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Mental Health and Mental Illness in Paramedic Practice

LOUISE ROBERTS
& DAVID HAINS

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About the Editors

Dr Louise Roberts's main interest and principal research expertise is in the out-of-hospital management of mental health presentations. Her PhD explored how paramedics identify, assess and manage psychiatric presentations in the community. Dr Louise Roberts has led and contributed to narrative literature reviews into the management of low-acuity presentations in the pre-hospital setting for the Victorian Ambulance Service. She has collaborated on national research into men's lived experience with mental health and paramedics' understanding of mental health and AOD presentations (Beyond Blue and Turning Point Drug and Alcohol Centre). She has also conducted research into state and territory Mental Health Acts and how paramedics are represented in those Acts, and how this has informed the development of clinical practice guidelines. Recently, she has contributed to research into PTSD and its effects on partners of veterans and emergency first-responders, and current research addresses the physical, psychological, psychobiological and psychosocial health of operational ambulance staff. She has been lecturing in mental health since 2007, and paramedic science since 2012. She has also published and presented in this area.

David Hains is a registered nurse with almost 20 years' experience working as a mental health nurse consultant in emergency departments in Adelaide. David is also an adjunct lecturer at Flinders University, and has several years' experience teaching nursing and paramedic students in mental health subjects, as well as working as an academic at Toi Ohomai Institute of Technology in New Zealand. His interests include single session therapy, not just as a 'therapist' but also as a clinician, i.e. how to make every interaction a therapeutic one; for example, turning an assessment into therapy/treatment. David is the current President of the Australasian Solution Focused Association, the Chairperson of the International Management Group for the *Journal of Solution Focused Practices* (JSFP), and has an *ex-officio* place on the JSFP Editorial Board. Since 2016 he has run a small business Left Turn Solutions, which conducts training in solution-focused brief therapy.

Preface

> 'The way you've been brought up to think about mental illness has a huge impact on how you deal with somebody, with a patient with mental illness. Some people don't understand how somebody can have a mental illness, you know you get people that have a "just get over yourself" kind of attitude because they have never been exposed to it in their personal life so they physically don't understand it, whereas some people they may have seen it in someone close to them or experienced it themselves and so they have a better understanding of it, but I don't think that is something you have to have had to be empathetic and to understand.'
>
> **Dr Louise Roberts 'Ethnography in the pre-hospital field: An exploration of the culture of how paramedics identify, assess and manage psychiatric presentations in the community' (doctoral thesis, 2013)**

When discussing the approach in attending to people with challenges to their mental health, paramedics have told us that 'we tend to deal with what is going to kill you now and not what's going to kill you later'. These stories from paramedics, and listening to those with lived experience of mental ill-health are why we wanted to collaborate with experts in the field to provide a text that is specific to paramedic practice. Hopefully, this book will assist students to develop a strong foundation that will help them understand that being human and communicating in a genuine, empathetic and authentic way will connect you with another human in distress and provide the beginnings of a strong therapeutic relationship. Paramedicine is one of the few health professions that see and care for people in their home environment, usually when they are at their most vulnerable. How you act and respond will influence both patient outcomes and further help seeking by the individual. Just like when you are dealing with a cardiac patient or a trauma, the assessment, treatment and actions of a frontline health professional can make a huge difference to the individual's experience and can be the difference between positive or negative patient outcomes in both the short and the long term. You can definitely be saving a life even though it might not seem so at the time!

The objective of any healthcare provision is to be person-centred, and to endeavour to provide compassionate and timely care. This can be especially difficult in the pre-hospital environment where paramedics are confronted with physical environments that are varied and potentially difficult to navigate, scenes that can be confronting and overwhelming, potential high-level risks to all involved, and behaviour and emotions that can be hard to understand, all of which can generate a wide range of personal emotions and responses. This text hopefully provides knowledge combined with realistic and relevant case studies and strategies to assist paramedics and those working in the pre-hospital environment to be able to recognise, assess and provide high-quality initial care and support.

The hope we all have is to decrease the stigma and discrimination experienced by those with lived experience of mental ill-health, to provide access to care, and be an advocate and facilitator for recovery. Paramedics are, and will continue to be, an essential part of care provision within the mental health system, and deserve to be recognised and supported in this role.

HOW TO USE THIS BOOK

One of the fascinating things about studying mental health is that 'mental health' means different things to different people. As with clinical practice, no two people or situations or scenarios will be the same. Therefore, the way to use this book will require a different approach for different people. The terms 'mental health' and 'mental illness' have a social, cultural and individual context; in other words, the way we exist in the world can influence how we see ourselves as thinking, feeling and interacting human beings.

Within this book you will find things that amaze you, things that fascinate you, things that challenge you, things that disturb you and things that reassure you. There will also be things that you might agree with, and things that you disagree with. For us, that is part of the reason why we enjoy working in this field. It is amazingly challenging and can be amazingly rewarding. You could be in the emergency department, in the back of an ambulance, on the side of the road, or in a house; people will let us into their world, share with us their deepest secrets, and trust us with some of the most intimate things. But by listening, using our whole person and presence, just being there, we are in the right place at the right time. We are only ever one sentence away from starting the healing process.

WHERE DO YOU START?

In business, there are two key things you need to know in order to be successful; the first thing is to know who your customer is, and the second thing is to know what your customer wants. As a clinician, mental healthcare is no different. You can loosely define this as 'person-centred care' – finding out who the person is, and knowing what they want.

The key to this book, and to good clinical practice, lies in Chapters 2 and 3. The rest of the book is predominantly a reference guide. In Chapter 2 we start by learning about the person, not the illness. Chapter 2 is the lens through which we can look at the rest of our book and at our clinical practice. We can learn a lot through the study of history, society and culture, and it is easy to see how this can influence us in our clinical work, but ultimately it is our relationship with our customer; our human presence, our care and our conversation that will provide us with the story.

