Evidence Review

Physical Health in the Mental Health Setting

Key messages

- Psychiatric inpatients should receive regular physical health assessments
- Patients' physical health should be monitored for adverse physical effects of antipsychotic treatment or other causes of poor physical health
- Patients should be offered personalised and tailored advice around developing and maintaining healthy lifestyles including access to resources around diet and exercise. A tailored programme of healthy lifestyle support should be documented in the patients' care plan.
- Staff, including bank staff, should be trained to respond to physical health emergencies.
- Staff working in mental health wards should receive regular training and updates to assist with the physical health of patients.
- Patients with long-term conditions should be offered support to manage them, but also retain their independence and sense of dignity and control, if they are used to managing the condition. Staff should receive adequate training in how to care for patients with physical long-term conditions.
- Many studies have examined physical health interventions to improve the general physical health of patients through diet/nutrition and exercise programmes. Programmes that report generally better outcomes include structured programmes tailored to patients' needs and contain aerobic exercise elements.

NHS Mersey Care NHS Foundation Trust
Community and Mental Health Services

Evidently Better

May 2020
library@merseycare.nhs.uk
@evidentlybetter

You asked

What is the best practice for caring for physical health in mental health settings?

We found

The key guidance for caring for inpatients' physical health focusses on the need for patients to be comprehensively assessed upon admission and to receive regular physical health checks. Patients should have access to information to maintain good nutrition and access to exercise based activities and equipment.

People with mental illness are more likely to have poorer general physical health. Inpatients with severe mental illness are at higher risk of poor cardiovascular and metabolic health, obesity and other obesity-related comorbidities. The reasons for this include medication side effects, lack of motivation to participate in physical activity, restrictions on their movement/activities, high levels of depression or debilitating bouts of mental illness and poor nutrition.

Patients in mental health facilities may also have other long-term health conditions along with the rest of the population.

Patients generally are aware of the health-improvement benefits of physical activity and improved diet, but barriers to participation include high levels of depression, periods of being acutely unwell, lack of motivation and feelings of restriction. These barriers are often patient-specific and require long term development/engagement with staff to improve levels of motivation and create personalised goal-setting tailored to the patients' need and ability.

Staff should have access to training and education to improve their confidence in dealing with a variety of general physical health needs, providing advice and support and promoting healthy lifestyle changes to patients. Staff should also be prepared to provide care in the event of an emergency situation.

Patients' physical health needs and requirements should form part of their care plan, including efforts to promote a holistic approach towards their care. Physical health can have an effect on a patients' mental health and there is an increasing movement the literature to examine more closely the concept, and support the idea that physical and mental health are no longer treated as entirely separate from one another.

The Evidence

Guidelines & Systematic Reviews

1. **Chaplain, R. Standards for Inpatient Mental Health Services, Third edition. RCPsych: 2019** https://www.rcpsych.ac.uk/docs/default-source/improving-care/ccqi/ccqi-resources/rcpsych_standards_in_2019_lr.pdf?sfvrsn=edd5f8d5_2

Section 7 outlines the current standards for physical healthcare in inpatient MH services:

Number	Type	Standard	Ref
7		**Physical healthcare**	
7.1	1	Patients have follow-up investigations and treatment when concerns about their physical health are identified during their admission. *Guidance: This is undertaken promptly and a named individual is responsible for follow-up. Advice may be sought from primary or secondary physical healthcare services.*	26, 39, 24
7.2	1	Patients are offered personalised healthy lifestyle interventions such as advice on healthy eating, physical activity and access to smoking cessation services. This is documented in the patient's care plan.	3, 21, 39, 24
7.3	1	The team including bank and agency staff are able to identify and manage an acute physical health emergency.	4
7.4	1	Patients in hospital for long periods of time, who are prescribed mood stabilisers or antipsychotics, have the appropriate physical health assessments at the start of treatment (baseline), at 6 weeks, at 3 months and then annually (or every six months for young people) unless a physical health abnormality arises.	3, 4, 39, 40, 41, 42

2. **Penfold, A. Nugent A, Clarke H, & Colwill, A. Standards for Acute Inpatient Services for Working-Age Adults. Royal College of Psychiatrists: London. 2019.**

This standard reiterates those identified in (1) and in relation to physical heath includes further details, including the need for joint working plans/pathways to be in place for patients needing to receive other aspects of physical healthcare including A&E access, primary health care etc.

