

Digest of NIHR Health Services & Delivery Research projects on topics relevant to management of serious mental health (SMI) in primary care

Why a Digest now, and who should read this?

We provide a summary of key programmes of research commissioned by NIHR that provide actionable and evidenced recommendations for CCGs to address the better service provision for adults with serious mental health. Commissioners, providers and service users have contributed to these research programmes. Commissioners, providers and service users in partnership in STPs may find the evidence, and links to more detailed information on the projects and research teams, helpful in addressing the strategic transformation priorities in their STP areas delivering more integrated physical and mental health services, particularly GP health checks for adults with SMI.

In line with NHS England Planning Guidance 2017-2019:

- CCGs should commission NICE recommended screening and physical health interventions to cover 30% of the SMI population on the GP register, moving up to 60% in 2018/19.
- Secondary care providers should meet the requirements of the Physical health for SMI CQUIN across CMHTs, EIP teams, and inpatient settings

For people with SMI who are not in contact with secondary mental health services:

- A comprehensive annual physical check, and the appropriate follow up, should be provided, in line with NICE guidance.
- Practice nurses and/or primary care clinician should receive appropriate training to conduct comprehensive physical checks for people with SMI.

The Digest:

The Digest provides evidence from key studies to support STPs and CCGs with data to support their plans for primary care to undertake annual health checks for people with SMI. to support the case for investment, and to understand and plan for the challenges of implementation of interventions and models. Improvement in primary care management of adults with SMI is central to the Mental Health Five Year Forward View and features in the plans of many STPs. But exactly what effects different aspects of GP care of these patients will have on wider healthcare use rests on a number of largely untested assumptions. We present evidence from three studies that look at these links, which will assist commissioners in targeting of improvement activities and resources to gain the best value. In addition, we present a review, which provides evidence of interventions and models of service to support integration of services for adults with SMI. We also present two feasibility studies relevant to primary care services for patients with common mental health problems. The first is a small study in Scotland provides guidance on how health checks for adults who may have longterm conditions and undetected common mental health problems can be undertaken by practice nurses. The second examined the feasibility of third sector workers to conduct a psychosocial assessment and deliver a psychosocial intervention to older adults with anxiety and depression.

HS&DR - 11/1023/13

Location of care for people with serious mental illness: implications for service use and costs: Professor Paul Mccrone (completed)

https://www.journalslibrary.nihr.ac.uk/programmes/hsdr/11102313#/

McCrone P, Wright S, Zala D, Radhakrishnan Kartha M, Koeser L, Ashworth M, *et al.* Location of care for people with serious mental illness (LOCAPE): implications for service use and costs using a mixed-methods approach. *Health Serv Deliv Res* 2016;4(34)

Health and service need:

Most people with SMI will be in contact with other services including their GP. For many, primary care is the main focus of care. Providing care in primary care settings has the potential to support a holistic approach to meeting mental, physical and social needs, although to do so effectively GPs need for access to specialist knowledge, and successful and sustainable transfer to primary care requires effective links with secondary care services that can be accessed promptly when needed [1].

Providing data on the cost and benefits of transfers, and of patients' experience with these services, can inform commissioning decisions. This study examines two service pathways that assist the transition between specialist mental health and primary care services for adults with SMI.

How was the research carried out?

The study used modelling to assess the cost of two treatment pathways for mental health service users in Lambeth; mental health triage services compared to standard care (GP monitoring). Triage services were provided for patients in transition from secondary to primary care in-patient care. The service consisted of a community options team (COT) provided by the voluntary sector that focuses on action planning with the client and social inclusion and access to mainstream services, a primary care support team for the GP service (PASS) led by a GP with a special interest, and a peer support service (Vital Link). Datasets relating to patients in the area were also obtained and linked. This allowed service costs to be compared for those managed in primary care and those in secondary care. Qualitative interviews were also conducted to investigate patient and staff experience with services.

What did the study find?

From the modelling, the average cost of treatment over a year for the triage strategy was around 40% of the cost of standard care (£926 vs. £2504). The difference in average cost over a year is £1578.

In the year up to January 1st 2011, the researchers found 1311 (38%) patients defined as primary care, 1776 (51%) as secondary care, and 376 (11%) as receiving neither form of care. Many people with SMI in Lambeth were not under the care of secondary care services on the index date. This is perhaps unsurprising. While conditions such as schizophrenia frequently are chronic, for some their episode of mental illness may be brief and infrequent. Are there patients who could more cost- effectively be treated in primary care? A notable finding is that there were relatively few secondary care patients with a high probability of being cared for in secondary care, and the difference in overall costs for those who might have been treated in the community was only £150,000 for the whole sample. This may

indicate that for most people the location of care is appropriate, and that optimising care rather than changing referral pathways will enable better services within the same costs.

