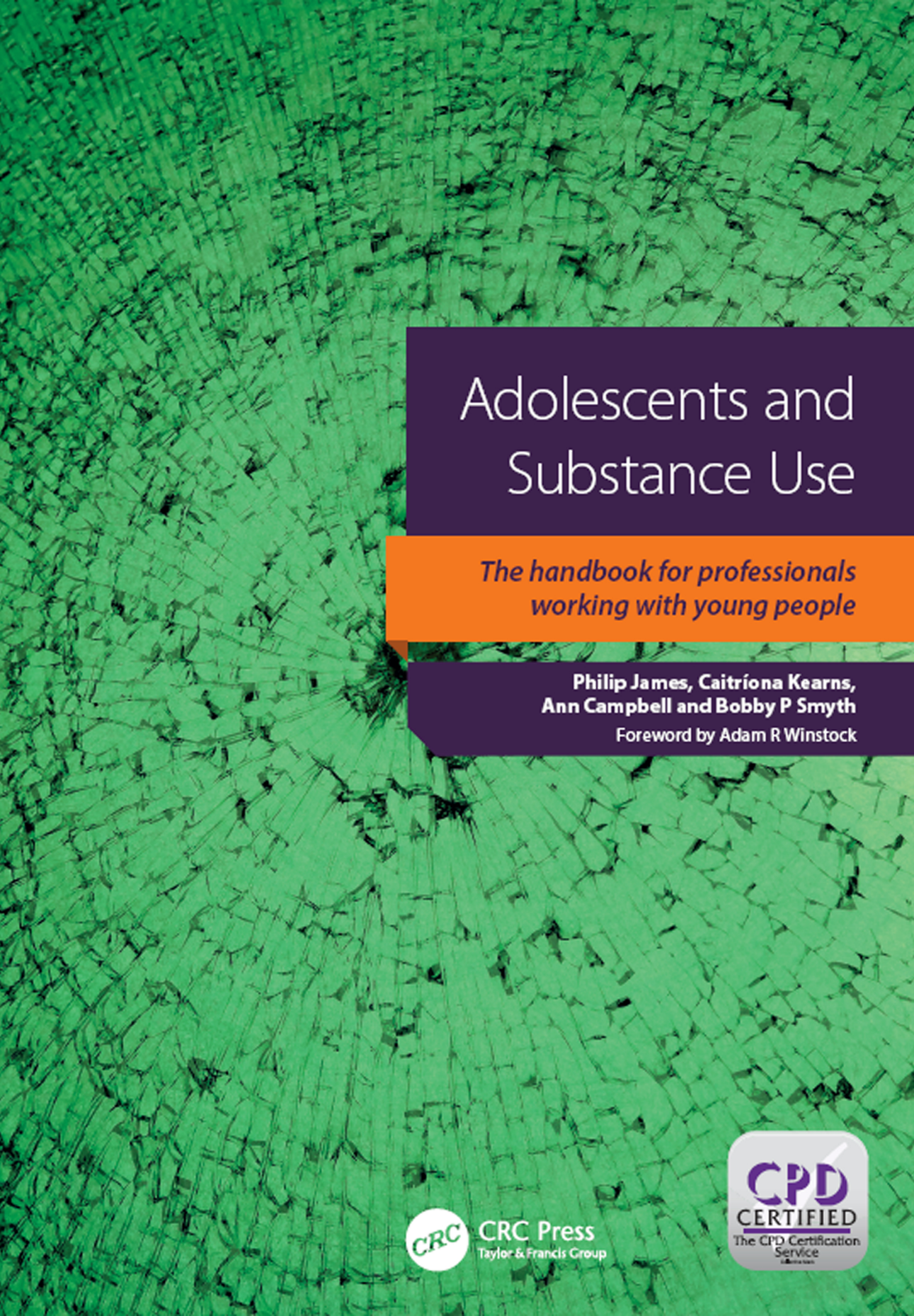
Adolescents and Substance Use
The handbook for professionals working with young people
Philip James, Caitríona Kearns, Ann Campbell and Bobby P Smyth
Foreword by Adam R Winstock
CRC Press
Taylor & Francis Group
CPD CERTIFIED
The CPD Certification Service

Adolescents and Substance Use

The handbook for professionals working with young people

PHILIP JAMES
MSc, BSc (Hons), RPN, Dip Psych Nurs, MAREBT

CAITRÍONA KEARNS
BSc (Hons), MIACP, MWGII

ANN CAMPBELL
MSc, RGN, Dip Addct St, Dip Syst Psych
Member Family Therapy Association of Ireland

and

BOBBY P SMYTH
MRCPsych, MB BCh BAO

Foreword by

DR ADAM R WINSTOCK
MD, MRCP, MRCPsych, FAChAM,
Consultant Psychiatrist and Addiction Medicine Specialist
South London and Maudsley NHS Trust
Honorary Senior Lecturer, Institute of Psychiatry, King's College London
Founder, Global Drugs Service

CRC Press
Taylor & Francis Group
Boca Raton London New York

CRC Press is an imprint of the
Taylor & Francis Group, an **informa** business

Radcliffe Publishing Ltd
St Mark's House
Shepherdess Walk
London N1 7LH
United Kingdom

www.radcliffehealth.com

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library.

ISBN-13: 978 184619 979 0

Typeset by Beautiful Words, Auckland, New Zealand

Contents

Foreword

When I was asked to write the foreword for this book my first thought was to question whether the world needed another book on drug and alcohol use. Then I looked more carefully at the title and noticed a rather important word – 'adolescents'. I then reconsidered and reflected on my own practice with mainly adults and remembered how I often complained that so little was ever done earlier in their lives to alter the trajectory of their substance use. It is a failing of our treatment system that we seem to wait for people to develop entrenched substance use problems and accompanying criminal records before we consider providing treatment. Indeed it is perverse that across so many of our health, social and educational systems we invest a disproportionate amount in the later years of life, where the potential gains, compared to early life investment, are diminishingly slim. You can see where this is leading I assume?

