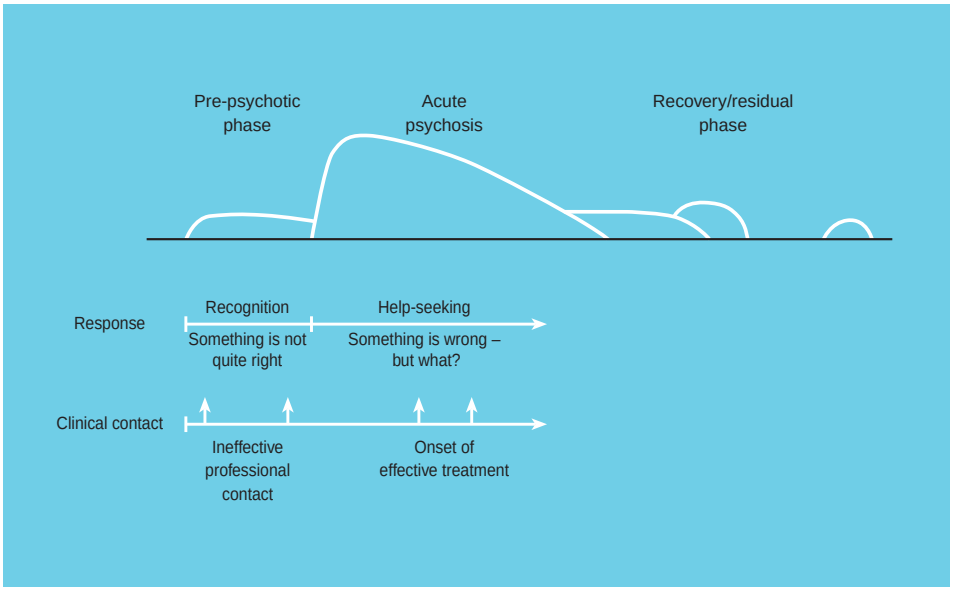

Figure 1. Phases of early psychosis

Preventive strategies appropriate to each stage of psychotic illness need to be integrated across biological, psychological and social interventions.

Table 1. Spectrum of prevention in psychotic illness

	Primary prevention			Secondary prevention		
	Selective prevention		Indicated prevention	Early intervention		
Phase of disorder	High risk/vulnerable (children of psychotic parents)			Prodrome of psychosis	First episode and beyond	First post-psychotic period
	Symptom free	Non-specific disorder	Spectrum disorder			
Type of Intervention	Regular review	Regular review	Regular review	Regular review	Early detection	Develop working alliance
	Other interventions e.g. Genetic counselling Antenatal care	Other interventions e.g. Remedial schooling Social skills training	Other interventions ? CBT	Low-dose neuroleptics?	? Admission or community-based treatment	Sustain non-toxic drug therapy
					'Non-traumatic' management	
				Other non-drug therapies e.g. CBT Psycho-education Family intervention	Non-toxic drug therapy	Protect self concept COPE CBT
					Recovery work and CBT	Reduce secondary morbidity
						Target treatment resistance early
				Family support		Family support
						Vocational assistance
						Manage stigma
						Detect relapse early

(Adapted from McGorry and Kulkarni, 1994)

The possibility of identifying individuals at high risk of developing psychosis opens up new prevention possibilities.

Pre-psychotic phase

Research suggests that a number of symptoms are often experienced by patients in the period preceding a psychotic episode, these include:

- changes in affect
  - suspiciousness, depression, anxiety, mood swings, feelings of tension, irritability, anger
- changes in cognition
  - odd ideas, vagueness, difficulties with concentration or recall
- changes in perception of self, of other people, the world at large
- physical and perceptual changes
  - sleep disturbances, appetite changes, somatic complaints, loss of energy or motivation, perceptual disturbances.

Although the individual may be distressed by these symptoms, they may find it difficult to talk about them with other people or to seek help. Friends and family may notice something different about the patient (for example, social withdrawal, deterioration in work or study), but may not be able to identify the cause. If they suspect a psychiatric illness, the stigma associated with this disorder may deter them from seeking assistance.

A young person thought to be in a pre-psychotic phase should be monitored closely so that treatment can be started without delay, should psychotic symptoms develop. In the meantime, other possible causes, such as drug abuse, and problems within the family can be addressed, with the aim of reducing the risk of the patient progressing to florid psychosis.

In the future, it may be possible to predict those individuals at high risk of developing a psychotic disorder and to offer more specific treatment, perhaps even including low-dose antipsychotic medication.

First psychotic episode

Significant deterioration can occur early in psychosis. Preventive strategies at this stage aim to reduce or remove the factors that contribute to this deterioration (McGorry and Singh, 1995; Lincoln and McGorry, 1995).

Treatment of early psychosis needs to integrate biological, social and psychological approaches to prevent further deterioration (see box on next page).

Early intervention in psychosis

1. *Biological*

- antipsychotic-free period
- clinical investigation
- treat anxiety
- administer low-dose antipsychotics and titrate slowly
- avoid side effects
- treat symptoms effectively.