standards-for-acute
-inpatient-services-f

3. **CQC. BG029: Physical healthcare in mental health settings V3, November 2019**

A good service will ensure that people with mental health problems receive the same standard of physical healthcare as any other member of society. They may deliver this through their own appropriately qualified and experienced staff or in partnership with other providers. There are two main tasks for practitioners in mental health services:

1. Medical assessment to ensure physical illness is not causing the psychiatric presentation.

2. Monitoring for adverse physical effects of antipsychotic treatment or other causes of poor physical health.

20191125_900852_b
riefguide-physical_h

4. **Bailey JM, Bartlem KM, Wiggers JH, Wye PM, Stockings EA, Hodder RK, Metse AP, Regan TW, Clancy R, Dray JA, Tremain DL. Systematic review and meta-analysis of the provision of preventive care for modifiable chronic disease risk behaviours by mental health services. Preventive medicine reports. 2019 Aug 14:100969.**

This review looked at provision of preventive care for modifiable chronic disease risk behaviours by mental health services in both inpatient and outpatient settings. The review highlighted overall a lack of consistency among services and of reliable reporting date, the review found a notable lack of research in interventions other than smoking cessation. The reviewers found that "current provision of care in the form of assistance to address nutrition, physical activity, and alcohol consumption is largely unknown and requires further investigation in subsequent research....This review found suboptimal provision of preventive care for tobacco smoking, harmful alcohol consumption, inadequate nutrition, and inadequate physical activity in mental health settings across all analysed care elements". They did note some evidence of the addition of specialist preventative health care providers being embedded in some mental health services has been trialled in recent years with generally positive findings.

Bailey et al 2019
Systematic review ar

5. **Vancampfort D, Rosenbaum S, Schuch F, Ward PB, Richards J, Mugisha J, Probst M, Stubbs B. Cardiorespiratory fitness in severe mental illness: a systematic review and meta-analysis. Sports Medicine. 2017 Feb;47(2):343-52.**

This review examined cardiorespiratory fitness in people with severe mental illness, explored moderators and interventions around CRF and investigated the significance of exercise interventions. The main findings showed that regardless of specific condition, the cardiorespiratory fitness of people with severe mental illness was consistently worse than those of healthy controls. The study found that exercise improves cardiorespiratory fitness in people with severe mental illness, irrespective of changes in body mass index, aerobic exercise was found to improve cardiorespiratory fitness to a clinically relevant degree. The authors concluded that qualified healthcare professionals supporting people with SMI in maintaining an active lifestyle should be included as part of multidisciplinary teams in mental health treatment.

Vancampfort2017_Article_Cardiorespirat

Staff and Patient Views & Experiences

6. **Brunero S, Everett B, Ramjan LM, Salamonson Y, Steel K, Johnson AM, Stokes M, Langdon R, Dickens GL. Clarity, confidence and complexity: Learning from mental health nurses' experiences of events involving physiological deterioration of consumers in acute inpatient mental health settings. Journal of Clinical Nursing. 2020 Jan 21;29(7-8):1102-14.**

The study was conducted across three hospital sites (11 wards) providing services for adolescent and adult consumers in acute, high dependency wards and psychiatric emergency care centres of one local health district in NSW, Australia and involved a series of focus groups of ward-based nursing staff and nursing unit managers.

