

# Youth services: meeting the mental health needs of adolescents

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**Objectives.** Youth mental health services are poised for a paradigm shift. Recent epidemiological evidence confirms the seriousness of adolescence as a risk period for mental ill-health - 50% of all adult mental disorders begin before the age of 16% and 75% before the age of 25. Here, we identify issues with transition of care between CAMHS-AMHS service, and effectiveness of early intervention services.

**Methods.** We provide a selective review providing evidence of adolescence as a risk period, discuss CAMHS-AMHS service transition problems, and discuss avenues for change to implement the early intervention model across youth mental health.

**Results.** Traditional service structures, with paediatric -adult split at 16–18 years increasingly appear not fit for purpose. A radical redesign of youth mental health services is not only necessary, it is also feasible and achievable, as illustrated by a pilot Birmingham youth service – Youthspace.

**Conclusions.** Pilot youth mental projects currently underway can help radically redesign the existing child and adolescent services. This will in turn lead to an improvement in the young people's experience of engagement with the services so that they too have a positive future.

Received 1 October 2014; Revised 30 October 2014; Accepted 11 November 2014; First published online 19 December 2014

**Key Words:** Adolescent, mental health services, schizophrenia, service development, transition, transition to adult care.

## Introduction

Adolescence is a turbulent developmental period during which a complex interplay between biological, psychological and social influences occurs as young people navigate their way to adulthood, experience increase pressure in making important educational and career choices, assume adult roles and take on greater responsibilities (Kelleher *et al.* 2000). Parent-child conflict increases and becomes more intense as adolescents struggle for independence while still requiring support. It also represents the major risk period for the emergence of serious mental health problems that have the potential to persist into adulthood (Sawyer *et al.* 2012). Adolescents engage poorly with healthcare, indulge in risk behaviours including substance abuse, and if receiving mental health care, experience abrupt and often poorly planned transition of care from child-centred to adult models of health provision (Paul *et al.* 2013). Many young people with ongoing mental health needs fall through the care gap between child and adolescent mental health services (CAMHS) and adult mental health services (AMHS) at a time critical for

ensuring continuity of high quality care (Arnett, 2004). Traditional service structures, with paediatric-adult split at 16–18 years increasingly appear not fit for purpose. Service use declines precipitously in this age group, just when serious mental disorders are emerging. Even those receiving care fall through the gap between child and adult services. The clinical and cost-effectiveness of early intervention in psychosis services in improving outcomes and engagement has led to calls for the early intervention model to be applied to all disorders of young people. In this paper, we review the evidence for adolescence being a risk period for emergence of serious mental disorders needing effective interventions, highlight the problems of transitional care between CAMHS and AMHS, summarise the evidence for the effectiveness of early intervention services (EIS) in improving the short-to-medium term outcomes of early psychosis and propose a service model that applies the early intervention paradigm to all youth mental health problems.

## How common are mental health problems in adolescence?

The onset of most adult mental disorders is between 15 and 25 years (Kessler *et al.* 2005), with rates of child