2. *Psychological*

- gain the patient's trust
- promote compliance with antipsychotic and other medication
- reassure the patient
- employ psychoeducation
- consider the trauma of being psychotic
- minimise distress associated with hospitalisation and treatment.

3. *Social*

- family involvement
- peers
- employment and education.

4. *Benefits of early recognition*

- home or outpatient treatment may be possible, minimising distress and fostering independence
- lower doses of antipsychotics are more likely to be effective
- some sporadic complications (for example, violence and substance abuse) may be prevented
- treatment may be a less fraught process
- there may be more rapid remission and less 'collateral' damage.

How to achieve early recognition

The key to early recognition is to keep the possibility of psychosis in mind when treating young people experiencing persistent changes in behaviour and functioning, especially in the presence of other risk factors. Maintain a high index of suspicion.

Role of primary care professionals

Young people experiencing behavioural changes, hallucinations or delusions may be distressed and confused. Patients and their families may not be aware of what is happening, or may be deterred by the thought of contact with psychiatric services. They may not seek professional help for a prolonged period of time. General practitioners and other primary care professionals are often the first point of contact when young people or their families first express their concerns. These healthcare professionals play a critical role in ensuring that the delay in starting early intervention is kept to a minimum. General practitioners should be alert to the possibility of pre-psychosis or psychosis when patients or their families present with troublesome symptoms (A Stitch in Time: Psychosis ... Get Help Early, 1994).

After the initial diagnosis and referral, the family doctor has a continuing role in coordinating the specialist care offered by different services as well as providing treatment and assistance. It is important to recognise that an individual patient's needs vary according to the stage of illness. Familiarity with the benefits and drawbacks of various medications, the other types of therapy that are available, and the specialist and social support resources in their area will help patients and their families get the best possible care.

Triggers for considering psychosis or pre-psychosis

The possibility of a psychotic disorder should be considered when an adolescent or young person is experiencing a persistent change in behaviour or functioning. This is particularly true where there are other risk factors present, the most important of which is a family history of psychotic illness.

Signs and symptoms

1. Maintaining a high index of suspicion – signs to look out for:

- suspiciousness
- depression
- anxiety
- tension
- irritability
- anger
- mood swings
- sleep disturbances
- appetite changes

- loss of energy or motivation*
- difficulties with memory or concentration
- perception that things around them have changed*
- belief that thoughts have speeded up or slowed down*
- deterioration in work or study*
- withdrawal and loss of interest in socialising*
- emerging unusual beliefs*.

**denotes factors of particular concern*

These signs are not necessarily early warning signs of developing psychosis; they can be caused by other disorders or be temporary reactions to stressful events. An unexplained reduction in adaptive functioning and loss of peer relationships in a young person is a key indicator for further assessment.

2. Positive psychotic symptoms:

- thought disorders
- delusions
- hallucinations.

These will often continue until the patient receives appropriate treatment but will sometimes disappear.

Risk factors

If a change in behaviour or functioning has been noticed, the presence of risk factors should be assessed.

Risk factors for psychosis can be divided into three main groups:

- age:
  adolescence and young adulthood
- trait risk factors:
  family history of psychotic disorder
  vulnerable personality (e.g. schizoid, schizotypal)
  poor premorbid adjustment
  history of head injury
  ? low IQ
  history of obstetric complications/perinatal trauma *(NB: these are weak risk factors)*
  season of birth
- state risk factors:
  life events, perceived psychosocial stress
  drug abuse
  subjective and functional change in the person (duration and degree?).

Vulnerable personality

Schizophrenia-spectrum personality disorders have been identified that seem to increase vulnerability to schizophrenia. It is not clear, however, what the precise risk of developing psychosis is in this vulnerable group. A range of therapies might be useful.

Preliminary assessment

(Note: Strategies for early assistance, initial assessment and acute management are discussed in more detail in Modules 2–4.)

The first interview provides an opportunity to begin to form a therapeutic alliance with the patient so it is important to establish rapport and trust. The interview should not be viewed as purely an information-gathering exercise.

Preliminary assessment – areas to cover

- *Establish rapport*
  - *greet the patient and family*
  - *aim to see the patient first, then the family*
  - *recognise that the patient may be nervous, wary or may not want to see you*
  - *be open to the patient's experience and views*
  - *notice distress and empathise*
  - *find some common ground*
- *Explore the hints*
  - *why has patient dropped out of school?*
  - *why has she stopped sleeping?*
  - *why has he stopped seeing friends?*
  - *why has she changed her diet?*
- *Assess specific features*
  - *hallucinations*
  - *delusions*
  - *thought disorder*
  - *motor changes*
  - *changes in affect*
  - *vague possibly attenuated psychotic symptoms (e.g. ideas of reference, delusional mood, perceptual disturbances)*

