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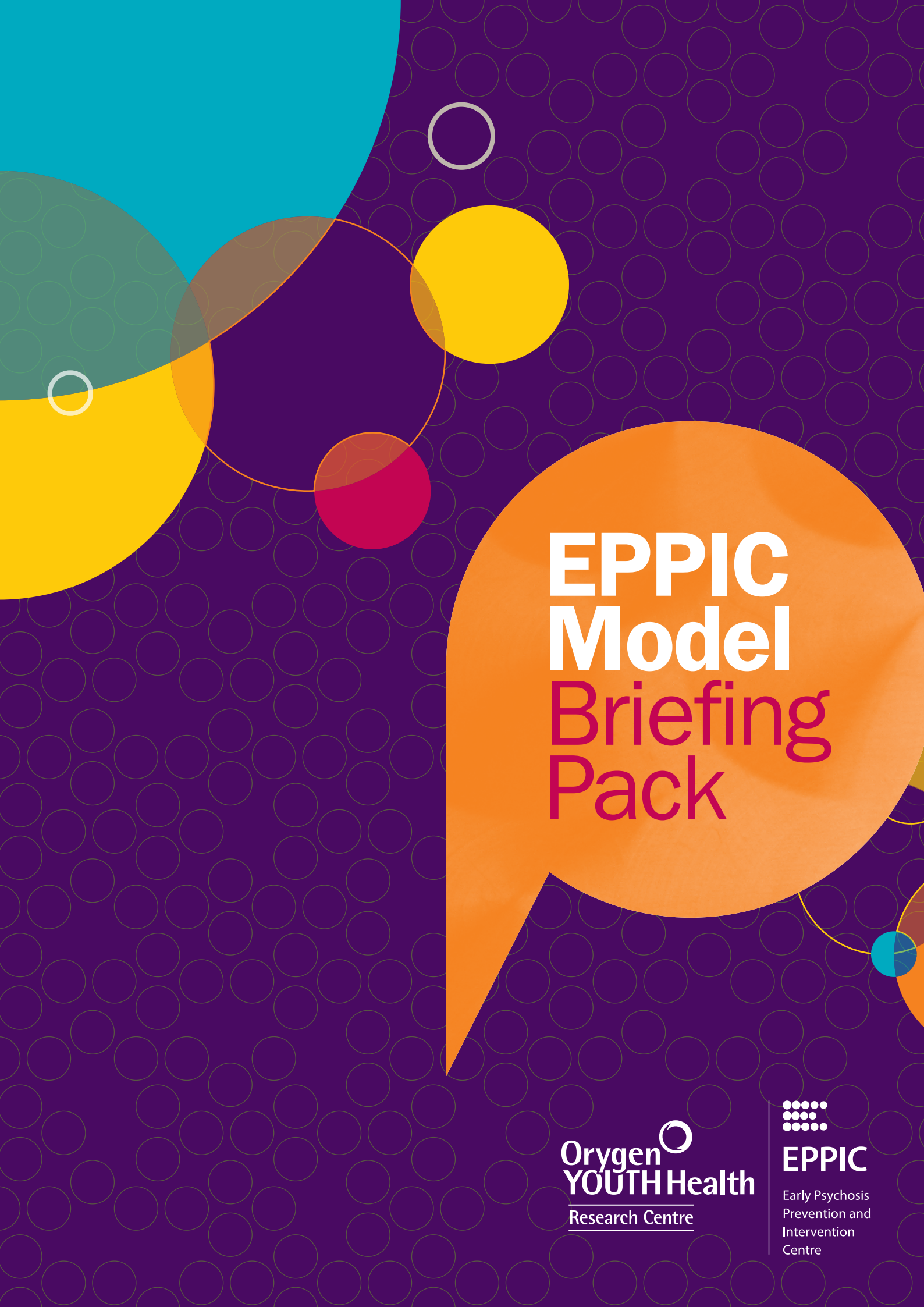
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Orygen, The National Centre of Excellence in Youth Mental Health

Locked Bag 10

Parkville VIC 3052

Australia



EPPIC Model Briefing Pack

Orygen 
YOUTH Health
Research Centre



EPPIC
Early Psychosis
Prevention and
Intervention
Centre

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Orygen Youth Health Research Centre

Locked Bag 10
Parkville Vic 3052
Australia

www.oyh.org.au



Contents

Section 1 Information on the EPPIC Model

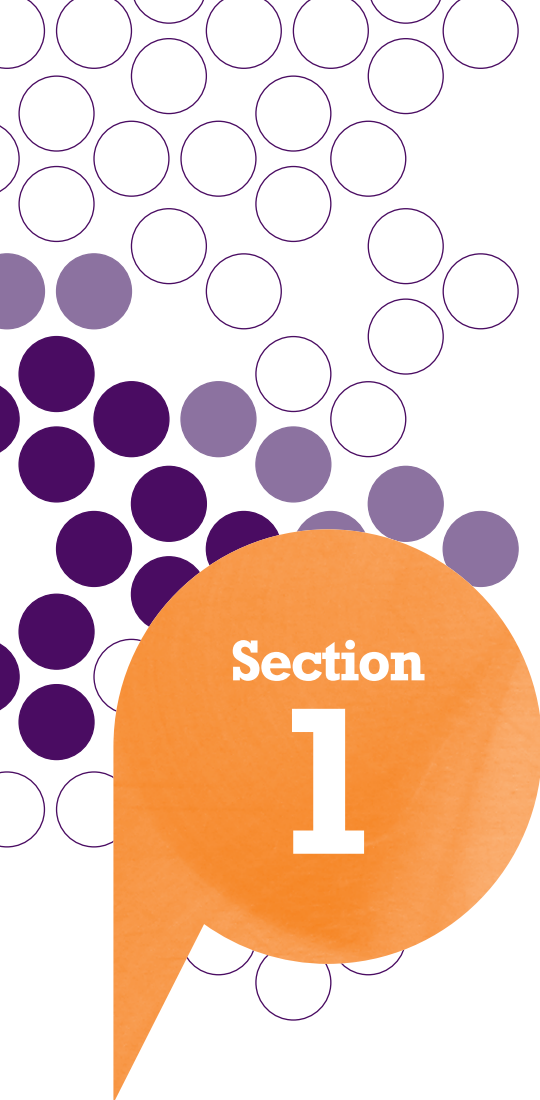
| | |
|---|------|
| 1.1 Introduction | Pg 2 |
| 1.2 The EPPIC Model at a Glance | Pg 3 |
| 1.3 Core components of the EPPIC Model | Pg 4 |
| 1.4 Ultra-High Risk (UHR) Group | Pg 8 |

Section 2 Rationale and Evidence for the EPPIC Model of Treatment of First-Episode Psychosis

| | |
|---|-------|
| 2.1 Introduction | Pg 9 |
| Duration of Untreated Psychosis | Pg 10 |
| 2.2 EPPIC Model Components | Pg 10 |
| Early Detection | Pg 10 |
| Access and Pathways to Care | Pg 10 |
| Ultra High Risk of Psychosis | Pg 10 |
| First Episode of Psychosis | Pg 11 |
| Medication in First-Episode Psychosis | Pg 12 |
| Psychosocial Interventions in First-Episode Psychosis | Pg 13 |
| Incomplete Recovery | Pg 15 |
| 2.3 Efficacy of Early Psychosis Services | Pg 15 |
| 2.4 Economics of Early Psychosis | Pg 16 |
| 2.5 Summary | Pg 17 |

Section 3 Translation of the EPPIC Model into Other Settings – Possible Configurations and Modelling

| | |
|--|-------|
| 3.1 Introduction | Pg 18 |
| 3.2 Implementing EPPIC in Different Geographical Settings | Pg 18 |
| References | Pg 19 |



