

英文原版教材



Psychiatry

精神病学

A clinical core text
with self-assessment

EDITED BY
ELSPETH GUTHRIE
SHÔN LEWIS



北京大学医学出版社

英文影印版

精 神 病 学

Psychiatry

**A clinical core text for
integrated curricula with
self-assessment**

ELSPETH GUTHRIE

MSc MD MBChB MRCPsych
Professor of Psychological Medicine and Medical
Psychotherapy
School of Psychiatry and Behavioural Sciences
University of Manchester

SHÔN LEWIS

MD FRCPsych
Professor of Adult Psychiatry
University of Manchester

北 京 大 学 医 学 出 版 社

Peking University Medical Press

Psychiatry: A Core Text with Self – assessment, 2nd edition
Elspeth Guthrie, Shôn Lewis
ISBN: 0 – 443 – 06276 – 5
Copyright © 2002 by Elsevier. All rights reserved.

Authorized English language reprint edition published by the Proprietor.
Reprint ISBN: 981 – 4141 – 47 – X

Copyright © 2003 by Elsevier(Singapore) Pte Ltd. All rights reserved.
Elsevier(Singapore) Pte Ltd.
3 Killiney Road, # 08 – 01 Winsland House I, Singapore 239519,
Tel: (65) 6349 – 0200, Fax: (65) 6733 – 1817

Printed in China by Elsevier (Singapore) Pte Ltd. under special arrangement with Peking University Medical Press (PUMP). This edition is authorized for sale in China only, excluding Hong Kong SAR and Taiwan. Unauthorized export of this edition is a violation of the Copyright Act. Violation of this Law is subject to Civil and Criminal Penalties.

本书英文影印版由 Elsevier(Singapore) Pte Ltd. 授权北京大学医学出版社在中国大陆境内独家发行。本版仅限在中国境内(不包括香港特别行政区及台湾)出版及标价销售。未经许可之出口, 是为违反著作权法, 将受法律之制裁。

北京市版权局著作权合同登记号: 01 – 2003 – 2912

Jing Shen Bing Xue

图书在版编目(CIP)数据

精神病学 = Psychiatry / (英) 古斯里 (Guthrie, E.), (英) 刘易斯 (Lewis, S.) 主编.
– 影印本. – 北京: 北京大学医学出版社, 2003. 8
ISBN 7 – 81071 – 440 – 6

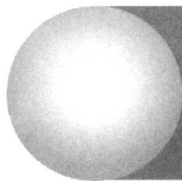
I. 精… II. ①古… ②刘… III. 精神病学 – 英文 IV. R749

中国版本图书馆 CIP 数据核字(2003)第 020282 号

北京大学医学出版社出版
(100083 北京市海淀区学院路 38 号北京大学医学部院内 电话: 010 – 82802230)
莱芜市圣龙印务书刊有限责任公司印刷 各地新华书店经销

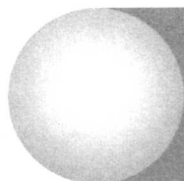
* * *

开本: 880mm × 1120mm 1/16 印张: 16.5 字数: 504 千字
2003 年 9 月第 1 版 2003 年 9 月山东第 1 次印刷 印数: 1 – 4000 册
定价: 32.00 元



Acknowledgements

We would like to thank the following: Dr Jayne Byrne, for providing the photograph of the lewy body for the chapter on Psychiatry of Older Adults and for giving helpful advice; Dr Bob Baldwin who also gave helpful advice on the same chapter; Dr Cathy Shaw for useful comments on several chapters.



Contents

Using this book	1
1. Signs and symptoms of mental illness	5
2. Psychiatric assessment	19
3. Mood disorders	47
4. Anxiety disorders	55
5. Schizophrenia	63
6. Suicide and deliberate self-harm	75
7. Eating disorders	87
8. Alcohol and drug abuse	95
9. Sexual problems	117
10. Personality disorder	129
11. Psychological aspects of physical illness	139
12. Psychiatry and medically unexplained symptoms	163
13. Psychiatry of old age	175
14. Child and adolescent psychiatry	193
15. Medico-legal issues	209
16. Psychological treatment	221
17. Physical treatments in psychiatry	235
Index	247

Using this book

Philosophy of the book

'What do I need to know about psychiatry? What are the basic skills I need to learn? How much psychiatry should a newly qualified doctor know in order to provide the best treatment and care for patients in the general hospital setting?' This book aims to help you with these and other similar questions.

In this book, essential information is presented in a concise and ordered fashion. We have focused upon areas of psychiatry that the medical student needs to know in order to qualify as a doctor, and the kind of psychiatric problems that are most common in a general hospital and primary care setting. Thus, there are two chapters devoted to psychiatric problems in the general hospital and, where relevant, many chapters have specific sections on psychiatric problems in primary care. In comparison with other psychiatric undergraduate textbooks, we have chosen not to have specific chapters on Forensic Psychiatry or Learning Disabilities, as newly qualified doctors are unlikely to require detailed knowledge of these areas, although we have included some basic information in other relevant chapters in the book. This book should provide you with sufficient information to pass finals and be of use to you in your early years as a doctor, if you do not specialise in psychiatry.