So, if Chapter 2 is the lens we look through (with our eyes), then Chapter 3 is what we do with our ears, mouth and body – the conversation and language. We

develop our relationship through our words, actions and body language. Central to this, however, is our ability to listen, which could be described as 'listening therapy'. We listen not only with our ears, but with our attention, our body, our focus. We attune our senses to what is happening around us, and we focus our attention on finding out what is important for our customer. The focus on 'active listening', 'being present' and the individual's narrative (the story-making and meaning for those we care for) is reinforced by the use of case studies which have questions that encourage reflection on both clinical management and personal, cognitive and emotional responses to the case circumstances. The aim is to encourage both personal and professional reflection and a critical view of how we see those we care for, and how we act and respond, and why.

Chapter 5, Assessment, is where we start to put it all together. 'Assessment' is multifactorial; it is where we start to pull together the person's narrative along with that of others involved (family, carers, other professionals, etc.), as well as our clinical knowledge and understanding. However, one of the key issues or challenges for the clinician is to not lose sight of the person once we start looking through a medical lens. Most emergency-type assessments (e.g. medical, trauma) focus on the presenting or primary problem, and a mental health assessment from a traditional medical model would be the same, with a focus on the problem/deficit/symptom. However, a comprehensive mental health assessment incorporates things that are not actually a problem, such as an examination of a person's strengths, supports, resources and hopes.

Other factors involved in assessment and clinical practice include scene awareness, trauma-informed care, risks, vicarious trauma and challenging behaviours. Information relating to these are found in Chapters 4, 11, 12 and 15. Then of course there are the legal and ethical risks, challenges, restraints and liberties which are covered in Chapter 6, noting of course the complexities of living in a country with multiple jurisdictions.

The remainder of the book is primarily a reference of the various disorders and treatments. However, while we acknowledge that the medical system we work in requires most call-outs and emergency department presentations being summarised by a diagnosis, a diagnosis is predominantly a classification or administrative function. Subsequently, we run the risk of putting a person into a category, often a one-size-fits-all category when we revert to the medical model approach of problem/deficit/symptom focus seen through a medical lens rather than a person-centred one.

We should never lose sight of the individual.

We hope you enjoy this book, the first book written specifically for Australasian paramedics covering the topic of mental health and mental illness. We hope you see why we enjoy working in the area of mental health. While this can be the most challenging work, it can also be the most rewarding. As clinicians we may see good people at their worst, but we should always remember that we are potentially just a few words away from starting the healing process.

Foreword

Mental Health and Mental Illness in Paramedic Practice makes an essential contribution to paramedic education and will help equip future paramedics with the skills and knowledge to provide effective person-centred mental healthcare in the critical role they play. I believe that *Mental Health and Mental Illness in Paramedic Practice* will be a valuable asset that builds on the tool kit paramedics use every day in practice.

Mental illness and mental health mean different things to different people. For some, mental illness is perceived with much stigma, fear and discrimination. For a person experiencing symptoms for the first time, this can be a time of great anxiety with many unanswered questions about their experience. One in two people will either experience mental health issues or care for someone with mental health issues in a lifetime. One in five people each year is diagnosed with a mental health condition. People are also more likely to have their first experience in the key developmental years of the late teens and early adulthood, often leading to questions about their identity and what this will mean for their life. Many people who experience mental health issues are unlikely to need acute inpatient-based care. Many will never experience hospital treatment; however, hospital-based care may be needed for a smaller proportion and may be lifesaving.

Paramedics provide the vital role of first-responders in the health system, and each day their work saves many lives and ensures people get the urgent medical care they need. Almost every paramedic call-out will have a component of mental health support; this may be supporting a patient or family member who is rightly scared in a life-or-death situation, someone experiencing anxiety about their health condition, supporting a person with a chronic illness who is depressed due to multiple frequent hospital admissions, or supporting a person with a mental health condition. Knowledge of signs and symptoms and effective early intervention for people experiencing mental health issues is critical and can significantly improve their experience and outcome. Empathic person-centred care is crucial at this vital time in a person's life, with this first experience potentially shaping their engagement in treatment and future help seeking. A mental health call-out can be very different to other health call-outs. This can be a terrifying time for the person, with feelings of fear and uncertainty about seeking help, and they may not wish to go to a hospital. The call-out may involve other parties, such as bystanders, distressed family members and, potentially, the police. This can make the experience even more anxiety-provoking, as the person may feel they are being threatened or punished and not actually being helped. As a new paramedic, you may also notice systemic stigma towards mental health call-outs. For all of these reasons, knowledge of mental health, mental illness and how paramedics can support people is vital to paramedic care.

I still vividly remember the support provided to me by paramedics when I was last hospitalised for mental illness. This was 17 years ago, and the care I experienced,

I believe, was a critical factor in my mental health recovery. Like many others with mental health conditions this was not my first admission, and, as is common, I have had my share of poor experiences in the mental health system. I still remember how scared I was when the ambulance and police arrived. At the time I was struggling with severe depression and anxiety, and had experienced multiple suicide attempts. If I had not got the help I needed, I would not be here writing this foreword today. What changed that time started with paramedic care. I still remember the calming voice, the compassion shown, and the words used that made all the difference.

> *'I know you are sacred, and life is really tough right now, but we want to help, and we really think you need some help. Can you at least trust us and let us help you?'*

For me, these simple words and the empathic person-centred care I received were truly lifesaving. This paramedic support, along with others, made a difference in my life that many will never know and cannot be expressed in words. It led me to the support I needed, challenged my negative views of the mental health system, helped break the self-stigma I was experiencing and led me to a career in mental health. My lived experience of being shown care and compassion inspired me to want to learn how I could help other people and strive each day to make a difference in a person's life in the way that those paramedics did for me that day.