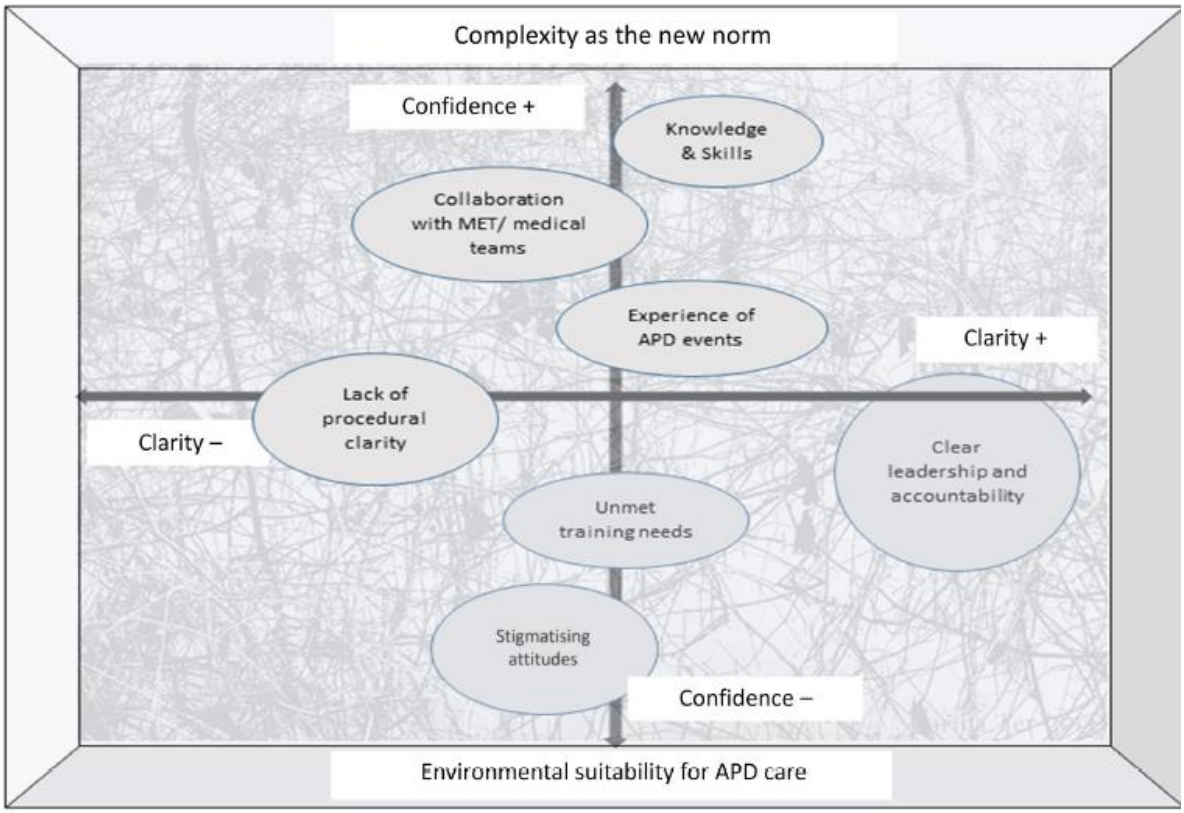


FIGURE 1 Schematic of study themes suggesting continua of confidence and clarity in a frame of complexity and environmental suitability for care of physiologically at-risk patient [Colour figure can be viewed at wileyonlinelibrary.com]

The findings highlighted key themes and areas for improving patient experience and nurse confidence in looking after patients' physical health

needs, including training, clarity of reporting structures and organisation culture to encourage consideration and support of physical health needs.

Brunero et al 2019 Clarity confidence a

7. **Visser RC, MacInnes D, Parrott J, Houben F. Growing older in secure mental health care: the user experience. Journal of Mental health. 2019 Jun 26:1-7.**

This paper looked at the experiences of older adults in secure mental health care, with regards to physical health it found that participants physical health needs impacted their every date lives. Patients reported a variety of health conditions including sight loss, arthritis, diabetes, dementia, high blood pressure, high cholesterol, stoma etc. The qualitative research found that patients who were used to managing their long term conditions found healthcare givers lack of knowledge and often highly-involved monitoring frustrating and paternalistic, as they were used to managing their physical health conditions independently, for example diabetes or balance problems. “If staff intervention was necessary, participants wanted to be treated with respect and sensitivity, particularly when they felt embarrassed about their condition”. In contrast experiences accessing primary care were reported positively.

Growing older in secure mental healtl

8. **Bartlem K, Bailey J, Metse A, Asara A, Wye P, Clancy R, Wiggers J, Bowman J. Do mental health consumers want to improve their long-term disease risk behaviours? A survey of over 2000 psychiatric inpatients. International journal of mental health nursing. 2018 Jun;27(3):1032-43.**

This cross sectional survey involved 2075 inpatients from four inpatient psychiatric facilities in one health district in Australia. Researches estimated the prevalence of four long-term disease risk behaviours (tobacco smoking, hazardous alcohol consumption, inadequate fruit and/or vegetable consumption, and inadequate physical activity); patient interest in reducing these risks; and acceptability of being provided care to do so during a psychiatric inpatient stay.

