Young People & Substance Misuse

Evidence of Problems, Treatment & Policy.

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Executive Summary

Children and young people are not adults. Adolescent development occurs across four interlocked domains including puberty & cognitive development, relationships, life tasks and identity.

Substance Misuse in adolescence is entwined in and disrupts these developmental forces.

Young people vary in their susceptibility to substance use, misuse and related problems.

Young peoples' use tends to be opportunistic and sporadic. Drug and alcohol use has shown a slight increase after a number of years of decline, however alcohol consumption is increasing amongst those young people that do drink. Drug trends have shifted towards cocaine and ketamine use amongst young people that take drugs. Drug use tends to decline with age whereas alcohol use in adolescence tends to set the adult trend.

The majority of young people are liable to experience general non-chronic problems in adolescence with a minority of young people experiencing chronic problems within this age range.

Young peoples' substance misuse patterns are predicted by trajectories of use. Age of initiation is often the strongest single predictor of the length and severity of substance misuse problems in adolescence and young adulthood. Young people with severe drug or alcohol problems are liable to have complex mental health needs in addition to substance misuse problems.

Diagnostic criteria developed for adults are not suitable for young people as they rarely exhibit symptoms of withdrawal. Young people may present as diagnostic orphans who fail to meet the full criteria for dependence or imposters who are falsely identified as problematic.

CRAFFT appears to be the most effective screening tool for young drug and alcohol users. Comprehensive assessment should be conducted as part of a Common Assessment Framework.

Motivational interviewing, cognitive-behavioural therapy and family therapies have been indicated as effective for young people. Pharmacotherapy outcomes on young people are under-researched and show limited outcomes.

Opportunities for parental involvement should be developed at every juncture of a young person's treatment.

A wide range of complex and interlocked policy requirements determine the framework for young peoples' treatment. Paramount in this are the HAS tiers that differ for adult services. Young people are required to receive interventions from all tiers concurrently.

Introduction

This briefing paper has three core aims. Firstly, as young people differ significantly from adults it is essential that commissioners and those involved in procurement of services for young people have a clear understanding of these differences and how they are expressed in the nature of young people's substance misuse. This will assist in the evaluation of services for young people and monitoring future developments. Secondly, treatment interventions for young people need to account for these differences. Whilst the evidence base is limited for young people, research has offered considerable insight into the nature of young peoples' substance related problems and into the effectiveness of certain interventions. It is essential that treatment services for young people account for and respond to the unique challenges that young people bring to a service. Finally, young people's treatment services are accountable to a complex and interlinked range of social policy. This makes unique requirements on services delivery and frames treatment provision with wider legal requirements. The development of any youth specific services will have to incorporate all of these core elements.

As such, this briefing paper begins with an overview of adolescent development and its critical components. Young peoples' drug and alcohol use is deeply entwined in these forces and is adept at interrupting these processes. Against this back drop, this paper then explores the nature of young peoples' use through prevalence studies. These studies highlight that variance between young people whose use is time-limited verses young people who experience chronic problems. This paper examines the life-course trajectories that account for and can predict these differences. The nature of young peoples' problems is then re-assessed with particular emphasis on how young peoples' substance misuse problems differ from adults in diagnosis. The evidence base of recommended treatment interventions are then explored in detail. Finally, the paper reviews critical elements of policy that affect the delivery of young peoples' treatment services. In conclusion, a number of recommendations are made based on the research outlined in this paper in terms of provision for young people that incorporate adolescent development, treatment and policy. This is set out as an ideal treatment service map for youth substance misuse provision.

Adolescent Development: A Brief Overview.

The systematic study of adolescent development begins with the work of G. Stanley Hall (1916). Hall was deeply influenced by popular ideas at the time, particularly the evolutionary concepts suggested by the 18th century biologist Lamark. This evolutionary theory suggested that humans passed through each previous evolutionary stage as part of their development. Hence the fertilized human embryo was an amoeba, and subsequent development continued through each genus of the animal kingdom until birth. This process continued into childhood which marked the stages of human history. Hall believed that adolescence marked the transition from

primitive mankind to civilised modern man. As such, it was inevitably a time of 'storm and stress.' Other early theorists suggested different theories of development but retained the idea that adolescence was necessarily a time of difficulty for young people. For example, Freud (1958) suggested that the onset of puberty initiated the genital phase of psychosocial development, where increasing sexual desire and isolation from parents lead to inner psychological conflicts. There has proved to be little empirical evidence to support the idea that adolescence is necessarily a difficult transition (Arnett, 1999; Schlegal & Barry, 1991) but the idea that this development phase is intrinsically tumultuous has remained active in the popular imagination ever since.

More recent theories of adolescent development have questioned not just the assumption of adolescence as a time of difficult transition but have re-orientated the study of adolescence considerably. Where early theorists such as Hall and Freud took an explicitly biological view of the individual's development, recent theorists have stressed the importance of the context of a young person's development. For example, Havighurst (1952) identified a series of culturally defined life tasks that a young person must accomplish within certain age ranges to achieve maturity. Other theorists have taken an even greater context-person view (Brofenbrenner 1979; Lerner, Ostrom & Freel 1997). Here a young person's development is the product of their biological development but also highly reliant on the environment in which they develop. In this way development is seen as multi-dimension and the product of a dynamic interplay between the individual young person and the world that they inhabit. Periods of stability and change in the young person are the product of this interplay. Whilst biology remains important in this equation, the individual remains locked in a highly influential cultural context. To the degree that even maturation itself is regulated by cultural forces (Silbereisen & Kracke 1997). In this view, adolescence is only difficult where the environmental conditions prompt it (Petersen & Leffert 1995).

Adolescence: A Work in Progress

As we can see in this brief overview, there remain many rival theories of adolescent development. Rather than adopting one theoretical position over another, it can be more useful to understand adolescent development as occurring across four concurrent domains. The rate of development may differ between these four domains but they can be understood as the four pillars of development. These include:

Puberty induced changes to physical and cognitive abilities.

Transformation in the balance of relationships (parents, teachers to peers).

The achievement of specific age related tasks such as school, exams and employment.

The establishment of an autonomous and self-regulating identity.

Key Categories of Developmental Transition (Schulenberg et al 1997).

Physical & Cognitive Changes

Puberty is the most obvious physical change that occurs in adolescents. Whilst this signals changes in sexual maturation, puberty is wide ranging in its effect on the heart, lungs and respiration and muscle development. Accompanying puberty is a growth spurt. The rapid increase in physical growth can outpace the young person's brains spatial awareness leaving the adolescent clumsy and awkward. The age of onset of puberty can have a contradictory impact on males and women. Early puberty in males often singles them out leaders whereas late developers tend to be less popular and less confident (Simmons and Blythe, 1987). Conversely, the early onset of puberty in young women may single them out for bullying and poor body image (Silbereisen & Kracke, 1997). Puberty in general can lead young people to become pre-occupied with ideals of physical beauty, particularly in young women.

Besides physical changes, the adolescent will experience profound changes in cognition. Children demonstrate a very concrete egocentric thinking style which tends to be inflexible. The shift in adolescence marks a transition from this style of thinking to meta-cognition. Meta-cognition allows the adolescent to think about how they think about things and thus offers a more flexible and adaptable way of understanding the world. Elkind (1967) has demonstrated that this shift in thinking is a double bind for the adolescent. Whilst the emergence of meta-cognition frees the adolescent from child-like concrete thinking, it embroils them in to new thinking traps. This is because whilst it allows them to consider their own thoughts for the first time it also allows them to consider other peoples' thoughts about them too. This ability to consider other peoples' thoughts (empathy) creates a new adolescent egocentrism. Adolescents find it difficult to differentiate their thinking from the thoughts of others. For example, as young people are preoccupied with their appearance they assume everyone is preoccupied with their appearance. This leads to an 'invisible audience' effect whereby the young person operates in real or imagined social settings where they continually anticipate the reactions of others. This feels as though they are perpetually performing before an 'audience' who reaction mirrors their own concerns. Hence during puberty, the confident child shifts towards the self-conscious and withdrawn teenager who wants to be alone.

The adolescent's new focus on themselves, and others thinking about them, can lead to the development of a sense of pre-eminence. As they are the centre of attention, even of a virtual audience, it can create a feeling of specialness. This is the 'personal fable' of self, where young people may believe that they are omnipotent or invulnerable. This fantasy can distort a young person perception of risk. They may recognise that bad things happen in the world but bad things do not happen to them. Elkind suggested that addressing personal fable and the invisible audience that the young person performs to could be important in helping young people with behaviour problems. A range of studies have supported Elkins findings (Enright et al

1980). Though some critics have argued that adolescent egocentrism is more closely related to young peoples' understanding of interpersonal relationships rather than cognitive development (Jahnke & Blanchard-Fields 1993).

The adolescent brain does mature at different rates. This is especially true of the prefrontal lobes of the human brain that are responsible for the higher functions of anticipation and forethought. This area of the brain does not fully mature, especially in males, until 18. Besides increasing the impulsivity of young people, this makes them prone to acting without regard to the immediate consequences of their behaviour. The adolescent brain can be considered as having an accelerator but no brake. This may place young people who find themselves in adult worlds with heighted risks as they do not have the capacity to anticipate the consequences of drugs, alcohol, sex or weapons like carrying a knife. Combined with this is the limited life experience of young people who are often encountering new experiences, situations and events for the first time. In this respect, young people are more prone to rely on their own pre-existing expectations of these events rather than the actuality of experience.

Changing Relationships

Adolescence marks an important shift in relationships. In childhood and early adolescence young people hold vertical relationships with adults who have power and control over them (parents, teachers) and horizontal relationships with their peers. The nature of these relationships changes dramatically across adolescence. In terms of peers, early adolescence marks the return of mixed gender groups. Gender differences emerge in childhood, where girls begin to swap instructions and boys stop taking orders. This gender difference tends to divide children quickly where boys experience girls as bossy whilst girls experience boys as uncooperative. Girls play but unstructured games which are deemed unimportant and they will end a game to restore harmony if conflicts arise. Boys play highly structured games and conflicts are only resolved in order to reinitiate the game. These gender differences are carried into adolescence where young woman have deeper and intimate relationships whilst young men will seek out a female to share deeper thoughts with (Shucksmith & Hendry 1998). Young men tend to be more action orientated.

In adolescence the genders return and new social groups are formed making relationships the defining feature of adolescent life. Dunphy (1972) separated the peer group of a close knit group of friends with a 'scene,' which was a larger gathering of like-minded others were less intimate relationships where managed between peer groups. Dunphy suggested that peer groups are formed where family and kinship groups cannot provide young people with the skills and opportunities they need for the development. As such the peer group has an important function for young people who appear to make clear choices with regard to the peer groups that they join. Peer groups are constituted of like-minded others who share common interests, values and tastes. As such, they support the increasing autonomy of the

young person. It is the platform where young people can explore and experiment more freely than with adults, under the gaze of watchful others. In general, young people feel as though they have less self-efficacy than adults. However, as long as they have the same freedoms as enjoyed by their peer group they feel in control. The peer group is thus a barometer of their own personal power. In terms of influence, it is a myth that an individual within the peer group is able to exert influence over other members of the group (a ring leader). As like-minded others are drawn together in the peer group, it appears that the group norms influence the behaviour of its members not individuals. In general, the influence of the peer group tends to increase into mid-adolescence and then taper off in the later teenage years where young people either begin to establish a more autonomous sense of identity or become increasingly involved in partnering relationships.

Young people who do not belong to a peer group face isolation and a lack of social support. This means joining a peer group and one's social standing in these cliques is very important to young people. Popularity becomes a major preoccupation in adolescence. Popular individuals have a sense of humour, are sensitive and have a friendly disposition. Other young people may gain popularity from specialisms such as being smart, sporty or fashionable. Attractive young people may benefit from the 'halo effect' where others assume that they have pleasing personalities and are believed to be more competent and self-reliant. This can be a double-bind for the attractive young people who are offered less support and find it more difficult to ask for help. This can lead to a deep sense of isolation even in a crowd (Munsch & Kinchen 1995).

Age-Related Tasks

Adolescence is also marked by the successful accomplishment of age related tasks, most notably the transition from a highly supportive educational environment towards the more autonomous work environment. The nature of these transitions is hugely influenced by context where social policy and changes in culture shape the routes that young people can transverse through this transition as well as the expectations placed on them. For example, university is no longer the preserve of a small elite as it once was whilst vocational qualifications have diversified the opportunities for young people.