I hope in reading this, each person sees how vital mental healthcare is in the role of paramedics, and that you treat each person as an individual by providing compassionate, empathic person-centred care. Building a therapeutic relationship starts with your first words. Although your time with the person may only be a single brief support interaction, the respect, dignity and compassion you show will always be remembered.

> *'People will forget what you said, people will forget what you did, but people will never forget how you made them feel.'*
>
> **Maya Angelou**

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CHAPTER

Physical health and mental health

7

David Lawrence

LEARNING OUTCOMES

After reading this chapter, you should be able to:

- understand the relationship between physical health and mental wellbeing
- understand the impact that mental health issues can have on seeking help and interactions with health professionals and the health system
- become familiar with the challenges facing people presenting with multiple comorbid health conditions including mental health issues.

INTRODUCTION

Mental disorders are among the most common, persistent and disabling chronic health conditions in developed countries (Whiteford et al., 2013). As well as suffering the direct symptoms of their mental illness, people with mental illness have substantially poorer physical health than the rest of the community. People with mental illness have substantially reduced life expectancy, and higher rates of most common health conditions, including cardiovascular diseases, respiratory diseases and metabolic conditions such as diabetes and obesity. However, they are less likely to receive appropriate healthcare for these conditions.

Life expectancy of people with persistent mental illness is substantially reduced by 12–16 years, and up to 25 years for some specific mental illnesses (Chang et al., 2011; Lawrence et al., 2013). While this life expectancy gap is greatest for people with schizophrenia and other psychoses, substantial gaps also exist for people with depression and anxiety disorders (Erlangsen et al., 2017; Lawrence et al., 2013). When considered in the context that the gap in life expectancy between Aboriginal and Torres Strait Islander Australians and other Australians is approximately 10 years, and considering the high proportion of Australians who have a mental illness, this represents a substantial gap and should be a major health priority. That such a high degree of health burden does not attract wider attention is perhaps a measure of the stigma that mental illness still carries today.

There are many types of mental illness, just as there are many types of physical illness. Recognising the type of disorder, the nature and persistence of the

symptoms, and the degree of functional impairment are important factors. People with persistent disorders with severe functional impairment have the highest rates of comorbid physical health conditions and the poorest outcomes.

The majority of excess deaths or premature deaths among people with mental illness is due to physical health conditions, with cardiovascular disease, respiratory diseases and cancers being the major causes of excess death. Many of these deaths are preventable with appropriate primary prevention, screening, intervention and treatment. People with mental illness who have a physical health condition are less likely to have it detected, more likely to have it detected at a later stage, and less likely to receive standard interventions. For most interventions there is no evidence to suggest they are any less effective for people with mental illness, and these inequalities in healthcare are linked to systemic issues associated with stigma, the way health services are organised, and the impact that mental illness has on patients' abilities to seek and manage their own healthcare needs.

With increasingly specialised medical care, greater effort is required to coordinate and deliver holistic healthcare for people with multiple health conditions or issues. It is human nature to try to simplify complex problems, and there is a natural tendency to identify the most pressing issue and resolve it first. While this may be the most urgent concern, it may not be the most important concern in the longer term. Failure to deliver holistic healthcare when patients interact with the health system can result in delays in diagnosing and appropriately treating chronic conditions that ultimately impact on quality of life and life expectancy.

Multiple factors contribute to the high rate of physical health conditions in people who have mental illness. These include the side effects of medications, risk behaviours including smoking, alcohol and drug use, diet and exercise, levels of family and social support, cognitive impairments and communications impairments that are often associated with symptoms of mental illness, stigma in the healthcare system, and in general a lack of coordinated care for more complex cases with multiple comorbid conditions (De Hert, Cohen et al., 2013; Rethink Mental Illness, 2013).

Traditionally, the primary role of paramedics has been seen as responding to medical- and trauma-related emergencies. There is increasing recognition that chronic health conditions, both physical and mental, represent a significant part of paramedic case load (Eastwood et al., 2018; McKetin et al., 2018). Moreover, the care of people with mental illness who have comorbid physical health conditions is as important in emergency care as in other healthcare settings because:

- people with mental illness are over-represented in emergency care settings and are less likely to receive primary care – paramedics may be the first, and, in some instances, the only health professionals to provide healthcare to some individuals
- in cases of medical or psychiatric emergency, responding to the immediate presenting issue may be the most urgent priority; however, failure to detect and respond to the underlying chronic physical and mental health issues a patient faces may result in repeat emergency call-outs

- while transporting a patient, paramedics may have time to take a more comprehensive history of the patient and screen for chronic physical conditions that subsequent treating practitioners may not have time to undertake
- being able to recognise, assess and manage all common aspects of mental illness in everyday practice is important to improve the quality of care provided to people with mental illness (Shaban, 2006).

The Australian National Mental Health Commission has produced the Equally Well consensus statement on improving the physical health and wellbeing of people living with mental illness in Australia (National Mental Health Commission, 2016). The consensus statement outlines six essential elements:

1. *A holistic, person-centred approach to physical and mental health and wellbeing*
2. *Effective promotion, prevention and early intervention*
3. *Equity of access to all services*
4. *Improving quality of health care*
5. *Care coordination and regional integration across health, mental health and other services and sectors which enable a contributing life*
6. *Monitoring of progress towards improved physical health and wellbeing.*

Each of these elements is relevant to the paramedic context. To improve the physical health of people with mental illness, it has been recommended that all health professionals are educated in the issues affecting the poor physical health of people with mental illness (Van Hasselt et al., 2015).

Australian governments have committed to implementing the principles of Equally Well through the fifth National Mental Health and Suicide Prevention Plan, which has identified a priority area of 'Improving the physical health of people living with mental illness and reducing early mortality' (Council of Australian Governments, 2017).