- *Assess risk*
  - *suicidality: ask about this once rapport has been established*
  - *dangerousness: ask about this once rapport has been established (particularly important in presence of persecutory delusions or suspiciousness)*
  - *drug abuse*
- *Assess social situation*
  - *problems*
  - *family*
  - *friends and relationships*
  - *coping resources of key relatives*
- *Assess history*
  - *psychiatric and medical*
  - *family*
- *Physical assessment*
- *Assess family views*
  - *premorbid personality and functioning*
  - *family history*
  - *changes in patient: degree, duration, persistence*
  - *ask specifically about behavioural manifestations of psychosis*
  - *what is family's explanatory model and what do they want?*

Including information from family and friends in the assessment can be very useful. They may have noticed changes in behaviour that the patient has not or is unwilling to mention. Any information from third parties should be discussed with the patient, stressing that the family are providing information that will help. If possible, the patient's permission should be obtained beforehand.

Evolution of psychotic disorders

The idea that psychotic illness can result from a biological, often genetic, predisposition that interacts with stress to cause illness has important implications for preventive care. Preventive strategies can be adopted even in the prodromal phase.

Disorder development: stress-vulnerability models

In stress–vulnerability models, schizophrenia results from an enduring predisposition that interacts with environmental stress to cause illness (McGorry and Singh, 1995).

Stress–vulnerability models were developed in an attempt to explain the known facts about schizophrenia and its risk factors. Because these models separate sources of susceptibility to psychotic illness, their adoption has a number of interesting implications for preventive strategies.

Model I: The two-factor vulnerability model

- *Source A: polygenic influences on personality (mostly inherited and normally distributed).*
- *Source B: arises from relatively permanent structural changes in the brain that occur early in life.*
- *The two sources of vulnerability interact with stress to produce episodes of schizophrenia over a lifetime.*
- *Although the stress occurs randomly, vulnerable individuals are most susceptible at different ages.*
- *The susceptibility is nearly absent before puberty, peaks in early adulthood and then diminishes.*
- *As vulnerability decreases, the role of stressors becomes more prominent (Eaton et al., 1988; McGorry and Singh, 1995).*

Model II: The neurodevelopmental/environmental model of vulnerability (Figure 2)

- *Enduring vulnerability characteristics are present: information processing disturbances, psychophysiological response anomalies and social competence deficits.*

- *External environmental stimuli interact with these characteristics to produce a state of processing capacity overload, autonomic hyperarousal and impaired processing of stimuli.*
- *Psychotic symptoms then develop.*
- *Functional disturbances lead to further environmental disruption, setting up a vicious cycle.*

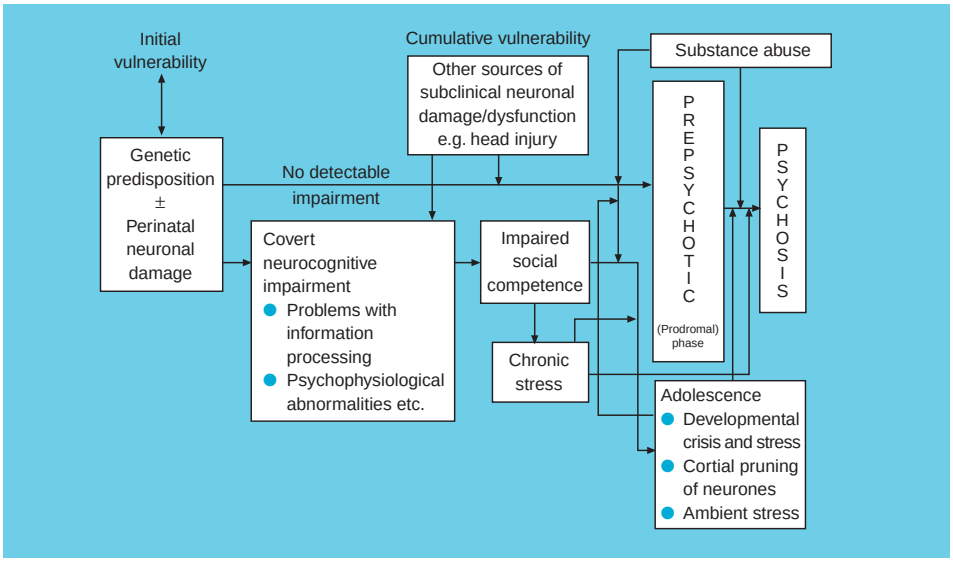

Figure 2. A neurodevelopmental/ environmental model of vulnerability

Four main sources of susceptibility can be identified:

- genetic vulnerability
- neuronal vulnerability
- life stress vulnerability with toxic accentuation of life stress depending on life stage
- physical vulnerability (for example, head injury, drug abuse) (McGorry and Singh, 1995).

Genetic vulnerability

In monozygotic twins where one twin has schizophrenia, there is a less than 50% chance of the other twin developing the disease. At present, people with a high degree of vulnerability to psychotic disease cannot be identified prenatally or early in life. The prospects for a preventive approach that involves modifying genetic vulnerability are therefore limited but, in cases where one twin has developed schizophrenia, the other one could be followed more closely.