Despite these changes, the situation for young peoples' transition is still influenced by their social class (Bourdieu 1977; Ball et al 1996). So whilst educational attainment has risen in young people, inequality in attainment throughout the social classes has widened. Young peoples' educational achievement remains largely predicated by their parents. Hendry et al (1993) researched young peoples' attitudes to social institutions such as school, peers, parents and adult authority. This study identified clear sub-populations of young people. One group was peer and school orientated; a second group was peer orientated and a third group was disaffected from pro-social structures. These groups were related to their parents socio-

economic status, with the disaffected youth belonging 'manual labour' households. These young people were more likely to leave school with few qualifications and more likely to experience unemployment. This also appears to be influenced by race, with white Europeans and Asians performing similarly, whilst the Afro-Caribbean young people performing half as well as their counter-parts (Drew et al 1992). Even in the realms of higher education these disparities remain. Despite increases in the number of young people entering into university, the future prospects of students remain stratified with students from the newer universities still facing the most difficulties in the labour market as opposed to Oxbridge candidates (Brown and Scase 1994).

A second major life task for adolescence is leaving home. With marriage declining, the age and nature of leaving home has changed for many young people. Hendry et al (1993) found that only 6% of 17-18 years had left home. Young women were more likely to leave home sooner than young man with 50% of males still residing at home the age of 23-24. As Jones and Wallace (1992) noted, the ability for young people to leave home is highly reliant on many social factors including employment income, family support and access to affordable housing. As many of these factors are curtailed in young people in particular socio-economic groups, young peoples' development can be severely stalled by these social forces. Social inequalities are also reflected in those who become long term unemployed and dependant on welfare. Hendry et al (1993) found youths whose head of the house was unemployed were twice as likely to become long term unemployed themselves. Whilst young people growing up in non-manual labour families were least likely to be unemployed.

Identity

The rapid physical and cognitive changers, shift in relationships and life tasks faced by young people drives the establishment and resolution of a self of identity. Understanding identity formation is difficult due to the fact that there is no unified theory of human personality. Identify is often defined very differently by different researchers. Some research has viewed identify as an internal self-concept built of multiple elements and have attempted to map this self-concept by these functions (Offer et al 1992).

Psychological Self:
Impulse Control
Emotional Health
Body Image
Sexual Self
Sexuality
Social Self
Social Functioning
Vocational Attitudes

Familial Self
Family Functioning
Coping Self
Self Reliance
Self-Confidence
Mental Health

Components of Self-Concept (Offer et al 1992).

Certainly, it appears that across adolescence these elements of self become more clearly defined. Young people increasingly recognise how these elements of self-image relate to certain specific situations. For example, whilst a child might describe themselves as lazy, and teenager is more like to place this in context-'I am lazy English but work in PE.' Further to this, young people begin to organise their self-concept in more harmonious and continuous ways (Harter 1990). This may occur as the young person develops an increasing awareness of self and become more alert to internal contradictions in themselves and how they act in different situations. It is the resolution of these contradictions that leads to the creation of a more organised sense of identity. This led Harter (1988) to define the self concept as the theory that one constructs about oneself. For young people this can lead to a great deal of deeper introspection, especially as it may occur in conjunction with adolescent egocentrism.

The development of this stable identity was first explored by Erickson (1968). Erickson research suggested that human beings developed through critical age-related stages. Each age demanded that the individual had to successfully resolve internal dilemmas before they are able to move to the next phase of their life. For example, in infancy this is a battle between trust versus mistrust, whilst children wrestle with the sense of personal industry versus inferiority. In adolescence the core internal dilemma was between establishing identity verses identity confusion. This is salient at this juncture in life due to the rapid changes the young person experiences combined with the life defining decisions that must be during this period of life (school options, exams, college \ university etc). Marica (1966; 1993) was able to develop these ideas into a testable theory. Based on Erickson work, Marcia noted that there were four key identity statuses that dominated in adolescence.

Identity Diffusion: The individual has not yet experienced a crisis in identity or made any commitment to future vocations. There is no sign of any activity towards establishing future commitment.

Identity Foreclosure: The individual has not had a crisis of identity but has commitment to a future vocation, usually under the direction of another.

Moratorium: The individual has yet to resolve a struggle over current identity. They are actively exploring their choices to locate an identity.

Identity Achievement: The individual has experienced the crises and resolved it on their own terms. They are now committed to a vocation, belief and social role.

Marcia's Four Identity Statuses

Marcia believed that these statuses occurred in sequence, but unlike Erickson, did not believe that all stages must be resolved in order to progress towards identity formation. Only the moratorium phase appears essential to the formulation of an adult identity. An explosion of research has supported Marcia's general thesis.

Identity achievers appear far more psychologically balanced than the diffusion groups. Individual in the moratorium status score highly on anxiety and show the greatest conflict with authority. Those with personality foreclosure score highly on the need for social approach, low on autonomy and are most authoritarian in style. Whilst those in identity diffusion have the highest levels of psychological and interpersonal problems (see Kroger 1993, 1996; Phinney & Goosens 1996).

Theories of Adolescent Substance Misuse

With regard to the development of problem behaviours such as substance misuse, they too remain entwined in this interplay between the individual and their environment. The characteristics of the individual (personality traits, psychological stability, self-concept, etc) and the societal conditions (availability, expectancy, permissiveness, peer group and access to substances) produce problematic behaviours. This demands a revision of how we understand young peoples' substance use. Young peoples' use can be understood as located in the relationships they have with their environment rather than located in them as an individual. Whilst a wide variety or researchers have presented differing models to explain this relationship, Schulenberg et al (1997) have summarized the major conceptual models that describe this interplay. They hazard that these theories should not be seen as competing models but probably represent sub-populations of youth substance misuse during any given period.

Overload Model: Periods of rapid transition can overload the young person's current emotional and cognitive coping strategies which may lead to the reliance on unhealthy coping strategies such as substance abuse. Furthermore the adoption of risky coping styles may further impede the emergence of healthier self-coping strategies which become displaced or unutilised because of consumption. The major implications for treatment are to reduce the co-occurrence of multiple and simultaneous transitions on the young person such as changing school in the middle of puberty.

Developmental Mismatch Model: Health risks or opportunities to change occur where there is a poor fit between the individual's resources and the environmental demands that they are enmeshed in. As the relationship between the young person and their environment is dynamic, this can provide opportunities for young people to feel well matched to their environments and periods where they feel adrift. For example, Moffit (1993) suggested that 21st century social reforms demand that young people remain in school into their late teens removing them from adult responsibilities, roles and opportunities. This external social demand thwarts the young person's sense of emergent autonomy. Hence the young person may become increasingly alienated from schools, college, etc and seek fulfilment elsewhere. The anti-social peer group which apes the behaviours of adults can become a compensatory environment. The treatment implications are to diversify the vocational and educational options for young people who do not mature at a

constant pace in order to provide a greater fit for the young person and their environment.

Increased Heterogeneity Model: This model suggests that developmental transitions are pre-cursors to engaging in risk behaviours. This is explicitly the case amongst young people who are already experiencing difficulties with adjustment. Under a rapid succession of transitions, their ability to cope with such adjustments became increasingly curtailed. For example, Eccles et al (1996) identified that young people who were already experiencing difficulties with school found the transition to Junior High the most difficult. It strongly suggests that successful resolution of each transition is a necessary pre-requisite in order to prepare for further transitions into more complex environments. These difficulties in transitions may be sourced in a wide number of areas. Researchers have suggested a broad range of deficits that might contribute to this failure to adapt including poor cognitive coping, poor social support and high support to adopt negative coping strategies. This may demand a more detailed response in supporting young people to adjust negative thinking styles; increase their problem solving capacity; along with strengthening pro-social support for them during early periods of poor adjustment. The suggestions of development mismatch model may be useful in ensuring that the young person is able to move into environments that are a better fit for their abilities and interests.

Transition Catalyst Model: This model accepts that risk taking behaviour is an essential component of development transition. As such, taking risk or engaging in socially deviant behaviour can have a beneficial effect on development as well as malign one. The increasing engagement in risk taking amongst watchful peers is an expression of the young person increasing individuation from the family. For example, binge drinking offers a medium for many college students to engage in ceremonies of affiliation and build new relationships in a new transitional world. In addition it is also an opportunity to learn intoxication management skills. The exploration of roles and experiences appears essential in identity achievement and failure to do so can forestall identity formation. This represents a dilemma in working with young people whose risk taking may be an expression of the moratorium search for identity versus assessing the risk substance misuse has on their wider social functioning. Separating normative use from problematic use becomes essential in addressing these issues.

Heightened Vulnerability to Change Model: Random chance may also play a significant role in the life course of everyone and the initiation into substance misuse is no exception. Random events may lead individuals into unexpected encounters that have dramatic consequences for the individual life course. Bandra (1992) cites the example of a young man who visited an acquaintance who lived just outside of Los Angeles. Not realising that the friend had moved, when he knocked at the door a group of young people invited him to join the party that they were having. The party was being held by Charles Manson and the Family. The young man was

drawn into a world of unfettered sex, substance abuse and multiple murders. This dramatic encounter illustrates the fact that the life course can take dramatics turns based on random events. However, most random events are more domestic in their nature, like meeting a new best friend on a college course or a new partner in the workplace. Whilst these events may appear random they can be better understood as a stratified probability in operation. People with similar interests may attend the same course, whilst people with similar ethics may enter similar work institutions. Whilst individuals display different receptivity to random events, receptivity may also vary across the individual life course. On the back of transitions, like leaving home, people may be more receptive to explore and experiment with new and uncharted experiences. In terms of intervention, it can be impossible to legislate for all chance encounters which by the nature are more improbable. However, life skills and refusal skills may help insulate young people from engagement in unplanned encounters.

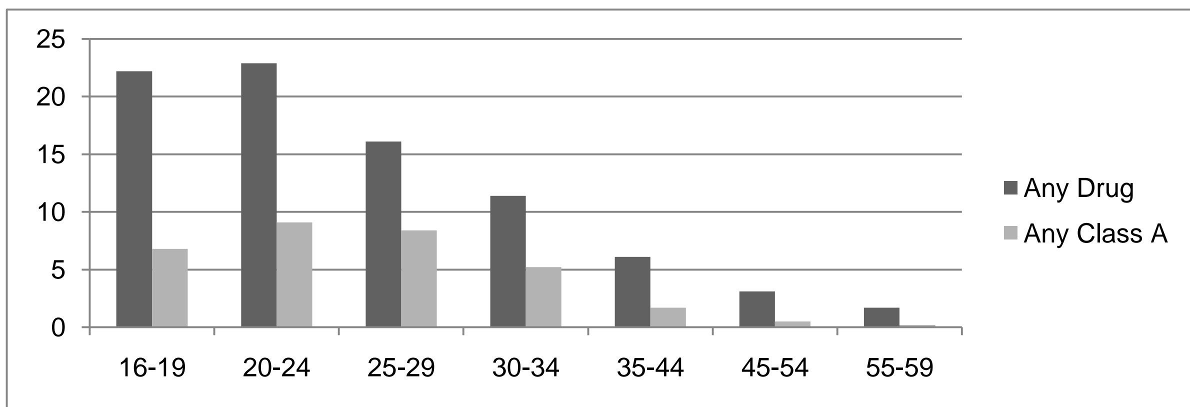
Risk & Protection Factors

The propensity for young people to become involved in substance misuse problems is dependent on the risk and protection factors that exist in their life. A risk factor is anything which increases the probability that the young person will take drugs or alcohol whilst a protective factor is anything which decreases the risk that they will take drugs or alcohol. In line with ecological models of adolescent development, risk and protection factors are cited in both the individual young person (genetics, temperament, attitudes, social expectations, class and gender performance) and in their environment (family, socio-economic status, neighbourhood and peer groups). Risk and protective factors have been reviewed extensively in Harris (2008).

It is important to recognise that substance misuse problems are multi-factorial and are sourced in both the young person and their environments. Risk and protective factors tend to represent ends of a spectrum for any given facet, for example, poor parental supervision is a risk factor where parental involvement is a protective factor at the other end of the scale. The greater the risk factors and the less protective factors appear to directly correlate with the increased probability that the young person will initiate drug and alcohol use. However, it is not clear how risk and protective factors operate. For example, does parental involvement (protection factor) mediate the effect of a risk factor (peer use) or do they operate by negating the appearance of the risk factors altogether (parental involvement that prevents the young person entering drug and alcohol peer groups). Risk factors appear accumulative as opposed additive, suggesting they may snowball from distal risk factors (up-bring, family use) to predictive risk factors (peer group, truancy to concurrent risk factors (expectancies, hostility, a propensity to want to use). Thus adolescent risk factors may simply be the expression of established behaviour patterns established at an earlier age (Silva & Stanton 1996). Alternatively, Oetting & Beauvais (1986) argued that the risk factors should be understood only in so far as they lead the young person to enter into a substance using peer group.