CASE STUDY

Anthony

You have been dispatched to a residential care facility for a 38-year-old male with behavioural disturbance. The facility's manager has called the ambulance service. Upon your arrival, the manager takes you to the rear courtyard where Anthony is pacing. You see some upended (but not broken) garden furniture and pot plants. The manager informs you that Anthony has never been violent, but she has never seen him this agitated before. Furthermore, Anthony has always been polite and takes direction from staff, but she had been unable to get him inside after almost three hours of pacing.

Anthony has a diagnosis of schizophrenia. You have been provided with a packet of medication which is prescribed by a GP (olanzapine 10 mg). The manager gives Anthony his medication each evening and she had thought he was taking it; however, the manager hands you two tablets which the cleaner found in his bedroom that morning.

Anthony continues to pace around the garden. He does not appear to be distressed by your presence, but he does not respond to your questions and he initially refuses to sit for you to take a set of observations. He appears dishevelled, wearing dirty old clothes – you are told that this is

normal for him. His hair is shoulder length and uncombed, he has a long full-faced beard, and, you notice, heavily nicotine-stained fingers on his right hand. He is moderately obese.

The manager offers Anthony one of her cigarettes only under the condition that he sits down and allows you to take his observations. He agrees and cooperates. You notice that he has a productive cough with used tissues, sputum and other evidence scattered around.

Vital signs

- Glasgow Coma Score: 14
- Oxygen saturations: 91%
- Respiratory rate: 25
- Heart rate: 122
- Blood pressure: 187/105
- 12 lead ECG: prolonged QT complex
- Pain score: States it is 10/10 although he has a blunted affect and no visual impression of experiencing pain
- Blood sugar level: 11 mmol
- Skin: cold, clammy
- Pupils: PEARL

CRITICAL REFLECTION

- At this stage, are you more concerned about Anthony's mental health or physical health? Why?
- What are your priorities at this time?
- What further information would you like to know about Anthony? As there is limited communication from Anthony, where and how would you get this information?

The manager tells you that the community mental health team stopped seeing Anthony about two years ago, advising he can go to his GP for medication. Anthony smokes 30 cigarettes a day. He would smoke more but they are rationed by the manager. He does not take illicit substances.

CRITICAL REFLECTION

- Your partner advises that he has met people like Anthony before and thinks that he is having a relapse of schizophrenia due to medication non-adherence. You tend to agree, but what other potential differential diagnosis might you consider?
- List the risk factors in an otherwise healthy person who smokes 30 cigarettes a day.
- Now list the additional risk factors of someone with schizophrenia who smokes 30 cigarettes a day.
- Consider the Recovery Model (from Chapter 2), and list all of the biopsychosocial factors that should be considered in Anthony's case. Identify who may assist Anthony in each of these areas (include clinicians, non-clinicians and other supports).

Anthony denies medication non-adherence, but admits to having missed one or two doses because he fell asleep before taking them. He agrees to take an olanzapine tablet in front of you, and after a short time he sits with you and talks about his history. He says that his main concern at the moment is his cough and the pains he is getting through his chest and abdomen.

Based on your examination, you have significant concerns for Anthony's physical health, especially in regard to having chest pain and an abnormal electrocardiograph. You talk to Anthony about your concerns, and suggest he should come with you to hospital to get checked out. Anthony declines this offer, saying he wants to stay home and go to bed. You have now assessed Anthony to be alert and orientated, GCS 15, he has no acute psychotic symptoms, and he has stated that he has no thoughts of hurting himself or anyone else. Your partner says that you can force him to

come to hospital for assessment and treatment of the chest pain because he has schizophrenia and therefore has no capacity to refuse.

CRITICAL REFLECTION

- Under what circumstances can Anthony refuse to go to hospital?
- Under what circumstances can you force Anthony to come with you to hospital?
- If you do not think that you have the right or ability to bring Anthony in an involuntary capacity, what else could you do to assist him?

Anthony refuses to come with you to hospital. The manager assures you that she will speak with the GP who is scheduled to visit the facility next week.

ACTIVITY

- Complete a clinical handover document for Anthony to be given to the GP.

Five months later the manager again calls the ambulance service requesting urgent help for Anthony as part of their standard procedures for responding to suspected acute myocardial infarction.

THE RELATIONSHIP BETWEEN PHYSICAL AND MENTAL HEALTH

The high rates of most physical conditions among people with mental illness have been known for many years (Baldwin, 1971). There are an estimated 13 million premature deaths in people with mental and substance use disorders each year (Charlson et al., 2015). There is some evidence that the gap in life expectancy between people with and without mental illness is actually increasing in Australia (Lawrence et al., 2013; Saha et al., 2007). Eating disorders have among the highest mortality rates of all mental illnesses and significantly impact physical health (Arcelus et al., 2011). While physical health is poorest among people with severe mental disorders, including psychoses and eating disorders, people with mood, anxiety, substance use or impulse control disorders, whether receiving treatment for these conditions or not, are also at high risk for common chronic physical health conditions (Scott et al., 2016).

While there has been some academic interest in whether mental disorders and physical disorders are related through some common genetic or hormonal link, little evidence has accrued to support this theory to date. Instead, most of the evidence supports this association being primarily due to well-known pragmatic and public health issues, such as exposure to health risk factors, in particular smoking, and inequities in access to and quality of healthcare (Mental Health Commission of New South Wales, 2016). While these issues would appear readily addressable with current knowledge, they have proved very difficult to modify in practice, with wide disparities in health outcomes continuing to be observed across developed countries (De Hert, Correll et al., 2013).

THE PERSON AS A WHOLE

As emphasised in the first essential element of the Equally Well consensus statement 'a holistic, person centred approach to physical and mental health and wellbeing' is key to improving both physical and mental health outcomes for people with mental illness. With the increasing specialisation of healthcare, there are fewer organisations and individual healthcare providers who have the knowledge and skills to be able to provide holistic care for people who have multiple health conditions. People with multiple conditions often have greater degree of disability and persistence of their health problems and, as a fundamental principle of equity in healthcare delivery, may need higher levels of care. The siloed and compartmentalised healthcare system often fails to identify and treat all relevant aspects of a person's health. This often compromises the success of the treatment for the condition that is identified (Naylor et al., 2016). As in the case of 'Anthony', who was only seeing his GP after his mental health team stopped seeing him two years previously, people with mental illness are often initially seen in mental health settings with potentially less involvement of mental health practitioners over time, and the responsibility tends to be left to general practitioners with constraints to the holistic provision of care in the primary setting.