This book is an important addition to libraries on substance use because it provides the professions and people who often have first access to individuals at risk of developing substance use problems with the background knowledge and framework for skills development to intervene and make a difference.

Clearly written by likeable clinical experts in their fields from across the social and medical disciplines, this book takes the informed or novice reader on an enlightening journey through developmental functional neuroanatomy (not scary at all thanks to the way they write about it) and its susceptibility to drug-related harm and the often ignored issues of protective factors and the role of the family.

While the areas on prevention, mental illness and motivational interviewing are stock content for any book, the chapters here are written concisely with enough theoretical grounding and evidence to convince the reader but without redundant stuffing stating the obvious. Chapters on culture, sexuality, policy and ethical issues are often poorly addressed, even in the adult literature, so finding them is a welcome surprise.

As the English-speaking world wakes up to the challenge of novel psychoactive substances and the grinding weight of research slowly leads to change in policy and how we communicate with people in our communities, a book

about young people and drugs is timely. If we could delay the onset of drug use in our most vulnerable young people and promote the acquisition of skills among young people so that they could grow their brains before they tried to expand them with drugs, we could make a real difference. This book, by helping diverse health and social professionals to recognise when substance use may be diminishing the potential and wellbeing of a person, could therefore play an important role in helping our communities to be happier healthier places for everyone.

Dr Adam R Winstock
MD, MRCP, MRCPsych, FAChAM
Consultant Psychiatrist and Addiction Medicine Specialist
South London and Maudsley NHS Trust
Honorary Senior Lecturer, Institute of Psychiatry, King's College London
September 2013

Preface

In our work with adolescents with substance use problems we have collaborated with a variety of professionals who also engage with these young people and their families. An exhaustive list is impossible, but it includes social workers, social care professionals, family support workers, teachers, counsellors, mental health teams, accident and emergency staff, as well as the police and probation officers. They have often asked us to recommend a book that provides an introduction to adolescent substance use. These professionals, while not substance abuse practitioners, invariably come to work with teenagers with drug and alcohol problems. Unfortunately, we could not identify a book that filled this gap. Slowly it dawned on us that if such a book was to be written, we might have to write it ourselves. So in the summer of 2011, the idea for this book began to germinate. We spoke to and elicited email feedback from various colleagues about what such a book ought to include, and gradually the book took shape.

The aim of this book is to provide an introduction to the topic of adolescent substance use and, ideally, guidance for the numerous professionals who work with teenagers. It is difficult to imagine that any professional who works with teenagers will not come across substance use at some point. The approach these practitioners take in dealing with the problem has considerable influence over the outcome, and so this book hopes to provide a foundation for effective, evidence-based practice.

PJ, CK, AC, BPS
September 2013

About the authors

Philip James, **MSc, BSc (Hons), RPN, Dip Psych Nurs, MAREBT**
Philip trained as a psychiatric nurse in Dublin and was appointed as the first Irish Clinical Nurse Specialist in Adolescent Substance Misuse in 2006. Since then he has worked in the Health Service Executive's Youth Drug and Alcohol (YoDA) Service full-time. He completed a MSc in nursing in 2005 and is also qualified in Rational Emotive Behaviour Therapy and the Adolescent Community Reinforcement Approach. In addition to his clinical work he has been involved in a number of research projects and publications. He has published various research articles and, along with Bobby Smyth, contributed a chapter to *Responding in Mental Health – Substance Use* (2011), also published by Radcliffe. He is a reviewer for various international academic journals and is on the International Advisory Committee of the journal *Mental Health and Substance Use*. He has provided lectures on a variety of addiction, mental health and practice-related topics with a number of colleges, including University College Dublin, Trinity College Dublin, the University of Limerick, the Institute of Integrative Counselling and Psychotherapy and the Irish College of Humanities and Applied Sciences.

Caitríona Kearns, **BSc (Hons), MIACP, MWGII**
Caitríona is the General Manager and Registrar of the Institute of Integrative Counselling and Psychotherapy, and the Clinical Manager of the Village Counselling Service, a community counselling charity in Dublin, Ireland. She is an accredited member of the Irish Association for Counselling and Psychotherapy. Caitríona obtained her addiction counselling qualifications in the International Addiction Counsellor Training Programme, a Hazelden-endorsed programme. Her BSc in counselling and psychotherapy was conferred by Middlesex University. Prior to her current role, she spent 10 years working in the field of substance misuse treatment, specialising in counselling children and adolescents. At present, Caitríona lectures on the Institute of Integrative Counselling and Psychotherapy's BA (Hons) in counselling and psychotherapy,

leading the modules on addiction and sexuality and overseeing the clinical aspects of students' development.

Ann Campbell, MSc, RGN, Dip Addct St, Dip Syst Psych
Member Family Therapy Association of Ireland and the Irish Council for Psychotherapy

Ann works with adolescents, parents and families who are experiencing problems with drug and alcohol use, as a Systemic Family Psychotherapist in the Youth Drug and Alcohol (YoDA) Service in Dublin. She completed the Diploma in Addiction Studies and the MSc in Child Adolescent and Family Mental Health in Trinity College, Dublin; including a work placement in Turning Point, Melbourne, Australia. Ann has worked in addiction and family support services since 1997, initially in a nursing role. Her interaction with adults making changes with substance misuse prompted her interest in systemic perspectives; she began Systemic Psychotherapy training at the Clanwilliam Institute in 1999. Ann has worked with adolescents and families through the Crinan Youth Project, West Dublin YMCA PAKT (Parents and Kids Together) family support project and joined YoDA in 2007.