Neuronal vulnerability

It is possible that attention to antenatal, obstetric and infant care, with a view to preventing infection during pregnancy, birth trauma, and illnesses or nutritional deficiencies in infants, could form the basis of a preventive strategy for reducing neuronal vulnerability. It seems unlikely, however, that this would have a great effect in developed countries. Indeed, the increasing survival rates for very premature babies and more aggressive approaches to treatment of serious illness in children could work in the opposite direction.

Life stress vulnerability

It is possible that techniques that help children cope with frustration, acquire self confidence, self esteem and feelings of competence could help to reduce vulnerability to psychotic disorders. Naturally, they may also have other benefits. Puberty, adolescence and early adulthood seem to be particularly vulnerable times and it is here that more targeted intervention programmes for selected individuals (for example, those with a family history of psychotic disorder, or with early symptoms) may have a role. Although the nature of the progression from pre-psychotic illness to psychotic illness is not clear, it is possible that it could be interrupted by early and intensive work with troubled adolescents.

Children of parents with psychotic disorders might benefit from particular attention, although a clearer understanding of risk factors for disorders such as schizophrenia will be needed before this approach could be developed fully.

What is the prodrome?

The prodrome is a period of non-psychotic disturbance in experience or behaviour that precedes the emergence of psychotic symptoms. If the prodrome can be recognised, it may be possible to interrupt progression to psychosis, or to facilitate rapid treatment upon its emergence.

Concept of the prodrome

The prodrome may be considered to be:

- the earliest form of a psychotic disorder
- a syndrome conferring increased vulnerability to psychosis, i.e. an ‘at-risk mental state’ or ‘precursor state’ (Eaton et al., 1995).

If the prodrome is indeed an early form of psychotic disorder, then without intervention psychosis will inevitably follow its emergence, even if this can only be defined retrospectively. On the other hand, if the prodrome is a risk factor for psychosis, then only a proportion of individuals experiencing a prodromal phase

will progress to a psychotic episode. (The term may be better replaced by 'precursor syndrome' or 'at-risk mental state'.) At present, the prodrome remains a retrospective concept and further work is needed before it can be used in a prospective or predictive way (McGorry and Singh, 1995; Eaton et al., 1995).

Because the prodrome is usually only identified in retrospect it has been difficult to identify people experiencing a prodromal syndrome, particularly as its features are variable and non-specific. The development of preventive strategies would mean a shift to a prospective framework.

Features of the prodrome

Information about the prodrome is now starting to accumulate, facilitating the shift to a prospective framework and preventive approaches (Yung and McGorry, 1996).

Prodromal features in first-episode psychosis most commonly described in first-episode studies (in descending order of frequency):

- *reduced concentration, attention*
- *reduced drive and motivation, anergia*
- *depressed mood*
- *sleep disturbance*
- *anxiety*
- *social withdrawal*
- *suspiciousness*
- *deterioration in role functioning*
- *irritability.*

Symptoms of the prodrome for schizophrenia are very prevalent in adolescents generally (Table 2).

Table 2. Prevalence of DSM-III-R schizophrenia prodrome symptoms in Australian 16-year-olds (rated as occurring occasionally or often)

Symptom	Presence (%)
Magical ideation	51.0 (often, 9.3)
Unusual perceptual experiences	45.6 (often, 5.3)
Social isolation/withdrawal	18.4
Markedly impaired role function	41.1
Blunted, flat or inappropriate affect	21.7
Digressive or overelaborate speech	21.7
Marked lack of initiative or energy	39.7
Markedly peculiar behaviour	25.2
Marked impairment in personal hygiene	8.1

(Adapted from McGorry et al., 1995)

Given the prevalence of these symptoms, they are unlikely to be specific for the subsequent development of schizophrenia or other psychotic disorders (i.e. prodromal), although they can still be precursors to, or at-risk mental states for these disorders (Table 3).

In one study (Jackson et al., 1995), patients with a diagnosis of schizophrenia were more likely to have a significantly higher proportion of prodromal symptoms than patients in the other diagnostic groups, although these symptoms were not exclusive to schizophrenia. In general, individual prodromal symptoms predicted up to around 50% of cases of schizophrenia and up to 20% of cases of schizophreniform disorder. Although prodromal symptoms are specified in DSM-III-R for schizophrenia, they are not specified for other psychotic diagnoses. As the above data show, prodromal symptoms have very limited utility in the specific diagnosis of particular psychotic disorders, but are important 'early warning' signs of incipient psychosis and DSM-IV now omits specific prodromal criteria for schizophrenia.

Estimates of the duration of the prodrome vary. The results of two North American studies suggest a mean value of two years in patients with schizophrenia (McGorry and Singh, 1995).