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psychopathology in the United States ranging from 17% to 26% (McCabe *et al.* 1999; US Public Health Service, 2000). Many psychological disorders of adolescence are transient and self-limiting (Patton *et al.* 2014b) but some continue into adulthood, suggesting that adult mental disorders are really ‘chronic disorders of young people’. A large recent study conducted in Australia on 1943 teenagers assessed at baseline, at five 6-monthly intervals, and at three follow-up time points (20–21, 24–25, 28–29 years old) demonstrated that the strongest predictor of difficulties as an adult was having a long duration and multiple episodes of mental health disorder in adolescence (Patton *et al.* 2014a). Although duration of illness was the strongest predictor, underlying anxiety and low mood was identified during at least one point in their teens for 30% of boys and 50% of girls. Evidence suggests that problems can exacerbate in children from low-income families, where there is risk of exposure to poverty, community violence, higher rates of social adversity, in addition to insufficient housing, health and poor contact with mental health services (Leventhal & Brooks-Gunn, 2000; Self-Brown *et al.* 2006). A review of 52 studies reported a median prevalence rate of psychopathology of 15% among adolescents, and an overall prevalence estimate ranging from 1% to nearly 51% (Roberts *et al.* 1998). A more recent UK survey found that 10% of 5–16-year-olds have a mental health disorder (Green *et al.* 2005) with other studies reporting comparable results: 11% in 11–15-year age group (Office of National Statistics, 2004), and 20% in 16–24-year-olds (Budd *et al.* 2005). Attempts at suicide are made by 2–4% of adolescents, with a completed suicide rate of 7.6 per 10 000 in the 15–19-year age group. In addition, 2–8% of young people experience major depression (Rushton *et al.* 2002); about 2% have obsessive compulsive disorder; 0.5–1% of 12–19-year-olds (predominantly females) have anorexia nervosa and a further 1% bulimia nervosa (Wade *et al.* 2011). During the adolescence period, more serious disorders emerge with age (Petersen and Leffert, 1995). Four per cent of all cases of schizophrenia experience an onset in adolescence (Vyas *et al.* 2010a, 2010b), which is reported to be associated with developmental deviance, and poor functional outcome (Vyas *et al.* 2007; Vyas *et al.* 2011). Evidence suggests that at least one in four to five young people will suffer from at least one mental disorder in any given year (Patel *et al.* 2007) and when taken together, approaching 40% of youth aged 11–25 years will experience a period of major mental ill-health (Copeland *et al.* 2011).

Not only are mental health problems common in adolescence, these are also complex, with comorbidity particularly common. In community samples, 20% of those with an impairing psychiatric disorder have more than one disorder; comorbidity among those attending CAMHS is even higher (Ford *et al.* 2003, 2007). The use

and abuse of alcohol and drugs is high – in the United Kingdom 29% of 13-year-olds report drinking alcohol once a week; 16% of 16-year-olds regularly use solvents or illegal drugs; while 17% of older teenagers use cannabis (Fonagy *et al.* 2000). For young people receiving CAMHS care, the rate of substance abuse or dependence increases dramatically, affecting nearly half of 21–25-year-olds (Greenbaum *et al.* 1991). The Breaking the Cycle report (Social Exclusion Unit, 2004) found that 98% of young adults (16–25-year-olds) accessing services in the United Kingdom had more than one problem or need. Other common comorbid problems included homelessness, problems associated with leaving care, lack of training/education opportunities, barriers to employment, crime, poor housing, drug and alcohol misuse and learning disability.

### Do adolescent mental health problems persist into adulthood?

Mental health problems in adolescence also predict who is likely to develop severe problems in adulthood (Silva, 1990; Lamb *et al.* 2008; Patton *et al.* 2014a). The National Comorbidity Survey Replication in the United States found that 75% of people with a mental disorder had an age of onset younger than 24 years (Kessler *et al.* 2005). Long-term outcome data from the 1946 National Birth Cohort survey shows that about 60% of 13–15 years old with an internalising mental disorder had persistent mental health problems in adulthood (Colman *et al.* 2007). Teenage depression, which affects 3% of the adolescent population, is strongly predictive of adult depression disorder, substance misuse, unemployment, poor academic achievement and suicide. Although the prevalence of depression may vary across population depending on symptom and degree of severity measurements, the Youth Risk Behaviour Surveillance System study on high school students reported that 36.7% of females and 20.4% of males showed high levels of sadness, where Hispanic students reported higher rates compared with non-Hispanic peers (Youth Risk Behaviour Surveillance System, 2007). However, few seek help and fewer still (one in four) receive treatment. Only about half of depressed young people contact specialist services or a professional for depression (Kessler & Walters, 1998). There is continuity of depression from adolescence with adulthood, with 70% of those suffering depression in late adolescence being likely to develop recurrent depression into adult life. In the United States, effective intervention methods such as ‘TeenScreen’ have been used for many years ([www.teenscreen.org](http://www.teenscreen.org)) and intervention programmes established to manage emerging depression and to promote resilience (Stice *et al.* 2008).