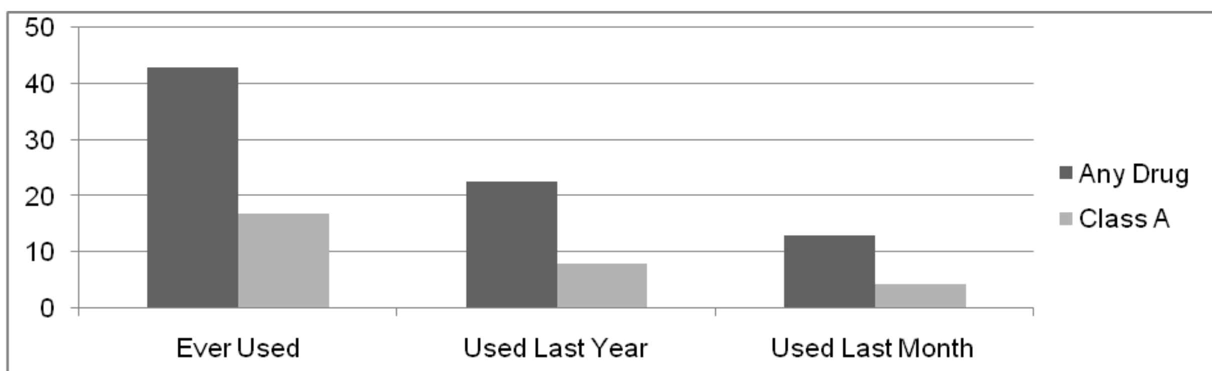
Prevalence & Trends

Current prevalence of use can be established from a wide range of survey sources. A recent study (SHEU 2001) of 42,073 young people demonstrated that half the young people questioned between the ages of 12-15 drank at home, half of whom did so without their parent knowledge. Cigarettes had been tried by 65% of pupils with cannabis being used by 23% of young people. This school based survey does not include the higher risk sub-groups of socially excluded young people. Surveys which include excluded young people tend to report higher usage amongst young people (Goulden & Sondi 2001). The latest research from the British Crime Survey 2008/9 (Hoare 2009) demonstrates that young people are by far the highest consumers of drugs but consumption declines significantly as young people age. Within this, Class A drug use increases in the 20-24 age range before again declining with age. This may be a result of the initiation into Class A drug use tending to occur later in life to that of tobacco, alcohol and cannabis.



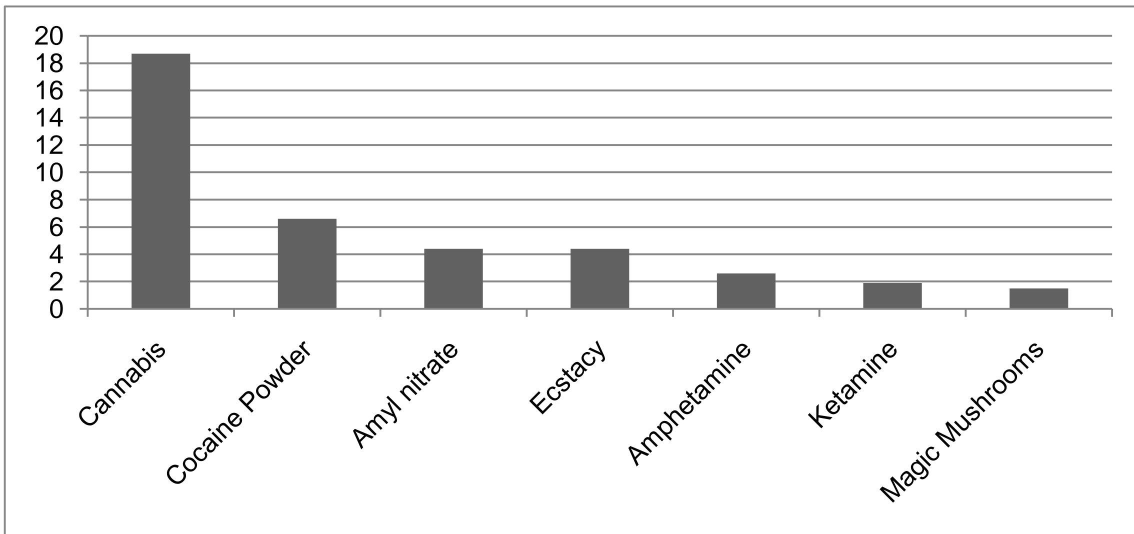
Percentage of 16-59 years olds reporting use of Any or Class A drug use in the last year by age group BCS 2008\9 (Hoare 2009).

Reviewing frequency of consumption amongst young people who do use drugs, ‘monthly use’ is much lower than that for ‘Ever’ or even ‘Last Year.’ This suggests that drug use is opportunistic for many young people as opposed to a routine element of their life.



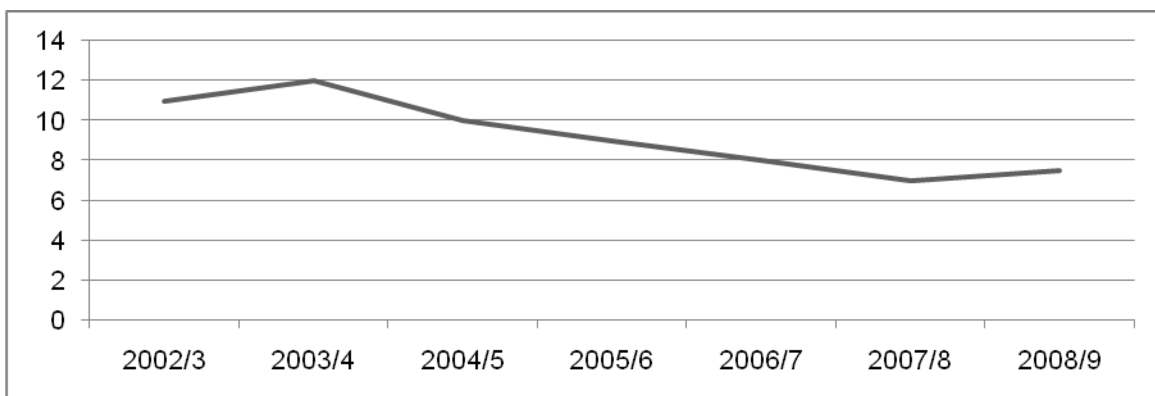
Drug Use Frequency (%) Amongst 16-25 year olds 2008/2009 (Hoare 2009).

Within this general distribution it appears that young people use of drugs is primarily, but not exclusively, limited to cannabis. Cannabis accounts for 84 per cent of Last Year use (data not shown). The British Crime Survey has detected more subtle changes in patterns of use. Cannabis use has been in decline as had Class A use until last year when it rose from 6.9 to 8.1 per cent. In terms of last year usage, cocaine powder has been rising from 1.3 per cent in 1996 to 6.6 per cent on 2008/9 survey. Hallucinogens and Ecstasy remain in decline as do opiate use in this age range, which is largely accounted for in decreases in use of methadone. In non-Class A drugs, tranquilisers, anabolic steroids, and solvent use has remained stable. Amphetamine use has declined whilst ketamine use has risen from 0.9 per cent in 2007/8 to 1.9 per cent in 2008/9.



Drug Use as percentage by 16-24 year olds by prevalence in the last year 2008/2009 BCS (Hoare 2009).

Using data from the BCS survey it is estimated that approximately 1.1 million young people aged between 16-24 have ever used a Class A drug, a half a million have used a class A drug in the last year whilst a much smaller number of 294,000 have used a class A in the last month.



Percentage of 16-24 year olds classified as frequent drug users 2002/3-2008/9 (Hoare 2009)

National surveys of drinking in adolescence suggest that 20% of boys and girls will have consumed an alcoholic drink by the age of 11 (Report 2009). The prevalence of alcohol consumption increases with age, with 54% of 13 year olds and 81% of 15 year olds having consumed alcohol. It is estimated that 1.5 million children aged 11-17 drank alcohol in the last week (704,000 were aged between 11-15). Approximately 360,000 children are estimated to have been drunk 'within the last week' (Report 2009). The volume of alcohol consumed also appears to increase with age from 8 units per week for 11-13 year olds to 15 units a week for 15 year olds. In England there appears an upward trend in the amount of alcohol units consumed by young people who do drink.

Mean alcohol consumption in units in the last week by sex (aged 11-15) from 1990-2007 (Report 2009).

So in summary, drug use has increased after a period of continued decline. Even when young people do use drugs they are more likely to desist from use as they age. In contradiction to this, alcohol consumption is increasing amongst the young people that do drink. Furthermore, high alcohol consumption in adolescence is more likely persist at a higher level across the life course. This may occur for several reasons. The cultural acceptability of alcohol and ease of access makes consumption a cultural norm in a wide range of socio-economic groups. Secondly, it is rare for drug use to be initiated for the first after the 2nd decade of life (Johnston, O'Malley & Bachman 1998) suggesting alcohol becomes the primary drug of choice (and availability) beyond this point in the life course. Finally, research suggests that heavy alcohol consumers in adolescence do decline in consumption across the life course but they preserve rank order in relation to other cohorts. This suggests that the pattern of alcohol consumption is set in adolescence and has ramifications across the life course.

These prevalence studies reveal an important trend. Whilst large numbers of young people will initiate the use of drugs and alcohol from adolescence to early adulthood the majority will remit without treatment. In a longitudinal study conducted by Filmore (1975), 206 respondents were followed up from a large previous study of drinking patterns of 17,000 American college students. Whilst 42% of the sample were identified as problem drinkers during their college years, only 17% met this criteria in middle age. Interesting gender differences emerged between men and women. This natural remission phenomena was only seen in male populations. Women had a lower incidence of problem drinking in the college years but had a higher incidence of problems in later life. Further studies by Filmore (Filmore & Midanik, 1984; Temple & Filmore, 1985; Filmore, 1987) re-iterated the early findings with regard to the natural remission of heavy male drinking. Filmore concluded that in terms of alcohol misuse, younger people experienced an erratic pattern of non-chronic problems with a 50-60 per cent chance of natural remission in men and 70 per cent in woman. Similar patterns have emerged with other substances where natural remission is a primary exit route for most young adults who have used a wide range of substances (Antony et al 1994).

	Life Time Use	Life Time Dependence	Capture Rate*
Tobacco	75.6%	24.1%	31.9%
Heroin	1.5%	0.4%	23.9%
Cocaine	16.2%	2.7%	16.7%
Alcohol	91.5%	14.1%	15.4%
Cannabis	48.3%	4.2%	9.1%

Rates of uptake and subsequent dependence (Antony et al 1994)

***Capture rate is the proportion of those who have ever used who have gone on to become dependent.**

Substance Abuse Trajectories

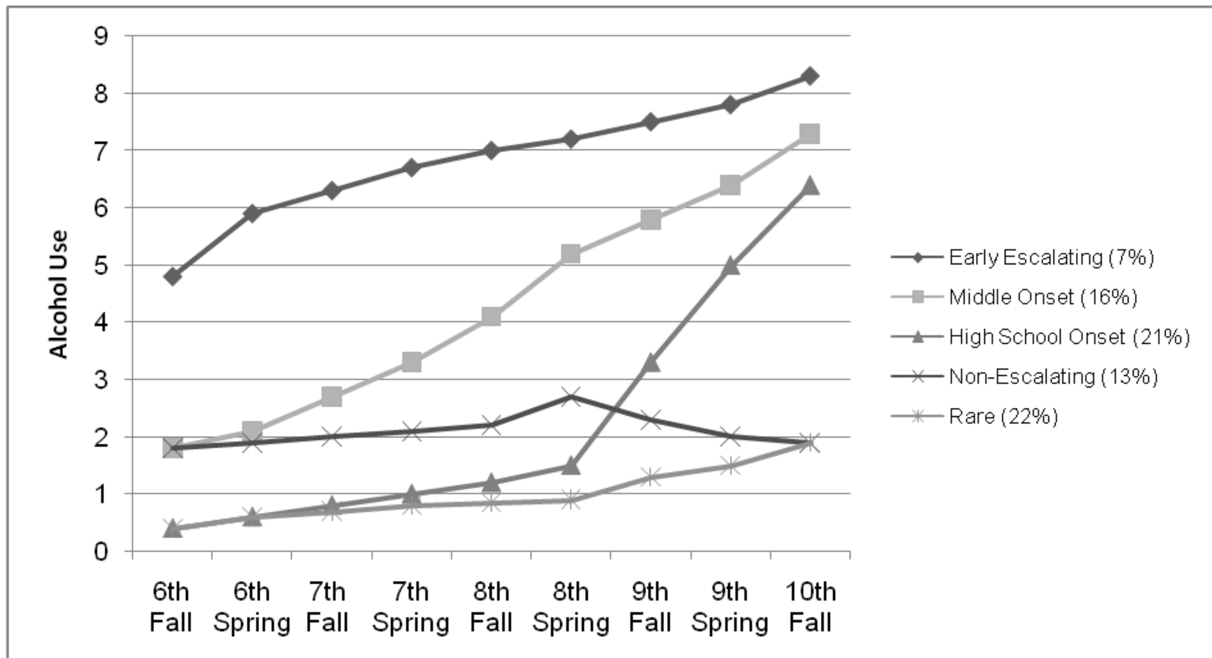
Longitudinal research demonstrates that whilst drug and alcohol use is initiated in the adolescence period and peaks across the twenties decade, consumption declines with age. This suggests that the high degree of experimentation and recreational drug use amongst young people which may serve a developmental function. Alcohol is a medium for social bonding and reciprocation in the vast majority of world cultures. Drugs may serve a similar function in the defined sub-cultures of young people. As such, drug use may be an extension of the values and lifestyles that bring young people into the peer groups and scenes of like-minded others. The majority of young people stop taking drugs when they mature into more adult social roles such as establishing autonomous identities and invest themselves in careers, family and home building (Labouvie 1996; Kandel 1975).