Section 1

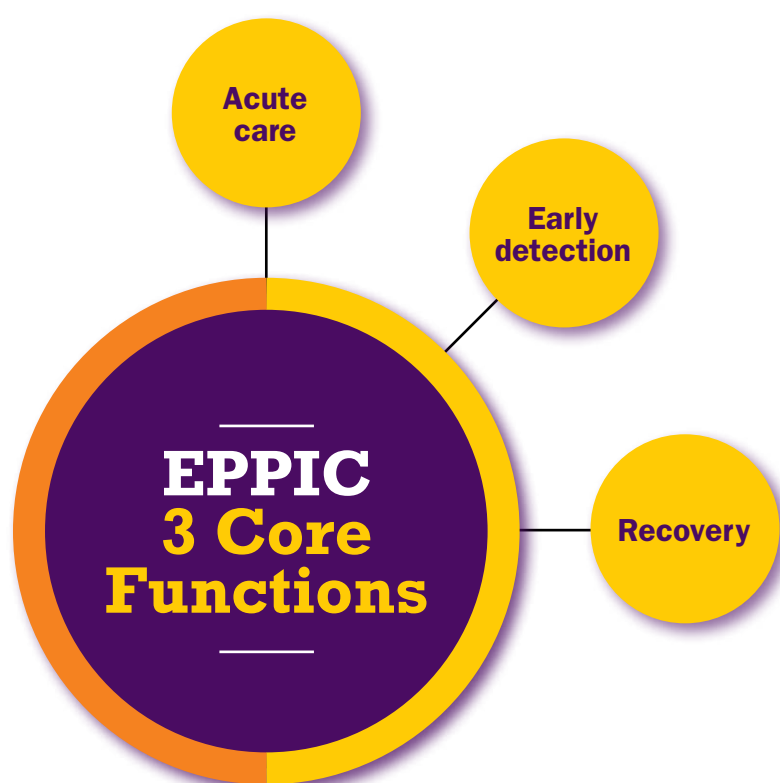
Information on the EPPIC Model

The following section provides information regarding the EPPIC model.

1.1 Introduction

The ages between 15 and 24 years are a crucial time in the development of a young person and this coincides with the peak onset of serious mental illness, including a first episode of psychosis. There is clear evidence that delaying the provision of appropriate treatment (which prolongs the duration of untreated psychosis), can have a major negative impact on the future development of young people in addition to prolonging distressing symptoms and increasing the risk of premature death. Early intervention services, through early detection and provision of smooth, youth-oriented access to specialised early psychosis treatments can change the course of illness. Evidence-based early interventions and services with demonstrated efficacy are now available. Although there are no published comparative studies of early intervention services, the EPPIC Model is the most evolved, developed and widely described, with 20 years of clinical service experience. It has now become the prototype for numerous early psychosis intervention services both nationally and internationally.

‘Early intervention services, through early detection and provision of smooth, youth-oriented access to specialised early psychosis treatments can change the course of illness.’



1.2 The EPPIC Model at a Glance

EPPIC is a model of specialised early intervention in psychosis (EIP) care developed by Orygen Youth Health. Since first established in Melbourne in 1992, EPPIC has become the template on which hundreds of specialised EIP services throughout the world have been established. The continuing growth in the numbers of EIP services is largely due to what the United Kingdom’s National Health Services Confederation describes as the “compelling evidence of the clinical and cost effectiveness of EIP over standard care.”

For young people experiencing a first episode of psychosis, EPPIC provides three core functions:

- **Early detection**
- **Acute care** during or following a crisis
- **Recovery** focused expert multimodal interventions to enable a young person to maintain or regain their social, academic and career trajectory during the ‘critical period’ of the first two to five years following the first onset of psychotic illness.

In providing these core functions, key over-arching features of an EPPIC service are:

- **Easy access to care** which is enabled by the service structure, ‘youth-friendliness’ of the service and community awareness of mental health literacy and referral pathways.

- **An integrated biopsychosocial approach** to clinical interventions that take into account the developmental stage of the young person. These interventions are aimed at not only the amelioration of distressing symptoms but to also maintain or regain the normal educational, vocational and social developmental trajectories of the young person.
- **A high level of partnerships with local service providers** to ensure effective and timely pathways into and out of the service as well as supporting service delivery during the episode of care. At the end of tenure of care, all young people are referred onto a health care provider with the clinicians of the EPPIC service assisting the young person to engage with the new provider.

1.3 Core components of the EPPIC Model

A summary of the core components are given in the table below:

| COMPONENT | COMPONENT DESCRIPTION | RATIONALE |
|---|--|---|
| Community Education and Awareness | <p>Community Education position(s) embedded within the EPPIC service to improve the mental health literacy in the EPPIC catchment area and improve referral pathways for young people, who require interventions is provided. This may involve programs to educate teachers, education welfare counsellors, youth workers, general practitioners (GPs), police etc. Strategies would include the development of specific partnerships with non-government organisations and primary health care agencies to jointly provide programs to increase mental health literacy.</p> | <p>Reduces the Duration of Untreated Psychosis (DUP).</p> <p>Improving mental health literacy and knowledge of referral pathways to those people who work with young people and the general population increases the rate of early detection, smoother referral pathways and ultimately earlier treatment and better outcomes. There is a high level of synergy between Community Education activities and referral pathways. Relationships between referral sources and the service need to be developed and maintained by a dedicated person within the service who coordinates across-service Community Education activities.</p> |
| Easy Access to Service | <p>EPPIC services are accessible through one clear contact point. Young people referred, but assessed as not suitable for the EPPIC service, should be provided with appropriate referral to other services.</p> <p>Other key sub-components:</p> <ul style="list-style-type: none"> • Service location(s) easily accessible by public transport • Services provided to clients in locations such as home and other community-based locations | <p>Reduces the DUP.</p> <p>Easy access to the EPPIC service increases the rate of early detection, smoother referral pathways and ultimately earlier treatment and better outcomes.</p> <p>Engagement with young people is endangered when referral and pathways to care are complex. Having clear referral pathways to help seeking is important along with a flexible approach to engagement, and referral on, when a young person is not assessed as suitable for the EPPIC service.</p> |
| Home-Based Care and Assessment (Youth Access Team) | <p>A flexible, home-based assessment and intervention team.</p> <p>This is provided by an early intervention, multidisciplinary team providing a service response 24 hours a day, 7 days a week offering triage, assessment and crisis intervention services.</p> <p>Service capacities may require differing levels of staffing across the 24-hour time period depending on anticipated service demand.</p> | <p>Flexibility in location and service provision hours is essential to engagement and treatment of young people with psychotic disorders.</p> <p>Initial engagement into the service is crucial if interventions are to succeed. This requires a level of flexibility including seeing young people in an environment that suits them e.g. home, particularly during the early stages of engagement. This will reduce any delays in assessment and treatment, and improve outcomes.</p> <p>Responsive crisis intervention is also necessary in order to minimise trauma associated with psychosis and potential hospital admission by supporting home treatment in a least restrictive manner when possible.</p> |

| COMPONENT | COMPONENT DESCRIPTION | RATIONALE |
|--|--|---|
| <p>Access to Streamed Youth-Friendly Inpatient Care</p> | <p>Access to a youth-friendly inpatient setting that provides specialised early psychosis care staffed by nurses, allied health professionals and doctors. Where a stand-alone youth-friendly early psychosis inpatient unit is not possible, a special section of an existing general acute unit should be provided.</p> <p>This setting provides inpatient care when it is needed until the young person is ready for discharge and ongoing treatment from the Youth Access and Continuing Care teams.</p> <p>The specialised youth-friendly inpatient setting has practices and protocols in place to ensure that inpatient stays are for the shortest possible time (normally less than 10 days). Early discharge is supported by discharge and treatment planning with the Home-based Care and Assessment team (YAT team), and the ongoing case management teams.</p> | <p>Young people with first-episode psychosis benefit from a specific youth-focused inpatient setting.</p> <p>Optimal inpatient treatment for the stage of illness is provided with better outcomes.</p> <p>This setting minimises trauma associated with hospital admission and improves engagement with the service. Maintaining age-appropriate activities while an inpatient provides an optimistic therapeutic environment.</p> |
| <p>Access to Youth-Friendly Sub-acute beds</p> | <p>Access to a youth-friendly sub-acute setting. This component provides a supported, post-acute transition to community care.</p> | <p>For some young people, the post-acute phase of psychosis requires an additional level of management and support prior to transition full community care.</p> <p>Issues of homelessness are common among young people with a first episode of psychosis and can affect all other aspects of recovery.</p> |
| <p>Continuing-Care Case Management</p> | <p>A continuing-care team that provides team-based case management and individually-focused therapeutic interventions. Young people are assigned an individual case manager, who may be either a clinical psychologist, social worker, occupational therapist, or mental health nurse and a psychiatrist or psychiatric registrar under the supervision of a consultant psychiatrist.</p> <p>The case managers work collaboratively with the young person and their family or carers to provide a treatment approach tailored to the individual needs of the young person and appropriate to their stage of illness. Case managers ensure that the young person and their family are provided with information and education, and are linked to other useful support services (housing, educational, vocational, financial, and legal, etc) as well as providing individual therapies.</p> <p>An episode of continuing-care case management would be for a minimum of 2 years duration with the potential for an added 3 years of 'step-down' care for those young people with an incomplete recovery. Caseloads are targeted at 15 to 20 young people per case manager.</p> | <p>The treatment and management of young people with a first episode of psychosis requires a level of coordination which can only be delivered using a case management model.</p> <p>The 2 year minimum tenure of care addresses the 'critical period' where symptomatic and psychosocial functioning is known to deteriorate.</p> <p>Key person contact improves engagement with service and ultimately better recovery outcomes.</p> |