Table 3. Percentages of patients with first-episode psychosis with individual prodromal symptoms, by DSM-III-R diagnostic group

Diagnostic group	SZ (94)	SF (62)	SA (43)	DE (16)	BP (49)	DP (28)	NOS (21)
Prodromal symptom				**(% of patients)**			
Social isolation or withdrawal	76%	42%	61%	25%	15%	75%	33%
Marked impairment in role functioning	63%	36%	47%	19%	19%	61%	33%
Markedly peculiar behaviour	26%	16%	7%	0%	6%	18%	24%
Marked impairment in personal hygiene	22%	10%	14%	6%	2%	29%	10%
Blunted, flat or inappropriate affect	33%	18%	33%	0%	19%	32%	14%
Digressive, vague or metaphoric speech	29%	23%	19%	0%	27%	21%	38%
Odd or bizarre ideation	53%	34%	45%	25%	17%	25%	33%
Unusual perceptual experiences	24%	10%	30%	0%	6%	21%	10%
Marked lack of initiative interests or energy	24%	30%	65%	23%	4%	71%	31%

SZ = schizophrenia; SF = schizophreniform disorder; SA = schizoaffective disorder; DE = delusional disorder; BP = bipolar disorder; DP = major depressive disorder; NOS = psychotic disorder, not otherwise specified.
All patients were experiencing a first episode of psychosis.
(Adapted from Jackson et al., 1995)

What happens in the prodromal phase?

- *Profound changes in subjective experience and behaviour:*
  - *isolation from families and friends*
  - *damage to social and working relationships and prospects*
  - *deviant behaviour causes crises and losses*
  - *increased risk of self-harm, aggression and substance abuse*
- *Sense of self and personality maturation affected:*
  - *aberrant development, difficult to reverse.*

Patterns of prodromal changes

Psychotic prodromes do not necessarily follow one certain pattern of changes. A hybrid/interactive model has been proposed (Yung and McGorry, 1996) in which the prodrome can be a combination of patterns 1 and 2 shown in Figure 3, and in which people move in and out of non-specific and attenuated symptomatic periods. Both types of symptoms may precede psychosis and either may occur primarily, resulting in behavioural changes.

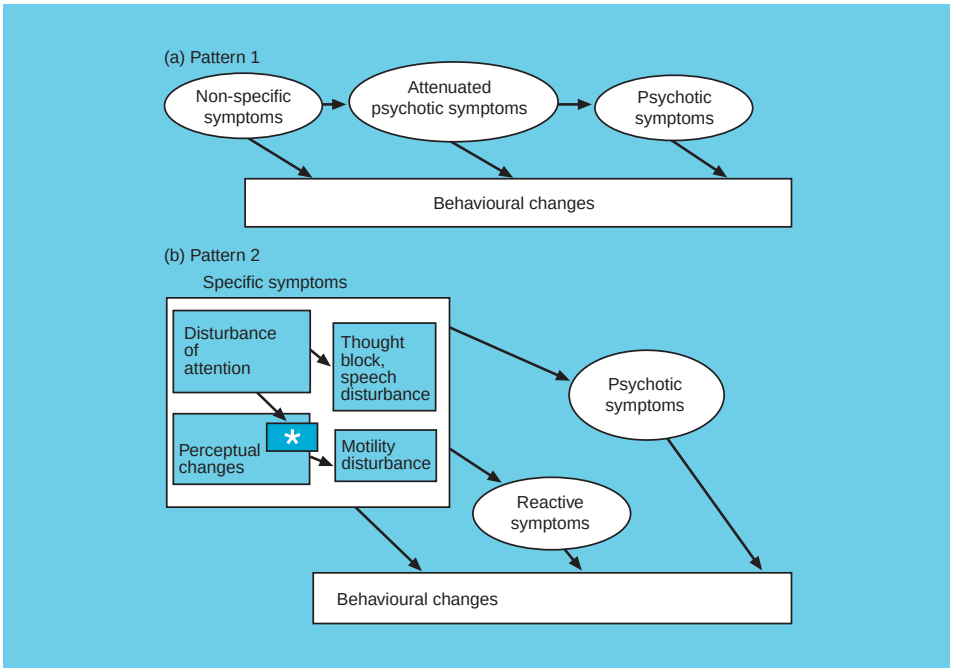

Figure 3. Models of prodromal changes: (a) Pattern 1. Non-specific changes occur first followed by more frank deviations from normal that are precursors to psychosis. Behavioural changes can result from any of the three symptom groups shown. (b) Pattern 2. Specific changes in attention and perception occur primarily. Some perceptual changes also occur secondary to attention disturbance (*). Attention and perception changes lead to other specific features of changes in speech and motility and thought block. Specific symptoms precede psychosis and are accompanied by non-specific reactive symptoms. Behavioural changes can result from any of the three symptom groups shown

Intervention in the prodrome

The variety of symptoms that may be present during the prodrome and the high prevalence of these nonspecific symptoms in the general population in this age range means that there is a substantial risk of unnecessary intervention with individuals who do not progress to florid psychosis. Until further information is gathered about the nature of the prodromal state itself, the relative risks of progression to psychosis, and the nature of this transition, the range of preventive strategies must remain limited.

Nevertheless, there are a number of strategies that can be recommended despite the limitations in our understanding of the prodrome.