The interviews with service users and providers demonstrated the importance of looking beyond resource use. Experiences with COT and PASS were generally positive. Experiences with peer support were more mixed but this seemed to reflect uncertainty about aims and objectives. Generally, it was a valued service, although some changes were suggested to clarify the roles and support of those providing peer support.

Implications for commissioners:

A high proportion of people with SMI are being cared for in primary care. The costs of treating a number of people in secondary care who might be transferred to primary care are small (£150,000 in this sample in one year). For those who are suitable for primary care, the provision of a triage service is 40% less than standard care of monitoring by a patients' GP, because the service slows the movement of the patient to more expensive specialist services. Therefore, investment in Triage services to support primary care mental health services appears both cost saving and welcomed by patients.

References:

1. Butler S et al. Depression treatment by Bedford East community mental health team: an audit to asses show many patients in a Bedfordshire community mental health team might safely be transferred to primary care. Psychiatria Danubina 2010;22:317-22.

HS&DR 10/1011/22

Do higher primary care practice performance scores predict lower rates of emergency admissions for persons with serious mental illness? An analysis of secondary panel data. Professor Rowena Jacobs (completed)

https://www.journalslibrary.nihr.ac.uk/programmes/hsdr/10101122/#/

Jacobs R, Gutacker N, Mason A, Goddard M, Gravelle H, Kendrick A, *et al.* Do higher primary care practice performance scores predict lower rates of emergency admissions for persons with serious mental illness? An analysis of secondary panel data. *Health Serv Deliv Res* 2015;3(16)

Evidencing the links between GP care and health service use and cost:

Primary care plays a central role in the care of people with a serious mental illness (SMI) in the English NHS. This study aimed to test if good quality primary care has the potential to reduce emergency hospital admissions. Better-quality primary care may also enable faster discharge home. However, if more physical health conditions are detected and treated, which may improve care outcomes; this may increase overall NHS costs. These combined may increase or decrease NHS expenditure.

Quality indicators for mental health have been routinely measured in English primary care over a number of years as part of the Quality and Outcomes Framework (QOF). The Quality and Outcomes Framework (QOF) offers financial rewards to GP practices for good quality care, including payments for treating people with serious mental illness such as schizophrenia, bipolar disorder and psychoses.

One key indicator of the poor quality of care is 'unplanned admissions', whereby someone is admitted to hospital in an emergency without the benefit of planned assessment and the offer of community-based alternatives. Unplanned admissions are costly and cause dissatisfaction amongst service users and their carers. People with mental health problems tend to stay in hospital considerably longer than average, even when admitted for treatment of a physical condition.

Using information that is collected routinely by the NHS and other public bodies, the study aimed to investigate whether better quality of primary care, as measured by the QOF in English general practice, is associated with lower rates of emergency hospital admissions for people with SMIs, for both mental and physical conditions and with higher rates of elective admissions for physical conditions in people with a SMI. The study also looked at whether better quality primary care facilitates quicker discharge and shorter lengths of stay and whether it is associated with lower secondary care expenditure for mental health services.

What did the study find?

The study found that, contrary to expectation, better quality primary care is associated with higher rates of unplanned and planned admissions for people with an SMI, for both mental and physical health problems, although the strength of the effect varied across indicators and admission types. There was no significant association of QOF achievement with either length of stay or cost. It is possible that higher admissions reflect GPs finding previously unmet need and to investigate this further, further research needs to look at the care received by individual patients and the way QOF reflects this care.

The study recommended a number of implications for practice:

- Assess value for money of QOF health checks for people with an SMI. One possible conclusion from the results is that the QOF is not effective at reducing the use of secondary care services and should therefore be abandoned. However, the QOF was not specifically designed to reduce unplanned admissions. Many of the emergency admissions may be appropriate and represent good quality care by GPs and may pick up and address unmet need. It would therefore be premature to draw conclusions about whether or not regular checks of people with an SMI should continue to be incentivised through the QOF. QOF checks, specifically those that focus on physical care may still be effective in promoting patient health and may be valued by service users.
- Factor in specific resource requirements for the likely increase in referrals for planned care following QOF checks for SMIs. Practitioners and commissioners should be aware that carrying out regular checks on people with an SMI is likely to lead to increased referrals for physical health problems, and ensure that funding is in place to support those referrals. Given the particular problems that some people with an SMI might face in being able to attend outpatient appointments for physical health problems, specific arrangements for care pathways might be considered between primary and secondary care providers in order to accommodate such referrals, such as specialists agreeing to see patients on practice premises, or on domiciliary visits.

