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PSYCHIATRY IN PRIMARY CARE (BN GAYNES, SECTION EDITOR)

Serious Mental Illness and the Role of Primary Care

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Abstract Policies and guidelines from across the international community are attempting to galvanise action to address the unacceptably high morbidity and mortality rates amongst people with a serious mental illness (SMI). Primary care has a pivotal role to play in translating policy into evidence based practice in conjunction with other providers of health care services. This paper explores the current and potential of role of primary care providers in delivering health care to people with SMI. A review of research in the following key areas of primary health care provision is provided: access, screening and preventative care, routine monitoring and follow-up, diagnosis and delivery of treatments in accordance with guidelines and delivery of interventions. There is undoubtedly a need for further research to establish the effectiveness of primary care interventions and the organisation of services. Equally, understanding how primary care services can deliver high quality care and promoting effective working at the interface with other services must be priorities.

Keywords primary care · primary care physician · GP · severe mental illness · psychosis

Introduction

It was a groundbreaking study in 1928, which first looked at the cause of mortality in patients admitted to the psychiatric hospitals of New York State. People with a diagnosis of a serious mental illness (SMI, generally defined as a diagnosis of schizophrenia, mood disorders such as bipolar disorder and other types of psychosis) were dying 15 years earlier than people in New York without an SMI diagnosis [1]. Numerous studies have replicated this finding [2] and life expectancy among people with SMI is estimated to be reduced by 13–30 years compared to people without [3•]. People with SMI are at greater risk of developing serious long term physical health conditions [2, 3•, 4, 5]. A statistic which the UK based mental health charity—Rethink—refers to as 'lethal discrimination' [6]. Approximately 40 % of the excess mortality is due to higher than average suicide rates [7] but the majority, up to 60 % of deaths, are caused by preventable physical health conditions, such as cardiovascular disease and diabetes [ibid]. The burden of multiple, interacting and compounding physical, psychological and social problems can have a devastating impact on quality of life and impede recovery from psychiatric illness [8]. Yet, the morbidity and mortality gap continues to widen [9, 10]. This has led to consensus in national guidelines and policies, across a number of countries, that health care for people with SMI needs to improve [11, 12] if the lack of equitable outcomes between physical and mental health are to be redressed [13]. This paper considers the current and potential role of primary care providers in delivering health care to people with SMI.

Primary care can be defined as:

> *"....the provision of integrated, accessible health care services by clinicians who are accountable for addressing a large majority of personal health care needs, developing a sustained partnership with patients, and practicing in the context of family and community"* [14].

Across the globe primary care has become the setting for delivering promotive, preventive, curative and rehabilitative services [15]. In higher income countries, primary care is delivered predominantly in the community, by general practitioners (GPs) (family doctors), practice nurses and allied staff. In some countries, particularly the United States of America

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(USA), it is also provided by internal medicine and obstetricians/gynaecologists (OBGYN) and paediatricians. Primary care providers will, in some instances, be the only known health care provider for an individual with an SMI diagnosis. A recent descriptive cohort study using clinical records of primary care registered patients in England found that 31 % of people with an SMI diagnosis were seen only in primary care over a one year period [16]. This figure is likely to rise with changes to and pressures within the British National Health Service (NHS) [17, 18].

In the USA, the introduction of the Affordable Health Care for America Act (HR 3962) will see the expansion of health insurance coverage to an extra 4 million people with SMI. The act encourages development of Health Homes and the training of primary care physicians in management of mental illness through primary care extension programmes known as 'accountable care organisations' [19]. This will create significant growth in demand for services, including primary care, requiring greater service integration, coordination of care across settings and greater opportunities to deliver evidence based treatments in primary care. These types of reform provide a unique policy window for implementing improvements [1].

Do People with Serious Mental Illness Access Primary Care?