It is impossible to draw boundaries around medical knowledge and learning as this is a continuous process which should continue throughout your medical career. With this in mind, we have included web addresses of useful websites in as many topic areas as possible, that you may wish to search for more detailed information.

The aims of this introductory chapter are:

- to help plan your learning
- to show you how to use this book to increase your understanding as well as knowledge
- to help you determine the relevant skills you will need to acquire
- to realise how self-assessment can make learning easier and more enjoyable.

Layout and contents

The main part of the text describes topics considered to be of 'core' importance to the major subject areas. Within

each chapter, essential information is presented in a set order with clear learning objectives and details of what you need to know. Where relevant, key facts about psychiatry in the primary care setting are presented. It is recognised that at the level of an undergraduate or newly qualified doctor a detailed understanding is not required; instead the ability to set out principles is all that is expected.

In the final section of each chapter, there are opportunities for you to check your knowledge and understanding. This self-assessment is in the form of multiple choice questions, patient management problems and, where relevant, objective structured clinical examination (OSCE) stations. All of these are centred around common clinical problems which are important in judging your performance as a doctor. It is impossible to learn clinical skills from a book; these can only be acquired in a clinical setting or clinical skills laboratory. We have, however, provided basic guidance about important psychiatric skills, and the OSCE stations should help guide you as to the kinds of psychiatric skills that may be tested in a final examination.

Using this book

If you are using this book as part of your exam preparations, we suggest that your first task should be to map out on a sheet of paper three lists dividing the major subjects (corresponding to the chapter headings) into your strong, reasonable and weak areas. This will give you a rough outline of your revision schedule, which you must then fit in with the time available. Do not read passively. It is important to use the self-assessment questions to check your current level of knowledge and skills that you will need to work on in a clinical setting.

It is a good idea to discuss topics and problems with colleagues and friends; the areas which you understand least well will soon become apparent when you try to explain them to someone else. Many medical schools in the UK have adopted a format of problem-based learning (PBL). If you are a member of a PBL group, it is often helpful to choose a topic or area that you are least familiar with to present to the group, rather than an area you know well. You are unlikely to learn anything new if you do the latter.

Developing your skills in a clinical setting

Some students are wary of psychiatry and fearful of psychiatric patients, mistakenly thinking that psychiatric patients are dangerous. The media re-inforce this stereotype, and even within the medical profession, psychiatry and psychiatrists can be stigmatised. As the doctors of tomorrow, you are in a key position to change peoples' attitudes towards mental illness, and to foster a more informed and humane approach. One of the most important things to learn from this book is that most patients with mental health problems are not treated by psychiatrists and are never admitted to in-patient psychiatric wards. Most patients are treated either by general practitioners in the community or by physicians in the general hospital setting. Depression and anxiety are the most common kinds of psychiatric problems and, as a junior doctor, you should be familiar with detecting and treating these conditions, when they occur in patients in the general hospital or community setting.

There are many skills in psychiatry, such as carrying out a mental state examination or the assessment of a patient's cognitive state, which you can practise with patients, who are not under the care of psychiatrists, but who are being treated by their general practitioners or hospital physicians.

When you are actually attached to a psychiatric firm, it is important to see and practise interviewing as many patients as possible. It is very good experience to do psychiatry 'on-call' as you will see how patients, who are very highly aroused or acutely psychotic, can be treated and managed by skilled staff in a sympathetic and competent manner. If you shadow the psychiatry SHO on-call, you will be given ample opportunities to take histories from patients who present to the emergency department with mental health problems.

Approaching the examinations

The discipline of learning is closely linked to preparation for examinations. Many of us opt for a process of superficial learning that is directed towards retention of facts and recall under exam conditions because full understanding is often not required. It is much better if you try to acquire a deeper knowledge and understanding, combining the necessity of passing examinations with longer term needs.

First, you need to know how you will be examined. What form does the clinical examination take? Will you be examined on a long case, or OSCE-style 5-10 minute stations? If you are sitting a written examination, what are the length and types of questions? How many must you answer and how much choice will you have?

Now you have to choose what sources you are going to use for your learning and revision. Textbooks come in different forms. At one extreme, there is the large reference book. This type should be avoided at this stage of revision and only used for reference, when answers to questions cannot be found in smaller books. At the other end of the spectrum is the condensed 'lecture note' format, which often relies heavily on lists. Facts of this nature on their own are difficult to remember if they are not supported by understanding. In the middle of the range are the medium-sized textbooks. These are often of the most use whether you are approaching final university examinations or the first part of the professional examinations. The best advice is to choose one of several medium-sized books on offer on the basis of which you find the most readable. The best approach is to combine your own notes, textbooks and past examination papers as a framework for your preparation.

Armed with information about the format of the exams, a rough syllabus, your own lecture notes and some books that you feel comfortable in using, your next step is to map out the time available for preparation. Include time to practise your clinical skills, either in a clinical situation, or the skills laboratory at your hospital. Do not leave this until the last minute, as you may find it difficult to access patients or skills labs as the examination draws near. Allow time for breaks and work steadily, not cramming. If you do attempt to cram, you have to realise that only a certain amount of information can be retained in your short-term memory, so as you cram up on one subject, another that you have previously learnt, will be lost. Cramming simply retains facts. If the examination requires understanding then you will be in trouble.