In being the first to respond to a medical or psychiatric emergency, and having some control over the clinical handover to other healthcare providers, paramedics have the opportunity to use their broad knowledge across medical specialties to obtain a history of multiple presenting conditions and to provide this information to subsequent healthcare providers.

THE EFFECTS OF MENTAL HEALTH ON HELP SEEKING AND HEALTHCARE

With the exception of dementia and eating disorders, there are no biological models or research evidence to suggest that mental illness is directly linked to poorer physical health and early death. One of the contributing factors is the impact that common symptoms of mental illness can have on help seeking and receipt of healthcare when needed (Thornicroft, 2013). Mental illness can be associated with cognitive impairments. These impairments may affect memory, and they may affect decision making. In Australia and New Zealand the primary responsibility for seeking and coordinating healthcare is primarily left with the individual. Cognitive impairments associated with mental illness may impair people's efforts to seek help when needed.

More fundamental, though, is the impact that symptoms of mental illness often have on communications ability, and the ability to form and maintain relationships. This can be particularly challenging in healthcare settings, where most healthcare providers are time poor. One of the most valuable things paramedics and healthcare providers can offer people with mental illness is time – sufficient time to

demonstrate a level of empathy, and sufficient time to develop an understanding of the relevant history of the patient.

While attitudes towards mental health issues have been changing, and the stigma associated with mental illness has lessened, it is not uncommon for people with mental illness to have a history of experiencing negative or stigmatising reactions, which may also affect their communication.

THE NEGLECT OF PHYSICAL HEALTH IN THE MENTAL HEALTH SYSTEM

Historically, there were documented reports of the terrible general health and high mortality rates of people with mental illness in the 'asylum' era (Farr, 1841). As our knowledge of mental health has improved, many new treatments have been established and many historical myths concerning mental health and illness have been discredited. From the 1960s and 1970s, throughout the developed world, there was a large-scale movement to close or dramatically reduce the size of inpatient facilities in favour of providing care in the community. While this movement had undoubtedly improved the freedom and lives of many people with mental illness, it has presented some challenges. One of these has been the provision of adequate levels of care in community-based settings. Another consequence has been an increased presence of people with mental illness in emergency care settings (Hiscock et al., 2018; Perera et al., 2018). People with mental illness should be afforded the opportunity to live in the least restrictive setting appropriate to their needs, and to have the greatest ability to participate in work, family and community activities. Nevertheless, a greater emphasis on community-based living and community-based care may lead to a higher incidence of emergency events that require paramedic attendance.

PHYSICAL HEALTH CONSIDERATIONS AND HISTORY TAKING FOR PARAMEDICS

The profile of health service use for people with mental illness varies from the general population, particularly for people with severe mental illness, who are more likely to be seen in specialist services, emergency care and emergency departments than in primary care. In recent years there has been an increase in the proportion of people with mental illness presenting to emergency departments, and for some the emergency department is their first contact or their only contact with the health system (Hiscock et al., 2018; Perera et al., 2018). There is ongoing debate about the appropriate role of paramedics and emergency care, and whether this role should be focused solely on responding to acute emergencies, or whether it could contribute to addressing health inequalities and preventing chronic disease (Allen et al., 2013; Ford-Jones & Chaufan, 2017). Some argue that the resources devoted to non-life-threatening emergencies can restrict the availability of resources for those

emergencies that are life-threatening. There is a larger argument as to how to most appropriately address inequalities in access to and use of healthcare that adversely affect people with mental illness. If primary healthcare were equitably available and used by all in proportion to need, and if all people with mental illness received regular screening and monitoring of their physical health, this may significantly improve the health of people with mental illness. In the absence of such fundamental reforms, any policies that try to divert or turn away non-critical calls may cause more harm (Ford-Jones & Chaufan, 2017). For people who have more complex health needs, with multiple comorbid conditions, which often include comorbid mental health conditions, responding to the urgent need without identifying and resolving the underlying issues can result in multiple call-outs. People with mental illness are over-represented among frequent callers to ambulance services (Thompson et al., 2011).

Preventing rather than resolving crises is ultimately in the best interest of the patient, and would lead to reduced overall demand for emergency services. The advent of extended-care paramedics, who are able to treat patients in their home environment and refer patients to GPs or other health providers as appropriate, recognises the increasing role paramedics play as primary carers and in the management of chronic conditions. To this end, while a focus on response times as a key performance indicator for ambulance services may be a useful measure of the provision of emergency medical care, it may be counter-productive in relation to patients with more complex needs or for the provision of primary care in the pre-hospital setting. When paramedics have the time to do so, taking that time to develop a rapport with the patient and undertaking a comprehensive health assessment can be very valuable to the patient and to other primary and specialist physicians, often time poor themselves, who will be involved in the care of the patient.

Patients with mental illness often benefit when healthcare professionals are able to take more time with them. Mental illness is often associated with impacts on cognitive processing, decision making, personality, communications ability and style, and fundamental processes of establishing and maintaining relationships with others. These factors can significantly impact what can be communicated in a short encounter with a health professional. While it is human nature to assume that the speed and intensity of how someone communicates their health issues is related to how much they are affected, this sense may be misleading if the impact of mental illness is impairing the person's communication abilities. The impact of mental illness on personality and communications skills is a fundamental component of the pervasive stigma of mental illness (Stuart, 2008). This stigma is also common among health professionals, and has been recognised as a contributing factor to the inequalities in healthcare delivery to people with mental illness (Sartorius, 2002). The recent position statement from the Royal College of Psychiatrists in the United Kingdom identified addressing stigma among health service providers as one of the keys to achieving parity between mental and physical health (Bailey et al., 2013).