With the exception of the USA, high income countries have achieved universal access to primary health services (either directly provided or through financial coverage) [20]. Primary care is often the first point of contact with health services and the entry point to other parts of the healthcare system. However, despite primary care being less of a stigmatized setting, people with SMI may avoid it, for example, due to anxiety and reluctance around attending appointments (especially early morning) and navigating booking systems. Primary care settings need to be flexible. In the UK, consultations are normally restricted to ten minutes which makes it difficult to address the various physical, mental and social issues experienced by people with SMI [21]. Given that individuals with a SMI diagnosis are recorded on an electronic 'SMI register' which is kept and maintained within primary care in the UK it should be possible to facilitate the delivery of longer consultations with a named health care professional.

Primary care consultation rates are one measure of service utilisation and a proxy measure for access. Consultation rates for people with SMI have varied over time and depending on the method of measurement used. A recent cohort study carried out in the UK using a large primary care database (Clinical Practice Research Database—CPRD) reported rates in 2011 at 10 per year for people with SMI compared to five in an age, sex and location matched sample (*personal communication*). This would indicate that people with SMI are receiving greater amounts of primary care; however, there are also a subsample of 'chronic unattenders'—over a one year period, 11 % of patients registered on UK SMI registers do not attend an appointment with their GP [16].

A systematic review of attendance prompts found that a simple and gentle prompt to attend a mental health clinic, very close to the time of the appointment may encourage attendance, and a reminder letter may be more effective than a telephone prompt [22]. This simple intervention could be a more cost effective means of encouraging attendance and may also translate to a primary care context.

The 'Hard to Reach' or 'Easy to Ignore'?

People with SMI are represented disproportionally among the long term homeless. Their health needs are complex with many experiencing complex drug/alcohol misuse issues [23]. Accessing these 'hard to reach' (or rather easy to ignore) groups within the SMI population is challenging. In the UK, a recent initiative known as the 'pathways approach' provided vertical integration between community and specialist services and horizontal integration between physical, mental and substance misuse care. The pathway service was coordinated by GPs and nurses for patients admitted to hospital. The initiative reduced the number of days spent in hospital following the index admission by 30 % [24•].

Addressing Healthcare Needs in Primary Care

For those people with SMI who access primary care it has the potential to function as the bedrock of both physical and mental health care by service users (and their families) who also feel that continuity of care, a positive attitude, optimism in relation to recovery, and a willingness to listen are more important than seeing a professional with mental health expertise [25]. However in the UK, continuity of GP care was found to be poor for one fifth of patients [16]. The family can play a very important role in the care of people with SMI and primary care providers and some 25%-60% of people with SMI are thought to live at home [26]. Primary care providers should work in partnership with both patients and their carers, providing opportunities to support not only patients and service users, but also the wider family network.

Screening and Preventive Services

Screening and preventative care is important for reducing morbidity rates and low uptake of preventative care is

associated with poorer quality of life [27]. There are well-documented disparities in the provision of screening to people with SMI. For example, in the US, women with SMI have not benefited from improvements to breast and cervical screening rates seen in the general population [28]. A study recently conducted in the UK, found that the number of people with SMI receiving screening for cardiovascular disease (CVD) is much lower compared to those with diabetes [29]. The potential value of carrying out preventive screening was demonstrated by a recent study which found that 51 % of older adults with SMI who received metabolic screening in mental health outpatient clinics had at least one metabolic abnormality not previously detected [30].

In the US, an anonymous survey of primary care providers (physicians, nurse practitioners, and physician assistants) found that only 40 % of those that responded were aware of consensus guidelines on metabolic monitoring of second-generation antipsychotics. The barriers identified were psychiatric illness overshadowing, lack of collaboration with psychiatrists and difficulty arranging psychiatric follow-up [31].

In the UK, audits carried out in primary and secondary found that CVD health checks were not carried out in accordance with National Institute for Clinical Excellence (NICE) and QOF guidance [32•]. Simple interventions to improve CVD screening included alert reminder boxes on GP computer systems to encourage opportunistic screening, sending invitation letters to those 'at risk' explaining the benefit of CVD screening to physical health rather than mental health, and including a CVD indicator on secondary care discharge summaries. Authors reported increased levels of CVD monitoring [ibid].