It is often a good idea to begin by outlining the topics to be covered and then attempting to summarise your knowledge about each in note form. In this way your existing knowledge will be activated and any gaps will become apparent. Self-assessment also helps determine the time to be allocated to each subject or examination.

The main types of examination

Multiple choice questions

Unless very sophisticated, multiple choice questions test your recall of information. The aim is to gain the maximum marks from the knowledge that you can remember. The stem statement must be read with great care highlighting the 'little' words such as *only*, *rarely*, *usually*, *never* and *always*. Overlooking negatives, such as *not*, *unusual* and *unsuccessful* often causes marks to be lost. *May occur* has an entirely different connotation to *characteristic*. The latter may mean a feature which should be

there and the absence of which would make you question the correctness of the diagnosis.

Remember to check the marking method before starting. Most multiple choice papers employ a negative system in which marks are lost for incorrect answers. The temptation is to adopt a cautious approach, answering a relatively small number of questions. However, this can lead to problems, as we all make simple mistakes or even disagree vehemently with the answer in the computer. Caution may lead you to answer too few questions to obtain a pass after the marks have been deducted for incorrect answers.

Short notes

Short notes are not negatively marked. Predetermined marks are given for each important key fact. Nothing is gained for style or for superfluous information. The aim is to set out your knowledge in an ordered concise manner. Do not devote too much time to a single question thereby neglecting the rest, and remember to limit your answer to the question that has been set.

Essays

Similar comments apply to essays. The examiner will have a list of key facts for which he/she can award marks. A small proportion of marks can also be awarded for the style of the essay. It is important, therefore, to stick to the topic in the question and to develop a logical argument or theme. All questions should be given equal weight. A brilliant answer in one essay will not compensate for not attempting another because time runs out.

Objective structured clinical examinations

Although clinical examinations are not the main focus of this book, many examples of objective structured clinical examination (OSCE) stations have been included. By using a predetermined structured marking regime, OSCE stations help to standardise clinical examinations. Most medical schools run OSCEs which have a mixed format. Psychiatry stations may be included with other specialties, which means the candidate has to have command of a wide range of skills, and be able to switch between different subjects very easily. This mimics clinical practice, particularly in a primary care situation, but it can be quite stressful for candidates. Most OSCEs consist of a large number of stations. The higher the number of individual stations, the higher the reliability of the examination, as variance is minimised. It is very important, therefore, to perform well on as many stations as possible. A bad performance on one or two stations is unlikely to impact on your overall performance, but

candidates can sometimes become discouraged or demoralised if they feel they have done badly on a particular station. It is very important to focus only on the station you are doing, and to forget about the other stations.

OSCE stations should test clinical skills rather than knowledge. In psychiatry, the key skills for an undergraduate to learn are; to take a history (psychiatric history, alcohol history, sexual history etc); perform a mental state examination; perform a cognitive state examination; assess suicidal risk; prescribe antidepressants; explain a particular psychiatric condition to a patient; and be able to diagnose common psychiatric conditions.

The best (and only) preparation for an OSCE is to practise clinical skills. Do not think, because you have done something once or twice, that you have mastered the skill. Even with very basic skills, such as taking blood, it is very easy to differentiate students who know what to do, but have only carried out the procedure once or twice, from students who have done it many, many times. The same is true in psychiatry, and a lack of clinical experience is easily exposed in an OSCE.


Vivas

The viva examination can be a nerve-wracking experience. You are normally faced with two examiners. Your main aim during the viva should be to control the examiners' questioning so they constantly ask you about things you know. Despite what is often said, you can prepare for this kind of examination. Questions are liable to take one of a small number of forms centered around subjects that cannot be examined in a traditional clinical examination.

During a viva there are certain techniques which help in making a favourable impression. When discussing patient management, it is better to say 'I would do this' rather than 'I have read this'. Try to strike a balance between saying too little and too much. Try not to go off the topic. Aim to keep your answers short and to the point. It is worthwhile pausing for a few seconds to collect your thoughts before launching into an answer. Do not be afraid to say 'I don't know'; most examiners will want to change tack to see what you do know about.

Conclusions

You should amend the framework for using this book according to your own needs and the examinations you are facing. Whatever approach you adopt your aim should be for an understanding of the principles involved rather than rote learning of a large number of poorly connected facts.



At undergraduate level, most universities pass the vast majority of medical students. The final examinations are to test whether students are fit and safe to practise and enter the pre-registration year. Examiners are looking

for evidence of basic competence, a basic knowledge of common medical conditions and an appropriate professional attitude. Good luck.