Table continues over...

| COMPONENT | COMPONENT DESCRIPTION | RATIONALE |
|------------------------------------|--|---|
| Medical Treatments | <p>Evidence-based pharmacological interventions, prescribed by a psychiatrist are used to ameliorate symptoms and distress associated with psychosis, mood disturbance, anxiety and substance misuse. The evidence-based sequence of medications and their integration with psychosocial care is a key skill set to which all EPPIC young people have access.</p> <p>The physical well being of young people within EPPIC is also focused on through the adoption of preventive approaches including metabolic screening and preventative interventions.</p> | <p>Guideline-based use of medication optimises adherence, speed and extent of recovery.</p> <p>The medical care of young people during the early stages of mental illnesses is considerably different in style and content compared with approaches used in older patients with established illness.</p> <p>Minimises side effect profile and subsequent added health risks.</p> |
| Psychological Interventions | <p>Evidence-based psychological interventions including individual psychotherapy and cognitive behavioral therapy (CBT) programs.</p> <p>These interventions will be delivered by the case managers, as a part of their case management role. Where clinically indicated, particularly with complex clients, a clinical psychologist may provide a more specialised psychological intervention.</p> | <p>Psychological interventions enhance the speed and level of symptomatic and functional recovery in first-episode psychosis as well as preventing and treating secondary morbidities.</p> <p>Psychological interventions have been found to accelerate symptomatic recovery and promote engagement with the treatment strategy. CBT, suicide and relapse prevention, adaptation to illness and interventions to reduce substance use are the key components deployed.</p> |
| Functional Recovery Program | <p>Evidence-based recovery programs including a vocational and educational program for young people wishing to remain in or return to education or work.</p> <p>This approach is based on the individual placement and support model. Within the EPPIC model, the vocational worker and educational liaison position are based within the service rather than in an external agency.</p> | <p>Functional recovery interventions prevent loss of function, enhance the speed of recovery and improve educational and employment outcomes.</p> <p>Preventing loss of function or recovering function reduces risk of negative sequelae such as loss of confidence, self esteem, and secondary depression.</p> |
| Mobile Outreach | <p>Intensive Case Management using a mobile, intensive outreach model is provided to young people who have difficulty engaging with mental health services or those who have more complex needs requiring intensive support (including forensic issues, homelessness, severe personality disorder and prominent negative symptoms). The team provides a multi-disciplinary approach to case management, crisis intervention, individual therapy, family support and systems consultations/liaison.</p> | <p>Minimises chance of complete recovery and risks to self and others.</p> |
| Group Programs | <p>A comprehensive Group Program that gives young people the opportunity to work on personal issues such as lack of confidence, low self esteem, anger or anxiety within a supportive peer group environment.</p> <p>Groups are usually small with four to eight people involved and may include groups focusing on school, study and work; better health such as physical fitness, reducing drug use, stress management; social and leisure groups that focus on self-exploration and expression such as outdoor adventure, music, or art; groups that help with management of anxiety about recovery from illness.</p> | <p>Group programs enhance speed and level of symptomatic and functional recovery.</p> <p>Provides an alternative medium for therapeutic approaches that may suit some young people better.</p> <p>Reduces social isolation and impact of psychotic and stigma experiences.</p> |

| COMPONENT | COMPONENT DESCRIPTION | RATIONALE |
|---|--|--|
| <p>Family Programs and Family peer support</p> | <p>Family programs are provided for parents, partners, children, siblings, extended family, close friends and anyone who carries out a care-giving function for a young person within EPPIC.</p> <p>Family work is a function of case management with the support of a specific family therapist to provide family work for more complex cases.</p> <p>Family Peer Support Workers, who have themselves had experience of EPPIC services, provide phone and face-to-face support to new family and carers whose relative enters the early psychosis service. Family members have access to family support groups and a family resource room with access to a wide range of information.</p> | <p>Reduces levels of distress of family members, and provides information and strategies that support recovery.</p> <p>Increases level of family engagement, and skills, to manage the support role.</p> <p>Enhances speed of recovery and reduces risk of relapse.</p> |
| <p>Youth Participation and Peer Support</p> | <p>A Youth Participation Program that ensures each EPPIC service provides a youth-friendly environment is accountable and facilitates peer support between its young people.</p> <p>Youth Participation Program workers participate in staff selection by contributing to interview selection panels. All young people who have been part of the EPPIC service are eligible to join the youth participation team whose function is as a group to meet regularly to discuss possible improvements to the service or have involvement in community education activities.</p> <p>Peer support workers who are past young people of the EPPIC service, visit current EPPIC young people in inpatient care as well as provide support to other young people on an outpatient basis. These peer support workers receive training, mentoring and support and are paid for their time.</p> | <p>Ensures ‘youth friendliness’ of service.</p> <p>Improves young person engagement ultimately improving service quality and young people outcomes.</p> <p>Provides support intervention from a ‘lived-experience’ perspective.</p> <p>Increases social awareness of first-episode psychosis and reduces stigma which improves pathways to care.</p> <p>EPPIC services are ‘youth friendly’ so that the service is attractive to young people who access their services. This may include factors such as building design, access to multi-media resources and minimising factors that may increase stigma.</p> |
| <p>Partnerships</p> | <p>Partnerships with other organisations that enhance the care of young people with first-episode psychosis.</p> <p>Examples may be community youth services, Headspace, Drug and Alcohol services.</p> | <p>Established links and partnerships will enhance the quality and breadth of service</p> <p>Services cannot operate in isolation from broader health and social systems.</p> <p>Improvement in referral and transition points for young people.</p> |
| <p>Workforce Development</p> | <p>A workforce development program.</p> <p>This includes training and supervision provision to staff involved in an EPPIC service. Strategies include in-service training and education, support for external or post-grad training, staff clinical supervision arrangements and attendance at professional development programs e.g. conferences and workshops.</p> | <p>Enhances fidelity to the EPPIC model.</p> <p>Core competencies of evidenced-based clinical knowledge and skills are required to work with young people experiencing first-episode psychosis.</p> <p>Encourages new knowledge generation and innovation.</p> |

1.4 Ultra-High Risk (UHR) Group

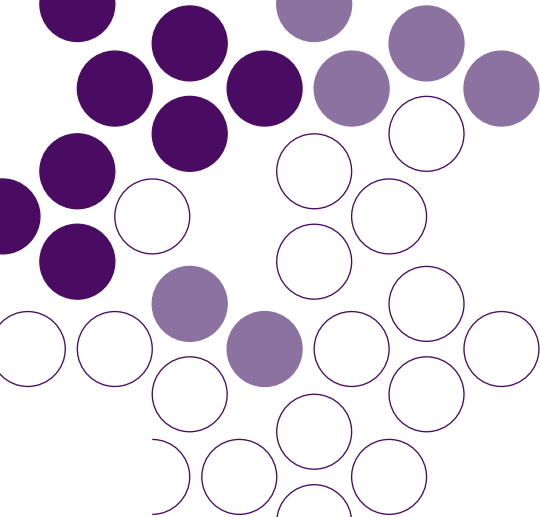
For those young people who are help seeking and experiencing some psychotic-like symptoms that are assessed as being at high risk of psychosis, but not meeting the diagnostic threshold for a first episode of psychosis, EPPIC facilitates access to a separate, linked stream of care. This stream provides care for their current mental health needs, preventative interventions to minimise risk of transition to psychosis such as CBT and omega-3 fatty acids and

monitoring for further development of psychotic symptoms. Interventions must be concordant with the Australian Clinical Guidelines for Early Psychosis.