Ann has particular interests in research, narrative therapy and parents' perspectives in adolescent substance misuse. She has investigated adolescent use of novel psychoactive substances, presenting at the Association of Child and Adolescent Mental Health Conference and the Irish National Drugs Conference. Ann has facilitated workshops in family therapy, inter-agency working and adolescent drug misuse. Currently Ann is vice-chairperson of the Family Therapy Association of Ireland.

Dr Bobby P Smyth, MRCPsych, MB BCh BAO

Dr Bobby P Smyth is a Consultant Child and Adolescent Psychiatrist, working full-time since 2003 with adolescents who have substance use disorders. He is clinical lead at three separate multidisciplinary outpatient treatment services for adolescents with substance use problems. He also consults to a residential adolescent drug and alcohol treatment programme. He graduated in medicine from University College Dublin in Ireland. He completed his basic specialist training in psychiatry in Dublin before undertaking higher specialist training in child and adolescent psychiatry in Liverpool and Chester, UK. He was a member of the Executive Committee of the Child and Adolescent Psychiatry faculty of the Royal College of Psychiatrists.

He is also a Clinical Associate Professor with the Department of Public Health and Primary Care in Trinity College Dublin. He has been involved in

addiction research since 1993 and has published over 50 addiction research papers in national and international peer-reviewed journals on topics including treatment outcome, harms associated with drug abuse and early-onset drinking. He has presented at numerous international scientific meetings. This research has spanned diverse areas of science from neurobiology to sociology and psychology. His research has won prizes from the Royal College of Psychiatrists (UK) and the Royal Academy of Medicine of Ireland.

He has been a member of a number of national policy committees on alcohol and drugs in Ireland. He has been invited to present to committees of elected representatives on policy issues regarding alcohol and drugs. He features regularly on television, radio and print media on topics related to substance use. He is a member of the National Addiction Training Programme in Ireland. He regularly teaches on master's and diploma-level university courses. He has extensive experience teaching a wide variety of professionals including doctors, counsellors, nurses, probation officers, teachers and social workers.

Acknowledgements

We wish to thank a number of people for their support, encouragement and guidance in relation to this book. When the idea for this book emerged, we spoke to David B Cooper, who gave us tremendous support and practical advice on how to develop our idea into a book proposal. This help was invaluable and without it, this book may never have got off the ground. Once we contacted Radcliffe, Gillian Nineham and the rest of the Radcliffe team were consistently patient and helpful. They guided us through all the necessary stages and made a complicated process manageable – a feat for which we are truly grateful.

Additionally, we would like to thank the young people and their families whom we work with – through them we have learned so much. Various colleagues have provided support, ideas and feedback on various aspects of this project, which was so useful.

Individually, we would like to thank our spouses, families and friends for their support, encouragement and patience over the past 2 years.

Authors' note

When writing this book we sought to make a clear link to practice. A useful device for this is the use of case studies and vignettes in various chapters. In some cases we also have included sample dialogues between a worker and a young person. We would like to point out that these vignettes and quotes were made up by us to highlight a particular point or issue. In order to protect our clients' confidentiality we deliberately chose not to quote them or use their stories. However, based on our collective experience, we do believe that they are realistic vignettes which highlight the kind of problems our clients present with as well as typical comments they might say.

CHAPTER 1

Introduction

INTRODUCTION

Adolescent substance use is not a new phenomenon. It is routinely referenced in film and music. So common has it become that many people simply view it as a rite of passage – something every teen has to go through and come out the far side of. While this viewpoint is understandable in ways, it is important that we do not lose sight of the potentially disastrous effects that substance use can have for some teenagers. The repercussions can be drastic, including overdose, accidental injuries and criminal charges. For most teenagers who use substances, the negative effects tend to be less dramatic. Consequences such as poor school performance, early exit from education, dropping out of healthy activities such as sport and damage to family relationships are more usual. The effects of substance use will be discussed in more detail in the next chapter but, for now, consider the case example presented here.

Case example: Ivan's story

Ivan is a 17-year-old boy. Throughout his life his parents have not worried about him. He used to play football for the school and local club – while he was not the best player on his team he was pretty good. In the past, Ivan generally got on well in school and usually got at least Cs on his exams. He loves cars, motorbikes or pretty much anything with an engine. He has talked for a long time about becoming a mechanic once he leaves school. Overall, Ivan is a pretty unremarkable teenager – well liked, fairly popular and loved by his parents and siblings.

Two years ago, Ivan started drinking alcohol with friends most weekends, and more recently he began using cannabis. Twice, the police have detained him for being drunk, and he was arrested with a cannabis joint in his pocket 3 weeks ago. He is waiting to find out if he will be prosecuted for this or get another warning. He has not played football in months and his grades in school have suffered. Ivan has considered

dropping out of school, as he thinks he does not have the aptitude for it. He is skipping school regularly but he only has 6 months to graduation.

Ivan's parents are very worried about the changes they have seen in their son – they say he's not the boy they know and love. They have tried to talk with him about staying in school and to push him back into his hobbies and sports. These talks usually end in rows, as Ivan feels they do not listen to him. His parents are aware that he is drinking and smoking cannabis and have tried to discuss this with him. Ivan does not see it as a problem. Most of his friends smoke and drink about the same as him, 'so what's the big deal?' However, he concedes that none of his friends have been arrested before.