1.1 Abnormalities of behaviour and mood	5
1.2 Abnormalities of thought and speech	7
1.3 Abnormalities of perception	9
1.4 Cognitive deficits	12
Self-assessment: questions	14
Self-assessment: answers	16

Overview

This first chapter is concerned with the major signs and symptoms of mental illness. As with other branches of medicine, a symptom is a problem of which a patient complains, whereas a sign is an abnormality that is detected by observation and examination. The two can be similar: a patient can complain of breathlessness and appear breathless. Equally, a patient can complain of hearing voices (symptom) and appear to be responding to voices by shouting at the television (sign).

The most common signs and symptoms of mental illness are discussed below. They are usually categorized according to whether they involve abnormalities of behaviour, mood, speech or thoughts, perceptions and cognitive processes. Neurological signs are sometimes a feature of certain mental illnesses and are included in this chapter, where relevant.

Learning objectives

You should:

- be able to recognize and describe abnormal behaviour and abnormal mood states associated with mental illness
- be aware of the importance of social and familial norms, when determining abnormality
- appreciate the significance of different types of mood state in relation to different forms of mental illness.

1.1 Abnormalities of behaviour and mood

Behaviour

Most psychiatric conditions involve some pervasive change in the person's normal behaviour. Different societies tolerate different kinds of behaviour, and when assessing social behaviour, it is most important to establish whether the subject's behaviour is out of keeping with his/her normal behaviour and/or out of keeping with his/her social/cultural background.

Rate of behaviour

Behaviour can be slowed down in depressive illnesses (*retardation*) or speeded up in hypomania.

Distractibility

A subject may be unable to concentrate and constantly be fidgeting or moving around the room.

Social inappropriateness

A subject may break normal social conventions (e.g. stand on a table, invade personal space).

Dress

A subject may dress in a bizarre or unusual manner (e.g. may have stripped naked or have covered himself/herself in plastic bin bags).

Sexual appropriateness

A subject may masturbate in public or behave in a sexually provocative manner.

Response to internal experiences

A subject may talk to the television or the fire hydrant because he/she is responding to delusional or hallucinatory experiences.

Spontaneous movements

A coarse *tremor* is common in anxiety. *Choreiform* movements are characterized by abrupt jerking movements, which sometimes also have a writhing quality. In Huntington's disease, the face, upper trunk and arms are most affected by coarse jerky movements. Snorting and

sniffing are often also present. A *tic* is a rapid, involuntary, recurrent, non-rhythmic motor movement (or vocalization) that is usually reminiscent of an expressive movement such as blinking, shoulder-shrugging or neck-jerking. Vocal tics include throat-clearing, barking, sniffing and hissing. Tics can be simple or complex. A *stereotypy* is a repetitive non-goal-directed action that is carried out in a uniform way. A *mannerism* is a repetitive non-goal-directed motor action such as an unusual hand movement when shaking hands or some other form of unusual greeting. *Echopraxia* is the copying of a movement performed by someone else. *Grasp reflex* is the involuntary grasping of a person's fingers or object when placed in the palm of the subject's hand. It is present in the newborn infant but is a sign of organic brain disturbance in the adult.

Unusual postures

Subjects with schizophrenia sometimes assume bizarre and unusual postures, which they maintain for hours or days at a time (*catatonia*). Patients can lie with their head a few inches off a pillow or assume the position of crucifixion. In some patients, there is a feeling of plastic resistance as their body is moved, and they can be placed in peculiar postures, which they then maintain. This is called *waxy flexibility*. Such states are relatively rare these days, owing to the development of more powerful, and effective pharmacological treatments.

Obsessional rituals

Obsessional rituals are repetitive, purposeful behaviours that subjects carry out in relation to obsessional thoughts, impulses or ruminations (see below). The behaviours are carried out to reduce anxiety, which is caused by obsessional concerns. The rituals often consist of checking, cleaning, counting or dressing behaviours.

Mood

Altered emotional states are common in psychiatric disorder. It is normal and appropriate for most people to experience a range of emotions in relation to life events, including happiness, sadness, irritability, fear, anger and anxiety. The question of abnormality of mood or affect arises when the mood state seems either extreme or prolonged.

Depression

Depression is a lowering of mood, characterized by extreme feelings of sadness, emptiness, emotional pain and isolation. The mood state is usually persistent and pervasive. It is accompanied by associated changes in

behaviour and thoughts. The individual may withdraw socially, becomes disinterested in normal activity and feels pessimistic about the future. He/she views himself/herself and others in a negative way, and in extreme states delusional beliefs may develop (see below).

Elation

Elation is an abnormal elevation of mood, characterized by feelings of great energy, happiness, excitement and power. It occurs in hypomania and drug-induced states. The subject often feels irritable and frustrated as he/she is surrounded by others who do not share his/her enthusiasm or vivacity. It is also accompanied by changes in behaviour and thoughts. The individual is very distractible, moving from one idea to another. His/her thought processes are speeded up, resulting in pressure of speech and flight of ideas (see below). Grandiose delusions can also develop (see below).

Anxiety

Anxiety is a subjective sense of internal tension, which is often associated with intrusive thoughts or worries (see below). It is accompanied by autonomic arousal, such as tachycardia, sweating, dry mouth, pale skin, etc. A *phobia* is a specific state of anxiety associated with the fear of a particular object (e.g. spider or travelling on buses).