Average consumptions figures mask the fact that consumptions patterns differ considerably for sub-populations of young people. As whilst the majority of young people simply age out of use, a smaller population display a far more chronic pattern

of use into adulthood. Screening and identification of these different life courses is vital to ensure that treatment is targeted at an appropriate level for a range of possible levels of severity. Mutli-panel wave research has begun to predict the trajectories of consumption in young people from initial risk factors. This may allow for the targeting and assessment of predicted severity and trajectory for individual young people.

These studies have identified how the age of initiation and consumption vary in different sub-populations of young people and follow defined trajectories into adulthood. This has clarified why some individuals appear resilient to use, why others succumb at a divergent range of ages and how youth populations remit from use whilst others continue into adulthood (Jessor, Donovon & Costa 1991). It is important to distinguish these target groups in treatment. For example, if many young people will naturally remit without assistance this may re-direct limited resources at those who are more likely to develop entrenched long term use into adulthood.

Historically, this separation of specific sub-populations has not been manifest in treatment interventions because of the assumptions implicit in equifinity and mulitifinity. Traditionally we have identified young people by their consumption of drugs or alcohol at any single point of time. However, equifinity refers to the fact that multiple pathways can lead to the same outcome. Whilst mutlitfinity describes how pathways can diverge from a common point. If we consider a group of fifteen year olds current usage we might assume a great deal of similarity between the individuals based on their current consumption. However, the pathways that have led these individuals to this point can differ substantially, and by extension their futures have very different predicative outcomes. Using data from the large scale Alcohol Misuse Prevention Study, Schulenberg (2001) identified five trajectories of alcohol use in young people. This included early escalators, middle onset, high school onset, non-escalating and rare (no pattern) groups, all initiating use at different ages and each with specific trajectory of consumption. The issue of equifinity is illustrated with three distinct paths identified into heavy drinking patterns.

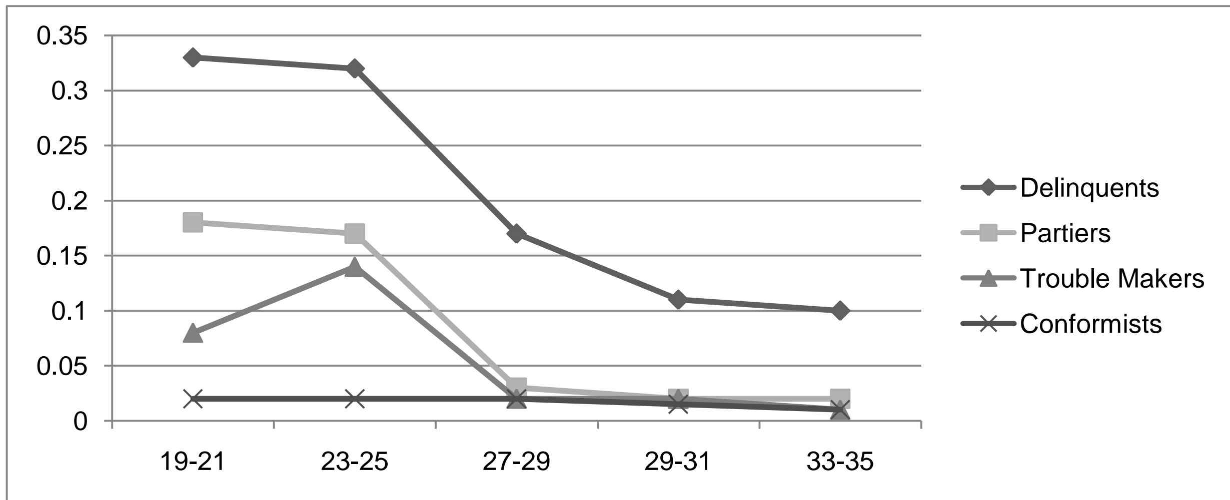


Mean Frequency of Heavy Alcohol Use at Each Age (Schulenberg 2001).

Steinman and Schulenberg (1999) found that vulnerability to peer pressure could distinguish alcohol use prior to divergence in sub-populations. Expectances of alcohol were important in all patterns, especially prior to and following heavy drinking. Low self-efficacy at 18 predicted chronic alcohol use and high self-efficacy predicted decreasing use trajectories in young adults. This suggests that addressing the expectations of young people are an important component in all treatment. The research is also tentatively suggests that young peoples' use is heavily entwined in their social context at a young age where family and peers play a significant influence and move towards the individual realm across adolescence, where the belief of their internal sense of control over consumption figures more highly.

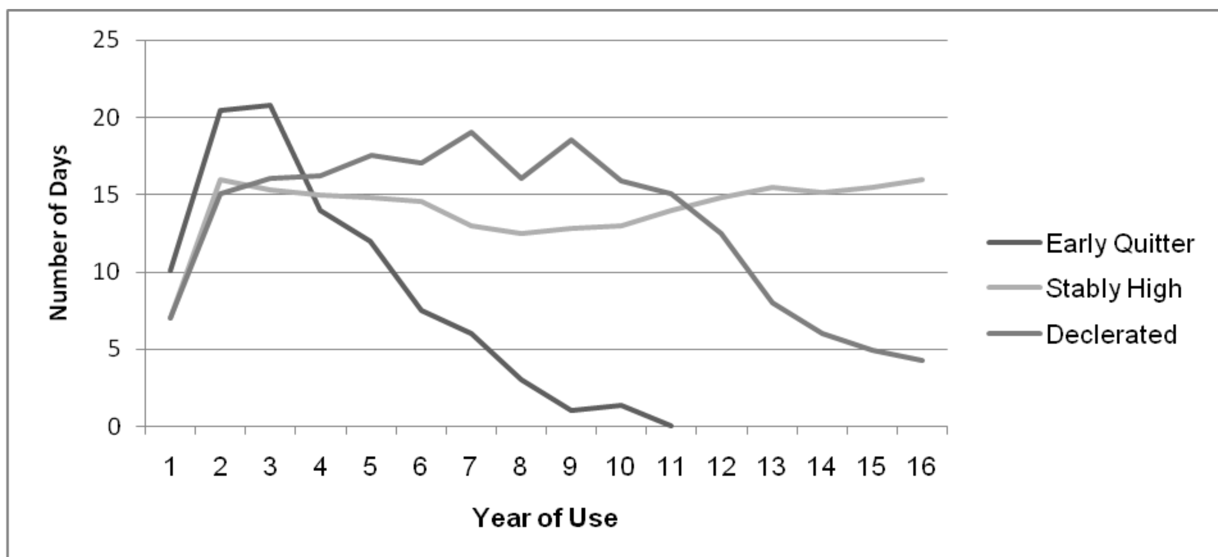
Similar trajectories have been found in substance using groups. For example, Hamil-Luker et al (2004) study of cocaine users identified several sub-populations by cluster analysis. Followed since 1979 for over a 19 year period, distinct sub-groups were identified by assessing key indicators of offending and drug taking behaviour. These included delinquents, partiers, trouble makers and conformists who demonstrated similar profiles. The delinquent's demonstrated high anti-social behaviour in adolescence; the older members of this sub-group in 1979 were more likely to be peak adult users. Partiers displayed anti-social behaviour between the ages of 14-16 and showed negligible use in their twenties, particularly if they married. Trouble makers were identified by teenage anti-social related behaviour demonstrated a surge in use that again, for the majority subsided. Those that had dropped out of school and smoked marijuana were more likely to desist due to engagement in the labour market, but there were significant ethnic and gender

variables influencing their outcome too. Conformist had identified low anti-social behaviour in the teenage years. Whilst their overall risk was low, their peak in use coincided with their college years (67 per cent attended college). Disruptions in employment did tend to increase this groups risk.



Predicated probability of cocaine use by youth misbehaviour latent cluster membership (Hamil-Luker et al 2004)

In a similar study, Hser et al (2007) followed opiate users over a 33 year period revealed similar pattern in of sub-trajectories. All subjects reported age of first arrest at 15. However, the late de-accelerating (32%) and stable high users (59%) reported an earlier age of initiation into cannabis use and heroin than early quitters and had more extensive treatment histories. Age of onset was the single biggest predictor of future trajectory. Again, these sub-population trajectories coincide at several points but show very different subsequent pathways in future use and cessation.



Observed Mean Average Number of Days Per Month Using Heroin During this Year (Hser et al (2007)

High Risk Adolescents

Whilst the robust findings from trajectory studies has primarily been used within research, the highly predictive nature of this modelling, especially the strong early predictors of future trajectories, could offer considerable clinical insight into treatment approaches which are specific to sub-population of young people. These divergent trajectories offer a strong indication that treatment for young people may not be dependent on actual consumptions but on the specific risk profiles of their use. Treatment could then be tailored to their specific needs. For many young people with later onset, fling patterns of use might indicate brief interventions. Whilst those with an early onset of use would require more protracted and expansive support. This is important for two reasons. Firstly, as young people age they may be increasingly resistant to enter into treatment. Briefer interventions could be more appealing to selected young people. Secondly, this would free up resources for the higher support necessary for the early onset group, whose use is more likely to be enmeshed in the social environment that they occupy.

Developing risk profiles for clinical intervention would be an innovation in the treatment in young people. The composition of these profiles would be beyond the range of this review. However, there is strong concordance in the research against other life trajectories to develop a structured approach to profiling. Trajectory research has also been found to predict multiple trajectories of different sub-populations of offenders across the life course (D'Unger et al 1998; Moffit 1997; Nagin et al 1995). There is also significant correlation between early drug use and crime, meaning offending trajectories such show similar cross over with drug and alcohol studies (Bui et al 2000; Ellickson & Morton 1999).

An alternative would be to use broader classifications based on risk-protection factors. For example, the most at risk youth and those who are likely to follow the highest trajectories of use have been identified as what might be determined 'multiple-problem youth.' Research demonstrates that young people must prone to problematic youth experience a wide range of concurrent problems. Primary amongst this is poverty. In a Youth Lifestyles Study (Gouldon & Sondi 2001) showed that as exclusion from school, truancy, offending, homeless, running away increased, so did substance misuse particularly Class A use. These groups also reported easier access to substances. Psychiatric disorders in young people also have a correlation with high substance misuse problems, particularly in ADD / ADHD, depression and anxiety. Kuperman et al (2001) studied the relationship between psychiatric problems (ADD/ ADHD, Oppositional Defiance Disorder, and conduct disorder) and the development of alcohol dependence in 13-17 year olds. This research concluded that psychiatric disorders are initiated first followed by misuse of all classes of drugs.

Giancola & Parker (2001) examined the relationship between psychiatric disorder, aggression, and relationships with delinquent peers and increased drug use in young people aged between 10-16 years old. Aggressive behaviour and peer involvement figured in their development of substance misuse problems, psychiatric features such as poor cognitive functioning and poor attention level were also highly significant in predicting higher levels of use. When social exclusion and psychiatric disorders are combined it tends to produce a higher range of risk. Ferdinand et al (2001) found that risk factors develop in a chain that lead to increasing engagement in deviant peers, followed by delinquent behaviour and ending in substance abuse. Brown et al (2005) have suggested that there are three trajectories for alcohol. *Normative risk* is embedded in experimental and recreational use that becomes pathological and chronic. *Personality \ temperament risk* begins prior to exposure to use and originates in high sensation seeking, behaviour dis-inhibition, low impulse control and hyperactive traits that make young people more susceptible to risk and increasingly defiant to conformity. Finally *psychopathological risk* occurs in the form of significant mental illness that influences both the initiation and the rate in which alcohol problems are acquired. Therefore, young people at the most chronic end of substance misuse are liable to be adolescence with multiple problems whilst at the other is transient and vulnerable to remit with age.