As we can see, Ivan's life is affected in a variety of ways. Many argue that the negative effects often attributed to drug misuse are not necessarily a result of the drug use. This may be true in some cases; however, as a general rule, those who use drugs are more likely to leave school early, get criminal charges, have mental health problems and have less satisfaction in life than those who do not use drugs. The more involved and heavy the drug use, the more likely the person is to experience these problems. Nonetheless, many teenagers use drugs or alcohol with few, if any, obvious negative effects. Consider Ivan's case and ask yourself the following:

- If Ivan continues on the current trajectory, what will his life be like in a year?
- Would a change in Ivan's drug use make a difference to him?

The obvious answers are that, while drugs may not have caused all of Ivan's problems, they are, at the very least, contributing to them. Life before drugs was healthier and happier than his current situation, and it is likely that things would improve somewhat if he stopped using. This book is designed to help those who work with adolescents and have concerns about substance use. The information contained herein should be as equally applicable to teenagers with severe drug or alcohol problems as to those with milder or experimental use.

SUBSTANCES OF ABUSE

Throughout the world, people take a plethora of substances to change how they feel. These mood-altering chemicals include tobacco, caffeine, alcohol, ecstasy, cannabis and heroin. Some products are legal (usually with age restrictions) and some are simply everyday substances that were never intended for use as a drug, such as sniffing glue. Throughout this book, we will use the word 'substances' to refer collectively to alcohol and drugs. Our definition of a substance is anything that is taken by someone for the purposes of changing his

or her mood or perceptions. The drugs that teenagers use can be illegal (such as cocaine) or legal (such as diazepam), and even over-the-counter medications (such as codeine) are used to alter mood. Likewise, there are many ways in which drugs can be consumed, including eating, drinking, smoking and inhaling or sniffing. Chapter 3 provides an overview of the most commonly used substances of abuse.

It is important to note that this book is only focused on the misuse of mind-altering substances. We do not intend this book to focus on tobacco or caffeine, for the simple reason that it is exceptionally rare for a child to be referred to a substance abuse service for treatment of either tobacco or caffeine use. In recent years, there has been much discussion about the prevalence and consequences of a variety of other 'addictions', including the Internet, sex and gambling. Again, we have chosen not to explore these behavioural 'addictions' because of the rarity of referral.

A note on language

Throughout this book we use the term 'substance use' when discussing the use of substances in general. Other terms such as 'addiction' or 'substance abuse' are used when referring to use that is causing harm. When talking with adolescents about their substance use we advise caution. We are not keen on the use of terms such as 'addict' or 'alcoholic' because of the negative connotation attached to them. In our experience, clients rarely react well to being told they are an addict or that they are addicted. Even the phrase 'substance abuse' should be avoided. These terms can be perceived as judgemental by many and can lead to a defensive response that can be unhelpful. People do not like being labelled and frequently react with resistance to such comments. That being said, in many cases, people will readily admit that their drug or alcohol use is leading to, or at least contributing to, problems for them. Our recommendation is to avoid language that is likely to be perceived as judgemental. In comparison, discussing a substance that someone is using (as opposed to abusing) is less likely to cause problems. In doing this, we focus on a problem behaviour that can be, and is often, changed. Nevertheless, a working understanding of the variety of terms used is important for those who work with young people.

'Addiction' is one of the most commonly used terms and most people have a sense of its meaning. The problem is that it can mean different things to different people. In lay terms, people talk about being addicted to all sorts of things, including music, shopping, the gym, and so forth. In this way, addiction means finding it difficult to stop or cut down doing something, or simply spending a lot of time using this behaviour. To many people, addicts are seen as those with the most serious substance use problems – the intravenous drug user in Irvine Welsh's *Trainspotting*, the 'down-and-out' begging on the street. They

often do not see someone who uses a drug once a week, even if it is causing that person problems, as being addicted. Addiction is also synonymous with withdrawal symptoms when the person stops taking the substance, like those experienced when someone withdraws from alcohol or heroin. Many young people see addiction in this chronic context and so do not see themselves as addicted. Perhaps they have never thought of their substance use as a problem and have never tried to stop. Likewise, cannabis, the most widely used illicit drug used by teens, does not have a dramatic withdrawal syndrome, leading many to assume it is not addictive.

Other terms also appear in the addiction-related literature and include 'substance misuse' and 'substance dependence'. The following is a quick description of these terms and how we understand them.

Substance use

A definition of substance use is inherent in the term. The person has used a substance. This may have been once or a hundred times. Many people, for example, use alcohol. This fact does not mean that it is causing them harm, or *not* causing them harm for that matter.

Substance misuse

Substance misuse is a common term used by professionals. Essentially, it goes a little further than substance use and states that the person is using the substance in an unhealthy way. For example, drinking alcohol to the point of getting hangovers or binge drinking could be described as misusing alcohol.

Substance abuse

Substance abuse is an official diagnosis for someone who is not only misusing the substance but also continuing to do so despite the fact it is causing significant harm to his or her life (e.g. debts or criminal charges). The World Health Organization uses the term 'harmful use' and this basically means the same thing.

Substance dependence

Substance dependence is another official diagnosis and is the most severe form of 'addiction' that can be diagnosed. Perhaps the main diagnostic difference between abuse and dependence is that there is often (but not always) evidence of tolerance (i.e. needing more of the drug to reach the same level of intoxication) and withdrawals upon stopping the drug where dependence is concerned. It is the presence of either withdrawals or tolerance that denotes whether someone is physically dependent. This is often referred to as being 'physically addicted'.

Lapse and relapse

When discussing substance use, relapse is often discussed, but in our experience it is important to separate a relapse from a lapse. Many people who stop using a substance have a slip. For example, someone who gives up cigarettes may smoke one or two at a party. While this is an unfortunate slip, this person has not reverted to his or her old pattern of use and so it could be termed a lapse. Should this person continue to smoke daily for days or weeks it could be termed a relapse.