Incongruity of mood

Sometimes a subject's mood is inappropriate to the social circumstances. This occurs in most normal people on occasions (for example one may be overcome with uncontrollable giggles at a funeral, despite frantic attempts to control oneself). In psychiatric conditions, however, there is no awareness of the inappropriateness of the mood, or any attempt to control it.

Labile affect

Lability of affect is an exaggerated emotional responsiveness most often seen in organic states. Subjects will find themselves bursting into tears when talking about relatively trivial events. They do not feel sad but cannot control their emotional responses. It is often an indication of organic brain damage.

Flattening of affect

Flattening of affect is not the same as depression, which is a lowering of affect. Flattening of affect is a blunting of emotional responsiveness so that individuals cannot experience normal variations in mood. They appear rather fatuous or unconcerned. Blunting of affect occurs in chronic schizophrenia and certain organic states, particularly frontal lobe problems.

1.2 Abnormalities of thought and speech

Learning objectives

You should:

- be able to recognize and identify major abnormalities in speech and thought associated with mental illness
- be able to identify thought processes characterized by flight of ideas and loosening of associations
- know which abnormalities of thought are associated with schizophrenia
- understand the difference between obsessional ideas and delusions.

Disorders of speech and thought can be classified according to problems with the stream, form and type of belief or speech content. Often disorders of speech reflect problems that the patient has with thinking. The two, however, are not always synonymous, and disorders of speech and thought are usually assessed separately.

Stream

Speech or thought can be speeded up in drug-induced states or mania, and slowed down in depression. In severe depression, speech can become retarded or completely stop. *Circumstantiality* is characterized by the inclusion of trivial and unnecessary details in speech, which create confusion or boredom in the listener. The speech, however, is goal directed (i.e. the person eventually gets to the point) and normal in its grammatical form.

Form

The order of thought can be disrupted in a variety of ways. *Perseveration* is the repetition of the same sequence of thought, shown by either the repetition of words or phrases, or the repetition of some specific behaviour. If the subject is asked a question, the last few words of the question may be repeated over and over again. Perseveration is common in organic states, particularly generalized brain disorders. *Verbal stereotypies* are repetitive words or phrases, often shouted by the subject, which have no specific relevance to the current situation. *Flight of ideas* is a disorder of the form of thought that often coincides with an increase in the speed of thoughts (pressure of speech) and is most common in mania (Box 1). Ideas follow each other rapidly and the

Box 1

Example of flight of ideas

I love you my darling, you are beautiful, you are the one, you are the one, the red light is on, so I'll carry on!
I love you you are beautiful you are the sun
let's have fun . . . fantastic plastic drastic . . . fun
in the sun umh yum yum hee hee I
love you

subject shifts from one topic to another. Changes of thought can be triggered by rhyme (*clang association*) or assonance or alliteration. Equally new thoughts can be triggered by external experiences as the subject's attention drifts from one topic to another, but usually there is some connection between them. It is very difficult to interrupt the subject or to interject into the conversation, which is usually completely one-sided.

Loosening of associations is characterized by a problem with the logical order of thought. The continuity of the subject's speech is disrupted and incoherent. No logic in the order of speech can be discerned, unlike in flight of ideas. This kind of speech pattern occurs most often in schizophrenia. In a mild form, it is very difficult to detect reliably, but the interviewer is left with a profound sense of confusion and unease. What the subject says does not quite make sense, but specific abnormalities are difficult to identify. In a more severe form, the patient's conversation is unconnected and impossible to follow (Box 2). It may be filled with *neologisms* (made-up words) or peculiar phrases.

Type of belief

There are three main particular types of abnormal belief that occur in psychiatric disorders. They are worry, obsessional thoughts and delusions.

Worry

Worry is a normal human experience and is a predominantly verbal, conceptual activity aimed at problem solving. It is concerned with future events where there is uncertainty of outcome and usually occurs as a chain of thoughts that have a negative affective content. Worries tend to be realistic, are hard to dismiss, are distracting and are associated with a compulsion to act upon them. Normal worry may, therefore, provide an important func-

Box 2

Example of loosening of associations

Interviewer What have you been doing today?
Patient It's a botty stop I'm going to stick up my botty with a total botty fart form of man fart.

tion in motivating people to solve dilemmas or problems. Excessive worry or problematic worrying, however, becomes disabling and counter-productive. Problematic worries, in comparison with normal worries, are more intense and uncontrollable. They are more likely to concern ideas about illness, health or injury, and such concerns result in distress and dysfunction.

Obsessional thoughts

Obsessional thoughts have been described as intrusive thoughts that the subject actively resists but cannot get rid of, although he/she realizes they are senseless, stupid or unnecessarily unpleasant. Most ordinary people have experienced some form of obsessional phenomena, the most common form being an unwanted tune that one tries to forget but keeps coming into one's mind over and over again. *Obsessional ruminations* are complex sequences of thoughts or ideas with the same qualities (Box 3). Unlike worries, the subject recognizes that the thoughts or concerns are unrealistic and actively tries to push them from his/her mind. The content is usually distressing, and common concerns include thoughts about disease or contamination, sex, religion and aggression.