Possible interventions in prodromal psychosis

1. Early recognition and access
Young people experiencing pervasive emotional and behavioural changes, particularly persistent ones, need easily available expert assessment. Efforts should be directed at parents, health professionals (particularly general practitioners), teachers and other groups to raise their awareness of these changes in young people, with a view to promoting their earlier recognition and assessment.

2. Follow-up of at-risk groups
Young people in whom the degree or rate of change or the presence of other risk factors (drug abuse, family history) means that they are thought of as being particularly at risk can be offered follow-up and intervention for specific problems such as drug abuse. In those who do go on to develop florid psychosis, delay in recognition and starting treatment will be minimised.

It is possible that future research will allow the identification of individuals who would benefit from antipsychotic medication before the emergence of florid psychosis, but at present this is not justified as the rate of false positives receiving medication would be too high.

Given the level of disability and symptoms in this group, psychosocial intervention is, however, justified (Yung et al., 1996).

Models of early psychosis

Early psychosis not early schizophrenia

A range of disorders can produce psychotic symptoms. They have a variety of additional features and different outcomes. In first-episode psychosis, distinguishing between these disorders for clinical purposes can be difficult and a syndromal approach can be more practical.

Psychotic disorders include schizophrenia, bipolar disorder, schizophreniform disorder, schizoaffective disorder, drug-induced psychosis, brief reactive psychosis, organic psychoses and delusional disorder.

Why 'early psychosis' and not 'early schizophrenia'?

- *prognosis as a diagnostic criteria*
- *diagnostic instability in early psychosis*
- *the clinician's illusion: concept of psychosis is built up around chronic cases as these are the ones to which they are most often exposed, with implications of pessimism, relapse and disability*
- *stigma.*

Psychotic mood disorders and schizophrenia are sometimes indistinguishable early in their course (McGorry, 1994). In general, diagnosis in early psychosis can be unstable; around 30–40% of diagnoses are changed within three months. In schizophrenia, prognostic features such as a decline in psychosocial functioning and prolonged course form part of the definition, confounding the diagnostic process (Yung and McGorry,1996). In the case of early psychosis, the course of the illness is not fully understood, relationships between symptoms and functioning are dynamic and several disorders may co-exist (McGorry et al., 1996). The course and outcome of psychosis is not well predicted by diagnostic category alone (McGorry et al., 1996). An early and definitive diagnosis of schizophrenia, for example, may damage the patient and family, by stigmatising them and affecting the way that they are viewed and managed by healthcare professionals. In addition, such a diagnosis does not contribute anything positive in terms of guiding treatment.

A new model for early psychosis

A flexible syndrome/course-based matrix model has been found to be useful in early psychosis (Figures 4 and 5) (for details see McGorry and Singh, 1995; McGorry et al., 1996).

Many combinations and sequences are possible and occur frequently. These lead to the range of DSM-IV diagnoses, which are often unstable over time.