As we can see, there is overlap in these terms and, in general, someone with dependence would be expected to be suffering more harm in more aspects of his or her life than someone with substance abuse. In practice, it can be very difficult to decide which diagnostic category an individual fits into, and it is not such an important issue. In the majority of cases, the level of substance use won't change the treatment dramatically, except in cases where severe withdrawal exists and requires medical intervention to help the person stop using a drug. Thankfully, such instances are not the norm with adolescents, but we have discussed medical interventions in greater depth in Chapter 10.

WHAT IS ADOLESCENCE?

When writing about adolescents, it is easy to use terms such as 'adolescence', 'teenagers' and 'young people' interchangeably. Arguably, this can lead to confusion because these terms are not always used in a consistent way. 'Teenagers' is a clear and simple term – it refers to the teenage years, ages 13–19. But what is a young person? Your answer to this question probably depends on your age. Some youth-centred health services work with individuals up until their mid-twenties. Adolescence is typically used to describe that period where a young person moves from being a child to being an autonomous adult. Most people probably see adolescence as being from about 12–19 years old. It could be argued that adolescence is moving further into the traditional adult years. In Western societies, greater proportions of the population are staying in education longer. A generation or so ago, most people left education at the end of second-level school, somewhere around the age of 17, and went out to work. As such, they were independent adults earning their own money. Now, more and more, people go on to further, third-level education with the result that they are dependent on their parents for longer – into their mid-twenties in some cases.

In this book, we have taken a pragmatic approach. We view adolescence as being the teenage years. The majority of the clients we see in our work fall between 15 and 18 years of age and so this book is aimed at this age group.

However, the information contained here should equally apply to all teens, and even some individuals outside this age range. For further discussion on adolescent development *see* Chapter 2.

IS ADOLESCENT DRUG USE DIFFERENT FROM ADULT DRUG USE?

The simple answer to this question is yes. We strongly believe that adolescents are not simply young adults. They are fundamentally different for a variety of reasons, and therefore they require an approach that is specifically aimed at them. When thinking about adolescent substance use bear in mind the following points.

- A person's brain development and emotional maturity is still developing throughout the teenage years and is not completed until the early twenties.
- The legal situation regarding drug use is different for teenagers (e.g. being unable to buy alcohol).
- Teenagers do not have the life experience to draw on that an adult has, making decision-making and problem-solving more difficult.
- Because they are minors, professionals owe teenagers a different duty of care. While it might be a legitimate decision to respect the autonomy of a 30-year-old and not interfere with their problematic drinking, it would not be okay to do so if they were 16.
- Adolescents rarely refer themselves for substance abuse treatment. Less than 3% of our referrals are self-referrals and, in most cases, the self-referrals we do get are returning clients rather than new clients.

As alluded to earlier, a debate continues in relation to teenagers and substance use. Many people argue that substance use as a teenager is simply part of growing up, a part of the developmental curve that is adolescence. This is often promoted in films where teenage drug and alcohol use are presented as the norm. Therefore, many do not see it as a major issue, as most teenagers grow out of it. Often, to illustrate this point, people will admit that they used drugs as a teen and that they turned out okay. This argument totally misses the point. It is the same as arguing that knowing one person who smoked cigarettes and lived to be 90 proves cigarettes are not bad for you. This is obviously nonsense and few people would make that argument. Just as everyone who smokes does not get cancer, not everyone who uses substances necessarily ends up with problems because of this substance use. Many *do* simply grow out of it. However, the earlier someone starts using, the more likely they are to have problems related to it. Many of you reading this book will be working with teenagers who have ended up in care, or emergency departments, coming to the attention of social

services, doing poorly in school and so on. These teenagers are already suffering harm and have proven that they do not belong in the category of teens that use without any apparent consequences.

The other thing to bear in mind is that substance use among adolescents is not as common as some would claim. The European School Survey Project on Alcohol and Other Drugs (ESPAD) completes Europe-wide research on the activities of 15- and 16-year-olds. On average, across Europe 37% of 15- to 16-year-olds have been drunk in the past year and only 15% have been drunk more than once or twice! The same goes for cannabis – 13% have smoked cannabis in the past year and only 7% have used it more than once or twice.[1] These figures certainly refute the idea that everyone does it!

KEY POINTS

- Teenage drug use is associated with a variety of social, emotional, psychological and health risks. The earlier in life someone starts drug use, the greater these risks.
- It is not helpful to label a young person as addicted or alcoholic. This book will therefore use the term substance use.
- This book focuses on alcohol and drug use among teenagers.
- While adolescent substance use is relatively common, it is not the norm.
- Because drug use is associated with a variety of harms, it should be addressed whenever it becomes apparent that a teenager is using. Adopting a 'wait and see' approach is unlikely to be useful.

FURTHER READING

- *ESPAD Reports*: the ESPAD reports are completed across Europe with 15- and 16-year-olds. The same questions have been asked every 4 years since 1995 and so it is easy to see changes over time. Further information is available online (www.espad.org).
- *Health Behaviour in School-aged Children Reports*: this research project co-ordinated by the World Health Organization is similar to ESPAD in that it is a survey of teenagers in 43 countries every 4 years, most recently in 2009–10. It is carried out with 11-, 13- and 15-year-olds in each country and includes North America. The reports cover additional health-related topics like bullying, body image, diet and life satisfaction. There is a wealth of information online (www.hbsc.org).

REFERENCE

1 Hibell B, Guttormsson U, Ahlström S, *et al. The 2011 ESPAD Report: substance use among students in 36 European countries.* Stockholm: Swedish Council for Information on Alcohol and Other Drugs (CAN); 2012.

CHAPTER 2

Adolescence: a time of great change

Experimentation with substances typically commences during adolescence. In order to understand the phenomenon of substance use, it is therefore essential to have a good understanding of the teenage years.