Delusions

A delusion is a false belief that the subject holds with total conviction and that is out of keeping with his/her social, educational and cultural background. Delusions used to be regarded as being unshakeable and unamenable to rational argument. New psychological treatments have recently been developed which suggest that delusional beliefs, in certain patients, can be modified by intense, structured psychological techniques. However, for the purposes of diagnosis, delusions are generally resistant to most attempts to challenge them. Delusions are usually false and of a rather fantastic nature. They do not, however, have to be false, rather the reasoning behind the development of the belief has to

be false. As an example, a man believed his wife was having several affairs with other men, because he could hear the men hiding in the roof space of the house. He believed the men must be midgets, as the roof space was very small. This man's wife was not being unfaithful to him, but even if she had been, the beliefs he held would still be delusional because their basis was without rational foundation. They developed from auditory hallucinations, which were secondary to the man's alcoholism. Delusions can comprise single beliefs or complex belief systems in which many people and organizations are involved.

Primary delusions Primary delusions occur independent of any other psychiatric phenomena, when the subject develops a sudden new (often bizarre) meaning. There are two kinds of primary delusional experience: *delusional perception* and an *autochthonous delusion*. A delusional perception is a misinterpretation of a normal perceptual experience that suddenly develops special significance for the subject. For example, a subject may see a red sailing boat on the water and suddenly realize that this means that his wife is the devil's child and is going to kill him. An autochthonous delusion is one that arises 'out of the blue' without any cue or specific trigger. Primary delusions occur most commonly in schizophrenia. Sometimes they will be preceded by a change in the subject's mood, which is not consistent with an affective disorder. The subject may feel strange and perplexed and have a sense of dread or foreboding that something awful is about to happen. Out of this strange feeling, which is termed a *delusional mood*, the delusion then emerges. For example, a woman began to feel very uneasy and strange. She began to feel that the air was different and alive with electricity. When she went outside, everything seemed strange. She began to feel very frightened. She then realized that her neighbour had been killed and eaten by reptiles, and had been replaced by them. They were building a machine to kill everyone on the estate where she lived. They were going to take her over and make her work for them as a slave.

Secondary delusions Secondary delusions occur as a consequence of some other psychiatric phenomena, usually an abnormal mood (either severe depressive disorder or hypomania) or hallucinations. Secondary delusions that arise from the subject's abnormal mood state are usually *mood congruent* (i.e. in keeping with the mood state). Patients with very severe depressive disorders can develop *delusions of guilt* or worthlessness, poverty, disease (*hypochondriacal delusions*) or nihilism (extreme beliefs re the destruction of the world or the imminent death of the subject). They do not develop delusions about being the richest person in the world, the most sexually attractive person in the world or being able to fly. Those kinds of belief, which are called grandiose delusions, occur secondary

Box 3

Example of obsessional ruminations and rituals

A 37-year-old woman developed the idea that she had been irradiated following the Chernobyl disaster. She recognized that the risk was in reality very small, but she could not stop thinking about it. She worried about going out as she thought the levels of irradiation would be higher outside. She also began to think that she would receive more radiation when she walked under door frames. To protect herself from this, every time she walked through a doorway, she tapped her head three times and turned round. She realized this was silly but could not stop herself from doing it and became extremely anxious if she did not do it.

to an elevated mood state. *Delusions of reference* are most common in schizophrenia and are beliefs that people, authority figures or organizations have special significance for the subject. The subject may believe that the television is referring to her or that the prime minister or the Queen is referring to her. They often arise secondary to auditory hallucinations. *Persecutory delusions* also occur commonly in schizophrenia and involve ideas that the subject is in danger from others who are trying to follow or harm him/her.

Delusions concerning the control of thoughts. Certain patients develop specific abnormal ideas about the control of their thoughts. They may believe that thoughts are being placed in their mind which are not their own (*thought insertion*), or that thoughts are being taken out of their mind (*thought withdrawal*). They can also believe that their thoughts are not private and that others know what they are thinking (*thought broadcasting*). Usually, the subject tries to make sense of these experiences by elaborating some causal explanation, often involving telepathy, a machine that controls their mind, or satellite broadcasting. These beliefs are most common in schizophrenia.

Delusions concerning the control of the body. These ideas are sometimes called *passivity experiences* as the subject can feel like a passive creature being manipulated by some outside force or power. The subject feels controlled by an external agency, which makes him/her have certain thoughts or impulses or perform certain actions. For

example, a man believed that he had been kidnapped, while in Ireland, by students (persecutory delusion) who had cut out his heart and replaced it with a transmitter. He now felt he was being controlled by the National Computing Centre, which was sending signals to the machine in his chest, making him walk with his left arm behind his head (passivity experience). These beliefs are characteristic of schizophrenia. Table 1 summarizes the key questions that should be addressed in relation to the assessment of a patient's delusional experience. Overvalued ideas are abnormal beliefs which are not held with the conviction of a delusion. Ideas of reference are a common example, where the person has the impression that the television is referring to him, but is not wholly convinced.