Other problems such as personality disorders and eating disorders that begin in adolescence also persist into adulthood. In eating disorders, a population-based cohort study showed that those who diet on a moderate or severe level at age 15 with low self-esteem, are up to 18 times more likely to develop an eating disorder 3 years later (Patton *et al.* 1999). Personality disorder, a contentious diagnosis in teen years, shows continuity of psychopathology from early adolescence to adulthood (De Clercq & De Fruyt 2007; Chanen *et al.* 2009; Winsper *et al.* 2012; Winsper *et al.* 2014). The population-based Great Smoky Mountains Study prospectively assessed 1420 individuals approximately nine times from 9 to 21 years of age, reporting that by the age of 21 years, 62% of individuals met criteria for a major psychiatric disorder (Copeland *et al.* 2011). The overall prevalence for the development of a psychiatric disorder went up to 82.5% after including 'not otherwise specified' disorders. The study indicated that although there were a small proportion of young people with a DSM diagnosis, there is an increased risk of developing a clinical diagnosis by young adulthood.

### The CAMHS–AMHS divide

There is increasing concern that the traditional CAMHS–AMHS divide does not meet the needs of adolescents with mental health problems. Problems at the interface between CAMHS and adult services are historical and rooted in the ideological, conceptual and practical differences in how these services are organised and delivered (Singh *et al.* 2005; Singh, 2009). AMHS emerged from a biomedical understanding of serious mental disorders such as schizophrenia and were influenced by neurology and phenomenology. Service provision is therefore based on treating individuals who suffer from diagnosable conditions, as elicited by individual psychopathology. Child psychiatry developed later, arising in a sociological context from concerns about delinquent, vagrant and traumatised youth. Over time it adopted a developmental framework in its understanding of child mental health problems and focused its interventions on the child as part of a family system. The change in care from CAMHS to AMHS is therefore accompanied by a radical change in the culture of understanding of mental ill-health and in the nature of services.

A recent US study used baseline data from the National Survey of Child and Adolescent Well-Being was conducted with 616 12–15 years old. The study reported a 33.3% reduction in the use of specialised mental health services during the transition period from baseline to 5–6-year-follow-up. The US Census Bureau in a nationally representative population-based sample

on 1997 individuals reported reduced service utilisation at the peak transition age (16–25 years), an age group representing a period of rising incidence rates in adolescents with severe mental health disorders (Pottick *et al.* 2008). They found an annual rate for service utilisation (inpatient, outpatients and residential) of 34/1000 for 16–17-year-olds and 18/1000 for 18–19-year-olds, suggesting a severe decline in service use at the time of significant risk.

Transition from CAMHS to AMHS is particularly problematic for many adolescents, with a large proportion dropping through a care gap at the interface (Singh *et al.* 2010). Findings from the UK TRACK study show adolescents with a serious mental illness such as psychosis and bipolar disorder who are under CAMHS get referred to adult care especially if they are on medication or have been hospitalised. However, disorders such as ADHD, autism spectrum, mild learning disability or emerging personality disorder are either not referred to adult care or if referred, are not accepted. Those who do make the journey across services report that they were unprepared for the transition. Several report severe dissatisfaction and feel let down by the care they had received. For the majority, transition was poorly planned, poorly executed and poorly experienced. Many young people also experienced multiple other transitions during this period including leaving home and for females, getting pregnant (Singh *et al.* 2010). Young people experienced a bewildering array of changes with many feeling overburdened and others feeling abandoned and neglected by services. There have therefore been major calls for action through intersectoral engagement that taps into the educational system, adolescent mental health services and health-related policy and legislation (Singh *et al.* 2010).