In a range of studies, age of initiation appears to be the single biggest predictor of future problems with drug and alcohol during adolescence and early adulthood (Robins & Przybeck 1985; Humphrey & Friedman 1986). The cut off point for early initiation varies between use before the age of 13 (Gruber et al 1996); 14 years old (Muthen & Muthen 2000) or 15 years old (Chou & Pickering 1992). Usage prior to 14 years old substantially increases risk in later adolescence (Grant et al 2001) with risk at its greatest when consumption starts very early at 11 years old (Dawson 2000). In US studies, despite considerable variation in drinking laws, the age of initiation and subsequent problems remains remarkably similar and the pattern appears to hold true in all Western countries (Ferri et al 2003; Vega et al 2002). This demonstrates a stratified initiation into use commencing with the onset of alcohol and tobacco. In one study, Kandel & Yamaguchi (2002) found that heroin users had initiated smoking tobacco at 12.6 years old on average. Cocaine but non-heroin users started smoking at an average age of 14. Individuals who went on to use cannabis but no other drug started smoking tobacco at 14.6. Whilst individuals that went on to only drink alcohol commenced smoking tobacco at aged 15.8 years old on average.

There are two rival theories on age of initiation. The General Vulnerability Hypothesis (Prescott & Kendler 1999) suggests that the early initiation and later onset of problems are generated by the same underlying susceptibility in the individual-which is either genetic, parental, personality or psychopathological in origins (Zucker 1994). The second theory is the Causation Hypothesis (Gothem et al 2003). This suggests earlier alcohol use places the young person on a trajectory

towards heavier and more frequent use that has it is own direct and indirect consequences. This might include negative labelling, segregation into older and more deviant peers or even legal sanctions. It may also interfere with the mastery of normal development task or the development of coping strategies that leaves the young person off target in their life development. This lag is carried into the continuing development of the individual, curtailing, education-occupational development and relationship formations. In contrast, initiating alcohol use 'on time' fosters social bonding, cohesion and age harmony with peers. As such, the Causation Hypothesis places initiation of use in social and cultural variables and supposes that if age of initiation could be delayed it would have significant impact on curtailing future problem use. At present there is not sufficient evidence to support either position.

Certainly, studies of the sequence of substance initiation do suggest a probabilistic gateway theory. Young adolescents tend to use the substances that are cheap and widely available to them largely in the form of tobacco and then alcohol. Research suggests that use of these substances at 11 increases the probability that young people will go on to cannabis, which increases their risk of using other substances considered harder. This is not simply a causal relationship; in that it appears that young people who initiate at younger age go on to use higher amounts of the subsequent drugs in the chain than those with a later onset. For example, in one study over 71% of young people who smoked cannabis more than 300 went on to use cocaine compared with 38.7% of those who smoked cannabis 12-100 times. Whilst 12. 8% who smoked cannabis once or twice. If there are gateway drugs it is undoubtedly tobacco and then alcohol. Targeting intervention at 10-11 which reduce the initiation of these substances may have a significant effect on reducing subsequent use but only if the Causation Theory holds true. It also suggests that the interventions of youth workers in substance misuse could pre-empt this chain by focusing on the substances that represent the most immediate risk.

Adolescent Substance Misuse: Diagnosis

This pattern of problematic use amongst young people differs from that as experienced by adult problematic use. Whilst various sub-populations of youth misuse can occur, it tends to be generalised and non-chronic. This suggests that young peoples' substance misuse problems appear to be of a different order to that of adults and raises issues regarding how we diagnose their problems. Accurate and consistent diagnostic criteria are essential for a number of reasons. Clear criteria allow practitioners and research to organise the key symptoms of a disorder and identify underlying core process. It assists researchers and practitioners by offering a common conceptual language; helps identify positive cases for treatment; increases the homogeneity of research samples; and conveys important information about treatment prognosis and response. However, young people with substance misuse problems simply do not fit the existing criteria for drug and alcohol problems that were developed for adults.

In order to understand how young people often slip through gaps in diagnosis it is essential to understand the principle diagnostic criteria for substance misuse problems. This includes the two sources of diagnosis based on the World Health Organisation's ICD-10 and American Psychiatric Associations DSM (IV) criteria for dependence and abuse respectively. In the DSM, Abuse is considered a milder disorder that is often a pre-cursor for Dependence. As such it requires only one symptom be present for a diagnosis. The DSM diagnosis for Dependence is derived from the ICD-10 but has important differences. For a diagnosis for dependence to be made the client must meet at least 3 of the 7 criteria in the last 12 months. However, unlike the ICD-10 criteria, increased tolerance and withdrawal are not a mandatory element of diagnosis in DSM.

ICD Dependence	DSM Dependence	DSM Abuse
• Difficulty in controlling use. • Salience of consumption. • Increased tolerance. • Physical Withdrawal. • Avoidance of Withdrawal. • Subjective compulsion. • Re-initiation of periods of abstinence.	• Increasing tolerance. • Withdrawal or using to avoid withdrawal. • Using more or for longer than intended. • Persistent desire to cut down or stop that fail. • Much time spent procuring, using and recovering from use. • Reduce or stop important activities to use. • Continued use despite physical or psychological problems with use.	• Impairment in performance in social roles and responsibilities. • Use in physically hazardous situations. • Recurrent substance related legal problems. • Continued use despite interpersonal problems exacerbated by use.

Comparison of diagnostic criteria for dependence and abuse.

Whilst these criteria show some concordance in the diagnosis of problems in young people reviews of their clinical utility in community and clinical samples have shown limited agreement (Chung et al 2000). Firstly, alternative methods of diagnosis such as Latent Class Analysis suggests that young peoples' substance related problems exist on a continuum rather than categorical types of problems as suggested by DSM or ICD-10. Furthermore, many of the DSM symptoms of the more clinically severe Dependence (increased tolerance and using more than intended) tend to precede the symptoms of the milder disorder of Abuse (Martin et al 1996b; Wagner et al 2002). The criteria also tends to produce a high proportion of 'diagnostic orphans.' Diagnostic orphans are those that demonstrate 1 or 2 symptoms of Dependence but not enough symptoms to meet a full diagnosis. Yet adolescents

who are diagnostic orphans do not differ from those who meet the full diagnosis on a number of external measures and outcomes (Pollock and Martin 1999). In contradiction to this, adolescents can be 'diagnostic imposters' (Martin 1999). Young people may meet the DSM criteria for Abuse or the ICD criteria for Harmful Use inappropriately. This is because external pressure may be applied to their use or arguments may occur within the family regarding use even on low levels of consumption. The complex nexus of risk factors that co-occur in young people at most risk of problematic substance use can make it difficult to identify whether the negative consequences they experience are derived from use or from the other problems that they also experience.

Other symptoms may be distorted in young people (Martin & Winters 1998). The experience of withdrawal is rarely reported in clinical samples. This may be due to the fact that long term exposure is required to develop withdrawal or withdrawal may manifest itself differently in adolescence. Likewise, the diagnostic criteria of increasing tolerance may not be well defined for adolescents. The acquisition of tolerance is defined in the DSM as the need for increasing dosage for a similar effect may be a normal developmental process in young people. For example, Chung et al (2001) found that those who initiate alcohol use and are intoxicated on low doses often increase tolerance very quickly to large doses (from 2 to 8 drinks). Those with a higher starting tolerance increase consumption more slowly (from 6 to 8 drinks). Finally, the criteria of ICD Harmful Drinking or DSM Dependence of drinking more or for longer than intended refers to a loss of control in adult populations. However, this may be a common occurrence in younger people as a result of peer pressure, poor intoxication management skills or inexperience.

Longitudinal studies do show that symptoms of abuse do occur faster in young people than in adult populations (Deas et al 2000). Research suggests that the DSM symptoms emerge in three stages (Martin et al 1996; Wagner et al 2002). The first two years for regular drinking tends to indicate the onset of 'drinking more and for longer than intended' followed by increases in interpersonal problems related to drinking. From the third to fourth years, symptoms such as 'tolerance' and 'increased time spent using' appear. The third stage is characterised by the experience of 'physical withdrawal' which does not emerge for most young people. The development of physical dependence in adolescence remains an area for further exploration at present. As such, the key indicators of problem use in adolescence may remain primarily focused on the social complications experienced by young people in the first degree. These social complications can vary widely in problems at home, educational performance, peers, crime, risk-taking behaviour or social exclusion.

Screening & Assessment

Screening for drug alcohol problems becomes a critical issue in the early detection of the development of these problems, often in time-limited settings. Issues concerning

how substance misuse disorders differ in adolescence compared to adults mean that many screening tools are simply not configured to effectively identify young peoples' substance related problems. Certainly screening tools for young people need to be considered differently. Scores on any screening tool should not automatically be considered indicative of a substance misuse problems-but rather a deeper assessment is necessary in the first instance. Likewise, a low score may not suggest that the young person does not have any problems. Considering the age of the young person it may be that they are on a wider trajectory towards problem use.

Research and evaluation has suggested that two screening tools demonstrate the greatest sensitivity in identifying adolescent substance abuse problems. These are the AUDIT (Barbor et al 1998) and the CRAFFT (Knight et al 2003). The AUDIT is a ten item questionnaire which explores alcohol consumption and alcohol-related problems. Amongst young medical patients, AUDIT worked best with a clinical cut off score of 3 (Knight et al 2003) or 4 (Chung et al 2000). This is significantly lower than the adult cut off of 8 points and suggests that the AUDIT's ability to predict treatment intensity for young people may differ significantly from its ability to predict adults treatment. The limitation of AUDIT is also its restriction to alcohol. A second screening tool that has been demonstrated as effective as AUDIT but for drug and alcohol use in young people is CRAFFT. This is an acronym for a 6 item questionnaire which did not differ in its sensitivity to AUDIT in identifying problem drinkers as well as drug users. CRAFFT does assume the young person's consumptions is explored separately but indicates a substance misuse related problem with a cut off of 2.

Have you ridden in a **Car** driven by some (including yourself) who had been drinking or using drugs?

Do you use drugs or alcohol to **Relax,** feel better about yourself or fit in?

Do you use drugs or alcohol when you are by yourself or **Alone**?

Do you **Forget** things you did while using alcohol or drugs?

Do your family or **Friends** tell you that you should cut down on your drinking or your drug use?

Have you gotten into **Trouble** while using drugs or alcohol?

CRAFFT screening for substance misuse (Knight et al 2003).

The comprehensive assessment of young people also needs to account of the specific differences between young peoples' drug and alcohol use and life situation as opposed to adults. This includes both consumption and social functioning. Adult social functioning remains fairly static across the life course, and therefore the assessment of housing, relationships, employment remain consistent. However,

these social domains will need to be translated into the developmental niche of young people - home life, peer relationships, school, etc. Within this development niche there may also be greater variance. The life tasks of an 11 year old will differ from that of a 16 year old. Greater attention will need to be paid to the age-appropriateness of a young person's development and environment. Coupled with this is the fact that many young people who do experience adverse consequences from their use do not automatically attribute these problems to their consumption or they can feel capable of managing these difficulties without assistance (Botvin & Tortu 1988). Social policy demands that young people are assessed with an agreed Common Assessment Framework (DoES, 2006a). This assessment framework is multi-dimensional and allows for the involvement of different youth specialist to assess different domains of the young person social functioning (e.g. mental health, physical health, substance use, etc.) The framework is based on research, theory and clinical practice and therefore practitioners need to understand the conceptual basis of the tool. Extensive guidance is available in the use of these tools (See DoES, 2006b). Within the realm of substance misuse, seven major differences between adults and adolescents have been identified as important within the assessment process.

Normative versus Problematic Use: A difficult but central role in assessment is how to distinguish normative, experimental use in young people from substance misuse. This is a difficult area as many young people can present as orphans or imposters in terms of the diagnostic criteria that have been developed for adult problem users. Even adolescents who are moderate users of alcohol or drugs can show a high degree of consequences attached their use (Kaczynski & Martin 1995). As a result the Centre for Substance Abuse Treatment (CSAT 1999) offers a criteria for establishing the current pattern of the young person's use on a spectrum of severity. This should be monitored frequently due to the rapid rate in which young people may develop drug or alcohol abuse symptoms. Martin et al (1995) found that young people could develop dependence in under 12 months as compared to adults where this processes tends to take years to establish. As a result the following criteria might be best used as a current status for assessment purposes but may be indicative of the most appropriate intensity of treatment.

1) **Abstinence**: No reported use.
2) **Experimental Use**: Minimal use, often associated with recreational activities and usually limited to alcohol.
3) **Early Abuse**: More established pattern of use, usually involving more than one substance, greater frequency of use and the emergence of some social complications or problems.
4) **Abuse**: Regular and frequent use over an extended period, several adverse consequences occur.
5) **Dependence**: Continued use despite repeated severe negative consequences, signs of tolerance, adjustment in activities to account for usage, and failed attempts to reduce or top using.

CSAT (1999) Criteria for Substance Misuse in Adolescents

Within this criteria, age of onset of consumption is vitally important. As reviewed earlier, age of inset appears to be the best predictor of the trajectories the young person's use is liable to follow and how severe the problems will be in later life. The sequence of early initiation of tobacco and alcohol, followed by cannabis and subsequent Class A use at landmark ages may also be important. Pre-adolescent smoking does increase the risk of the young person becoming involved in drug use, whilst early use of cannabis is predictive of later harder drug involvement (Kandel and Davis 1996).