HS&DR - 13/54/40

Does better quality of primary care influence admissions and health outcomes for people with serious mental illness (SMI)? A linked patient-level analysis of the full patient care pathway. Professor Rowena Jacobs (On going to 30th June 2018)

https://www.journalslibrary.nihr.ac.uk/programmes/hsdr/135440/#/

Health and service need:

Serious mental illness (SMI) is associated with poor outcomes, high healthcare costs and high levels of disease burden, and earlier death by 10-20 years less than for the general population and the majority of premature deaths in people with SMI are attributable to preventable causes. People with SMI are at higher risk of physical ill health and hospitalisations. Primary care plays a central role in the provision of care for people with SMI, with around 31% treated solely by their general practitioner (GP).¹

How might this be improved?

GPs have a key role in addressing the burden of SMI. Effective primary care has the potential to facilitate prevention and early intervention in the range of comorbidities associated with SMI, as well as ongoing management of the SMI itself. The effects of high-quality primary care could be seen in improvements in patients' health outcomes, including high impact outcomes such as unplanned hospitalisations and mortality. Conversely, better quality of care may result in more health problems being identified, which might lead to more admissions for hospital care, but still result in improved wellbeing of patients.

The quality of SMI management in primary care is measured in two ways:

1) By achievement on relevant SMI-specific QOF indicators for both mental and physical health care, since SMI patients are more likely to suffer from preventable physical illnesses 2) By non-QOF measures such as polypharmacy and the frequency and continuity of GP consultations.

This study focuses on two QOF indicators relating to SMI, the documentation of care plans (CP) and annual reviews (AR) of physical health. The study explores whether better-quality primary care for patients with SMI improves their health outcomes and reduces high-cost healthcare utilisation. The study measures quality of care in terms of both QOF indicators and measures outside the QOF. A systematic review identified quality indicators outside the QOF relevant to patients with SMI which could be captured using routine data and which could be used to monitor or incentivise better quality primary care.

Implications for CCGs:

There are a large number of quality indicators that can be assessed using routine data and have the potential to improve physical and mental health of people with SMI. These cover various domains including continuity of care, substance misuse, service provision and access to care, medicines management, mental health assessment and care, and the biggest group of indicators - physical health assessment and care. However before these types of indicators can be used to monitor or incentivise quality, more robust links need to be established with improved patient outcomes.

References

1 Reilly S, Planner C, Hann M, Reeves D, Nazareth I, Lester H. The role of primary care in service provision for people with severe mental illness in the United Kingdom. PLoS ONE. 2012;7(5):e36468.

HS&DR Project: 13/33/16

Improving nurse-led assessment of patients with long-term conditions and co-morbid mental health needs: a feasibility trial and process evaluation. Professor Margaret Maxwell. (Waiting to publish)

https://www.journalslibrary.nihr.ac.uk/programmes/hsdr/133316/#/

Health and service need:

Annual reviews of people living with long-term conditions (LTCs) are mostly conducted by Practice Nurses who focus on the physical needs of patients. The broader mental wellbeing and social needs of patients are also important if they are to live well, yet previous initiatives (such as the Quality and Outcomes Framework (QoF)) to improve primary care led assessment of mental health problems in people living with long term conditions have been disappointing in their impact on patient outcomes. This may be because practice nurses have little training in mental health. Further, the opportunities to support patients to access community and other support resources through more effective consultations may be lost.

How was the research carried out?

The study was conducted to establish if it is feasible and acceptable to use a novel approach to primary care nurse led reviews for those with LTCs, and how it might be evaluated (potential outcome measures). The Patient Centred Assessment Method (PCAM) is a new tool to help Practice Nurses assess a broad range of physical, mental wellbeing and social needs. It is also 'action oriented' so that, if needs are identified the practice will support the patient to access health system with community supports; support self-management approaches; encourage more productive (nurse) interactions with patients which should lead to more activated patients; facilitate decision support (by nurses) to improve the care of patients; and encourage a proactive practice team.

The PCAM intervention consists of a training package for nurses covering the importance of biopsychosocial needs assessment and how to use the PCAM tool. The PCAM tool encourages nurses to identify and assess severity or urgency of needs, and a resource toolkit for quick access to local health and/or social referral or signposting options. The PCAM tool to support systematic assessment of needs covers the domains of:

- Health and Wellbeing (covering physical health needs; impact of physical health on mental health; lifestyle behaviors; mental wellbeing)
- Social Environment (covering home safety and stability; daily activities; social networks; financial resources)
- Health Literacy and Communication (covering understanding of symptoms, self-care and healthy behaviour; how engaged patient is in discussions)

The PCAM is an adapted version of the Minnesota Complexity Assessment Method which was derived from the INTERMED.¹⁻³ The PCAM has previously been evaluated, and continues to be used, in some anticipatory (Keep Well) health check clinics in Scotland (www .keepwellscotland.com)⁴⁻⁵ but has not been evaluated for use by primary care practice nurses and its potential value for addressing mental well-being in patients with LTCs.