TABLE 2: *Participants engaging in health risk behaviours and multiple risk behaviours, by primary diagnosis.*

	Total		Psychotic disorders		Mood disorders		Substance related		Personality disorders		Anxiety/stress related		Other	
Behaviour[a]	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*
Smoking	**61.7**	**1277/2070**	64.1	339/529	48.9	319/653	80.7	271/336	56.1	162/289	69.5	130/187	73.7	56/76
Alcohol consumption	**50.9**	**1037/2037**	43.3	222/513	45.5	294/646	67.9	224/330	56.3	162/288	55.4	103/186	43.2	32/74
Overall nutrition	**94.8**	**1943/2049**	95.9	495/516	93.2	604/648	95.2	320/336	94.1	270/287	97.3	181/186	96.1	73/76
Inadequate Fruit	**57.9**	**1187/2050**	63.6	328/516	52.5	341/649	60.1	202/336	56.8	163/287	63.4	118/186	46.1	35/76
Inadequate vegetable	**92.9**	**1905/2051**	94.4	488/517	90.9	590/649	92.9	312/336	92.3	265/287	95.7	178/186	94.7	72/76
Inadequate physical activity	**50.2**	**1030/2050**	52.6	272/517	50.2	326/650	45.7	153/335	48.6	140/288	56.8	105/185	45.3	34/75

[a]Health behaviour risk status was defined in line with Australian national guidelines: any smoking (daily, weekly, less than weekly) (Ministerial Council on Drug Strategy 2004); consumption of more than two standard alcoholic drinks on a usual drinking day (National Health and Medical Research Council 2009); consuming less than two serves of fruit and/or less than five serves of vegetables per day (National Health and Medical Research Council 2003); or not engaging in at least 30 min of physical activity for at least 5 days a week (Department of Health and Aged Care 1999).

There were general correlations in prevalence of risk behaviours, regardless of mental illness diagnosis, but in most of the behaviours nearly half or more patients were found to be at risk. The majority of respondents stated that it would be “acceptable for inpatient facility staff to provide them with advice and support to change their health risk behaviours during their inpatient stay. While those with schizophrenia or psychotic disorders were least likely to agree it would be acceptable, 75% of such patients nevertheless reported that it would be so.”

Bartlem et al do
menal health consu

9. **Fraser SJ, Chapman JJ, Brown WJ, Whiteford HA, Burton NW. Physical activity attitudes and preferences among inpatient adults with mental illness. International journal of mental health nursing. 2015 Oct;24(5):413-20.**

This cross sectional study looked at the opinions for 101 psychiatric inpatients, recruited over an 8 month period. Patients' physical health records were obtained and patients were asked a series of questions around physical activity. The majority of patients (77%) expressed an interest in doing more physical activity, a high proportion endorsed the concept of physical activity for weight control, maintaining good health, managing stress, and improving emotional wellbeing. A high proportion identified the physical health benefits of physical activity and for general psychological wellbeing, but less than half thought it would be beneficial for other specific conditions such as bipolar disorder, schizophrenia, PTSD etc. Two-thirds of the participants preferred physical activity that can be done alone, at a fixed time, and with a set routine and format. The study also found that whilst some patients expressed an appreciation for assistance from physiotherapists or personal trainers, nurses and doctors were ranked as the least preferred sources of assistance. Lack of energy and motivation were the commonest reasons for not participating however five other common reasons were identified:

- Physical disability
- Medication side-effects (nausea, sedation, low BP)
- Other health appointments limiting time and opportunities
- Poor mental health
- Lack of equipment or access to suitable equipment, clothing and environment.

The overall results found that there was a general expressed wish for patients to be involved in more physical activity and good health, managing stress and improving emotional wellbeing are potential motivators. Structured activity at

set times and assistance from physiotherapists, personal trainers or other physical health professionals were preferred. Healthcare settings must make tailored efforts for patients to overcome barriers to active participation.

Fraser et al 2015
Physical activity attit

10. Özaslan Z, Bilgin H, Uysal Yalçın S, Haddad M. Initial psychometric evaluation of the physical health attitude scale and a survey of mental health nurses. Journal of Psychiatric and Mental Health Nursing. 2020 Feb;27(1):62-76.

This paper involved a sample of 174 nurses working in acute psychiatric settings. It highlights Nurses in acute mental health wards mostly focus on the basic physiological indicators of patients' existing physical health problems, so health promotion practices such as sexual health and eye/dental examinations are neglected for individuals with serious mental illness, and that nurses' level of confidence about the delivery of physical health care is due to their familiarity with basic nursing practices, but training and education opportunities to retain their skills in physical health care and improve confidence should be more widely encouraged. This paper argues for a national standard to be developed in acute psychiatric care to eliminate obstacles to holistic patient care.