CONSIDERING ADOLESCENTS AS APPRENTICE ADULTS

Adolescence is that much-maligned period of the lifespan that lies between childhood and adulthood. It is a time of dramatic change. The pace of development, both in terms of physical growth and in the acquisition of social skills, is probably only comparable with the rapid developments that occur during the first year of life.

As 10-year-old children we are entirely reliant on our parents to meet all of our basic needs. Our parents have great influence over our selection of peers and hobbies. By the time we reach 20, we are capable of managing a huge array of different social situations and challenges on our own. We have learned how to function independently in the complex world of adults. Therefore, the task as we journey through adolescence is to pick up the *skills* to equip ourselves for independent adult life.

People who are embarking on a period of skills acquisition are often called 'trainees' or 'apprentices'. These terms imply that a person is learning a range of additional skills to allow them to take on a new and independent role. We suggest that it is appropriate to conceptualise adolescents as *apprentice adults*.

Culture and adolescence

Notably, adolescence differs from culture to culture and, indeed, within cultures it changes over the decades.[1] Societies vary in the amount of time they

allow young people to develop the skills to move towards independence. In affluent Western cultures, it can be argued that adolescence stretches into the early twenties as young people are given time to learn about themselves and the world before being required to take on the full burden of adult responsibilities. Many receive very substantial ongoing financial and other support from parents, permitting them to pursue higher education, for example.

In poorer cultures, young people are thrust into adult roles and responsibilities during their mid-teens because of financial imperatives such as the need to feed themselves and provide for their families. Also within Western cultures, at times of great difficulty and conflict, such as during wars, the years permitted for adolescence tends to be reduced, with young men in particular expected to take on huge responsibilities and obvious adult roles as soldiers at the age of 17 or 18.

Adolescence has always received bad press. About 400 years ago, in *The Winter's Tale*, William Shakespeare wished it away saying,

> I would there were no age between ten and three-and-twenty, or that youth would sleep out the rest; for there is nothing in the between but getting wenches with child, wronging the ancientry, stealing, fighting.[2]

In other words, Shakespeare wanted to put 10-year-olds into a coma and get them to emerge from it 13 years later as sensible adults, thereby bypassing the tumultuous intervening years.

Practice exercise: exploring adolescent stereotypes

We all have preconceived ideas about teenagers. Those beliefs are shaped by both our own experiences of teenagers and our culture's views of adolescence. Take a few moments to read the list of adjectives in Box 2.1 that can describe a person. Circle the five words that you think best characterise adolescents. Put another way, if an alien were to come to earth and ask you to describe typical adolescents, which five adjectives would you choose from this list?

BOX 2.1 Words used to describe adolescents

- Angry
- Cooperative
- Thoughtful
- Moody
- Considerate
- Energetic
- Defiant
- Independent
- Explosive
- Self-conscious
- Impulsive
- Reckless
- Secretive
- Hostile
- Helpful
- Argumentative
- Honest
- Rude

- Self-centred
- Demanding
- Empathic
- Pleasant
- Rebellious
- Unpredictable
- Polite
- Sex obsessed
- Ungrateful
- Confident
- Idealistic
- Creative
- Cautious

Having circled the five adjectives that you think best describe adolescence, now think of five teenagers you know. They may be your own children, cousins, nieces, nephews or neighbours' children. If you happen to work in a service that deals with troubled teenagers then avoid picking these, as they may not be typical teenagers. Reflect on these five real teenagers and consider their personalities and your interactions with them. Now return to the same list of adjectives in Box 2.1 and underline the five adjectives that *best* describe the characteristics of the specific teenagers you have thought of.

We have conducted this exercise numerous times with adults and have found that there is a marked tendency to circle many of the negative adjectives to describe the typical teenager. The most frequently endorsed items are 'moody', 'self-conscious' and 'rebellious'. In fact, we have found that 80% of the adjectives selected are negative. However, in the second part of the exercise, when people are encouraged to think about real teenagers known to them in their day-to-day lives, they end up endorsing mainly the positive adjectives. The three most commonly chosen words are 'pleasant', 'helpful' and 'thoughtful' and positive adjectives account for 75% of the selected words.

What this exercise demonstrates is that we tend to have a negative stereotypical view of adolescents. It is unfortunate for teenagers that they live in a world of adults who view them so poorly, despite their generally pleasant, helpful and thoughtful behaviour. This dim view of adolescents is not unique to the twenty-first-century world. A famous social commentator wrote the following description of teenagers:

> The children now love luxury; they have bad manners, contempt for authority . . . disrespect for elders . . . they contradict their parents . . . and terrorise their teachers.

While many read this and think it applies to the contemporary world, it was in fact written by Socrates over 2000 years ago. Society has grappled with the challenges posed by teenagers throughout the millennia.

Comic depictions of teenagers

We, as ordinary members of society, are not the only groups who negatively stereotype teenagers. Perpetuating these stereotypes, many of our favourite comedians make a good living from lampooning teenage behaviours. Think of Harry Enfield's huffing Kevin, and Matt Lucas' anarchic Vicky Pollard of *Little Britain* fame. They present loud, demanding, self-centred, precocious, angry and impatient characterisations of the teenage years. These are features that we *do* occasionally encounter in *some* teenagers. Perhaps we also recall being a bit this way ourselves. However, because these caricatures are so extreme, they probably contribute to our excessively negative view of a typical teenager.

Development is not simply a passive process

Like all phases of life, adolescent development is not simply a passive process. Individuals do not *automatically* pick up the same range of skills and competencies at the same pace as they move through their teenage years.