The feasibility study trained six nurses to deliver the PCAM and use it in annual reviews of patients with LTCs. Nurse use of referral and signposting options and patient level outcomes were compared with those of four nurses who delivered care as usual. A sample of nurses provided recorded consultations before and after training in the PCAM to allow assessment of their use of the PCAM.

What did the study find?

The nurses were able to use the PCAM in their consultations. They reported that PCAM appears to help support a positive patient-nurse relationship through increasing the quality and openness of communication, and an understanding of the patient's life. From the patients' point of view, the consultation covered topics of their wider wellbeing, which they welcomed. Analysis of consultation recordings showed increased discussion of broader social issues. PCAM trained nurses made increased use of signposting to social support that were also more likely to be taken up by patients.

The study recommended that PCAM is more likely to be feasible when nurses:

- see the asking of questions as part of the nursing role;
- view their role as facilitating links to information or resources that can address concerns (rather than feeling they have to address the concerns themselves);
- have the information about resources available to them;
- benefit from a whole practice commitment to the approach.

Training in the use of the PCAM has to be flexible to fit in with limited practice time (some aspects could be conducted on-line) but also requires the inclusion of reflective practice. The resource toolkit is also an integral part of the PCAM intervention and practices need to find dedicated time to keep this resource live, potentially re-enforcing local connections to public and voluntary services at the same time.

Implications for services:

The PCAM intervention has potential to be adopted as a means of improving the delivery of the health checks to include mental wellbeing and social needs for adults with LTCs in primary care by the wider GP workforce, and warrants further evaluation. GP services could use this approach to improve screening for common mental health problems and signposting or referral to early intervention (e.g. IAPT in England) or self-management resources (such as exercise) or social-financial resources in the community.

Information on PCAM can be found at

http://www.pcamonline.org

References

- 1. P. de Jonge, et al. 2001 INTERMED—A Clinical Instrument for Biopsychosocial Assessment. Psychosomatics 2001; 42:106–109).
- 2. de Jonge P, et al (2005). Operationalization of biopsychosocial case complexity in general health care: the INTERMED project. Australian and New Zealand Journal of Psychiatry, 39(9),795-799 3. Peek, C., M.A. Baird, and E. Coleman, *Primary care for patient complexity, not only disease.* Families, Systems, & Health, 2009. **27**(4): p. 287.
- 4. M Maxwell et al. Development and Initial Validation of the Minnesota and Edinburgh Complexity Assessment Method for Use Within the Keep Well Health Check. NHS Health Scotland 2012 5. Rebekah Pratt, Carina Hibberd, Isobel Mary Cameron, Stewart W. Mercer, Margaret Maxwell. The Patient Centered Assessment Method (PCAM): integrating the social dimensions of health into primary care. Journal of Co-morbidity. 2015; 5:110–119

HS&DR 13/54/34

NOTEPAD: Non-Traditional providers to support the management of Elderly People with Anxiety and Depression: a feasibility study (Professor Carolyn Chew-Graham (in progress).

https://www.journalslibrary.nihr.ac.uk/programmes/hsdr/135434/#/

Health and service need:

Anxiety and depression are common amongst older people with up to 20% of older people reporting such symptoms, and the prevalence increases with co-morbid long-term conditions. Depression and anxiety in older people are poorly detected and managed in primary care (Chew-Graham et al 2004), particularly in people with long term physical conditions (Coventry et al, 2011). Services such as IAPT and or psychotropic medication are supported by good evidence, but access by older people is much lower than for younger adults due to a combination of factors at the level of patient, practitioner and healthcare system. Commissioners may seek evidence that other evidence-based interventions tailored for the needs of older people will be acceptable. Further research studies and local evaluations would be justifiable to establish effectiveness and affordability.

What might be an acceptable model of service tailored for older adults?

There is evidence to suggest that older people with depression may benefit both from one-to-one interventions (including befriending) and group social or educational activities, which reduce loneliness, are participatory and offer some activity. Non-traditional providers, working within third (voluntary) sector organizations, are a valuable source of expertise and resource within the community but are under-utilized by primary care practitioners. Such a resource could increase access to care, and be less stigmatizing for older people.