Ozaslan et al 2019
initial psychometric

11. Mwebe H. Physical health monitoring in mental health settings: a study exploring mental health nurses' views of their role. Journal of clinical nursing. 2017 Oct;26(19-20):3067-78.

This article reports on a qualitative study which involved semi-structured interviews with mental health nurses based on an inpatient ward. The study found that nurses were aware of the need to improve the physical health of patients and were key to monitoring patients' physical health levels, however there were perceived barriers to physical health monitoring and a need for improved strategies to support a more integrative approach of physical and mental health care for patients, improved education and training access for nurses and time given to them to record and monitor physical health concerns and initiatives within their duties.

Mwebi 2016
physicalhealth moni

General Physical Health Factors

12. **Cuomo A, Maina G, Bolognesi S, Rosso G, Beccarini Crescenzi B, Zanobini F, Goracci A, Facchi E, Favaretto E, Baldini I, Santucci A. Prevalence and correlates of vitamin D deficiency in a sample of 290 inpatients with mental illness. Frontiers in psychiatry. 2019;10:167.**

This paper found that 94% of 290 psychiatric patients assessed showed Vitamin D inadequacy or deficiency. Factors that may contribute to the high prevalence of VDID in people with mental disorders include diet low in vitamin D, poor sunlight exposure, decrease in cutaneous vitamin D synthesis, intake of certain medications, poor mobility, excessive alcohol intake, and tobacco smoking. The study showed an extremely high prevalence and recommended assessments around patients' diet and increasing psychosocial interventions and time spent outdoors in physical activity to improve patient welfare- vitamin D deficiency is associated with a variety of co-morbid health factors.

Cuomo 2019
Prevalence and corre

13. Dikeç G, Arabaci LB, Uzunoglu GB, Mizrak SD. Metabolic side effects in patients using atypical antipsychotic medications during hospitalization. Journal of psychosocial nursing and mental health services. 2018 Jan 12;56(4):28-37.

This study, involving measuring the metabolic side-effects of atypical antipsychotic medication on 271 inpatients, adds to the literature concerning the physical-health effects of antipsychotic medication including increased cardiovascular and weight/BMI-related health risks during hospitalisation. Patients gained weight, which increased their risk for cardiovascular illnesses and negatively affected their physical health. The authors recommend monitoring, education and increased work be done in inpatient settings to reduce weight gain and manage physical health, suggesting that “patients with weight gain side effects must be educated about behavioral changes, such as having snacks, minimizing portions, exercising for 30 minutes at least 3 days per week, and choosing low-calorie foods. Nurses can organize individual or group psychoeducation for inpatients about medication therapy and its side effects.”

Dikec et al metabolic side effec

14. **Ringen PA, Faerden A, Antonsen B, Falk RS, Mamen A, Rognli EB, Solberg DK, Andreassen OA, Martinsen EW. Cardiometabolic risk factors, physical activity and psychiatric status in patients in long-term psychiatric inpatient departments. Nordic journal of psychiatry. 2018 May 19;72(4):296-302.**

This Norwegian study looked at a cross section of psychiatric inpatients assessing cardiometabolic risk factors, physical activity, lifestyle habits, symptoms, life satisfaction and treatment. The study found that despite involving 83 patients in the study, many of the datasets were incomplete. 44% were obese and over half also had elevated eating habits. A quarter had elevated blood pressure and nearly three quarters of the sample smoked daily. This data feeds into existing information which indicates that inpatients have higher levels of poor health and increased cardiometabolic risk, due to both medication, lifestyle and psychiatric reasons. It highlights the importance that inpatient facilities must consider the overall physical health of the patient.

Ringen et al 2018 Cardiometabolic risk

Specific Interventions

15. **Brown T, McKenna B, Furness T. Impact of a nurse practitioner role on metabolic monitoring completion and referrals for consumers admitted to the intensive care area of an acute inpatient psychiatric unit. International journal of mental health nursing. 2018 Feb;27(1):341-8.**

This paper reports on inpatients on a mental health unit receiving routine metabolic monitoring, and explores the contribution of a nurse practitioner to metabolic monitoring and the actioning of abnormal results. Data was collected 6 months before ad 6 months after the introduction of a nurse practitioner. The study found that guideline implementation and a new monitoring system do not lead to an increase in monitoring rates, and a much more dedicated approach is required, but following the introduction of a specialist practitioner tasked with metabolic monitoring screening for consumers, there is a clear increase in the screening and actioning of abnormal results.