Early detection and intervention at this ultra-high risk stage may delay or prevent the onset of first-episode psychosis. As a deterioration in psychosocial functioning has been shown to occur during this stage of illness (e.g. in social, school or work performance), intervening early, may also help to maintain a normal functional trajectory or prevent further deterioration in functioning. A summary of this component description and rationale is given below:

| COMPONENT | COMPONENT DESCRIPTION | RATIONALE |
|--|---|--|
| Ultra-High Risk Detection and Care. | <p>Services for help-seeking young people who have presented to the EPPIC service and are assessed as ultra high risk for developing psychosis.</p> <p>EPPIC services should identify how they would manage 'exit points' such as people who transit to psychosis and those who do not.</p> | <p>Reduces DUP and minimises functional loss.</p> <p>Early detection and intervention at the ultra-high risk stage may delay or prevent the onset of first-episode psychosis.</p> <p>A reduction in psychosocial functioning has been shown to occur in this stage of illness; therefore, intervening early may maintain normal functional trajectory and prevent deterioration in functioning.</p> |

‘Early detection and intervention at this ultra-high risk stage may delay or prevent the onset of first-episode psychosis.’



THE ONSET OF A FIRST EPISODE OF PSYCHOSIS, IF LEFT UNRECOGNISED, UNTREATED OR POORLY TREATED HAS THE POTENTIAL TO DERAIL A NORMAL DEVELOPMENT TRAJECTORY WITH MASSIVE IMPACT ACROSS ALL THE BIOPSYCHOSOCIAL DOMAINS.



Section

2

Rationale and Evidence for the EPPIC Model of Treatment of First-Episode Psychosis

The following section provides an understanding of the rationale and evidence for the EPPIC Model of care. Evidence and data from national and international sources which has informed and influenced the development of the core components of the EPPIC Model is presented.

2.1 Introduction

Research from epidemiological studies indicates that at least 75% of mental health disorders commence before 24 years of age (Kessler, Berglund et al. 2005) with mental illness accounting for 50% of the total disease burden among young people aged 12 – 25 years in Australia (Australian Institute of Health and Welfare 2007 2007). Data from WHO World Mental Health surveys suggest that the estimated median age of onset of non-affective psychotic illness is from late teens to early twenties (Kessler, Amminger et al. 2007). One Australian study (Jablensky, McGrath et al. 2000) has reported the prevalence of engagement of adults with psychosis in treatment in a one month period to be 4.7 per 1000 adults, suggesting an even greater rate of people in need of treatment for psychosis. In Australia, schizophrenia is reported as being the third and the fifth leading cause of burden and injury in young men and young women of the same age, respectively (Australian Institute of Health and Welfare 2007).

The ages between 15 and 24 years are a crucial time in the development of a young person across many domains. It is a time of biological changes including those affecting neurological development. Adolescence and young adulthood is a stage of life where young people are individuating from families and developing stronger ties with peer groups, developing their own identity including experimenting with sexuality, drug use and developing interests, hobbies and skills of their own. Furthermore, this is a period when young people will face particular educational and vocational challenges, and milestones such as choosing and embarking on career paths for employment or further study.

The onset of a first episode of psychosis, if left unrecognised, untreated or poorly treated has the potential to derail a normal development trajectory with massive impact across all the biopsychosocial domains. As well as increased severity of illness and sustained disability there is also the higher risk of premature death by suicide (Jackson and Birchwood 1996; McGorry and Yung 2003). Therefore concerted efforts focusing on early identification and effective intervention have now become an increasing public health priority not only in Australia but throughout the world. This is also reflected in the development of approximately 200 early-psychosis services throughout the world.

‘Delays in detection and effective treatment ultimately prolong the duration of untreated psychosis.’

DURATION OF UNTREATED PSYCHOSIS

Delays in detection and effective treatment ultimately prolong the duration of untreated psychosis (DUP). Meta-analyses of the association between length of DUP and impact on recovery have shown that a prolonged DUP has a negative impact on recovery (Marshall, Lewis et al. 2005; Perkins, Gu et al. 2005). In these studies, DUP was shown to be both a marker and an independent risk factor for poor recovery. Further, the relationship between DUP and outcome has been shown to be sustained over many years (Harris, Henry et al. 2005) i.e. that a longer DUP will mean that these people take longer to recover if at all. A long DUP is also a predictor of treatment resistance (Huber and Lambert 2009). It is now apparent that the long-term harm caused by psychosis not only occurs within the first few weeks or months of onset (Drake, Haley et al. 2000; Marshall, Lewis et al. 2005) but also in the period of time leading up to the onset of psychosis (Crumlish, Whitty et al. 2009).

Although DUP is a modifiable risk factor, the shortening of DUP only accounts for a modest amount of outcome variance, highlighting the importance of quality ongoing early treatment and interventions (Harris, Henry et al. 2005). Early intervention services offer an opportunity to change the course of illness and restore the normal biopsychosocial development trajectory of young people.

2.2 EPPIC Model Components

Early intervention for psychosis aims to provide early detection and access to appropriate, evidenced-based clinical interventions. Detection and referral to early intervention services is targeted at those young people at ultra-high risk

of psychosis, or if are not detected, young people who have already experienced a first episode of psychosis. Providing services for young people at pre- and post-onset of psychosis means that appropriate interventions need to be carefully directed towards the particular stage of illness.

EARLY DETECTION

Interventions to treat the onset of a first episode of psychosis are crucial but become redundant if those people experiencing the early signs of psychosis go undetected and never reach appropriate mental health services. Early-detection programs such as those reported in the Scandinavian Early Treatment and Identification of Psychosis (TIPS) Study (Johannessen, McGlashan et al. 2001) have shown that by providing community education targeting GPs, social workers and school welfare workers, and by providing mobile detection teams, reductions in DUP can be achieved (Johannessen, Larsen et al. 2005). This study showed that these programs tend to detect young people during the earlier stages of illness and particularly where there is evidence of a decline in social functioning. Given the evidence of functional decline occurring mostly during the earlier stages of psychosis (ultra-high risk stage of psychosis) then early detection programs can not only reduce the DUP but also minimise the subsequent impact of a prolonged DUP. In particular, the TIPS study reported that early detection teams had better social recovery outcomes, less risk of suicide and less negative symptoms at the 1-year time point. Therefore, early detection is a crucial component to the service delivery and early psychosis model.

ACCESS AND PATHWAYS TO CARE

In a review of the literature related to pathways to care, Norman and

Malla 2009 conclude that easy and quick access to excellent consultation, assessment and treatment services are essential in reducing the delays to treatment (Norman and Malla 2009). Edwards and McGorry (2002) describe a home-based assessment, treatment and support team (YAT team) within the EPPIC model as one way of minimising the barriers to access and engagement into a service (Edwards and McGorry 2002). This multidisciplinary team provides a flexible service operating 24 hours a day, 7 days a week and offers youth-focussed triage, assessment, community treatment and crisis intervention services. In the TIPS study, the early-detection team provided a mobile service with a low threshold for referral onto services. These models not only provide an easier access to service but also move away from a ‘too-well-for-service’ culture to a more inclusive ‘at-risk mental-state’ approach with subsequent positive outcomes.

The early detection of young people at risk of developing psychosis (or during the early stages of psychosis) along with support for help seeking and providing easy access to care, also provides an opportunity to help prior to the surge of florid psychotic symptoms. Subsequently it is more likely to result in a less traumatic and ‘crisis-driven’ mode of entry into a service and help with engagement which in itself can present as a major challenge to clinicians.