Non-traditional providers (NTPs) could be trained to deliver a simple psychosocial intervention, based on CBT and including behavioral activation, to older people with depression and/or anxiety. The intervention involves one to one contact and an optional group based intervention. Such a resource could increase access to care for anxiety and depression, and be less stigmatizing and more acceptable for older people. The training slides and resources for older people are available with the written permission of the author. Please contact Carolyn Chew-Graham: c.a.chew-graham@keele.ac.uk

A study by researchers at the University of Stirling aims to identify whether is it feasible for third sector workers, or non-traditional providers (NTPs), to conduct a psychosocial assessment and deliver a psychosocial intervention to older adults with anxiety and depression.

Phase one of the study aims to explore the views of older people and third sector workers about anxiety and depression among older people in order to refine an intervention to be delivered by Age UK North Staffordshire workers.

The Phase 1 qualitative study found experience of loss was seen as central to feelings of anxiety and depression among community-dwelling older people. The insights from interviews with 19 older people and 9 third sector workers have been used to inform the development of a psychosocial intervention and training for third sector workers delivering the intervention, and resources for older people, which will be tested for feasibility and acceptability in phases 2 and 3 of the study.

Implications:

Developing interventions for older people with anxiety and depression may benefit from an understanding of the central concerns of older people, including loss and loneliness.

It may be possible that third sector workers can be trained and supported to deliver evidenced-based psychological interventions to older people with anxiety and depression, thus increasing the capacity and spread of provision. Such third sector workers may be perceived as less stigmatising than services with a 'mental health' label.

HS&DR - 13/05/11

Integrated care to address the physical health needs of people with severe mental illness: a rapid review

https://www.journalslibrary.nihr.ac.uk/programmes/hsdr/130511/#/

Rodgers M, Dalton J, Harden M, Street A, Parker G, Eastwood A. Integrated care to address the physical health needs of people with severe mental illness: a rapid review. *Health Serv Deliv Res* 2016;4(13)

Introduction:

Better integration of health services is part of the service transformation heralded in the Five Year Forward View for Mental Health, and in many STPs, older adults with severe mental illness and physical health problems. Research that describes evidence from multiple studies of what works for integration is described.

Health and service need:

People with mental health conditions have a lower life expectancy and poorer physical health outcomes than the general population. Evidence suggests this discrepancy is driven by a combination of clinical risk factors, socioeconomic factors and health system factors.

A systematic review (<u>Bradford et al, 2013</u>) evaluated interventions that integrated medical and mental health care to improve general medical outcomes in individuals with SMI. This review found interventions that were associated with increased rates of immunization and screening, but had mixed results in terms of changes in physical functioning, and none reported clinical outcomes.

Also in 2013, a Mental Health Foundation inquiry report identified nine factors as being central to good integrated care for adults with mental health problems: (1) Information sharing systems; (2) Shared protocols; (3) Joint funding and commissioning; (4) Co-location of services; (5) Multidisciplinary teams; (6) Liaison services between and within services; (7) Care Navigators; (8) Research to evaluate improvements; and (9) Reduction of stigma.

This project explored what current provision exists in practice, and mapped the most recent evidence on models of care for addressing the physical health needs of people with mental health problems, primarily within the mental health service setting.

How was the research done?

The research was designed as a rapid review of published evidence from 2013-2015, including an update of the Bradford review, supplemented by insights from 13 experts in the field of mental health, including service users.

The research team searched nine electronic databases to update the published academic literature from January 2013 to May/June 2015, alongside guidelines from the UK, USA, Canada, Australia and New Zealand.

Study design: Empirical and descriptive publications, including evaluative studies and policy/quideline documents.

Setting: Integration of services primarily within the healthcare sector. Models focusing on the wider integration of services spanning non-NHS settings (e.g. social care, education,

employment, housing and voluntary sector provision) were not included. *Population*: People diagnosed with SMI (schizophrenia, bipolar affective disorder; severe depressive episode(s) with or without psychotic episodes). *Intervention*: Any health care services that include arrangements to address the physical health needs of people with SMI.

What did the review find?

45 publications describing 36 separate approaches to integrating physical health needs into the care of people with SMI were included in the review. Most service models were multi-component programmes incorporating at least two of the nine factors identified by The Mental Health Foundation as facilitators of integrated care (see table).

Few of the identified examples were described in detail and fewer still were evaluated, raising questions about the replicability and generalisability of much of the existing evidence.

Implications of the review findings for NHS services in England:

Right people and skills: A fundamental requirement for successful integration of physical and mental health care is having the right people with the right skills and attitudes.