Abuse and Dependence: Whilst there are problems with the current diagnostic criteria for both the DSM and ICD classification for abuse, for young people with complex needs, assessment of dependence should also be undertaken for young people who are using depressant substances such as alcohol, heroin and benzodiazepines as well as abusing any psychiatric drugs. This should be the case where CSAT criteria indicate that Abuse or Dependence is present in the young person current pattern of consumption. Adolescent specific tools do exsist to support diagnosis of young people (see CSAT 1999).

Expectancies: Research shows that expectancies play a significant role in the initiation and maintenance of adolescent drug and alcohol use. For example, social acceptance, mood enhancement, recreational and stress reductions where identified by Petraitis et al (1995) as prime drivers for consumption in young people. Memory and cognitive bias also suggests that young people are less likely to attend to negative consequences of use or to recall events that do not align with pre-existing expectations. Addressing the expectations of the young person can have a considerable impact on decreasing consumption.

Psychosocial Factors: The assessment should measure the impact of substance misuse on the social functioning of the young person. This should include a wide range of domains in adolescent functioning including family attachment, school, non-drug or alcohol related recreation, promiscuity and broader social interests. These areas need not be entirely eroded through use, but evidence of deterioration in these areas may be indicative of the increasing severity of their consumption, i.e. dropping grades at school, greater conflict with parents, arrests, etc.

Special attention should be given to the assessment of the peer group. Adolescents are more likely to experience severe alcohol and drug related problems if they are attached to a high consuming peer group (Farrell & Danish 1993). For example, Chilcoat & Breslau (1999) found that young people involved with drug using peer peers had a six-fold increased risk of drug problems compared to those who were not involved with drug using peers. The partners of young women are also liable to have a significant impact on their consumption.

Co-Existing Mental Health Problems: As reviewed earlier, young people who experience the most severe drug and alcohol problems tend to have co-existing mental health issues. Rohde et al (1996) found that amongst young people abusing or dependent upon drugs or alcohol, 80% per cent of them also experienced a significant mental health problem. Common disorders which should be assessed with substance misuse in young people are ADD / ADHD, conduct disorders, depressive disorders and anxiety disorders (Mannuzza et al 1993; Milberger et al 1997). The parallel treatment of these disorders should become an integral part of the treatment process for those with severe drug and alcohol problems.

Family Factors: Specific attention should be given to family history. Family history may impact on the young person's use in several ways. Genetic or family history of abuse may increase a young person's potential risk. However, high consuming or problematic using families will also increase their risk of problems for young people as well (McGue 1999). Parental problem use is also indicative of an early onset in consumption (Rose 1998) that is more likely to lead to the severest problems in the young person.

Neurobiology: Exposure to drugs and alcohol may have a significant impact on the adolescent brain function. As the brain continues to develop across adolescence (it may undergo up to 50% transformation during this period) it is susceptible to the impact of substances, for example, young people with chronic alcohol histories have significantly smaller hippocampus which is responsible for converting information to memory resulting in reduced brain activation during memory tasks (Spear 2000). Deeper exploration of the young person's cognitive and neurological functioning where there appears significant impairment to their recall or insensitivity to intoxication.

Treatment Overview & Outcomes

Research into the effectiveness of specific treatment modalities is severely limited for young people. For example, whilst Miller et al (1995) were able to call upon over 1,000 outcome studies on adult alcohol treatment, Williams and Chang (2000) could only review 53 studies on young people. Whilst there has been a significant increase in clinical trials for young people conducted in the last few years, similar problems have emerged as with adult treatment models in that no singular approach has demonstrated superiority to any other. With this caveat, increased research interest has been focussed on cognitive behaviour approaches, family approaches or a combined therapy that use both elements. However, there is emerging evidence from a range of multi-disciplinary studies into the efficacy of treatment for young people. This has involved integrating a better understanding of developmental process (puberty, neurological, executive functioning, attention) with environmental impacts (family, intimate relationships and development tasks.) However, for the most part, these findings have not led to the establishment of specific youth interventions that are distinct from adult models. Some progress has been made in

developing tailored treatment approaches, notably Smith & Anderson (2001) who have pioneered a treatment model informed by trajectory, as described by Brown et al (2005) research into impulsive drinking sub-group reviewed earlier. However, these new innovative models are yet to be researched thoroughly in terms of outcome at this early stage. For the most part, the current range of interventions for young people are modified from adult interventions to varying degrees. However, it is important to recognise specific differences between young people and adult response before exploring the demonstrated efficacy of various models.

Young people are more likely to be pre-contemplative about changing their drug or alcohol use due to their expectations of use and others consumption. As use tends to occur with like-minded others in the peer group, young people are liable to view their own consumption as normal. Research suggests that there may be different windows for opportunity in terms of treatment. Younger adolescents for example appear to make significant gains from family therapies, whilst the parents still have a broad influence on the young person but these interventions become less successful as the young person matures (Waldron et al 2001). As older teens are less likely to present to services they appear to benefit from 'reachable moments' such as entering an A & E department.

Brown (2001) attempted to synthesize this broad range in Project Options. Based in school settings they offered a range of low intensity options to reduce \ stop alcohol and drugs. This consisted of self-selecting options of tool kits for a variety of personal goals that fostered engagement, protected the confidentiality of the young person and presented information in a manner that was appropriate for young people. Using motivational interviewing techniques and offering everything from group to internet interventions it assists young people in considering their consumption against normative averages. However, this briefer range of interventions would be less likely to assist those who are excluded, who will often have a wider range of more complex needs and environmental difficulties.

As a general rule, adolescents who enter into structured treatment are unlikely to use drugs or alcohol solely but are more likely to be poly-users. Young peoples' motivation for total abstinence varies across substance (Brown 2000). Enforcing total abstinence, particularly for alcohol may be counter-productive. Research suggests that young people are 10 times more likely to drop out of an abstinence based alcohol problem than a controlled alcohol programme (Polich et al 1981). The majority of teens appear motivated to address substance misuse problems as opposed to the substances themselves (Brown 1999). Furthermore, the risk factors for relapse are different for young people than for adults. Whilst long term adult users are more likely to relapse due to negative mood states (Marlatt & Gordon 1985) such as depression, frustration and conflict, young people are more likely to relapse for positive emotional states and social pressure. Negative mood states or conflict is rarely if ever reported by young people who relapse (Brown et al 1989). Post-treatment, alcohol becomes the most likely substance to trigger relapse even if

it was not the young person's primary drug of choice (Brown et al 2000). However, environmental exposure to alcohol and drugs in the peer network is strongly associated with poor post-treatment outcome due to the centrality of peer relationships for young people (Tomlinson et al 2004).

The research on trajectories described previously suggests that assessing treatment outcomes is difficult, where a significant but unaccounted for, population of young people will deists from use over time without treatment. Within this caveat, research has explored the impact of treatment on young people using two measures. Consumption of drugs and alcohol (including frequency, amount route etc) and the social functioning of the young person. In adults, these social functioning areas have been associated with employment, marriage etc so these have been translated into the adolescent milieu such as school performance, peer group changes, parental relationships). For young people these two measures are strongly correlated. For example, young people who remain abstinent or use low levels of alcohol after treatment show better school performance, less inter-personal conflicts and problems. Abstainers show the highest level of functioning in young adulthood (Abrantes et al 2002). Those that sustained abstinence for four years showed the highest educational achievement and occupational status compared to their peers (Brown et al 2001). Youths with intermittently heavy or chronic drinking show the worse outcomes across a wide range of social domains. Very few tools are validated for young peoples' treatment outcome. The Outcome Rating Scales and Session Rating Scales are validated for young people and may be the most appropriate tool for young peoples' psycho-social interventions.

This research highlights a stacking effect of outcomes with young people where gains and improvements are sequential. For example, school attendance must improve for academic performance to increase which is necessary for occupational status to be achieved. This suggests that there may be a 'recovery' trajectory in the same way that there are for the development of drug and alcohol problems. More research needs to be done in this area, which could illuminate the optimal sequence of treatment processes to enhance a given recovery trajectory. In the interim, NICE (2007) have recommended brief, behavioural & cognitive behaviour and family therapies as the primary interventions for young people in group and one-to-basis. These will be reviewed more deeply before considering specific sub-populations.

Specific Modalities: Brief Interventions

Brief interventions such as motivational Interviewing have been found to be effective with adolescents in a number studies. It is important to note however, that motivational interviewing is often customised in these studies to assist young people- particularly in the use of personal feedback which is assessed through specific adolescent clinical tools. Monti et al (1999) study of 94 teens presenting at A&R department found significant improvements in the randomly assigned motivational interviewing and Assessment & Information groups at 3 months follow-up. At 6

months follow up, the motivational interviewing group has significantly reduced incidence of problem behaviours. They demonstrated a 32% reduction in alcohol use and 50% reduction in alcohol related injuries in contrast to the Assessment & Information group. It appears a consistent finding that Motivational Interviewing is effective in reducing older adolescent consumption to a mild degree but significantly reducing problems associated with drinking (Marlatt et al 1998; Chick et al 1985). Conversely, in younger adolescents, motivational interviewing appears to produce bigger reductions in consumption (Colby et al 1999).

McCambridge & Strang (2004) conducted randomly assigned single motivational interviewing sessions and information sessions to 200 16-20 years who used a wide range of substances. Again, modifications were made to the motivational interviewing arm and feedback was tailored to this group and they were followed up three months later. Comparison showed a range of findings for different interventions. For example, the control group increased smoking at three month follow up by 12% where as the motivational interviewing cohort reduced smoking tobacco by 21%. Furthermore, 25% of the motivational interviewing group quit smoking compared to only 8% in the control group. In terms of alcohol use, the control group increased units per week at follow-up by 12% whilst the motivational interviewing group decreased unit consumption by 39%. In addition, 8% of the motivational interviewing group quit drinking whilst only 1% of the control group did. Similar reductions were found in cannabis use. The motivational interviewing cohort reduced frequency of cannabis smoking by 66% (from 15.7 times a week to 5.4 times per week). In contrast the control group increased consumption by 27% (from 13.3 times a week to 16.9). A further 16% per cent of young people quit cannabis after receiving the motivational interviewing intervention compared to 5% of the control group.

Specific Modalities: Structured Interventions and CBT

Cognitive-Behavioural Therapy is a generic name that covers a wide range of cognitive and behaviour approaches. These typically draw upon operant and classical conditioning theories and social learning theories. These models suggest that the acquisition and sustainment of any given behaviour is conditioned by the environments in which it occurs. These models tend to assess environmental factors that precipitate use (triggers) and develop the individual self-efficacy belief to resist them with a range of coping skills. Programmes are often multi-component and include strategies to resist use through changing thinking patterns, relationships, emotion responses and environments.

Azrin et al (1994a & 1994b) conducted two trails comparing the behavioural CRA approach with generic supportive counselling for a mixed group of adults and 14 adolescents. This was followed up by comparison study including 26 adolescents. Each modality was delivered once a week over a 12 month period. Follow up results showed greater reductions in use and negative urine screens in the CRA groups.

Kaminer et al (1998) developed a series of studies of cognitive behavioural therapy for adolescents based on the procedures developed for a treatment matching study. In this study, 32 dually diagnosed young people aged between 13-18 years old were randomly assigned to CBT or a dynamic group therapy for 12 weeks. The CBT group made significant improvements more rapidly than the family arm however these advantages were not sustained at 12 month follow-up. In a larger study, Kaminer et al (2002) compared CBT with psycho-education therapies. The 88 dually diagnosed adolescents were randomly assigned to one of the two 8 week interventions. Older, male youths showed significant improvements in the CBT condition with lower positive urinalysis test results. Self-reported drug use measures improved for both groups but with a higher trend for the CBT condition. Relapse rates were similar for both groups at 9 month follow up.

An interesting study by Walron et al (2003) evaluated the efficacy of CBT for 31 young people who were initially treatment refusers who subsequently entered treatment as a result of a parent – focused engagement intervention. These young people were frequent drug and alcohol users and only completed half the of 10 therapy sessions. Significant reductions were found in their consumption at 3 month follow-up but their use remained high suggesting that more intensive approaches were necessary for this population.

The Cannabis Youth Treatment (Dennis et al 2002) was a large mutli-comparison study that was conducted on 600 adolescents who were randomly assigned to one of five different interventions who were followed up at 3 and 12 months post treatment. Two group CBT programmes were offered that initiated treatment with motivational enhancement sessions followed by 3 or 10 CBT sessions. A third intervention included motivational enhancement + CBT and a six week family psycho education add on. In addition, a 12 week CRA and a 12 week family therapy condition were also included. Dennis et al (in press) reported significant reductions in all treatment interventions at 3 and 12 month follow up. This included reductions in cannabis use and problem behaviours. CBT plus support offered more rapid treatment gains than the brief CBT condition. The individual and group CBT produced better outcomes than the family therapy approach. However, these advantages were not sustained across follow-up. The biggest predictor of treatment gains were the initial level of change achieved. In general, it appears that groups are an effective means of delivering treatment to youths with only smaller gains being made when CBT is delivered on a one to one basis.