ULTRA HIGH RISK OF PSYCHOSIS

The onset of psychosis is characteristically preceded by a prodromal period. Frequently described prodromal symptoms include depressed mood, anxiety, irritability and aggressive behaviour, suicidal ideation and attempts, substance use, and subtle subjective deficits including cognitive, affective and social disturbances (Yung and McGorry 1996). There may also

AN INTEGRATED APPROACH TO INTERVENTIONS IS TAKEN WITH A COMBINATION OF PSYCHOSOCIAL INTERVENTIONS AND PHARMACOTHERAPY.

be the presence of attenuated or sub-threshold psychotic-like symptoms such as overvalued ideas, perceptual disturbances as well as deterioration in functioning and behavioural symptoms. The term 'psychosis prodrome' can only be applied retrospectively to those people who transit to a full diagnosable psychotic disorder. Describing all people who experience these symptoms as 'prodromal' is inaccurate due to evidence that attenuated psychotic symptoms occur in the general public without the transition to psychosis (Tien and Anthony 1990; van Os 2003; Verdoux and Cougnard 2006). Furthermore the 'prodrome' label suggests an inevitable progress to disease which appears not to be the case. A change in the terminology has been required with the subsequent emergence of the term 'ultra-high risk' (UHR) of psychosis.

The development of specific criteria to differentiate between normal human experience and psychopathology with a view to predicting those who will go onto develop a psychosis if left untreated has been a major challenge. Nevertheless, this major advance of identifying the sub-group of people who are at risk of developing a psychotic disorder has been achieved. These UHR criteria (Yung and McGorry 1996) have made it possible to detect and engage a subset of young people presenting with demonstrable clinical needs who were at incipient risk for frank psychotic disorder. The rate of transition to full-threshold psychotic disorder within 12 months in this sample was approximately 35% (Yung, Phillips et al. 2003; Yung, Phillips et al. 2004) a rate 400 times greater than the expected incidence rate for first-episode psychosis in the general population. Although there remains an incidence of 'false positives', the criteria have been validated in a number of studies (McGorry, Yung et al. 2003; Cannon, Cadenhead et al. 2008; Woods, Addington et al. 2009).

Interventions targeted at the ultra-high risk of psychosis stage of illness provide the possibilities of (i) minimising disability and adverse health and social impacts associated with this phase, (ii) enabling recovery before symptoms and poor functioning become entrenched, and (iii) preventing, delaying or ameliorating the onset of full-threshold psychotic disorders. An integrated approach to interventions is taken with a combination of psychosocial interventions and pharmacotherapy. CBT has been shown to be an effective intervention (Morrison, French et al. 2004; Bechdolf, Wagner et al. 2007) with reductions in transition rates and psychiatric symptoms which subsequently reduce the likelihood of the need for prescription of anti-psychotic medication. The OPUS trial also showed a reduction in transition rates of people with schizotypal disorder using a combination of intensive case management, family involvement and psychoeducation within a CBT framework (Nordentoft, Thorup et al. 2006).

Although evidence to date suggests that there may be a role for antipsychotic medication being effective in preventing or delaying transition to psychosis (McGorry, Yung et al. 2002; McGlashan, Zipursky et al. 2006), the Australian Clinical Guidelines 2nd edition (Early Psychosis Guidelines Writing Group 2010) do not recommend their use in the UHR stage. Any potential benefits are offset by problems related to side effects, self stigmatisation and the fact that antipsychotic medication may be less acceptable to consumers which may predicate service disengagement. Additionally individuals may be prescribed antipsychotics when they were not at risk of transition to psychosis in any case. The guidelines do suggest, however, that pharmacotherapy be considered for those comorbidities that contribute to the prominence of attenuated psychotic symptoms

e.g. using antidepressants for depression (Cornblatt, Lencz et al. 2007). Also, there is evidence to suggest that omega-3 fatty acids may prevent or delay transition to psychosis (Amminger, Schafer et al. 2010).

For those people who are engaged in a UHR service and eventually transit to a first episode of psychosis despite UHR interventions, an opportunity arises to build upon service engagement and the therapeutic alliance as well as providing early effective antipsychotic treatment.

FIRST EPISODE OF PSYCHOSIS

As with the UHR stage of illness, the first episode of psychosis stage also requires an integrated approach which combines both medication and psychosocial interventions. The model of early intervention used by the EPPIC has two main goals: to reduce the period of time between the onset of psychosis and the commencement of treatment, and to bring about symptomatic recovery and restore the normal developmental trajectory as early as possible. The management of a first episode of psychosis may be described as having two stages: the acute stage and the recovery stage.

In the acute stage, the overall aims are to:

- Monitor the young person's mental state
- Gain a thorough understanding of the person and their situation as quickly as possible
- Ensure the safety of the individual and others
- Reduce delay in effective treatment by treating or preventing:
 - Positive symptoms of psychosis and disturbed behaviour
 - Negative symptoms and coexisting problems such as depression, mania, anxiety or panic attacks and substance abuse

CONSISTENT AND COMPREHENSIVE CLINICAL INTERVENTIONS FROM AN INTEGRATED BIOPSYCHOSOCIAL APPROACH ARE REQUIRED TO ACHIEVE THE GOALS DURING THE ACUTE AND RECOVERY STAGES OF FIRST-EPISODE PSYCHOSIS

- Build a sustainable therapeutic and supportive relationship with the individual and carers
- Develop a management plan to aid recovery from the acute episode, reduce risk of relapse and promote long term well-being
- Minimise trauma
- Instill realistic hope
- Provide an acceptable explanatory model, with education about psychosis and its treatment
- Inform and support the family to relieve their distress and to promote optimal family functioning

Source: Australian Clinical Guidelines 2nd Ed (Early Psychosis Guidelines Writing Group 2010)

There are two fundamental components to acute early intervention services within EPPIC. The YAT team has been previously described and provides home-based outreach, acute triage, assessment and support services. Where hospitalisation is required the EPPIC model has a specialised, youth-friendly inpatient unit, staffed by nurses, allied health professionals and doctors, that provides inpatient care until the young person is ready for discharge (Edwards and McGorry 2002). EPPIC services seek to ensure that inpatient stays are for the shortest possible time (normally less than 10 days). Early discharge is only possible due to the support of the home-based care and assessment team (YAT team) and strong links with the ongoing case management teams.

While the treatment of symptoms remains an important part of the recovery stage, a full recovery needs to go far beyond the amelioration of symptoms alone. In the recovery stage, the focus of management is to:

- Manage comorbidity, including substance abuse
- Engage the person in their own treatment
- Increase adherence to treatment

- Help the person understand their experience of illness
- Assist the person in reconstructing and reorienting their lives (including helping them re-engage with educational or vocational activities)
- Provide the person with a sense of empowerment rather than passive acceptance of a withdrawn and disabled role
- Prevent relapse
- Assist the person in developing resources for the future

Source: Australian Clinical Guidelines 2nd Ed (Early Psychosis Guidelines Writing Group 2010)

Consistent and comprehensive clinical interventions from an integrated biopsychosocial approach are required to achieve the goals during the acute and recovery stages of first-episode psychosis which are the critical early years of illness. Birchwood et al. (1998) identified a critical period of 2 to 3 years post onset of psychosis when aggressive deterioration occurs along with entrenching family and psychological reactions to the psychosis (Birchwood, Todd et al. 1998). Crumlish et al. (2009) supported this notion and went further to suggest that the 'critical period' include the prodrome period reporting evidence that a long duration of untreated illness (DUI – the time point from onset of prodrome to onset of treatment) predicts poor psychosocial recovery (Crumlish, Whitty et al. 2009). The range of, and evidence for, core clinical interventions used in the management of first-episode psychosis are described in the following sections.

Medication in First-Episode Psychosis

The primary aim of medication is to reduce psychotic symptoms and medication should be regarded as a first-line intervention for first-episode psychosis. However, a number of pharmacotherapy issues arise for people with a first-episode psychosis

that should influence how medication interventions are delivered. These issues are highlighted below.

- First-episode psychosis patients are usually antipsychotic-naïve
- First experience of antipsychotic medication will influence engagement and adherence
- Diagnostic instability in first-episode psychosis may require ongoing adaptation of pharmacological interventions
- First-episode psychosis patients generally show more rapid improvement in symptoms than in established schizophrenia
- Positive symptoms in first-episode psychosis patients are generally responsive to treatment in terms of overall response rate and degree of symptom reduction
- First-episode psychosis patients often improve at low antipsychotic doses
- First-episode psychosis patients may be particularly sensitive to extrapyramidal side effects
- First-episode psychosis patients are more susceptible to antipsychotic-induced weight gain and metabolic side-effects than those with more chronic illness due to younger age and often being antipsychotic medication.