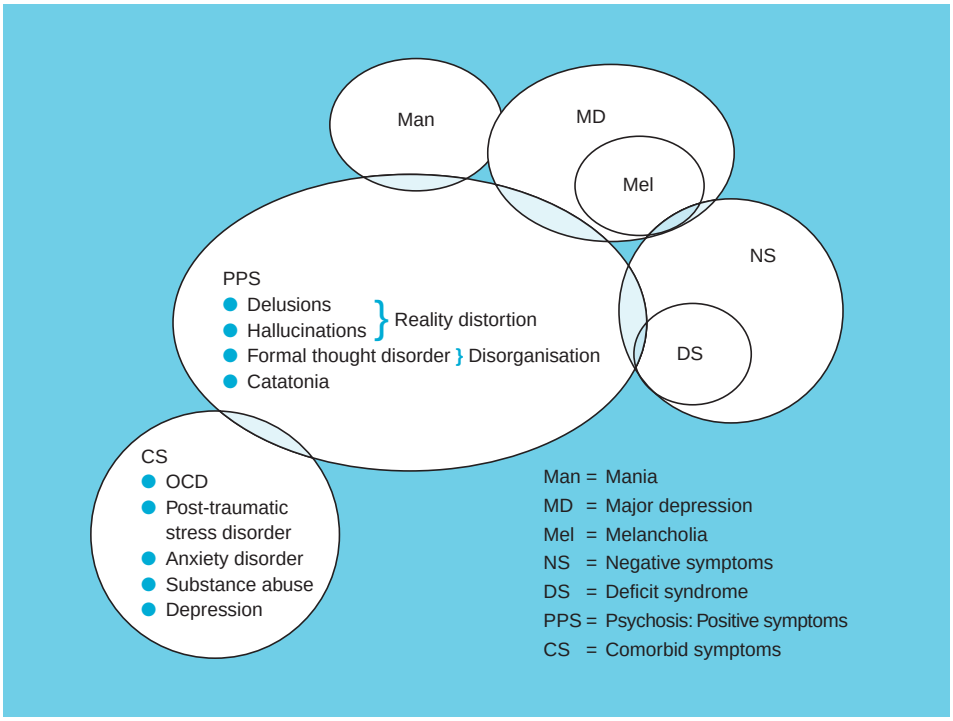

Figure 4. The syndromal spectrum in early psychosis

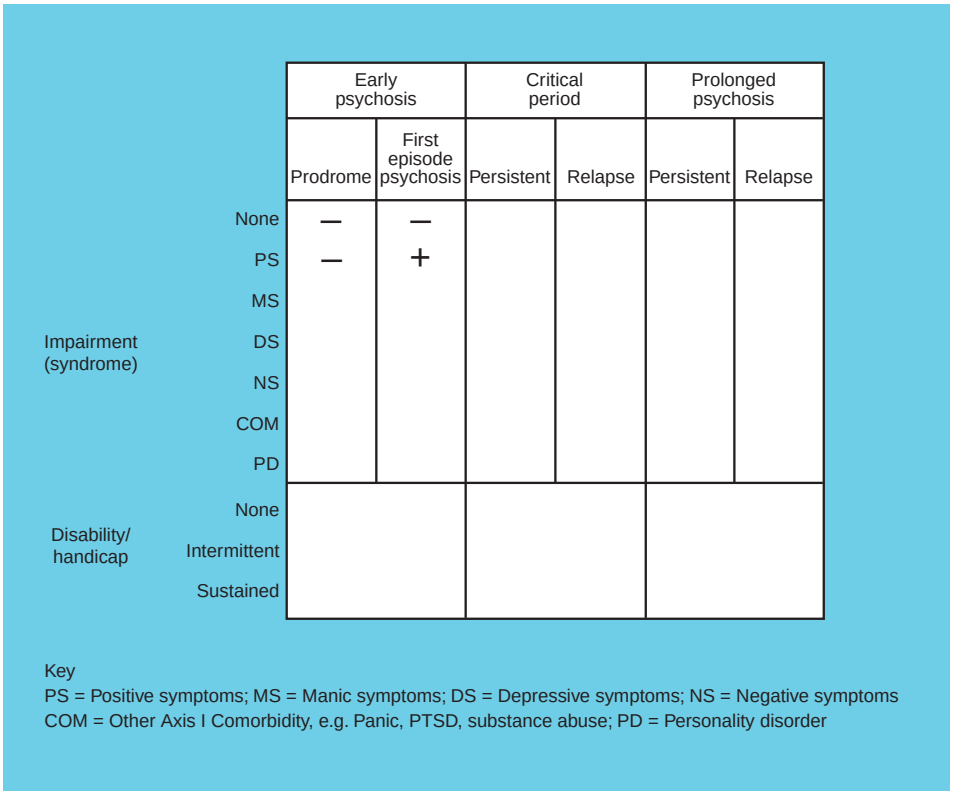

Figure 5. Phase-oriented classification of psychosis (From McGorry et al., 1996)

Many combinations and sequences are possible and occur frequently. These lead to the range of DSM-IV diagnoses, which are often unstable over time.

In this model, the clinical concept of staging is used to separate the course from the syndromes. The phase of illness, pattern of syndromes present during and between relapses and associated levels of disability and handicap are viewed in a matrix. There are three phases:

- early psychosis: precursors, prodrome, first psychotic episode
- critical period
- prolonged psychosis.

Not all patients will move from one phase to the next. These transitions and phases are important in constructing preventive strategies (McGorry et al., 1996).

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Trainer's guide

Aims and description

The aim of the trainer's guide for each module is to help in the presentation of the material in the booklets and to provide ideas to stimulate the assimilation and application of the information in each module by participants. The trainer's guide to each module includes:

- list of key messages
- notes about using the module
- practical exercises.

The practical exercises are designed to reinforce the information presented in each module, to promote discussion of it in the context of individuals' experiences and to stimulate thinking about its application within participants' own mental health services.

The objectives for each exercise are highlighted in 'message boxes' at the beginning of each exercise. You will not necessarily wish to use all the case studies and other activities with each group. Use the message boxes and your knowledge of the likely interests of the participants to pick the most appropriate exercises for those participants.

Present the information in the case studies in stages as indicated. The questions should be discussed before going on to the next stage. This can be done in small groups, with each group asked to come up with a list of responses to the questions and report back afterwards. The different responses can then be discussed by all the participants before moving on to the next stage. Alternatively, ask participants to suggest responses to the questions and list them where everyone can see them.

Key messages

- The prevention of progression to psychosis or the reduction in the severity and consequences of psychotic illness require accessible pathways to care.
- Examination of the pathways to care followed by people experiencing a first psychotic episode can enhance understanding of the barriers that confront them and help the development of a more responsive service.
- Factors in delay include difficulties in recognition of psychosis, reluctance to seek help, poor recognition and referral practices in primary care, inaccessible or non-responsive services and membership of high-risk groups.
- Services for people who may be experiencing a prodromal or first psychotic episode should be designed to minimise the stigma, trauma, demoralisation and other problems resulting from contact with the psychiatric or other services.
- Interventions in the prodrome are possible but services for this 'at-risk' group must be designed to take account of an inevitable component of false-positive cases.