Specific Modalities: Family Therapies

Family therapy is broad name for a wide range of treatment modalities that focus on two or more people who are related by birth, marriage or adoption. The function of the therapy is help the family clarify communication, family rules, hierarchies and boundaries as well as to resolve conflict and enhance emotional cohesion. Family therapy tends to view the maladaptive behaviour of the young person as

symptomatic of a dysfunctional family system. This demands that the practitioner work with the whole family to bring about a new homeostasis (Carr 2000). It is important to note that family therapy approaches have developed from clinical experience and not empirical research (Bry 1988). This means that many of studies on family therapy lack a methodological rigour to substantiate their outcomes. However, as the family remain a significant mechanism for socialisation, it would seem apposite as an intervention for young people experiencing drug and alcohol problems. Researchers have identified some studies that are suffienctly methodologically robust to produce reliable outcomes and indicators (Ozechowski & Liddle 2000; Liddle & Darkof 1995; Stanton and Shadish (1997). They identified that family therapy was more effective in engaging and retaining young people in treatment for longer and more effective in reducing substance use than non-family therapies. However, there was no significant difference between improved family functioning or other problem behaviours in the young person than non-family therapy at post-treatment follow-up.

Ecologically based family interventions have developed more recently. The most well known component is Mutlisystemic Therapy (MST) (Henggeler et al 1998). As substance misuse problems are mutli-determined, MST operates by addressing the individual, family, peer, school and social network of the young person. The intervention is delivered in the young person’s own environment where possible and may consist of up to 60 treatment hours. Recent studies by Henggeler et al (1999) with offending young people found that the MST group showed significant reductions in consumption at post-treatment but they were not maintained at 6 months follow up. In a four year follow-up trial, Henggeler et al (2002) did not find significant reductions in offending, drug use or symptoms of internalised or externalised disorders although aggressive crime did reduce.

Brief Strategic Family Therapy (BSFT) has been refined over the last 30 years with Hispanic Youth and draws on a wide range of structured interventions. Santistenban et al (2003) randomly assigned 126 participants to group therapy or the BSFT condition for 4-20 weeks of treatment. The BSFT group showed significant reductions in conduct disorders, peer-delinquency and drug use. No differences were found in alcohol use between the two treatment groups. The BSFT group also showed improved family functioning. However, there was no follow-up period to this study beyond treatment completion.

Multidimensional Family Therapy (MDFT) is an intervention designed for multi-problem youth (Liddle 1999). It operates by focusing on multiple ecologies of a young person’s development and the circumstances that promote continued substance use. In a recent trial (Liddle 2001), 182 cannabis or alcohol abusing young people were randomly assigned to either MDFT or Multifamily Education Group of Adolescent Group Therapy. They were then followed up at 6 and 12 months. All treatment modalities appeared to produce change but the MDFT model showed the greatest improvement on drug use, grade average and family

functioning, even at one year follow-up. In a second study (Liddle in press) 224 young people were assigned to MDFT or individual Cognitive Behaviour counselling and were followed up at 6 and 12 months. These youth were drawn from inner city areas, had a high incidence of co-morbidity and family dysfunction. Both group showed improvement in reducing substance misuse, internalised and externalised symptoms at treatment completion, however these gains were only maintain at the 12 month follow-up in the MDFT group.

Behavioural Family System Treatment or Functional Family Therapy (FFT) is a multisystemic approach that links cognitive and behavioural aspects of treatment to the formation of family conflict. Initially developed for young offenders and runaways, recent studies have found it can be very effective when linked with other treatment interventions. For example, in Waldron et al (2001) 114 adolescents were randomly assigned to FFT, cognitive –behaviour therapy, a combination of FFT and CBT and a psycho-education therapy and were followed up at 4 and 7 months. The FFT and combined therapy should significant reductions in use at 7 months follow up. The researchers concluded that all interventions were effective, but the rate of change and stability differed between modalities.

Behavioural Family Treatment (BFT) is based on the theoretical foundations of behavioural therapy suggesting that behaviours are learned and reinforced by the environments in which they occur. It operates by using behavioural contracting and other procedures. In one recent study (Azrin et al 2001) compared BFT to standard cognitive problem solving amongst adolescents with a dual diagnosis who were followed up at six months. Both interventions were equally effective at reducing depression and conduct symptoms, substance use and improving lifestyle.

Specific Modalities: Pharmacotherapy

Pharmacotherapy for young peoples' substance misuse problems is an under-developed area. The vast majority of studies in the area of pharmacotherapy have been based on case studies or open label trials and the findings are inconclusive. Additional complications arise considering that one sub-population likely for pharmacotherapy are also likely to have concurrent mental health problems that will also need treatment. In general, pharmacotherapy has been used to treat adolescent substance misuse in the following ways.

Treatment of medical emergencies such as overdose.

Substation prescribing.

Detoxification.

Amelioration of or adjunct to amelioration of withdrawal symptoms.

Adjunct to relapse prevention.

Pharmacology for Young People (NTA 2009)

As withdrawal states are rare in young people, even in clinical samples (Chung et al 2000; Martin et al 1995) pharmacotherapy should be used in exceptional circumstances. Disulfirum has been used with adults with alcohol problems as an aversive agent for severe alcohol problems but its use with adolescents is rare (Bukstein et al 1997). Difficulties with safety and treatment compliance are major issues and some researchers advise against its use for younger adolescents (Myers et al 1994). Substitute opiates have been used with young people such as methadone, however, policy generally advises against maintenance prescribing for young people except in exceptional cases. Detoxifications is the recommended approach due to their short using careers. Nicotine patches have also been used as a replacement therapy for young people who smoke tobacco but the clinical trials on their use have shown poor results (Hurt et al 2000; Smith et al 1996).

Evidence on the efficacy of pharmacotherapy to block the effects of drugs is weak. Some case studies have found positive evidence for the use of desipramine for cocaine dependent youths (Kaminer 1992). Lifrak et al (1997) found positive results with the use of naltraxone with alcohol dependent young people. The use of pharmacotherapy for withdrawal is suggestive. Most of the literature on adolescent withdrawal is based on retrospective self report which has not been validated prospectively (Colby et al 2000). The use of pharmacotherapy to reduce withdrawal should only proceed where there is sufficient evidence of established use to produce a withdrawal syndrome. Again, the general trend within pharmacotherapy treatments is that they are only effective when delivered in conjunction with care planned psychosocial therapies. The prescribing regimes for young people should follow the national guidance set out by the Department of Health's 'Guidance for the pharmacological management of substance abuse for young people.' (NTA Report 2009) and the NICE recommendations (2007a) and (2007b).

Other Treatment Groups

The needs of parents will need to be included in the development of specialist youth services. This can occur in many ways. Firstly, where young people experience substance misuse issues but are not engaging in treatment services parents may need support in order to get their child into treatment as well as address the problems that use has caused in their own life. It will be important to establish whether these parents would receive structured support form a dedicated Carers intervention service such as PACT or whether they will receive this support through the youth service itself. Furthermore, the parents of young people should be actively involved in and supported in the young person's treatment. Increased parental involvement can improve treatment outcomes. For example, Dakof et al (2001) found that parents who recognised their young people had problems, demanded they desist and support academic achievement engaged more deeply with services.

Clarke et al (2005) found that young people did better in treatment with high parental supervision than those with low supervision.

The needs of young carers will also need to be accounted for within treatment provision. Again, it must be decided where young carers will be best assisted. This may be through intensive family support teams or alternatively it may be more appropriate for them to support in the youth service. This will require the development of a bespoke service which could be developed through an outcome informed approach.

Policy

The delivery of services to young people is facing a renewed focus in social policy which sets clear requirements on the provision of young peoples' treatment services. The Welsh Assembly Government's Working Together to Reduce Harm (WAG 2008) has prioritised the increased provision of drug and alcohol prevention, early intervention & treatment for young people experiencing drug and alcohol use and the impact of parental use on children and young people. This constitutes a major new drive in the strategy by recognising the importance of targeting vulnerable young people who are most at risk of substance misuse problems. The roll-out of school based counselling services and greater intervention for supporting drug and alcohol using parents. Outside of school, interventions will also be expanded to older youth included colleges, universities and those joining the workforce. Within this, the WAG recognises that non-psychological interventions such as diversionary activities and contingency management may be useful additions in the delivery. All services for young people should operate in accordance with the ten policy principles based on the Children Act and the United Nations Convention on the Rights of the Child (under 18s).

1. A child or young person is not an adult. Approaches to young people need to reflect that there are intrinsic differences between adults and children and between children of different ages.
2. The overall welfare of the child is paramount.
3. The views of the young person are of central importance and should always be sought and considered.
4. Services need to respect parental responsibility when working with a young person.
5. Services should co-operate with the local authority in carrying out its responsibilities towards children and young people.
6. A holistic approach will occur at all levels.
7. Service must be child centred.
8. A comprehensive range of services should be provided.
9. Services must be competent to respond to the needs of young people.
10. Services should aim to operate in all cases according to principles of good practice.

Ten Policy Principles Drugscope (1999)

At a local level this will be delivered through the Children and Young Peoples' Partnerships (C & YPP) that will take account of schools and youth provision and link with the Welsh Network of Healthy School Scheme. This is driven by Every Child Matters (DoE 2003) agenda, drug and alcohol use fall under the Be Healthy outcome. Every Child Matters demands a substantial re-configuration of services for young people linking in with the Ten Year Drug Strategy. This is to ensure that the following three objectives are achieved that are each reviewed separately:

Local delivery is reformed, strengthened and accountable at a local, regional and national level.

Ensure provision is built around the needs of the most at risk or vulnerable with greater focus on early intervention, comprehensive care planning and intervention by all the agencies involved including schools.

Build the workforce capacity and develop a range of universal, target and specialist provision.

Three Objectives of Every Child Matters and Substance Misuse (Department for Education and Skills, Home Office & Department of Health)

Delivery of services to young people will be reformed through changes in the local management arrangements. Directors of Childrens' Services (or equivalents) and Drug Action Team Chairs (or equivalents) must jointly agree local priorities and targets for young peoples' drug use and these will be included in the Children and Young People Plans. They will also be responsible to ensure the joint commissioning of young peoples' services. Local service providers should be engaged in the development of a local strategy and framework and will all be responsible for assisting young people with substance misuse problems amongst their other needs. These changes will be measured against five keyKPI's.

Service Area	Lead Dept.	Inspectorate	KPI	Performance Info
Universal				
Education	DfES	Ofsted	% Schools achieving National Healthy Schools Standard	Annual monitoring, moving to termly by HDA & NICE.
Vulnerable Young People				
Truants \ Excludees	DfES			
Social Services	DfES	Commission for Social Care inspection & JAR	KPI on substance misuse among looked after children.	Performance Assessment Framework
Young Offenders	YJB & NTA	Joint Inspections by	Ensure that all young people are	Quarterly from YJB

		Audit Commission, CSI, HMIC, HM Inspectorate of Probation, Ofsted.	screened for substance misuse. For those with a positive screen, assessment within five working days and access to early intervention or treatment within 10 working days.	
Specialist Services				
Treatment	DH\NTA	Health Care Commission	Increase the participation of young problem drug users (under 18 years) in treatment by 50% by 2004-2008.	Monthly by NTA

KPI's for Young Substance Misusers

Provision will be built around the needs of vulnerable young people in the Children and Young People Plan and Drug Strategy. Services should take account of the strongest evidence and should meet the diverse needs of vulnerable young people. This should include drugs education, advice & information, access through core services and social inclusion programmes. This should incorporate early assessment of young people in key risk groups as part of a wider Common Assessment Framework; the availability of care management and a lead professional; and, in order to assist partnership working and track interventions, all agencies should adopt an integrated information system. Furthermore, specialist agencies should offer those young people who have problems a comprehensive package of care covering multiple needs. Supportive parents can increase gains throughout the treatment process and should be involved in their treatment of the young person. Particular risk groups should include:

Children of problem drug users.

Persistent truants and school excludes.

Looked after children.

Young people in the Criminal Justice System.

Other Groups (homeless young people, young people sexually abused and or involved in prostitution, teenage mothers, NEETs or those living in areas of high social deprivation).

High Risk Groups

The delivery of these programmes will need to be underpinned by a substantial investment in workforce development. Reducing young peoples' substance use will be a key priority for children and adolescent services. Every Child Matters: Change

for Children sees the publication of a common Core of skills for all people in the children's workforce, including:

Communication and engagement with children, young people, families and carers.