If there is time while transporting a patient to develop a rapport, take a comprehensive history and perform some basic screening and metabolic

monitoring. While basic screening is relatively straightforward, it is not consistently undertaken in practice (De Hert, Cohen et al., 2013). Screening and a comprehensive history may be valuable, particularly if full details are conveyed to subsequent treating professionals. Where patients do communicate other health issues and concerns, it is important to honour the fact that they have entrusted their health history to you by ensuring the information is passed on during clinical handover.

The majority of people with mental illness also have physical health conditions, and these often go undetected. As not all patients are good at communicating their symptoms succinctly in a way that facilitates diagnosis, where there is opportunity to take a history and identify the possibility of underlying chronic conditions it should be taken.

The following are some of the most common physical health conditions affecting people with mental illness.

METABOLIC SYNDROME

Metabolic syndrome is very common in people with serious mental illness, and has been the focus of much research attention in recent years (Morgan et al., 2014). Metabolic syndrome is a cluster of symptoms that occur together, including unhealthy cholesterol (high LDL cholesterol, low HDH cholesterol, and high triglycerides), high blood sugar, high blood pressure and obesity. These symptoms are commonly associated with lifestyle factors, including poor diet, lack of exercise, smoking and alcohol consumption. They are also associated with sleep disturbances (Kritharides et al., 2017). Additionally, there is growing evidence that they are linked to common antipsychotic drugs. Second-generation antipsychotics in particular can cause significant weight gain, and there is emerging evidence that some antidepressants and lithium, which is used to treat bipolar disorder, are also associated with metabolic syndrome (Ho et al., 2014). Antipsychotics, antidepressants and mood stabilisers have been associated with metabolic conditions including obesity, dyslipidaemia and diabetes, as well as cardiovascular disease, gastrointestinal disorders, thyroid disorders, and movement and seizure disorders (Correll et al., 2015). In patients with severe mental illness such as schizophrenia, bipolar disorder or major depressive disorder, a combination of the direct metabolic effects of their medications, unhealthy lifestyles and lack of monitoring can compound the risk. Significant weight gain and disturbance of metabolism can be associated with significant fatigue and lack of motivation, which can decrease the likelihood of the patient modifying their lifestyle by increasing their exercise or modifying their diet. It can also lead to reduced social interaction or participation in daily events, leading to further social isolation and increasing depression.

Metabolic syndrome is recognised as a precursor to, and significant risk factor for, the development of cardiovascular disease and diabetes. People with mental illness who are taking psychotropic drugs should be regularly monitored, including monitoring blood pressure, body mass index (BMI), blood sugar and lipids (Stanley

& Laugharne, 2010). While metabolic monitoring is most appropriately undertaken in primary care, or by the prescribing physician, people with mental illness are known to have reduced access to primary care, and are less likely to have a regular GP. While recent guidelines from the Royal Australian and New Zealand College of Psychiatry (RANZCP, 2015; Lambert et al., 2017) identify psychiatrists as having a primary role in monitoring and managing the physical health of their patients, acceptance of this position is not uniform among psychiatrists (Mitchell & Hardy, 2013). Treatment of metabolic syndrome in people with mental illness can include lifestyle modifications, changing antipsychotics or prescribing metformin.

DIABETES

The prevalence of diabetes mellitus is two to three times higher in people with severe mental illness (Holt & Mitchell, 2015). People with severe mental illness who also have diabetes mellitus are more likely to have complications associated with their diabetes, and are at greater mortality risk. Despite this, people with severe mental illness receive less and lower-quality diabetes care (Mitchell et al., 2012). Screening for metabolic disorder and diabetes is important to reduce the rate of undiagnosed diabetes in people with mental illness.

In people with schizophrenia, bipolar disorder or major depressive disorder, the prevalence of Type 2 diabetes mellitus has been estimated at 3% in patients never exposed to antipsychotics, and 11% in those taking antipsychotic medications (Vancampfort et al., 2016). People with serious mental illness have been identified as a high-risk group requiring proactive screening for diabetes (Vancampfort et al., 2016).

CARDIOVASCULAR DISEASE

Cardiovascular disease is the main cause of premature mortality in people with mental illness (Lawrence et al., 2013). There are multiple contributing factors. All of the common lifestyle risk factors for cardiovascular disease – including smoking, substance use, poor diet and lack of exercise – are more common in people with mental illness. As noted above, psychotropic drugs have been linked to metabolic dysregulation and metabolic syndrome, and cardiovascular events may also be side effects of psychotropic drugs. Despite being at high risk of cardiovascular disease, the quality of cardiovascular healthcare is lower in people with mental illness, who are less likely to receive screening for cardiovascular risk (Mangurian et al., 2016), and less likely to receive healthcare interventions, including pharmaceutical or surgical treatments (Lawrence & Kisely, 2010; Mitchell & Hardy, 2013). As seen in the case study with ‘Anthony’, patients whose primary contact with the health system is with a mental health service may not receive active management of physical health issues. Not all people with serious mental illness are in regular contact with a GP, and among those who do have a regular GP the focus of care may still be on managing mental health issues.

EXERCISE AND DIET

Poor diet and exercise are both important risk factors for metabolic syndrome, diabetes and cardiovascular disease. People with schizophrenia often have a poor diet high in refined carbohydrates, saturated fat and salt, and low in fibre and fruit (Dipasquale et al., 2013). While this is often considered a result of poor lifestyle choices, a number of factors have been identified in the literature associated with poorer dietary patterns. These include socio-economic factors and reduced efficacy in cooking and food preparation leading to higher consumption of cheaper prepared foods, the metabolic effects of antipsychotic medications, which can affect taste and dietary preference, as well as regulation of the amount of food consumed, and exposure to traumatic environments in childhood, through a posited pathway of stress, hormonal imbalance and dietary impact (Dipasquale et al., 2013). Exposure to stress has been linked to higher consumption of sugar and fat and reduced consumption of protein and fibre (Rutters et al., 2009).