1.3 Abnormalities of perception

Learning objectives

You should:

- be able to recognize and identify abnormalities of perception associated with mental illness
- be able to differentiate an illusion from a hallucination.

Table 1 Key aspects of delusional experience that should be assessed

Dimensions of delusional experience	Methods of assessment
Primacy of the belief	<ol style="list-style-type: none"> 1. How did the belief arise? 2. Is the belief secondary to or consistent with the subject's mood? 3. Is the subject experiencing any other abnormal phenomena. If so, could the belief be secondary to these phenomena?
Conviction of the belief	<ol style="list-style-type: none"> 1. How strongly does the patient believe the delusion? 2. Has the patient acted on his/her beliefs (i.e. if he believes he is going to be boiled alive by his neighbours, has he tried to run away)? 3. How does the patient explain why his/her family or close others do not share his/her belief? 4. How convinced does the patient remain of his belief even when presented with evidence to the contrary?
Organization of the belief	<ol style="list-style-type: none"> 1. How detailed is the belief? 2. How many false beliefs does the patient have? 3. Are they connected?
Bizarreness of the belief	<ol style="list-style-type: none"> 1. How implausible is the belief? 2. How understandable is the belief? 3. Does it derive from ordinary life experience?
Extension	<ol style="list-style-type: none"> 1. How many people does the belief involve? 2. Did the belief start in relation to one organization or person and then develop on to involve others?
Special characteristics	<ol style="list-style-type: none"> 1. Does the belief involve ideas about control of thoughts? 2. Does the belief involve ideas about the control of the body?
Dangerousness of the belief	<ol style="list-style-type: none"> 1. How dangerous is the belief? 2. Is the patient at risk of harm to himself/herself or others on account of the belief?

Altered perception can occur in any of the sensory modalities. There are a wide range of different experiences that have been described. Table 1.2 lists the most common signs and symptoms associated with different psychiatric disorders.

Changes in intensity

Colours can seem brighter than usual in drug-induced states. Ordinary noises can take on the quality of piercing and shattering sounds in anxiety disorders or post-traumatic states. Perceptions can have a diminution of intensity; for example, pain or sensation can be reduced in hysteria or neurological disorders.

Changes in quality

A normal wind can be experienced as a storm in delirium or prior to an epileptic fit. Visual images can become imbued with rich combinations of unnatural colour in drug-induced states (e.g. mescaline).

Abnormal characteristics

Sometimes objects can appear normal in intensity or quality but perception can be imbued with an emotional quality that alters perceptual experience. In *derealization*, individuals feel cut off and alienated from the perceptual world. Objects appear distant or strange. In *depersonalization*, the individual himself/herself feels odd or unusual, detached and distant from the world. Both states can occur in many different psychiatric conditions, including drug-induced states, anxiety disorders, temporal lobe epilepsy and schizophrenia.

Illusions

Illusions are transpositions or distortions of real perceptions. They arise, therefore, from real experience. A patient who talks to his drip stand as if it is a policeman is having an illusory experience. Illusions can occur in most psychiatric conditions and are also commonly experienced by ordinary people at some time in their lives. Illusions are more likely to occur if sensation is impaired in some way (e.g. visibility is reduced because it is dark), the conscious level is reduced (e.g. delirium), one is inattentive or there is a heightened sense of emotional arousal. *Pareidolia* is the term used to describe a particular kind of illusory experience characterized by seeing a multitude of vivid faces, creatures or other forms. These usually arise from a background source that has irregular outlines or markings, such as the sky, a fire or a wall.

Hallucinations

Hallucinations are false perceptions that are not distortions of real perceptions but arise *de novo* and occur simultaneously with and alongside real perceptions, in external space. Hallucinations can occur in any modality but the most common are auditory and visual hallucinations. Hallucinations have the quality of a real perception and hence subjects react to them as if they are real. It is very unusual, however, to experience hallucinations in different modalities, related to the same experience, at the same time. An individual may hear a dog barking or see a dog sitting in front of him/her. It is very unusual for an individual to see the dog and hear it barking at the same time.

Auditory hallucinations

Auditory hallucinations can consist of strange noises, tunes, whistling, gun shots, sounds of machines, animal noises and human voices. All are perceived and experienced as real. Voices can be experienced as either talking to the person (second person; Box 4) or talking about him/her (third person; Box 5). Individuals can also hear their own thoughts spoken aloud (*echo de la pensée*; thought sonorization) or a running commentary on their actions. Third person auditory hallucinations, hearing one's own thoughts aloud or a running commentary occur particularly in schizophrenia.

Visual hallucinations

Visual hallucinations can be simple, such as a flash of light, or complex, such as an image of an animal or person. They can occur in many different kinds of mental disorder but are particularly associated with organic states and drug-induced conditions.