### Have EIS improved care for adolescents?

A key mental health reform of the past two decades has been the development of early intervention in psychosis services which provide comprehensive, evidence-based high quality care for young people experiencing their first psychotic episode. Robust evidence from randomised trials (LEO and Danish OPUS trial) confirms that under specialised EIS, young people experience better clinical, social and vocational outcomes, have reduced inpatient stay and are better engaged (Craig *et al.* 2004; Petersen *et al.* 2005; Garety *et al.* 2006). EI services appear to be highly valued by service users and their carers (Lester *et al.* 2009). When EI provision is supplemented by early detection teams in the community, people come to the services earlier, with less disabling symptoms, have better recovery and less suicidality (Melle *et al.* 2004; Larsen *et al.* 2006; Melle *et al.* 2008). In the pre-psychotic (prodromal)

phase, treatment has also been shown to reduce the risk of transition into full-blown psychosis (McGorry *et al.* 2002; Morrison *et al.* 2004; McGlashan 2005; Stafford *et al.* 2013). EI services are also cost-effective as compared with generic teams and are recommended in the recent iteration of the UK NICE guidelines for 'at risk' and first episode cases. The success of EI services in therapeutically engaging young people (Lester *et al.* 2009) has led to calls for the EI paradigm to be extended to other mental and behavioural disorders (New Horizons, Department of Health, 2009), including the coalition policy on mental health (Social Care, Local Government & Care Partnership Directorate, 2014) and the Chief Medical Officer's Annual Report on early intervention in youth disorders ([https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/351629/Annual\\_report\\_2013\\_1.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/351629/Annual_report_2013_1.pdf)).

Initial results from early intervention in other disorders are promising. For eating disorders, early intervention strategies have been developed for young women at risk, including internet-based behavioural therapy (CBT; Taylor *et al.* 2006). A randomised 8-week, internet-based CBT intervention on college-age women with high weight and shape ( $n = 480$ , high-risk group), showed significant reductions in their weight (assessed using the BMI) and shape concerns (assessed using the Weight Concerns Scale and Eating Disorder Inventory scale) for ~2 years, which reduced the risk of eating disorder in a significant proportion of high-risk women. Similar work is being done for early intervention in emerging borderline personality disorder (BPD). Chanen *et al.* (2008, 2009) have shown that current evidence supports 'indicated prevention', targeting groups with precursor signs and symptoms such as substance use disorders or BPD traits, along with early intervention for first presentations for BPD.

The prevalence of unipolar depressive disorders is 0.4–0.8%, with 20% of adolescents being diagnosed by the age of 18 years (Lewinsohn *et al.* 1993; Birmaher *et al.* 1996). Introducing early intervention strategies in young children (13-year-olds) has been shown to dramatically reduce the risk of depressive disorders in adulthood (Harrington & Clark, 1998). Longitudinal studies have reported that intervention in the first episode of depression is effective in halting the development of negative cognitive styles, which are typically associated with recurrent episodes (Lewinsohn *et al.* 1999). An evidence-based review reported efficacy of CBT in young people with anxiety and depressive disorders (Compton *et al.* 2004; McCrone *et al.* 2004), which was far more effective compared with tricyclic medications (Hensley *et al.* 2004).

Along with neurodevelopmental disorders, emerging personality disorders often fall through the care gap between child and adult services (Singh *et al.* 2010;

Paul *et al.* 2013). The NICE guidelines have recommended more specialised interventions on antisocial personality disorder, such as parent-training programmes, brief strategic family therapy and multi-systemic therapy (Department of Health 2009; National Collaborating Centre for Mental Health 2009; Vizard *et al.* 2009), as well as group-based cognitive and behavioural interventions. Dialectical behaviour therapy has also been recommended for female service users with self-harm behaviour (Department of Health, 2009).