Source: Australian Clinical Guidelines 2nd Ed. p.46 (Early Psychosis Guidelines Writing Group 2010)

Although there are no demonstrable differences in terms of efficacy between typical and atypical antipsychotic medications, there are clear differences in the tolerability and rate of discontinuation with atypicals being superior (Kahn, Fleischhacker et al. 2008). A number of studies have also shown that low doses of atypical medications are advantageous particularly for people with a first-episode psychosis where tolerability and safety are at a premium (Emsley 1999; Sanger, Lieberman et al. 1999; Lambert, Conus et al. 2003; Robinson, Woerner et al. 2005). People with

first-episode psychosis respond to antipsychotic medication more quickly and to a greater extent, and generally require lower doses to do so, than those with more established illness. Moreover, side effects of antipsychotics are dose dependent and are often caused by rapid titration. For these reasons, a 'start low, go slow' prescribing approach is warranted, using the lowest possible dose to treat symptoms (Early Psychosis Guidelines Writing Group 2010).

Relapse rates in the first five years of illness are approximately 80% which presents a significant problem. For those people who are in full remission 12 months post-onset of first-episode psychosis, Chen et al. 2010 have shown that continuous use of atypical antipsychotic medication for a further 12 month period results in a lower relapse rate than placebo (Chen, Hui et al. 2010). Although the optimal duration for antipsychotic treatment remains unclear, given the relapse rates it appears most people would benefit from the 'insurance policy' of ongoing antipsychotic medication treatment beyond 2 years. However, since this notion of continuous medication presents a challenge to many people, some studies have contrasted the utility and effectiveness of intermittent, targeted use of medication with continuous use with evidence suggesting this may be of value for a subgroup of people with first-episode psychosis (Wunderink, Nienhuis et al. 2007; Gaebel, Riesbeck et al. 2011).

Psychosocial Interventions in First-Episode Psychosis

While medications assist with the amelioration of psychotic symptoms, their role in achieving a full functional recovery is limited. Psychosocial interventions have a fundamental place in the treatment of first-episode psychosis, providing a humane basis for continuing care, preventing or resolving

secondary consequences of psychosis and promoting recovery (2005). Although psychological therapies have been typically used in the recovery phase of psychosis, there are also some studies that have been shown to be beneficial during the acute phase.

The Study of Cognitive Reality Alignment Therapy in Early Schizophrenia (SoCRATES) Study (Haddock, Tarrrier et al. 1999; Lewis, Tarrrier et al. 2002) compared CBT and supportive counselling with 'treatment as usual' (TAU) for promoting recovery and relapse prevention. In the initial short term evaluation, results showed that CBT had a significant positive effect in reducing reported positive and negative psychotic symptoms compared to TAU alone and was superior to counselling in reducing positive symptoms. The benefits of CBT proved to be long term (at 18 months) compared to TAU although there no effective differences compared to supportive counselling at this time point (Tarrrier, Lewis et al. 2004). The Active Cognitive Therapy for Early Psychosis (ACE) project compared CBT with 'befriending' in people who were accepted within 4 weeks into a

PSYCHOSOCIAL INTERVENTIONS HAVE A FUNDAMENTAL PLACE IN THE TREATMENT OF FIRST-EPISODE PSYCHOSIS

first-episode psychosis service (Jackson, McGorry et al. 2008). Befriending describes an intervention that allowed social contact with a clinician with conversation focused on 'general chat' but prohibited any emotional support being given. The CBT intervention was given over a 14-week period and showed it outperformed befriending on measures of functioning but not symptomology with no significant differences reported at 12 months. Both these studies suggest some benefit of CBT interventions in bringing about recovery during the acute phase of psychosis.

A systematic review and meta-analysis of pharmacological and psychosocial interventions for relapse prevention (Alvarez-Jimenez, Parker et al. 2011) showed that the combination of CBT and family interventions produced significantly better outcomes than single interventions alone. Combining CBT and family interventions lowered relapse rates and lengthened the time between relapse compared to a standard-care control group (Gleeson, Cotton et al. 2009). Three psychological interventions specifically developed for first-episode psychosis with promising results are Cognitive Oriented Psychotherapy for FEP (COPE) (Henry, Edwards et al. 2002), an intervention described by Jolley et al. (Jolley, Garety et al. 2003) that focuses predominantly on the adjustment process and the Graduated Recovery Intervention Program (GRIP) (Waldheter, Penn et al. 2008) that focuses on the domains of symptom improvement, optimism and self efficacy in relation to illness and functional recovery. An uncontrolled trial presented evidence of the effectiveness of CBT in first-episode psychosis for ongoing positive psychotic symptoms in 'treatment resistant' first-

episode psychosis patients (Erickson 2010). A systematic review of CBT in early psychosis services (Bird, Premkumar et al. 2010) concludes that CBT for early psychosis has longer-term benefits in reducing symptom severity compared with standard care.

Psychological interventions are an integral component of the EPPIC Model. Case managers from a multidisciplinary background are encouraged to use these interventions with supervision but referrals can also be made to the clinical psychologists employed within the program. A more in-depth description of a number of psychological

‘Young people with a first episode of psychosis face a range of psychological and social challenges.’

interventions in early psychosis can be found in Gleeson & McGorry 2004 Psychological Interventions in Early Psychosis: A Treatment Handbook (Gleeson and McGorry 2004).

Family interventions are also a core component of the EPPIC Model. Again, case managers are encouraged to provide these interventions with support from a specialised family therapist who may also take referrals for complex cases. General principles for working with families with an early psychosis family member are highlighted below:

- Recognise the phase nature of the patient’s illness, and that family work needs to be adaptable and flexible in approach
- Recognise that families will have a range of different feelings, worries and questions
- Recognise that families need time and an opportunity to deal with the crisis and ensuing stressors
- Recognise that the explanations that families have for what has happened to them need to be heard and understood
- Recognise that families need a framework for understanding
- Recognise that families also need a recovery time and may go through particular stages
- Recognise that the family work may change over time, ranging from a maintenance role to dealing with longer-term, ongoing issues
- Recognise that family work is a preventive intervention. It is aimed at addressing levels of distress, burden, coping, social functioning and general health for all family members

Source: Australian Clinical Guidelines 2nd Ed. p.69 (Early Psychosis Guidelines Writing Group 2010)

A range of family work interventions and empirical studies have been described by McNab and Linzen 2009 (McNab and Linszen 2009). They highlight distress, negative experiences of care giving and

grief, as being features of the care giving experience in first-episode psychosis families. Reviewed family interventions range from psychoeducation alone (offered individually or in multifamily groups), to broader interventions including a focus on early-warning signs, stress management, problem-solving skills, affect regulation, attributing maladaptive behaviour to illness, communication skills training, and reduction of high expressed emotion. Bird et al. (2010) (Bird, Premkumar et al. 2010) also systematically reviewed family interventions in early psychosis services and reported that reduced hospitalisation and relapse rates are achieved, supporting the larger body of evidence for the role of family interventions in schizophrenia. Family peer support is also an integral part of the EPPIC Model and is described by Leggatt (2007). The family peer support program employs family members of young people who have previously accessed the service to provide telephone or face-to-face support to new families or carers who have entered the early psychosis service.

The Australian Clinical Guidelines for Early Psychosis 2nd Edition (Early Psychosis Guidelines Writing Group 2010) recommend that those people with a first episode of psychosis (or UHR) be offered group programs tailored to the different phases of psychosis in a range of clinical and community based settings. Although there is limited empirical evidence reviewing the effectiveness of group programs in first-episode psychosis, there are some studies of note. One study (Albiston, Francey et al. 1998) suggests that those referred to a range of group programs tended to have a poorer premorbid adjustment and trend towards a higher negative symptom profile. The group program had an effect in remediating poor functioning and preventing further deterioration and disability. In another

study (Norman, Malla et al. 2002), a group stress management program was found to reduce hospitalisation rates above standard first-episode psychosis services.

The majority of people who develop a psychosis do so at a crucial point in the development of their vocational and educational lives (Killackey, Jackson et al. 2009). The subsequent loss of opportunity gained from employment or education can have a significant impact on the sense of self, quality of life, productivity and income as well as social contact. Young people with a first episode of psychosis face a range of psychological and social challenges in achieving their goal to find employment or ongoing education despite their motivation to do so (Rinaldi, Killackey et al. 2010). Typically, they are falling out of education and employment by the time they present to first-episode psychosis services and the decline may continue thereon. European studies suggest an employment rate of only 10 to 20% of people with schizophrenia and an average of 37% employment for those with a first episode of psychosis (Marwaha and Johnson 2004).