Trainer's notes

This module sets the scene for the rest of the pack, introducing many general ideas that are revisited in more detail in other modules. The first two sections (*Why early recognition is important* and *How to achieve early recognition*), in particular, are suitable for participants with little specialist knowledge of psychosis. The final two sections (*Evolution of psychotic disorders* and *Models of early psychosis*) will be of more relevance to those keen to understand the theoretical background to preventive work in early psychosis.

Links with other modules

- A description of a service set up to intervene during the prodrome or at-risk phase is described in Module 2.
- Treatments are covered in more detail in later Modules.
- Pathways to care are discussed in detail in Module 2.
- The causes, extent and consequences of delay are also discussed in Modules 2 and 4.
- The adoption of a preventive approach as early as possible is one of the main themes of the pack and should be stressed.

Exercise 1

The importance of early recognition: consequences of delay in treatment

Objective

▼ *To recognise the consequences of delaying treatment for incipient or frank psychosis.*

Ask each participant to think of a patient who experienced a significant time lag between the onset of psychotic symptoms and effective treatment.

- Did deterioration occur in this time?
- What were the possible consequences of delay?
- Are the consequences of delay recognised by participants?

Exercise 2

Recognition of risk factors for psychosis – 1

Objectives

- *Identify features that constitute a prodromal or 'at-risk' mental state.*
- *Identify risk factors for psychosis.*

MS is a 17-year-old single unemployed man whose father has brought him to see his general practitioner because he has been worried by MS's mental state. MS has been becoming suspicious – for example, becoming worried about cars following him and about his friends turning against him – over the previous 4 or 5 days. MS has been distressed by these symptoms which have resulted in some social withdrawal. He has been wary of going out with friends and leaving the house for extended periods of time. MS's father has become concerned about these features because he had experienced a brief episode of psychosis in his twenties, which had responded to neuroleptic medication.

- List the risk factors for psychosis shown in this case.
- Suggest what initial action should be taken with respect to this patient.

(Material adapted from Yung A et al. Monitoring and care of young people at incipient risk of psychosis. *Schizophr Bull* 1996; 22: 283–304.)

Exercise 3

Recognition of risk factors for psychosis – 2

Objectives

- *Identify features that constitute a prodromal or 'at-risk' mental state.*
- *Identify risk factors for psychosis.*

JS is a 22-year-old single unemployed man with a family history of schizophrenia in his father. He requested help and presented with vague despair with the world and the feeling that he was different from others in some way. He said that his personality had changed in the four years since he had left school. He said he had lost touch with his friends and given up his job. He was using cannabis regularly.

- What features could be prodromal? What else could they be?
- What information would you try to elicit in the preliminary assessment? How would you go about it?

At school, he had been popular and sociable and was seen as the class 'clown'. He was academically poor and barely literate. Since leaving school, he had drifted apart from his circle of friends and felt increasingly alienated from other people. He felt discomfort in social situations and had resigned from his factory job 10 months ago for this reason. Over the next few months he had become increasingly withdrawn and at presentation was seeing only his flat mate and one school friend. He had been using cannabis almost daily over the past few years.

He reported a general sense of emptiness and despair about the world and a diminished capacity to experience pleasure. There was no diurnal mood variation and no sleep or appetite disturbance. On examination, there were no psychotic features but there was marked dysphoria and some circumstantiality of speech. He expressed a desire to explore his ideas about the world with a therapist.

- List the risk factors for psychosis shown in this case.
- Suggest what initial treatment might be offered to this patient.

JS attended a clinic for supportive therapy for 15 months after his initial presentation and is being encouraged to increase his activities and stop using cannabis. A one-month trial of the antidepressant paroxetine failed to improve his symptoms and he was reluctant to try other medication. Essentially his mental state is unchanged.

- Is JS at risk of developing psychosis?
- Discuss what the next stage in the management of JS should be
- Could JS be a 'false positive?'

(Material adapted from Yung A et al. Monitoring and care of young people at incipient risk of psychosis. *Schizophr Bull* 1996; 22: 283–304.)

Exercise 4

What to tell patients

Objectives

- *Information provided to patient and family should be appropriate to stage of illness.*
- *Establishment of trust and rapport needs to occur as early as possible.*

Ask the participants to think of as many factors as they can that affect the information they would give to a patient showing signs of early psychosis.

- How can stigma and fear be avoided and reassurance be provided?

The Early Psychosis Training Pack has been produced by Gardiner-Caldwell Communications Limited in conjunction with the Early Psychosis Prevention and Intervention Centre (EPPIC), Melbourne, Australia under an educational grant provided by Janssen-Cilag and Organon.

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MODULE 1

Early Psychosis Training Pack

This pack has been produced in conjunction with the Early Psychosis Prevention and Intervention Centre (EPPIC) Melbourne, Australia, under an educational grant provided by

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