### Launching of youth-based services: Birmingham initiative

Given the epidemiology of adolescent onset mental disorders, the lack of care continuity between CAMHS and AMHS, the high risk of disengagement from services in this age group and the success of EI services in bridging the CAMHS–AMHS divide, Birmingham and Solihull Mental Health Foundation Trust piloted a dedicated youth-based mental health service ([www.youthspace.me](http://www.youthspace.me)). The Youthspace clinical team was initially a pilot from July 2011 to January 2012 and targeted young people up to the age of 25 years. The purpose of the pilot was to explore what clinical approaches are effective in working with a service user group who engage poorly with traditional mental health services and are at risk of developing long-term serious mental health problems. The service aimed to be rapidly responsive, youth friendly and intervene early using a broad range of interventions. Access to the youth services for young people aged 16–25 years was established through two pathways. First, the adult community mental health services introduced a youth access pathway across Birmingham, where the youth access teams conducted an assessment and diagnostic formation to the referring GP within 1 week of referral. This was followed by a brief CBT intervention and symptomatic treatment via medication needs by the GP following advice by the consultation team. Second, individuals were screened for risk of psychosis, bipolar disorder, eating disorders and personality disorder using an established framework (Lin *et al.* 2013).

The clinical team offered a quick response to the young person's referral; flexibility/choice of venue with emphasis on non-stigmatising youth friendly environments; active signposting of young people to activity aimed at reducing NEET (the number of young people not in employment, education or training) status via community partnerships; an expert assessment and personalised plan of support; support and intervention from a named youth mental health practitioner; access to on-line support and information via [www.youthspace.me](http://www.youthspace.me); and a focus on remaining independent

and building resilience - quick discharge following completion of intervention but with quick re-access if required.

The pilot phase was evaluated externally through Health Innovation and Education Cluster (HIEC). Over the evaluation period, the service received 247 referrals (62% female, mean age 22) about the same number and profile as comparator CMHTs. As compared with CMHTs, Youthspace was able to offer a faster first contact following referral (mean 2 days as compared with 12), quicker first assessment (16 days as compared with 45), and markedly reduced 'did not attend' proportion (5% against 28%). Only 10% of those referred to the service actually required secondary care – the rest responded well to one-off expert assessment and personalised plan, brief to medium psychological intervention and active signposted to other support networks (32% were signposted to Princes Trust for focussed work relating to education, employment and training with 65% having positive outcome). There was very high level of user satisfaction and 67% reported making continued use of maintenance techniques provided through Youthspace intervention 12 months on from discharge (information collected post HIEC evaluation). Based on these positive results, the Birmingham commissioners are now radically re-commissioning services to develop an integrated care pathway for the population aged 0–25 (<http://www.bhamsouthcentralccg.nhs.uk/patient-and-public-engagement/0-25-mental-health-services>) to radically reform child and young AMHS to begin in October 2015. This will represent the first major service reform for young people's mental health in the United Kingdom for over 30 years.

## Conclusions

Concern about the mental health of young people is not new. 'Normal' adolescence is turbulent and bewildering for young people and their carers and much of this turbulence settles as individuals mature into adulthood. But for many this also heralds the onset of serious and enduring mental health problems. Emerging epidemiological, neurobiological and health services research shows that our current service configuration of a paediatric–adult split has created a system, which is weak just when there is need for a robust and effective transition system (McGorry *et al.* 2013). The success of EIS in improving the outcomes of young people with psychosis, and encouraging similar results for other psychiatric disorders has created a momentum for applying the early intervention paradigm to all disorders of youth, which follow a very similar rationale. Pilot services such as Youthspace in Birmingham, Headstrong in Ireland and Headspace in Australia are paving the way for a

radical redesign of mental health services for young people; who deserve no less.

## Acknowledgements

Dr N.S. Vyas was funded by a Fulbright Distinguished Scholar Award by the US–UK Fulbright Commission and latterly by the Lindemann Trust Fellowship of the English-Speaking Union. Professors M. Birchwood and S.P. Singh are funded by the National Institute of Health Research CLAHRC (Collaboration for Leadership in Applied Health Research and Care) Birmingham.

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