Interventions aimed at restoring the normal developmental trajectory are crucial to any early intervention service. The prospect of gaining or regaining employment or further study is not only seen as a goal but is therapeutic in its own right. The ‘Individual Placement and Support’ (IPS) model [See (Killackey, Jackson et al. 2009) for full description] has particular relevance to a first-episode population. This model focuses on helping people return to competitive employment rather than sheltered work, and is a community-based model rather than being based in a mental health service. People are encouraged to engage on a voluntary basis when they feel ready, and support is ongoing rather than ceasing when the person

‘It is essential that early-psychosis services make their services ‘youth friendly’ by incorporating youth participation principles.’

has found employment. It has also been shown to be adaptable to different sociopolitical systems and contexts, and can be applied to both vocational and educational recovery.

This intervention has been found to be particularly effective when used with people following a first psychotic episode (Killackey, Jackson et al. 2008). In this randomised, controlled trial study, the IPS group had significantly better outcomes on levels of employment, hours worked per week, the number of jobs acquired and the longevity of employment. It is also reduced the reliance on welfare benefits therefore having a positive economic impact as well as the social and health benefits (Killackey, Jackson et al. 2008). Although case managers should have a role to facilitate access to educational and vocational services (Early Psychosis Guidelines Writing Group 2010), in the EPPIC Model, an employment consultant is also integrated within the FEP service.

Young people’s experience of mental illness and their subsequent treatment needs are often different from those of adults for a variety of reasons (James 2007). In order to ensure access and improve tenure to clinical interventions and treatment, it is essential that early psychosis services make their services ‘youth friendly’ by incorporating youth participation principles into the core components of their service. James (2007) describes a number of models of youth participation including the ‘Platform Team’ at EPPIC (James 2007).

This Youth Participation Program ensures the service provides a youth-friendly environment and is accountable to its young people. It facilitates peer support between young people and program workers to participate in staff selection by contributing to interview selection panels. All young people are eligible to join the youth participation team whose function it is as a group

to meet regularly to discuss possible improvements to the service or have involvement in community development or advocacy activities. Peer support workers who are past young people of the service visit current EPPIC young people in inpatient care and provide support to other young people on an outpatient basis. These peer support workers receive training, mentoring and supervision and are paid for their time.

Incomplete Recovery

A number of young people experiencing their first episode of psychosis will have an incomplete recovery due to residual psychotic symptoms or a continued loss of social, vocational or educational functioning. In the literature, there is no agreed definition of incomplete recovery or treatment resistance and so the prevalence is difficult to accurately determine (Pantelis and Lambert 2003) although Edwards et al. (2002) report 20% at the 12 week time point (Edwards, Maude et al. 2002). Factors influencing incomplete recovery are known, predictable and may be complex (Huber and Lambert 2009). A service system of early detection of incomplete recovery and a formulated, integrated biopsychosocial approach to interventions are required to address all known factors, and embedded within the EPPIC model (Edwards, Maude et al. 2002). Although the level of intensity and assertiveness of care varies on an individual basis, young people with an incomplete recovery are those likely to go onto an extended period of care of up to 5 years.

2.3 Efficacy of Early Psychosis Services

This paper has identified a number of core components that lead to the development of an early psychosis service. A clear rationale for the components has been presented and

where available, evidence has been provided to support this. The evidence of the effectiveness of early psychosis services is compelling with a number of international studies mentioned below that demonstrate this.

Within the EPPIC Program, a naturalistic effectiveness study compared 12-month outcomes among patients treated under the EPPIC model in 1993 with an historical cohort of patients with first episode psychosis (McGorry, Edwards et al. 1996). The results showed that young people treated within EPPIC experienced significantly better outcomes than their counterparts with regard to overall quality of life, including social and other role functioning. The level of post-traumatic stress associated with hospitalisation and other elements of treatment was also reduced, and the experience of psychosis itself was reported as less traumatic.

An 8-year follow-up of a large sample of EPPIC patients described the 8 year outcome, cost and service utilisation (Mihalopoulos, Harris et al. 2009). Data for this study were collected as part of a naturalistic, prospective follow up of 723 consecutive first-episode psychosis patients, several years after initial presentation to EPPIC. At 8-year follow-up, the pre-EPPIC group had a higher proportion of individuals with a lifetime diagnosis of schizophrenia or schizophreniform disorder than the EPPIC group (76% vs 56%) (Mihalopoulos, Harris et al. 2009). Furthermore, the EPPIC group had less severe symptoms and a higher level of global functioning compared to the pre-EPPIC group as well as a more favourable course of illness. This showed that the positive clinical outcomes achieved in the EPPIC program were maintained over the long term.

Two randomised control trials have been reported to evaluate the effectiveness of specialised first-episode psychosis services. The OPUS study randomised 547 clients to either a standardised mental health treatment or to an integrated community based, assertive treatment providing pharmacotherapy, family interventions and social skills training (when necessary) for a period of 2 years (Jorgensen, Nordentoft et al. 2000). The results showed that the integrated treatment group had better symptomatic and functional outcomes as well as better client tenure and satisfaction at both 1 and 2 year follow up (Petersen, Jeppesen et al. 2005; Petersen, Nordentoft et al. 2005). At the 5-year follow up some of the gains had been eroded (Bertelsen, Jeppesen et al. 2008).

The Lambeth Early Onset (LEO) study randomised 144 people with first-episode psychosis to either standard community-health treatment or 18 months specialised care-based treatment on an assertive outreach model (Craig, Garety et al. 2004). Specialised care involved low-dose antipsychotic medication, CBT, and family and vocational interventions. Results showed reduced hospitalisations, relapse rates and treatment disengagement in addition to improvements in recovery rates. However, as with the OPUS study, at the 5-year follow-up the gains had been lost with the transfer of clients to community adult teams. An emerging consensus now suggests that, for a substantial subset of clients at least, there needs to be up to a 5-year period of specialised service provision. Evidence to support this has emerged from the Canadian Prevention and Early Intervention Program for Psychoses (PEPP) model (Norman, Manchanda et al. 2011) that provides a step-down service after 2 years (with up to 5 years tenure of care). For the subset of young people

who required and received a step-down extra 3 years of care, the gains made in symptomatic recovery during the first two years in the PEPP model continued and the level of global functioning further improved over the 5 years. A comparison with the OPUS study showed that there were continued benefits with a longer continuity of care.

In a historical control trial comparing different models of early intervention services in Norfolk UK, Fowler et al. (2009) report that the implementation of comprehensive early intervention teams can have a major impact in improving hospitalization rates and functional recovery of people with a first-episode psychosis (Fowler, Hodgekins et al. 2009). The study compared three services that were identified as traditional care (a generic community mental health team [CMHT]), partial model (a CMHT plus specialist support) and a comprehensive early intervention team. The authors report noted that the greater the fidelity to a comprehensive early intervention service, the better the outcome (Fowler, Hodgekins et al. 2009).