Tactile hallucinations

Tactile hallucinations are relatively uncommon. Individuals can experience light sensations, or prickles

Box 4

Example of second person auditory hallucinations

'Lie down now', 'sit down you stupid bastard' 'you're disgusting' 'you should be shot' 'you're an animal and you should be shot like an animal'

Box 5

Example of third person auditory hallucinations

'do you know him?' 'he's really crazy, he sleeps with dogs' 'yes, I can smell him . . . you can smell he's been with dogs, he even looks like a dog' 'he can't hide . . . he's trying to hide . . . 'he can't escape what he's done . . . we all know what he's done . . . 'he's crazy' 'he's a mad dog . . . mad dog . . . filthy mad dog'

Table 2 Major signs and symptoms associated with different forms of mental illness

	Schizophrenia	Severe depressive disorders	Hypomania and mania	Delirium
Behaviour	Bizarre behaviour May avoid eye contact or make intense eye contact Responses to hallucinations Poor self care Parkinsonism (drug side-effects) Incongruous; can also be fearful, elated or low	Retarded Socially withdrawn Avoidance of eye contact Decreased facial expressions	Distractible, socially disinhibited Abnormal liveliness of movement, singing Inappropriate sexual behaviour	Agitation Distractible Confused Fluctuating level of consciousness Drowsy Fearful
Affect		Low	Elation, irritability	
Speech and thoughts	Loosening of associations Persecutory delusions Ideas of reference Delusions of thought control Delusions of body control Poverty of thought	Slow speech Suicidal ideation Hopelessness Delusions of poverty, hypochondriacal delusions, nihilistic delusions	Pressure Flight of ideas Grandiose delusions	Slurred or rambling Incoherent speech Persecutory delusions
Perception	Second person auditory hallucinations Third person auditory hallucinations, running commentary	Second person auditory hallucinations	Second person auditory hallucinations	Second person auditory hallucinations Visual hallucinations Illusions

on their skin, electrical or sexual sensations. In certain organic states, individuals can have a very unpleasant experience of insects or small creatures crawling under the skin: so-called *formication*.

Hallucinations of taste and smell

Hallucinations of either smell or taste are also uncommon in psychiatric disorders, although strange smells are often experienced in the prodromal phase of temporal lobe epilepsy.

Pseudo-hallucinations

Many patients describe unusual or abnormal perceptual experiences that do not have the quality of either an illusory or hallucinatory experience. Images may be seen, or voices heard 'in the mind' as opposed to being experienced in external space. Such phenomena are termed pseudo-hallucinations, and they usually lack the clarity of a true hallucination. They can occur in most psychiatric disorders including anxiety states and personality disorders, as well as in schizophrenia.

Hypnagogic and hypnopompic hallucinations

Hypnagogic and hypnopompic hallucinations are special types of hallucination that occur in relation to sleep. Hypnagogic hallucinations occur when people are falling asleep and hypnopompic when people are waking from sleep. They are different from dream states in that the individual does not feel a sense of participation as he/she does in a dream. The most common form is auditory.

Autoscopic hallucinations

Autoscopic hallucinations are an unusual and distressing experience where the individual sees himself or herself, i.e. sees his/her double. This can occur in normal subjects if they are very tired or in an emotionally charged state; however, it is most commonly associated with organic states, particularly disorders of the parietal lobe. *Negative autoscopia* is the experience of looking in the mirror and not being able to see one's image.

1.4 Cognitive deficits

Learning objectives

You should:

- understand the normal processes involved in memory
- understand the nature of basic cognitive processes and the regions they relate to in the brain
- be able to assess immediate short- and long-term memory

- be able to assess orientation
- be able to recognize dyspraxias and dysphasias

The process of laying down normal memory can be divided into three components. First, an event has to be noted (*registration*); second, it is held in short-term (*working*) memory; third, it is stored in long-term memory. *Encoding* is the process by which information is transformed into a stored, mental representation. *Retrieval* is the process of bringing the stored memory back into consciousness.

Recent theories suggest that, for long-term storage, memory is encoded as a combination of descriptions which vary in the level of detail they contain. If something interesting or distinctive happens, an event will be tagged with a specific descriptor. The ease with which events are remembered depends partly upon how many distinctive cues were encoded when the episode occurred. Retrieval is characterized as a process in which some information about a target memory is used to construct a description of the memory and this description is used in attempts to recover fragments of information. Experiences are retrieved by accessing the knowledge structure used to encode the event.

Memory retrieval is also affected by mood. Depressed patients find it more difficult to recall positive memories in relation to cues than non-depressed subjects.

Short-term memory

Short-term or working memory is memory over seconds and minutes. It has a limited capacity which is surprisingly constant. Healthy people can retain about 7 items in short-term memory. These items will drop out of short-term memory unless *rehearsal* takes place. Key areas of the brain involved in short-term memory are the frontal cortex and the medial temporal cortex including hippocampus. Lesions to these areas frequently result in memory deficits. Verbal short-term memory, such as memory for words and phrases, is performed in the left hemisphere. Non-verbal memory, such as memory for designs, is performed in the right hemisphere.

Long-term memory

One of the most important aspects of memory is *autobiographical* or *episodic* memory. This consists of remembered events that are of personal significance. These events are the building blocks from which an individual's identity is constructed. Autobiographical memory has an important role in the creation and maintenance of a self-history and self-concept. People's memories of their own personal history are organized in terms of lifetime periods (e.g. schooldays, time at college), so-called extended-event time lines. Certain groups of patients