Systems to support communication between professionals: Any planned structural changes should consider the likely impact on the attitudes, skills and behaviours of the people interacting within and across health organisations. Facilitators either empowered individuals and/or minimized the effort needed for individuals to provide and access integrated services. Training and skills in collaborative care are needed. Integrated information systems are needed but seldom fully implemented, to simplify inter-professional communication. Multidisciplinary teams need the appropriate skills mix, and clarity of roles. Shared protocols, joint action plans and decision support tools may assist by clarifying responsibilities and supporting record keeping and communication across boundaries.

Designing for integration in future: Service improvement would benefit from co-design with service users. The researchers describe how service users on the advisory panel identified scope for simple changes that would improve their experience: improved appointment booking arrangements for patients with SMI; making mental health inpatient environments more conducive to good physical health; and greater attention to the sexual health of people with SMI. These concerns have received very little attention in recent research.

	Bartels ¹	Bellamy ²	Bradford ³	Chawstiak ^{4,5}	Curtis ⁶	De Hert ⁷	Department of	Department of	Druss ¹⁰	Greater	Happell ¹³⁻¹⁶	Hardy ¹⁷	Jones ¹⁸	Kelly ¹⁹ Brekke ²⁰	Kern ²⁴	Kilany ²²	Kilbourne ²³⁻²⁶	Lee ²⁷	Maki ²⁸	Mental Health	NHS IQ ³⁰	NHS London ³¹	Nover ³²	Parks ³³	Pirraglia ³⁴	Rubin ³⁵	Shackleford ³⁶	Solomon ³⁷	Stark ³⁸	Tallian ³⁹	Ungar ⁴⁰	Vanderlip ⁴¹	Vinas Cabrera ⁴²	Von Esenwein ⁴³	Welthagen ⁴⁴	Yeomans ⁴⁵
Study design E:Evalu ation P:Policy D:Descri ptive	E	E	E	EE	E	P	PE	P	E	E	D D E	E	E	E	D	E	шшш	Ш	E	D	E	D	D	D	E	E	D	D	D	D	D	D	E	E	D	E
1. Informati on sharing systems			•				•			•					•	•	•		•	•				•					•				•	•		•
2. Shared protocol s			•			•				•					•	•				•		•		•						•			•			
3. Joint funding and commiss ioning		•	•					•							•	•				•	•			•												
4. Co- location	•	•	•	•	•		•		•		•				•	•		•		•			•	•	•	•	•				•				•	

of																														
services																														
5.		•	•	•	•	•	•	•	•				•	•		•	•	•	•	•	•	•				•	•			
Multidisc																														
iplinary																														
teams																														
6.		•	•	•		•		•	•	•			•	•	•			•			•	•	•		•	•			•	
Liaison																														
services																														
7.	•	•							•	•	•	•	•	•				•	•	•	•	•		•			•			
Navigat																														
ors																														
8.													•	•			•	•			•				•					
Researc																														
h																														
9.										•		•	•	•	•			•	•		•									
Reducti																														
on of																														
on of stigma																														