The Lester Adaptation tool is an easy to use clinical algorithm for identifying and treating cardiovascular and type 2 diabetes risk in patients with SMI on antipsychotic medication, which promotes collaboration across professional disciplines and service settings and the concept of 'don't just screen intervene'. The tool identifies the GP as the professional responsible for delivery of physical health interventions [33•].

Routine Monitoring

There is no evidence from randomised trials to support current guidance and practice for monitoring the physical health of people with SMI [34]. Guidance and practice are based on expert consensus, clinical experience and good intentions rather than quality empirical evidence. However, there is broad agreement that comprehensive physical health monitoring should be a cornerstone of primary care services [6]. In the USA, people with a diagnosis of schizophrenia have been found to receive up to 50 % less monitoring compared to people without SMI [35]. Furthermore, for many there is no evidence of any monitoring. Primary care practitioners need to be aware that people with SMI are less likely than those without to report physical symptoms spontaneously [36].

In the UK, GPs receive financial incentives to carry out physical health monitoring on an annual basis through 'Quality and Outcomes Framework' [37]. In 2011/12 'exception reporting (which enables a GP to exclude a patient from the payment scheme, for example due to non-attendance) was at a rate of 11.8 % compared to 0.5 % for cancer [38]. Yet physical health monitoring is generally easy to perform and inexpensive [39].

Diagnosis and Treatment

If people with SMI are not in receipt of physical health monitoring then arguably the diagnosis of physical health conditions and/or the management and treatment of existing conditions is impaired. A systematic review carried out in 2012 identified studies which compared medication prescribed to people with SMI compared to those without and found an 'undertreatment' rate of 10 % for medications commonly used to treat medical disorders, in particular for cardiovascular indications [40•]. In the US, studies of guideline adherence show significant gaps between current practice and recommendations for CVD risk screening and follow-up [41]. This finding underscores the importance of health monitoring and guideline adherence.

Interventions to Improve Physical Health

There are a number of risk factors for physical morbidity and mortality, which can be addressed in a primary care setting. People with SMI are far more likely to smoke (up to 90 % vs 16 %), more highly dependent than someone without SMI [42] and despite being motivated to quit [43] are less likely to do so [44]. A recent systematic review found that smoking cessation interventions were as effective in people with SMI as in the general population and treating tobacco dependence in patients with stable psychiatric conditions did not worsen mental state [45]. Smoking is an issue that appears not to be addressed by healthcare professionals; therefore, people with SMI meet the criteria for 'underserved smokers' [46]. NICE guidance recommends nicotine replacement therapy (NRT), buproprian or varenicline (both require monitoring, particular in the first 2-3 weeks) [12].

It appears that primary care clinicians are not taking full advantage of opportunities to intervene with their patients who smoke. An academic detailing intervention to enhance

physician delivered smoking cessation counselling was found to be an effective strategy for disseminating smoking cessation interventions among community-based practices [47]. 'Foot in the door' approaches have also been found to be effective in smokers who are unmotivated to quit or have not discussed their smoking habits with a health care professional [45].

People with SMI have been shown to be less likely to exercise when compared with the general population [48]. Encouraging people to follow national recommended guidelines to improve their physical health through activity is a major public health challenge. In a survey of the dietary habits of 102 people with SMI the average fruit and vegetable intake was 16 portions a week, compared with recommended intake of 35 per week [49]. There is moderate evidence to support behavioural interventions. Of the 23 studies included in a systematic review of non-pharmacological interventions (focussing on diet, weight, CBT, to reduce overweight and obesity in people with schizophrenia) only one did not improve physical health [50].