2.4 Economics of Early Psychosis

While it might be expected that the care provided in the more intensive and continuous EPPIC model is more expensive than what is provided in the existing system, Australian and international evidence (Mihalopoulos, McGorry et al. 1999; Goldberg, Norman et al. 2006; Mihalopoulos, Harris et al. 2009; Valmaggia, McCrone et al. 2009; McCrone, Craig et al. 2010) indicates that the early intervention model **reduces** healthcare expenditure. These cost savings are further enhanced when other cost savings flowing from reduced unemployment, reduced suicide and reduced homicide are factored in. Orygen Youth Health has modelled the

results of Australian and international studies of early detection services to the Australian healthcare system to indicate that:

- **Health and social costs are better with early detection of the pre-psychotic or Ultra-High Risk group.** Although standard care has a lower intervention costs than EPPIC model early detection programs, total healthcare costs per person are lower (\$9,467 under the recommended CBT intervention compared to \$11,553 under standard care). Social costs are also less under the EPPIC model's recommended CBT intervention (\$15,753) compared to standard care (\$21,465).
- **Health costs are less when providing the EPPIC service for first-episode psychosis clients.** The health costs through providing the full EPPIC model to young people experiencing a first-episode psychosis are estimated to be \$25,955 compared to \$36,833 under standard care. International evidence indicates that partial implementation of the EPPIC model also delivers economic gains over standard care, though not to the same extent as full implementation of the EPPIC model.
- **Employment costs are less when providing the EPPIC service for first episode psychosis clients.** Modeling available data indicates that the costs of lost employment under an EPPIC type model are \$14,165 compared to \$20,728 for standard care.
- **Homicide costs are less when providing the EPPIC service for first-episode psychosis clients.** The annual costs per patient per year arising from homicide are modeled at being \$16 under EPPIC compared to \$162 for standard care. The figures are small because homicide is a very rare occurrence. It should be noted, however, that reducing the duration of untreated psychosis is a priority

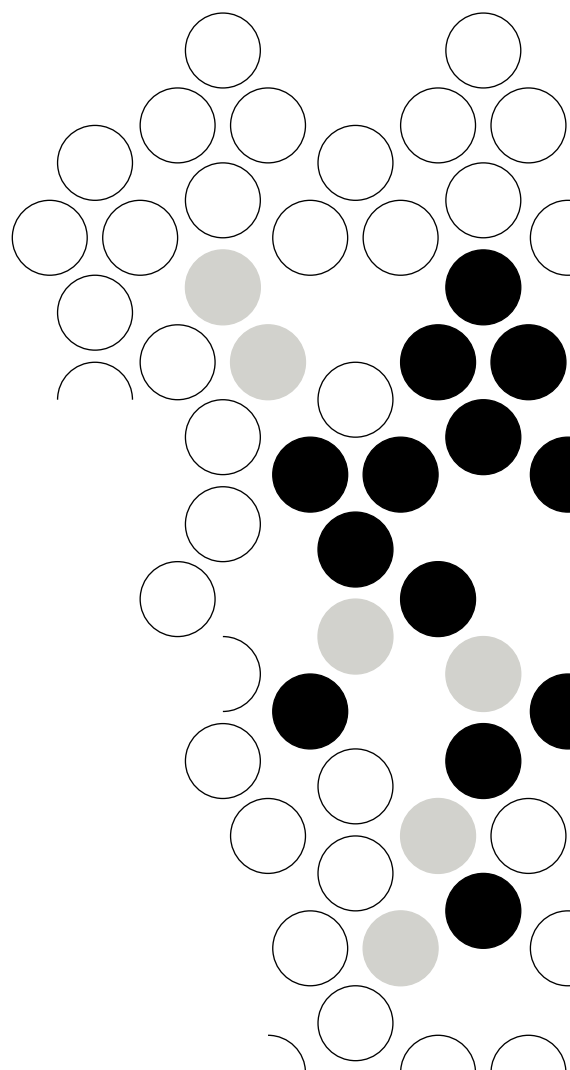
strategy for reducing homicide as there is a significant association between the duration of untreated psychosis and homicide. Homicide and serious violence is far more likely among those who have not yet received a period of appropriate treatment.

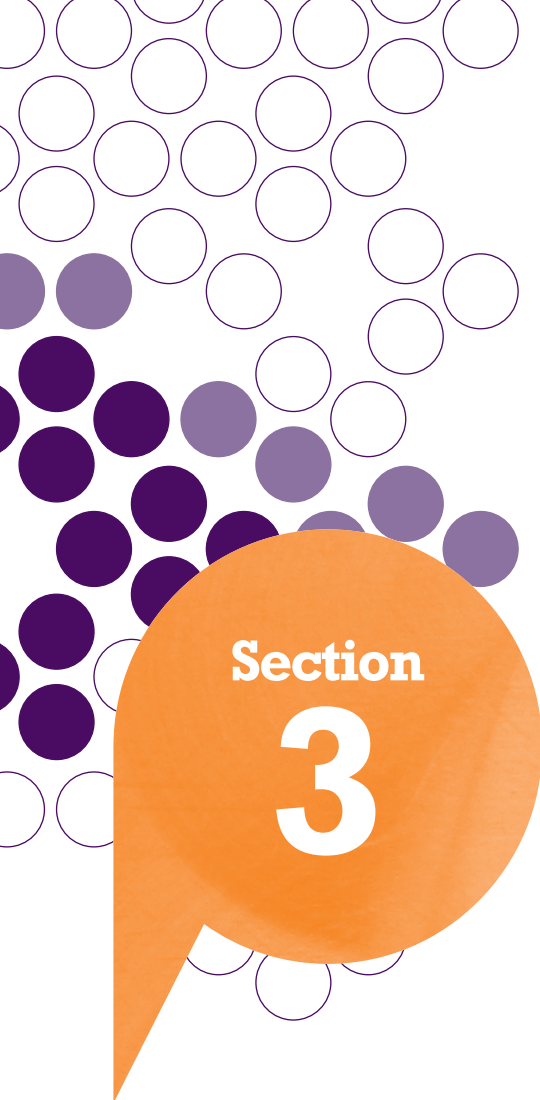
- **Suicide costs are less when providing the EPPIC service for first episode psychosis clients.** The expected annual costs of suicide per person per year are \$2,104 under an EPPIC type model of care compared to \$6,479 under standard care.

2.5 Summary

The ages between 15 and 24 years are a crucial time in the development of a young person and this coincides with the peak onset of serious mental illness. Delaying the provision of appropriate treatment can have a major negative impact on the future development of young people in addition to prolonging distressing symptoms and increasing the risk of premature death. Early intervention services, through early detection and provision of smooth, youth-oriented access to specialised early psychosis treatments, can change the course of illness. Evidence-based early interventions and services with a demonstrated efficacy are now available. The 'proof of concept' has been shown with the EPPIC Model now becoming the prototype for numerous early psychosis intervention services both nationally and internationally. The evidence also suggests that a 'watering down' of the model may diminish the outcomes for young people.

'The early intervention model reduces healthcare expenditure.'





Section 3

Translation of the EPPIC Model into Other Settings – Possible Configurations and Modelling

3.1 Introduction

There may need to be a level of flexibility built into service delivery of the EPPIC model, such as in regional areas. The model has the capacity to be delivered within a 'hub and spoke' service delivery framework, which may be of use in both metro and rural areas, as long as the essential core components of the EPPIC model are adhered to. For densely-populated metro areas, a hub and spoke model may overcome issues of traffic congestion or poor public transport affecting access to care whereas in rural areas covering a large geographic spread, a hub and spoke model may provide access to a more local regional service. Innovative ways of addressing service delivery within the model can be sought, for example, the use of Early Psychosis / Youth Mental Health Nurse Practitioners, the use of information technology, or by developing partnerships with other health care providers.

Potential service configurations may vary depending on the size of the catchment area that will in turn affect the size of the actual EPPIC service itself. As services build up their client numbers over the four year period, there is an expectation that there will be some financial capacity to invest in time-bound activities to address challenges that directly relate to the start-up phase of the service. It is anticipated that services will use this financial capacity to address issues such as managing 'pent up initial demand' in local catchment areas by bolstering the assessment program component of clinical services in the initial stages, developing community awareness, partner relationships and referral protocols through increased emphasis on this task in the initial phases, and embedding a best practice culture through investing in training and service development.

3.2 Implementing EPPIC in Different Geographical Settings

A number of possible service configurations may occur in different geographical locations. The relationship between catchment size and annual funding will vary depending on local-salary rates and non-salary costs, demographic factors relating to proportion of population in 15 – 24 age range and whether rent-free

service premises can be provided by public health network. Based on conditions likely to apply in most areas and the available funding under the EPPIC measure, the optimal size of service catchment is likely to be between 500,000 – 800,000 people. Smaller catchments of 250,000 – 500,000 will also be easily accommodated in this measure, though will not enjoy some of the economies of scale of the larger services. In some circumstances, local cost

and other conditions may enable services to plan for catchment sizes between 800,000 and close to a million. However, as this is the outer limit of potential catchment size, services pursuing this option will need to be especially confident that their modelling assumptions will apply in the longer term.



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Further Reading

Additional information about the EPPIC model is contained in the Early Psychosis Feasibility Study Report published by the National Advisory Council on Mental Health and available at: <http://www.health.gov.au/internet/main/publishing.nsf/Content/mental-pubs-e-earlypsy>