References

- Bartels SJ, Pratt SI, Mueser KT, Naslund JA, Wolfe RS, Santos M, et al. Integrated IMR for psychiatric and general medical illness for adults aged 50 or older with serious mental illness. *Psychiatr Serv* 2014;65:330-7. http://dx.doi.org/http://dx.doi.org/10.1176/appi.ps.201300023
- 2. Yale University. *Project wellness enhancement: increasing health care choice and outcomes for people with mental illness*. ClinicalTrials.gov, National Library of Medicine (US); 2014. URL: http://ClinicalTrials.gov/show/NCT02263742 (Accessed 3rd June 2015).
- 3. Bradford DW, Cunningham NT, Slubicki MN, McDuffie JR, Kilbourne AM, Nagi A, et al. An evidence synthesis of care models to improve general medical outcomes for individuals with serious mental illness: a systematic review. *J Clin Psychiatry* 2013;**74**:e754-e64.
 - https://www.ncbi.nlm.nih.gov/books/NBK100924/pdf/Bookshelf_NBK100924.pdf
- 4. Chwastiak L, Vanderlip E, Katon W. Treating complexity: collaborative care for multiple chronic conditions. Int Rev Psychiatry 2014;26:638-47.
- 5. University of Washington. *TEAMcare for diabetes in mental health centers*. ClinicalTrials.gov, National Library of Medicine (US); 2013. URL: http://ClinicalTrials.gov/show/NCT02011529 (Accessed 3rd June 2015).
- Curtis J, Watkins A, Rosenbaum S, Teasdale S, Kalucy M, Samaras K, et al. Evaluating an individualized lifestyle and life skills intervention to prevent antipsychotic-induced weight gain in first-episode psychosis. *Early Intervention in Psychiatry* 2015:Published online 26th February 2015 http://dx.doi.org/10.1111/eip.12230.
- De Hert M, Dekker JM, Wood D, Kahl KG, Moller H-J. Cardiovascular disease and diabetes in people with severe mental illness. Rev Psiquiatr Salud Ment 2009;2:49-59.
- 8. Druss B, Zhao L, Von Esenwein S, Morrato E, Marcus S. Understanding excess mortality in persons with mental illness: 17-year follow up of a nationally representative US survey. Med Care 2011;49:599-604.
- 9. NHS England. Five year forward view: NHS England; 2014.
- 10. Druss BG, Rohrbaugh RM, Levinson CM, Rosenheck RA. Integrated medical care for patients with serious psychiatric illness. *Arch Gen Psychiatry* 2001;**58**:861-8.
- 11. NHS NIHR Collaboration for Leadership in Applied Health Research and Care (CLAHRC) for Greater Manchester. Improving the physical health care of people with severe and enduring mental illness. Manchester Mental Health and Social Care Trust pilot project evaluation report. Salford: Salford Royal NHS Foundation Trust; 2013.
- 12. NHS NIHR Collaboration for Leadership in Applied Health Research and Care (CLAHRC) for Greater Manchester. Improving the physical health care of people with severe and enduring mental illness. Community physical health co-ordinator and multi-disciplinary team meeting guidance document. Salford: Salford Royal NHS Foundation; 2013.
- 13. Happell B, Stanton R, Hoey W, Scott D. Cardiometabolic health nursing to improve health and primary care access in community mental health consumers: baseline physical health outcomes from a randomised controlled trial. Issues Ment Health Nurs 2014;35:114-21. http://dx.doi.org/http://dx.doi.org/10.3109/01612840.2013.842619
- 14. Happell B, Platania-Phung C, Scott D. Mental Health Nurse Incentive Program: facilitating physical health care for people with mental illness? Int J Ment Health Nurs 2013;22:399-408. http://dx.doi.org/10.1111/inm.12006
- 15. Happell B, Platania-Phung C, Stanton R, Millar F. Exploring the views of nurses on the cardiometabolic health nurse in mental health services in Australia. Issues Ment Health Nurs 2015;36:135-44.
- 16. Happell B, Stanton R, Hoey W, Scott D. Cardiometabolic health nursing to improve health and primary care access in community mental health consumers: protocol for a randomised controlled trial. Int J Nurs Stud 2014;51:236-42.
- 17. Hardy S, Hinks P, Gray R. Does training practice nurses to carry out physical health checks for people with severe mental illness increase the level of screening for cardiovascular risk? *Int J Soc Psychiatry* 2014;**60**:236-42. http://dx.doi.org/http://dx.doi.org/10.1177/0020764013483721