Integrating Primary and Specialist care

Many people with SMI are likely to be seen by a range of health care professionals working in different settings, all of whom have responsibility for health [51]. This can create tension at the interface between primary care and other services and leave patients and service users at risk of falling into the gap between services [52]. Integrated models of service delivery have been proposed as a means to prevent service fragmentation and poorly coordinated care. In the 'defining primary care' report by the Future of Primary Care committee, integration was defined as *comprehensive, coordinated* and *continuous* care across services [14]. The latest audit carried out by the Schizophrenia Commission, in the UK, reported the urgent need to improve protocols between primary and secondary care, which clearly delineate roles and responsibilities [17]. A spectrum exists along which services may collaborate through to co-location and much closer integration [53].

Collaborative Care (CC) and the Patient-Centred Medical Home (PCMH)

Collaborative care (CC) is a systems level approach to organising care conceptually underpinned by the Chronic Care Model (CCM) [54]. There is no universally agreed definition of CC but a widely used approach is that of Gunn and colleagues (see box 1) [55].

Box 1: Elements of Collaborative Care

- *Multi-professional approach to patient care* provided by a case manager working with the family doctor under weekly supervision from specialist mental health medical and psychological therapies clinicians
- *A structured management plan* of medication support and brief psychological therapy
- *Scheduled patient follow-ups*
- *Enhanced inter-professional communication* patient-specific written feedback to family doctors via electronic records and personal contact

CC can result in clinically meaningful improvements in depression outcomes [56] but the results for SMI are less clear. A recent meta-synthesis which examined the effectiveness of CC models improved outcomes across a range of conditions and settings included four trials of CC for bipolar which, however, showed a variable effect on outcomes [57] and a recent Cochrane review included one study of moderate quality which reported a reduction in psychiatric admissions [58].

The patient-centred medical home is at the forefront of current initiatives planned for implementation post US legislation on healthcare financing. The PCMH aims to address health needs of patients when and where they most frequently interact with the health care delivery system, and provides a focus for attempts to put collaborative care models into practice, with specialist care liaising closely with primary care providers [19].

Integrating Primary and General Medical care into Specialist Settings

The hub for a medical home is normally primary care; however, it is argued that for people with SMI specialty mental health services may be more appropriate [59] with integration of primary care providers into mental health care hubs. Co-location has been extensively evaluated in the Veteran's Administration in the USA. It has been demonstrated that co-located care results in improved cardiometabolic screening in SMI [60] better outcomes for chronic medical conditions [61] and significantly fewer hospitalisations [62•].

Engaging Primary care in Working with SMI

Primary care is a setting and has a workforce ideally suited to providing care for people with SMI [63•]. Furthermore, primary care professionals are able to provide mental health services with support [64]; however, primary care professionals can feel that SMI is beyond their remit [25]. A recent small UK study found that brief training of practice nurses to

deliver physical health checks to people with SMI reduced nurses' misconceptions around SMI, increased self-reported motivation to carry out the checks and to work with community based mental health professionals [65•].

In the UK, the Royal College of GPs (RCGP) has adapted the Curriculum Statement for Mental Health to improve GPs' knowledge and experience of the management of SMI, including physical health and crisis care [66]. In the USA innovative work has been carried out in engaging primary and specialist providers to work together in developing a range of integrated services [67•].

Conclusion

There seems to be little doubt of the potential value of involving primary care providers in the holistic care of people with SMI but there still remains a lack of evidence from randomised controlled trials of the effectiveness of interventions, and a need for further innovation and research into exploring how collaboration between primary and specialist care can be promoted and implemented. Research has a crucial role to play in providing a steer for service commissioners who in turn have a responsibility to ensure that the workforce is able to deliver quality evidence based care.

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Compliance with Ethics Guidelines

Conflict of Interest Claire Planner, Linda Gask, and Siobhan Reilly declare that they have no conflict of interest.

Human and Animal Rights and Informed Consent This article does not contain any studies with human or animal subjects performed by any of the authors.

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