Lack of regular exercise is also a problem for people with mental illness. Among people with schizophrenia, lack of exercise has been associated with social isolation, low self-efficacy, side effects of antipsychotics, and low levels of motivation (Vancampfort et al 2012, Vancampfort et al 2015). People with schizophrenia, bipolar disorder and major depressive disorder are estimated to spend an average eight hours per day being sedentary during waking hours, and to have an average of 40 minutes of moderate or vigorous activity per day, which is significantly lower than population averages (Vancampfort et al., 2017). Additional factors identified as linked to lower levels of exercise and physical activity in people with mental illness include lower levels of fitness and greater difficulty undertaking physical activity, and higher BMI and levels of obesity.

While healthy levels of exercise are encouraged to improve physical health, exercise is also beneficial in improving mental health, particularly decreasing depression (Knapen et al., 2014). When undertaken in the context of group sports or other group activities, it can also have the positive benefits of increasing social connection and engagement.

TOBACCO USE

Tobacco use is a well-known risk factor for common physical illnesses, including cardiovascular disease, respiratory diseases and cancer. While there has been significant progress in reducing smoking rates in the general population, smoking rates remain high among people with mental illness (Britton, 2015). In the 2010 Australian Survey of Psychosis, two-thirds of people with psychotic illness were current smokers (Cooper et al., 2012). While smoking rates are highest in people with psychotic illness, smoking rates in people with depression and anxiety disorders, even mild anxiety disorders, are well above the population average rates, and make a significant contribution to the reduced life expectancy and excess mortality of people with mental illness (Lawrence et al., 2009; Lawrence et al., 2010). People with mental illness account for about 40% of tobacco-attributable deaths in the

United States (Prochaska et al., 2017). Despite the high prevalence of smoking and the clear detrimental impact of tobacco use on people with mental illness, the issue of smoking and mental illness has not been given significant attention in public health or healthcare (Prochaska, 2011; Prochaska et al., 2017).

Despite significant evidence that quitting smoking enhances both mental health and physical health (Ziedonis et al., 2008), there are widespread beliefs that addressing smoking in people with mental illness is a lower priority than more immediate problems associated with symptoms of mental illness, and that self-medication with nicotine is helpful for mental illness (Association of American Medical Colleges, 2007; Britton, 2015; Sheals et al., 2016). While many health professionals believe that people with mental illness are less interested in quitting smoking, research studies consistently show that people with mental illness are interested in quitting, but find it more challenging to do so. Nevertheless, healthcare professionals are less likely to talk about smoking with people with mental illness. It is now recommended that people with mental illness be routinely asked whether they smoke, and be offered brief advice and encouragement to quit smoking if they do (Nursing, Midwifery and Allied Health Professions Policy Unit, 2016). As can be seen in the case study with 'Anthony', cigarettes have historically been used in mental health settings to facilitate therapeutic relationships and to seek cooperation from patients.

SLEEP AND SLEEP DISTURBANCE

Sleep problems are common symptoms of many mental health conditions, and are listed as part of the diagnostic criteria for major depressive disorder, generalised anxiety disorder, post-traumatic disorder, bipolar disorder and many others in the *Diagnostic and Statistical Manual of Mental Disorders*, fifth edition (*DSM-5*; American Psychiatric Association, 2013). Disturbed sleep can also be a side effect of psychiatric medications. However, there is growing evidence that sleep problems can be both a contributing cause and a symptom of mental illness (Krystal, 2012). Longitudinal studies have shown that sleep disorders such as insomnia are risk factors for the development of depressive and anxiety disorders, as well as suicidal ideation (McCall et al., 2010).

EATING DISORDERS

Eating disorders are among the few mental illnesses where there are direct biological models linking the mental illness with poor physical health outcomes. In severe cases, the substantial weight loss and malnutrition can be life-threatening. People with eating disorders are also at risk of poor physical health outcomes related to the same mechanisms that affect other mental illnesses, including not seeking or receiving treatment due to the stigma associated with the condition, and being treated in a siloed or specialist facility that doesn't provide holistic care. Eating disorders can affect multiple organ systems and are associated with a high risk of premature death (Arcelus et al., 2011; Mitchell & Crow, 2006).

Malnutrition associated with eating disorders can affect muscle mass, including the heart muscle, and can present as cardiac symptoms or chest pain. Malnutrition and associated dehydration can also impact liver function, and lead to osteoporosis. Frequent purging can result in gastric acid reflux and associated gastrointestinal complaints (Mascolo et al., 2012). As people with eating disorders may actively hide their behaviour or may not recognise their problem, screening for possible eating disorders should be undertaken if warning signs are detected, including evidence of weight change, concern about body shape or weight, evidence of vomiting, cold sensitivity or dizziness (Trent et al., 2013).

As a paramedic it is important to understand the various physiological factors at play and what to include in an assessment of someone with an eating disorder. The initial dispatch may be related to dizziness, fatigue, dehydration, palpitations, syncope or seizures, but these may be secondary to complications from malnutrition (Mascolo et al., 2012). While there may be various psychological factors involved, assessment should primarily focus on the physiological factors first, and include vital signs including lying and standing BP and pulse, temperature and ECG. The paramedic should be concerned about cardiac arrhythmias, including prolonged QTc, hypotension and postural changes, bradycardia, postural tachycardia, hypothermia and hypoglycaemia. In addition, starvation, severe weight loss, dehydration, hypoglycaemia and electrolyte abnormalities can lead to cognitive impairment, impacting on a person's capacity for decision making.