Bright, socially competent children are likely to develop further skills of independent functioning more rapidly than their less clever and less socially skilled peers. They are likely to be selected by their peers to be leaders and they will also be chosen by adults to act, for example, as prefects and leaders within school and club settings. This then gives them quite a different experience than their less socially skilled non-prefect peers. As they are given the opportunity to experience leadership roles, this further develops their already superior social and organisational skills. Essentially, a teenager's own intrinsic competencies will influence the opportunities that he or she is afforded during adolescence. From these new and novel challenges, additional skills will be obtained.

Obviously, at the other extreme, less socially competent teenagers, who are perhaps prone to anger and who struggle with peer relationships, may find themselves marginalised within their peer group. If combined with a lack of academic ability and educational expectation, this is likely to result in a poor experience of school. Such teenagers can get into repeated conflict with teachers and are therefore more likely to drift out of school. Their departure from the school environment does not mean that they will fail to pick up any social skills during their teenage years. Nonetheless, the skills they acquire are often learned from older, more delinquent peers and may involve them engaging in increasing antisocial behaviour in order to gain status among their peer group. This, in turn, brings them into conflict with 'mainstream' society and often draws the attention of the criminal justice system. The story of Kevin and Tim in Box 2.2 highlights some of these points, albeit for two quite ordinary teenagers.

BOX 2.2 Kevin and Tim: a journey into adolescence

Kevin and Tim are lifelong friends who live on the same road. They are 13 and have just moved from the local primary school into the first year in secondary school. Kevin is a talented soccer player and gets on well with his classmates, both boys and girls. He finds school work fairly easy and is an average pupil. Tim is tall and quieter than Kevin. He likes computer games and is very good at maths. He likes playing soccer and tennis, although he has never been great at either. He has become more physically awkward since he had a recent growth spurt. He has a good group of male friends, whom he has known for years, but he is a bit somewhat shy when meeting new people. Although he fancies Jennifer, who lives nearby, he gets self-conscious around her.

Kevin becomes captain of the under-14 school soccer team. His dad is very proud of his soccer achievements. He is well known and well liked by the older boys at school. He does his homework most of the time, and he doesn't cause any problem in class. His grades slip slightly. Tim studies quite hard. He continues to do well at maths and really likes science. He tried out for the soccer team but dropped out of training after he spent a couple of matches on the sideline for the 'B' team. He still plays some tennis in the local club and kicks a ball around with his friends when they are hanging out in the park. He still gets on well with Kevin, but he makes excuses not to join him at the monthly teenage disco. Tim still only has eyes for Jennifer, but she doesn't seem interested in him. Kevin goes to the discos and has begun dating a girl from another school, although he's not taking it too seriously.

Kevin and Tim are both entirely normal teenagers. Each will arrive into adulthood with the necessary skills to manage independent life, although their areas of strength may differ. Partly because of their different areas of natural talent, their journey through adolescence will differ and the pace at which they pick up the skills that equip them for independent life will vary. Their friendship is likely to endure.

Kevin is fortunate to have above-average soccer and social skills. As he has these skills he is then given opportunities to develop them further. Tim is not so lucky. His soccer and social skills are below average. People often opt out of things they are not so good at. Tim quits the soccer team and is inclined to opt out of some social situations and is not given the opportunity to tackle others. As a result, the gap between Tim and Kevin, in terms of both soccer ability and social skills, widens further. Those with intrinsic talents are given further opportunities to develop these natural skills. People

with intrinsic deficiencies may withdraw or be removed from opportunities to develop skills in those areas.

Developmental psychologists call this phenomenon 'a transactional process in temporal progress'. It is not unique to adolescence and can be seen throughout the lifespan. For example, infants smile automatically at anything that resembles a human face from the age of about 6 weeks. Most adults like smiley children. That being said, children differ in their tendency to smile and the children who are most smiley tend to get more adult attention. It is through engaging adults in this way that children receive nurturing, listen to language and engage in play. This interaction has a positive influence on their motor development, and through listening to adults talking it provides them with an opportunity to learn language and communication. Hence, the smiley baby has an advantage over his or her less-smiley counterpart.

THE TEENAGE BRAIN IS A WORK IN PROGRESS

In the past decade, science has shed new light on adolescent development. Recent research has demonstrated that the adolescent brain continues to develop throughout the teenage years.[3] In fact, these changes to the adolescent brain are perhaps essential in developing the more sophisticated thinking skills demonstrated by older teenagers. It is now clear that during the teenage years the brain cells, or neurons, establish new and more elaborate connections between one another.[4] These new connections between neurons are maintained if they are being utilised by the person, and connections that are not utilised are gradually pruned away to make the brain a more finely tuned and efficient entity.

Deterioration in some skills around puberty

Parents sometimes lament the changes that they see in their teenage children. Some parents describe a dramatic change in their child who was previously chatty, interactive and pleasant. They describe their teenager becoming distant, with communication almost confined to grunting. While such observations are probably exaggerated, the brain research does give some clues as to what may be happening.

During adolescence, as the brain develops it can become temporarily less efficient.[4] This temporary decline in functioning has been demonstrated by research. For example, an adolescent's ability to quickly recognise facial emotions (such as 'happy', 'confused', 'frightened' and 'shocked') actually deteriorates in the early teenage years. This deterioration corresponds with this period of brain development during puberty where new connections are made and some pruned. Performance on this task later improves and increases to a

level that exceeds that demonstrated in childhood. Put simply, the brain gets worse before it gets better.

The brain doesn't fully mature until the early twenties

This process of development occurs within the brain over the teenage years, progressing from the back and bottom towards the upper parts of the frontal lobes. The frontal lobes represent that portion of the brain that is involved in complex thinking skills. These include the skills that allow us to interact, communicate and problem-solve in the sophisticated way we do as adults. The frontal lobes do not appear to fully mature until the early twenties.