Child and adolescent development

Safe guarding children

Supporting transitions

Multi-agency working

Information sharing.

Core Training

Every area should have a training strategy so that all staff working with vulnerable groups and substance misuse specialist have the skills and competencies they need to work with children and young people relevant to their substance use.

The final major change to service delivery is that substance misuse services for young people are being disaggregated from mainstream adult providers into virtual teams. These can vary in structure and funding arrangements, but the teams comprise of specialist substance misuse workers seconded or funded as part of generic youth services. This creates multi-disciplinary, dedicated teams that focus on the holistic needs of young people in an integrated service. Mainstream services remain responsible for the strategic development of the teams. The NTA (2005) recommend that the benefits of virtual teams are:

Access to substance misuse treatment within mainstream services.

Increase the competency of generic childrens practitioners in substance misuse.

Access to support and functions of a mainstream agency for improved integration and coordination.

Development of close integrated working between disciplines and agencies which minimises professional rivalry and duplication.

Benefits of Virtual Teams (NTA 2005)

Virtual teams can only exist effectively if:

There are a number of accessible entry points to the team.

There is a weekly multidisciplinary referral meeting

A team exists with quick access to medical and clinical interventions.

The development of virtual teams is reliant upon the wider Children and Young Peoples' Plans devised for the local area. Where it is not possible to evolve virtual teams of multiagency work it might be possible to de-centralise services for young people by embedding tier 3 workers in tier 1 & 2 services where the highest incidence of problem and general use occur. As young people are unlikely to self-present for help, the service provider should deliver the service in close proximity to young peoples' existing service provision. The limits placed on the resources will make this difficult for specialist youth substance misuse workers to cover all possible tier 1 & 2 services. However, their reach may be broadened through training in some more specialist non-substance misuse provision such as social services and youth orientated services. This would fall under the remit of the lead practitioner. This is a broad operational role held by the most experienced \ qualified worker. Besides holding a case load of young people with complex needs they also have a wider role in the teaching and supporting through consultancy other youth orientated services. They are also the inter-agency link work who manages and allocates young people to specific services.

Structure of Treatment

The HAS reports (Gilvarry et al 1996; Christian et al 2001) have presented a four tier model for the delivery of children and young peoples' substance misuse services. This model was designed in order to ensure the provision of integrated and comprehensive child-based service.

Tier 1
The purpose of these generic services is to provide universal access and continuity of care to young people. In addition it aims to identify and screen those with vulnerability to substance misuse problems and identify those with substance related problems. It should be concerned with educational improvement, health, educational attainment and the identification of risk and child protection. Advice concerning substances need to be embedded in general health improvement. These should be seen as mainstream services.
Tier 2
Youth oriented services offered by practitioners with some degree of drug and alcohol experience and youth specialist knowledge should work at this level. The aim of this tier is the reduction of risk and vulnerability, re-integration and maintenance of young people in mainstream services.
Tier 3
Young people specialist drug services and other specialised services which work with complex cases requiring multidisciplinary team based work. The aim of tier 3 services deal with complex, multiple-needs of the child and not just a particular substance problems. These services work to re-integrating the young person into family, community or place of work.
Tier 4
This tier provides very specialist forms of intervention for young people with complex care needs. It is recognised that for a small percentage of young people they will require intensive interventions which includes short term substitute prescribing,

detoxes and places away from home such as respite care, rehabs, supported hostels or enhanced fostering.

HAS Tiers (2001)

Despite the wide dissemination of the HAS tiers, their remains confusion regarding this service structure. The tiers for young people differ from tiers for adult drug or alcohol user. For example, specialist substance misuse interventions for young people only occur at tier 3. These interventions can be embedded in tier 1 & 2 services. All prescribing is located at tier 4 along with residential services. The biggest difference between the young people services structure is that all tiers are to be delivered concurrently and not sequentially. Whereas adults are expected to move in and out of tiers of intervention, young peoples' services optimally work across all tiers simultaneously. For example, a tier 3 substance misuse youth worker should be providing interventions along with tier 2 specialist youth services and tier 1-schooling. Every effort should be made to treat the young person in the lowest tier of intervention. Furthermore, the aim of every tier is to return the young person to tier 1 mainstream service. Tier 2 youth workers should remain the key worker for the young person and tier 1 service should continue to contribute to care in a planned way.

As a result, tier 1& 2 services should have a clear referral pathway and links with tier 3 & 4 services. This should include joint working protocols and information sharing protocols. Tier 3 services, substance misuse services, should have multiple access points and be appealing to young people. In some cases these services should be embedded in tier 2 & 1 services for some periods of time, including voluntary sector agencies, outreach teams, CAMH teams, YOT's, health, Connexions and education and social services. This will assist in the training and development of assessment and intervention skills across the youth sector.

The Children Act 2004 requires each local authority to establish a safe guarding children board to monitor and co-ordinate the effectiveness of local arrangements. All agencies have to ensure the safe guarding of children and promoting their welfare. This is especially important in the delivery of intrusive treatment models such as needle exchange. Provision should be available for under 18's to access needle exchange but operate under different policies. For example, needle exchange for under 18s cannot be a confidential service but must be part of a cared planned intervention. Needle exchange must only occur under specific guidance. All local needle exchange protocols need to be accepted by local child protection committees and safeguarding children boards.

The child's welfare is a paramount activity.

Consent is gained for the intervention.

Parents and carers are involved.

Ensuring the needle exchange supply is part of a comprehensive care plan.

The young person awareness of the risk of injecting and their ability to understand these risks.

The young persons, family or carer's awareness of confidentiality issues and the services duty in relation to child protection.

Making Harm Reduction Work: Needle Exchange for young People under 18 Years Old (Drugscope)

Confidentiality & Consent

When young people enter treatment they should be informed that their confidence will not automatically be passed on to others without their permission although young people should understand the workers statutory responsibility to inform child protection agencies if there are concerns for their safety. The issue of risk is not always clear. Working Together Under the Children Act (1991) identifies the concept of 'significant harm' as the starting point for deciding to implement child protection. Other codes of professional practice may also iterate the trigger moments to breach confidentiality. The discussion of risk should be established and staff trained with clear agreement from the Area Child protection Committee.

There are further legal requirements place on the delivery of services to young people. Services can offer advice and information to young people without the consent of the parent. However, in line with the Children Act 1989, it is good practice to involve parents in interventions that follow a comprehensive assessment. As a general rule, people over 16 years old are deemed competent to consent to treatment without parental consent. The Fraser guidelines (SCODA 2000) identify that young people under the age 16 years old can consent to confidential medical treatment provided that:

They understand the information and advice they are given are have the maturity to understand what is involved.

The health professional cannot persuade them to inform the person who holds parental responsibility or allow the health professional to inform the person.

Their physical or mental health will deteriorate if they do not receive treatment.

It is the best interest to give treatment without parental consent.

In the case of contraception or substance misuse, young people will continue to put themselves at risk or harm if they do not have the advice or treatment.

Fraser Guidelines on Consent (SCODA 2000)

All agencies should have trained staff to assess the young person's ability to consent for treatment or confidentiality agreement. This includes participation in and discussion amongst multi-agency treatment providers for young people.

Recommendations

Multiple Point of Access: Young peoples' treatment systems should operate within young peoples' universal services in order to provide early intervention for transient substance misuse issues and screening and referral for chronic substance misuse issues. Tier 3 workers should be embedded in tier 1 services.

Broader Base of Low Threshold Treatment: Embedded tier 3 workers should establish a broad range of low threshold interventions for young people. This should include brief interventions delivered within tier 1 services. They should also be involved in the development of non-practitioner based interventions for young people such as, Peer Intervention, Bibliotherapy and Internet.

Training for Non-Specialists: Where resources are limited, the lead practitioner should provide a range of structured training and consultancy to tier 1 services. This should include young peoples' substance misuse, screening and brief interventions. All tier 1 services with young people should have a screening a pathway into higher tiers of support through an embedded practitioner or training and support.

Integrated Approaches: The service should develop joint working protocols and information sharing protocols with all tier 1 partnership agencies. This is to ensure that all tiers of intervention remain involved in the young person's care.

Fast-Track High Risk Groups: Non-substance misuse specialists such as social services, intensive family support teams, etc should be able to screen and make direct referrals to tier 3 services. The non-specialist may remain the young person's case workers but support with interventions from the tier 3 specialist.

Embedded Services: Tier 3 substance misuse workers should be embedded in tier 2 services and provide brief interventions, screening and referral to tier 3. Additional support, training and consultation can be offered to tier 2 services in working with young substance misusers.

Common Assessment Framework: Access to tier 3 young peoples' services will require that staff are trained in and deploy the Common Assessment Framework. Consideration can also be given to the young person's trajectory of use and plan treatment accordingly.

Lead Practitioner Role: At an operational level there should be the creation of a lead practitioner role who is responsible for overseeing treatment, representing the young people's service at joint meetings and provide consultation and training to a wide range of tier 1 & 2 services. The lead practitioner will be expected to carry a small case load of young people with more complex needs.

Comprehensive Care Planning: At tier 3, all young people will receive a comprehensive care plan based on policy guidance.

Broader Base of Psychosocial Interventions: A broad range of interventions should be made available to young people with substance misuse issues, parental support and help for young carers. Behavioural \ CBT interventions are indicated which can be delivered as one-to-one or group formats. Family therapy should also be available.

Parental Involvement: Parents should be proactively included in the young person's care plan and be supported in their role as cares. This can be delivered through referral to concerned other interventions in addition to the direct support recommended by the National Institute of Clinical Excellence.

Services for Young Carers: Whilst no agreed model exists for the provision of support for young carers, the services will develop a programme for young carers to address their specific needs.

Prescribing for Dependence: Where physical dependence is indicated young people should be joint worked with tier 4 prescribing services as part of a comprehensive care plan with tier 3 services.

Prescribing for Mental Health: Where significant mental health problems are identified, prescribing should occur within tier 4 services as part of a comprehensive care plan at tier 3.

Joint Working Complex Needs: Young people with significant mental health problems should be joint-worked with CAMHS and symptom specific interventions as part of a care plan. Where this range of provision is not available the service should provide these as a component of tier 3 psychosocial interventions.

Spot Purchasing Tier 4: There may be limited demand for additional tier 4 services. The smaller numbers of young people liable to require more intensive interventions would suggest that spot purchasing arrangements would be more appropriate and young people should be reviewed for eligibility on a case by case basis.

ORS & SRS Monitoring Tools: Few treatment outcome tools are validated for young people. Therefore all psychosocial interventions should be evaluated with the ORS and SRS tools which are validated for young people.

Policy Audit: Policy requirements for young people are different for adults, complex and interlinked. The service will be required to audit their current policy in order to ensure that they are working in compliance with all legal and policy requirements.

Workforce Development: Working with young people requires a very specific skills set. The service will be required to conduct a full audit of the teams skills base and establish a training strategy in line with local and national requirements in order to ensure quality assurance is in place. Further to this, the workforce may require

additional training in specific interventions in order to be able to deliver specific modalities at a competent level.

A Model Treatment System for Young Peoples Substance Misuse Services

Tier 1

Self\ Parental Referral	School	Youth Clubs	Colleges	PRU's	Social Services	A & E	Primary Care	PACT	IFST

Broader base of low threshold interventions:
Peer interventions
Website self-help
Bibliotherapy
Embedded Tier 3 (MI (or equivalent), screening and referral)

Training in Y.P. Substance Misuse, Screening, Brief Interventions with Young People, referral, joint assessment \ working.
(Resource dependent from an embedded tier 3 worker to training other non-specialist practitioners by lead practitioner.)

Tier 2

Connex (NEET's)	Y.P. Sexual Health	YIP	Gay & Lesbian	CAMS

Embedded Early Intervention (MI or equivalent, screening & referral, joint working).

Comprehensive Assessment Framework

Tier 3

Lead Practitioner	Care Plan	Parental Support	Controlled Use	CBT 1-1 or Group	Family Therapy	Young Carers
Training Role Supervision Consultancy Role Case management High risk young people		2 year 3 MI sessions Parental Intervention Plan	BCST 5 Stage	Structured. Relapse prevention focus. Incentivised.	Multi-systemic or equivalent	Care planned and bespoke support. Outcome informed model.

Indication of dependence or co-morbidity? Referral to tier 4 specialist interventions & integrated co-working with CAMHS if symptom management approaches are available. If they are not available, they need to be incorporated into tier 3 programmes.

Tier 4

Dependence Prescribing & Detoxification	Mental Health Prescribing	CAMH'a Symptoms Specific Psychosocial Intervention
		ADHD \ADD Anxiety Management Depression Conduct Disorder
Spot Purchased Respite Care	Spot Purchased Enhanced Foster Care	Spot Purchased Residential

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