- 18. Jones H, Adams C, Clifton A, Callaghan P, Liddle P, Buchanan H, et al. An oral health intervention for people with serious mental illness (three shires early intervention dental trial): study protocol for a randomised controlled trial. Trials 2013;14:158.
- 19. Kelly E, Fulginiti A, Pahwa R, Tallen L, Duan L, Brekke JS. A pilot test of a peer navigator intervention for improving the health of individuals with serious mental illness. *Community Ment Health J* 2014;**50**:435-46. http://dx.doi.org/http://dx.doi.org/10.1007/s10597-013-9616-4
- 20. Brekke JS, Siantz E, Pahwa R, Kelly E, Tallen L, Fulginiti A. Reducing health disparities for people with serious mental illness: development and feasibility of a peer health navigation intervention. *Best Pract Ment Health* 2013;**9**:62-82.
- 21. Kern JS. Providing primary care in behavioral health settings. In: Raney LE, editor. *Integrated care: working at the interface of primary care and behavioral health*. Arlington, VA, US: American Psychiatric Publishing, Inc; 2015:169-91.
- 22. Kilany M. Patient-centered medical homes for patients with severe mental illness: Utilization and quality of care variation in rural and urban areas. United States, North Carolina: The University of North Carolina at Chapel Hill; 2015.
- 23. Kilbourne AM, Goodrich DE, Lai Z, Post EP, Schumacher K, Nord KM, et al. Randomized controlled trial to reduce cardiovascular disease risk for patients with bipolar disorder: the Self-Management Addressing Heart Risk Trial (SMAHRT). J Clin Psychiatry 2013;74:e655-62. http://dx.doi.org/http://dx.doi.org/10.4088/JCP.12m08082
- 24. Kilbourne AM, Goodrich DE, Lai Z, Clogston J, Waxmonsky J, Bauer MS. Randomized controlled pilot study of Life Goals Collaborative Care for patients with bipolar disorder and cardiovascular disease risk from community-based preactices. Psychiatr Serv 2012;63:1234-8. http://dx.doi.org/http://dx.doi.org/10.1176/appi.ps.201100528
- 25. Kilbourne AM, Bramlet M, Barbaresso MM, Nord KM, Goodrich DE, Lai Z, et al. SMI life goals: description of a randomized trial of a collaborative care model to improve outcomes for persons with serious mental illness. Contemp Clin Trials 2014;39:74-85.
- 26. Kilbourne A. Cross-diagnosis collaborative care program for patients with mood disorders from the U.S. National network of depression centers. Bipolar Disord 2013;15(Suppl 1):11. http://dx.doi.org/http://dx.doi.org/10.1111/bdi.12079
- 27. Lee WK. [Outcome for patients with severe mental illnesses participating in a district-based risk-need-driven personalised care programme using case management approach]. *East Asian Arch Psych* 2010;**20**:33-4.
- 28. Maki M, Bjorklund P. Improving cardiovascular disease screening in community mental health centers. Perspect Psychiatr Care 2013;49:179-86.
- 29. Mental Health Foundation. Crossing boundaries. Improving integrated care for people with mental health problems. London: Mental Health Foundation; 2013. https://www.mentalhealth.org.uk/publication-download/crossing-boundaries
- 30. NHS Improving Quality. Living longer lives case study. SHAPE (Supporting Health and Promoting Exercise). Leeds: NHS Improving Quality; 2014.
- 31. NHS London Health Programmes. Mental health models of care for London. London: NHS London Health Programmes; 2011.
- 32. Nover CH. Implementing a mental health and primary care partnership program in Placer County, California. Soc Work Health Care 2014;53:156-82.
- 33. Parks J. Behavioral health homes. In: Raney LE, editor. Integrated care: working at the interface of primary care and behavioral health. Arlington, VA, US: American Psychiatric Publishing, Inc; 2015:193-216.
- 34. Pirraglia PA, Rowland E, Wu WC, Taveira TH, Cohen LB, Friedmann PD, et al. Benefits of a primary care clinic co-located and integrated in a mental health setting for veterans with serious mental illness. Prev Chronic Dis 2012;9:E51. http://dx.doi.org/dx.doi.org/10.5888/pcd9.110113
- 35. Rubin AS, Littenberg B, Ross R, Wehry S, Jones M. Effects on processes and costs of care associated with the addition of an internist to an inpatient psychiatry team. Psychiatr Serv 2005;56:463-7.
- 36. Shackelford JR, Serna M, Mangurian C, Dilley JW, Shumway M. Descriptive analysis of a novel health care approach: reverse collocation-primary care in a community mental health "home". Prim Care Companion CNS Disord 2013;15.

- http://dx.doi.org/http://dx.doi.org/10.4088/PCC.13m01530
- 37. Solomon P, Hanrahan NP, Hurford M, DeCesaris M, Josey L. Lessons learned from implementing a pilot RCT of transitional care model for individuals with serious mental illness. Arch Psychiatr Nurs 2014;28:250-5.
- 38. Stark E, Walker W. Specification for the evaluation of the implementation of Lester 2014. Leeds: NHS Improving Quality; 2014.
- 39. Tallian K, Hirsch JD, Chang CA, Messinger M, Gilmer T, Kuo GM, et al. Development of a pharmacist-managed Medication Therapy Management Services (MTMS) in a mental health clinic. Pharmacotherapy 2010;30:443e.
- 40. Ungar T, Goldman S, Marcus M. Reversed shared care in mental health: bringing primary physical health care to psychiatric patients. Can J Commun Ment Health 2013;32:1-16.
- 41. Vanderlip ER, Williams NA, Fiedorowicz JG, Katon W. Exploring primary care activities in ACT teams. Community Ment Health J 2014;50:466-73.
- 42. Vinas Cabrera L, Fernandez San-Martin MI, Martin Lopez LM, Grupo Psicosis Litoral. [Effectiveness of a joint project between primary care and mental health to improve the recording of cardiovascular risk factors in patients with psychosis]. Aten Primaria 2013;45:307-14. http://dx.doi.org/http://dx.doi.org/10.1016/j.aprim.2012.12.008
- 43. von Esenwein SA, Druss BG. Using electronic health records to improve the physical healthcare of people with serious mental illnesses: a view from the front lines. Int Rev Psychiatry 2014;26:629-37.
- 44. Welthagen E, Talbot S, Harrison O, Phelan M. Providing a primary care service for psychiatric in-patients. Psychiatr Bull R Coll Psychiatr 2004;28:167-70.
- 45. Yeomans D, Dale K, Beedle K. Systematic computerised cardiovascular health screening for people with severe mental illness. Psychiatr Bull 2014;38:280-4.