This process of brain change during adolescence is hugely important. It seems to explain the improvement in thinking ability that developmental psychologists, such as Piaget, first described 40 years ago.[5] It may also explain why substance use by teenagers seems to be much more harmful than similar levels of drug or alcohol use by people in their late twenties.

The fact that the brain matures in an uneven manner, with frontal lobes being last to fully develop, is important and goes some way to explain some features of the adolescent years.[6] Parts of the limbic system mature much earlier than the frontal lobes. The limbic system is important in driving human behaviour. It is like the engine in a car. The frontal lobes have the job of screening impulsive desires and weighing up the pros and cons of behaviour options. The frontal lobes are like the brakes in a car. Children have less well-developed limbic systems and frontal lobes but importantly, the 'engine' and the 'brakes' are in balance. Adults have well-developed and powerful limbic systems and frontal lobes. In other words, the powerful 'engine' is counterbalanced with a strong 'braking system', just as supercars tend to have massive brake discs. In adolescents, the limbic system (engine) becomes powerful before the frontal lobe (braking system) has fully developed. If a car were manufactured with the engine of a Ferrari but the brakes of a Ford Escort, it would be hard to drive. While it might cope okay with straight motorways in light traffic, it would be difficult to handle and liable to crash on poorer roads and in heavier traffic.

Therefore, nature has designed teenagers to go, and not to stop. While this may seem cruel, it does make sense in that they are required, by nature, to take on new challenges and to be less aware of risks. Where does the adolescent albatross get the courage to leap from the nest high on the cliff that first time when it has never flown before? While the challenges faced by human adolescents are not so stark, they need a little bit of nerve to go into town on their own that first time, to ask a girl out for the first time, and so on.

While nature has designed the human brain to have this mismatch between its engine and braking system, there is going to be substantial individual

difference. Some teenagers may experience early maturation of the limbic system (engine) and delayed maturation of the frontal lobes (braking system). These teenagers, therefore, have a wide and prolonged mismatch between the engine and the brakes, and will likely demonstrate substantial risk-taking behaviour. In other teenagers, there may be little gap between the maturation of these two brain areas, thereby reducing the likelihood of risky behaviour. While science is just beginning to shed light on the neurobiological processes that underpin risky and impulsive behaviour, we are decades away from having any biological 'treatment' or intervention for young people who have a big mismatch between their limbic system and frontal lobes.

Apart from the brain, the other and more obvious physical change over adolescence is puberty. This is the process whereby boys and girls mature sexually, and thereby develop the capacity to procreate. *See* Box 2.3 for a more detailed discussion on puberty.

BOX 2.3 Puberty

Puberty is the process of development of secondary sexual characteristics and it is a key feature of adolescence. Both genders grow rapidly during puberty. The rate of growth in height and weight during puberty is second only to that seen in infancy. In both genders there is growth of pubic and axillary hair. In girls, breasts develop and the menstrual cycle commences. In boys, the voice becomes deeper, the testes and penis grow in size and sperm production commences.

The period of most obvious physical change lasts about 4 years in both genders. Puberty starts on average 2 years earlier in girls. It normally occurs during the age range of 8–18 years in girls and 9–19 years in boys.

The hormonal systems are present from birth but they remain suppressed during childhood. The key female hormones are oestrogen and progesterone. The key male hormone is testosterone. There is a slow detectable rise in these hormones starting at age 5–8 years of age. Puberty appears to be 'switched on' once a person achieves a critical metabolic level.[1] Factors influencing this metabolic level include the fat–muscle ratio and body weight.

Girls have been starting menstruation progressively earlier for over a century until the 1970s in Western countries, as nutrition improved. Data from the nineteenth century suggests that undernourished boys and girls finished their growth 4–5 years later and ended up shorter in stature than their well-nourished contemporaries. Both final height and pubertal onset appear now to have levelled off, suggesting that the current nutrition/health is optimal. The limiting factor on age of onset of puberty across teenagers is now primarily genetic.

Are there psychosocial influences on puberty?
Some research suggests that adolescents may respond to family discord by maturing quickly, leaving the 'unhappy situation' earlier, to find other relationships outside the home. Animal research has found that continued close association with a parent delays maturation, while forceful removal leads to earlier onset of puberty.

Influence of timing of puberty
American research indicates that early-maturing boys and late-maturing girls do best academically. Early-maturing girls are 'more popular' with boys. Early-maturing girls tend to be less satisfied with bodies in later adolescence, as they tend to be shorter.

THE VITAL ROLE OF SCHOOL IN ADOLESCENT DEVELOPMENT

School provides a crucial role in adolescent development. Most people view the primary function of school as the provision of education. In our view, the most important function of school is the provision of a contained, structured environment in which children can hone and gradually improve their broadening repertoire of social skills beyond the safety of the family home.

The transition into the 'chaos' of senior or secondary school

While education structures differ from country to country, there is usually a division between junior and senior schools. In general, progression to senior school occurs around the onset of adolescence, at 11–13 years. Adolescents face significant challenges in this transition and a minority of young people struggle. In junior school the student's day is regimented. The child has the same teacher all day, typically the teacher will go through the same routine each day, and the child will sit in the same seat and will be surrounded by the same peers. Life is predictable.

This routine changes in senior school, as teenagers have to negotiate a subject timetable that varies daily. Each subject may require a move to a different classroom. They have a multitude of teachers, each of whom inevitably has a different teaching style and approach to discipline. They sit in a different location in each class and are surrounded by different peers. Learning a number of new subjects is another challenge. They move from a position of being the oldest in the school to being the 'babies' once again.

In many ways it is remarkable that the majority of teenagers meet this challenge without significant difficulty. However, a significant minority fall by the