ORAL HEALTH

People with severe mental illness have poor oral health (Kisely et al., 2011), with substantially higher rates of decayed and missing teeth, and a higher risk of edentulousness (total tooth loss). Poor oral health is also associated with eating disorders (Kisely et al., 2015b). While rarely life-threatening, poor oral health can be associated with significant pain. A simple oral health assessment can be completed using standard checklists by non-dental personnel (Kisely et al., 2015a). Self-induced vomiting in patients with eating disorders is associated with poor oral health. Other risk factors include dry mouth as a side effect of psychotropic medications, poor diets that are highly acidic or high in sugars and refined carbohydrates, and poor self-care and oral hygiene. Both internationally and in Australia, poverty and access to dental care have been identified as major issues associated with poor oral health in people with serious mental illness (Happell et al., 2015; McKibbin et al., 2015).

THE EFFECTS OF CHRONIC ILLNESS ON MENTAL HEALTH

While mental illness is associated with increased risk of chronic physical health conditions, poor physical health can also negatively impact on mental health, and can be cyclically reinforcing if patients are not treated in a holistic way. Chronic pain and functional limitations can increase anxiety, stress and depressive symptoms.

Chronic physical conditions can impact on people's ability to work and participate in daily activities, reducing social connection and support, and impacting on self-esteem (Naylor et al., 2012).

CASE STUDY

Hannah

You have been dispatched to a residential address for a 21-year-old female with acute abdominal pain. The patient's mother has called the ambulance service. On arrival you are met by her mother and directed to the lounge room where Hannah is sitting. Hannah states that she is in a lot of pain and needs help. Her mother informs you that Hannah suffers from Crohn's disease.

Hannah has been experiencing increasing abdominal pain and diarrhoea over the past two months, and the previous night had very little sleep, as it was interrupted by pain and the need to get up to the toilet constantly. She is currently seeing a gastroenterologist who has been working with her on a management plan and treatment options. Hannah has been on steroids previously to reduce the inflammation. The course of steroids worked well, but made Hannah feel disoriented and manic. They had to slowly reduce the dose so they could try other longer-term medication.

Vital signs

- Glasgow Coma Score: 14 (distracted by the pain)
- Oxygen saturations: 99%
- Respiratory rate: 22 shallow
- Heart rate: 85
- Blood pressure: 115/75
- Electrocardiograph: sinus tachycardia
- Pain score: 8/10 (abdominal pain)
- Blood sugar level: 17 mmol
- Skin: flushed, sweaty
- Pupils: PEARL

Hannah appears to have a supportive mother, but on questioning, her mother appears to be one of her few social contacts. Hannah's father left the family when Hannah was 10 years old, and she has no siblings. Hannah has virtually no contact with friends, and rarely leaves the house as she is concerned about having 'an attack'. Most of her social contacts are through an online group of fellow suffers. She has never had a romantic relationship. Hannah is worried about going on long-term steroids or the prospect of a colostomy bag, which she has heard about even though her doctor is not suggesting this.

CRITICAL REFLECTION

- What biopsychosocial factors place Hannah at increased risk of developing a mental illness?
- In what ways do chronic physical illnesses such as inflammatory bowel disease lead to a mental illness? List and discuss.
- List the various healthcare professionals currently (and potentially) involved with Hannah's care, including paramedics. What are their potential roles in assisting to prevent, diagnose or treat a mental illness that stems from a chronic physical illness?
- As a paramedic how would you communicate with Hannah? Discuss what influence age and her current circumstance would have on how you communicate with her and her mum.
- How would you manage Hannah's pain levels and the associated emotional and psychological stress she is experiencing?

Mum tells you that Hannah was previously an outgoing young woman with a large group of friends, and she was studying environmental science until her symptoms first started about a year ago. She now has a full range of symptoms for depression, i.e.:

- poor sleep
- low appetite
- weight loss
- low energy
- poor motivation
- low mood.

CRITICAL REFLECTION

- How would you assess/differentiate whether the above symptoms are due to Hannah's physical illness or a potential mental illness (depression)?
- List and discuss any known or potential risk factors for Hannah, both short term and long term.

CONCLUSION

Physical and mental health conditions often co-occur. The majority of early and excess deaths in people with mental illness are due to physical conditions, particularly cardiovascular and respiratory disease and cancer. Many of these deaths are preventable with appropriate primary prevention, screening, intervention and treatment. Higher rates of unhealthy lifestyle risk factors – including smoking, alcohol and drug use, poor diet and lack of exercise – contribute to these poorer outcomes. Also contributing is poorer access to and use of healthcare, and lack of coordinated and ongoing care. Many people with mental health conditions, and particularly those who frequently come in contact with paramedics and emergency departments, have complex health problems with multiple contributing factors. Attention to the most urgent presenting issue in an emergency context may not identify underlying chronic health conditions that contribute to longer-term health outcomes.

Australia's fifth National Mental Health and Suicide Prevention Plan commits to improving the physical health of people living with mental illness through improving quality and equity of access to healthcare and taking a holistic, person-centred approach to physical and mental health. Paramedics can contribute to achieving this goal by using their broad knowledge across medical specialties to take a holistic approach, including comprehensive history taking and assessment of physical health where possible in patients presenting with mental health issues, and communicating case complexities effectively with subsequent healthcare providers. Understanding how mental illness can affect cognition, behaviour and communication skills is also important in developing effective rapport and therapeutic relationships with people with mental illness.

LINKS AND RESOURCES

- Equally Well – National Mental Health Commission's consensus statement: https://equallywell.org.au/
- Equally Well: Physical Health – Equally Well New Zealand has compiled a thorough evidence review of the poor physical health of people with mental health conditions or substance use addictions: https://www.tepou.co.nz/initiatives/equally-well-physical-health/37
- Butterfly Foundation – support for eating disorders and body image issues: https://thebutterflyfoundation.org.au/

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