Brown et al 2018 impact of a nurse pr

16. **Puzzo I, Gable D, Cohen A. Using the National Diabetes Audit to improve the care of diabetes in secure hospital in-patient settings in the UK. The Journal of Forensic Psychiatry & Psychology. 2017 May 4;28(3):400-11.**

This paper examined the ability of two forensic units to meet the NICE standards of care for diabetes in the UK. Of the 500 patients, 200 in high secure and 300 in medium secure, 88 (17.6%) had type 2 diabetes. None had Type 1 diabetes. Of those with Type 2 diabetes, the care of 74 (84%) met all 8 NICE recommended standards, with (90.3%) of those in high secure receiving the six recommended interventions.

Using the National Diabetes Audit to in

17. **Stanley SH, Ng SM, Laugharne JD. The 'Fit for Life'exercise programme: improving the physical health of people with a mental illness. Psychology, health & medicine. 2019 Feb 7;24(2):187-92.**

Seventy-two mental health service inpatients completed a general or individualised gym exercise programme within 12 weeks in this intervention. There were no major differences found between average pre and post programme weight measurements, BMI, waist circumference, waist-hip ratio, and blood pressure – with no major weight increases nor decreases. However increases were found in agility, strength and flexibility resulting in overall improvements in fitness and reflecting lower average resting and post exercise heart rates. The authors highlight the need for flexibility in implementing any regime in alignment with patients' needs, age and other factors that may impact motivation but state that incorporating exercise into treatment plans promotes positive physical and mental health, reducing the overall risk of disease.

Stanley et al 2018
The fit for life exerci

18. **Haddad M, Llewellyn-Jones S, Yarnold S, Simpson A. Improving the physical health of people with severe mental illness in a low secure forensic unit: an uncontrolled evaluation study of staff training and physical health care plans. International journal of mental health nursing. 2016 Dec;25(6):554-65.**

This paper describes an uncontrolled study involving patients in a low-secure unit, in which a physical health care plan was developed for patients by healthcare staff following staff attending a physical health training session and supplies of pedometers, tape measures and written information sheets. The intervention of a personalised physical health plan, tailored to the individual patient was considered to be more beneficial than introducing generic plans that did not take into account patients needs or interests. However the qualitative analysis found that uptake was still limited, "Staff felt that the personal health plans were 'a good idea', and that the coloured plastic folders made them more appealing, but they noted the take-up was very limited. This

was explained as being due to other 'competing duties' and 'other initiatives' within the unit, as well as the 'difficulties of changing (the) behaviours of patients'. The long-term nature of (some) patients' problems and behaviours was noted by several staff. Feedback also suggested that stronger support and leadership on the wards would be needed to drive success in the use of health plans.

Haddad et al 2016 improving the physi

19. Stanton R, Donohue T, Garnon M, Happell B. Participation in and satisfaction with an exercise program for inpatient mental health consumers. Perspectives in psychiatric care. 2016 Jan;52(1):62-7.

This Australian paper discusses the implementation of a group exercise programme offered to psychiatric inpatients as part of the varied group activities provided by the ward. The physical activity sessions were structued and led by specialist exercise specialist personnel, and uptake was very high and patient reported satisfaction correspondingly so. The authors note that whilst this alone provides good recommendations that such a programme can be well received by patients, "the consumer acceptance of the exercise program delivered by the highly experienced, qualified trainer, may, in part, be the result of an effective therapeutic relationship and arguably warrants further investigation. It may not be the "exercise" per se, rather the experience of the consumer, which contributes to recovery during inpatient stay. This might be particularly important in this setting since the exercise program was consistently delivered by the same individual, whereas other activities were delivered by multiple clinicians."

Stanton et al 2016 participation in satis

20. Hassan S, Byravan S, Al-Zubaidi H. Improving physical healthcare provided to psychiatric inpatients at an acute mental health trust. BMJ open quality. 2019 Aug 1;8(3):e000537.

This paper describes a quality improvement process applied in a psychiatric service to improve the rate of patients receiving regular physical health checks which, despite clear guidance laid out in the trust policy 'Physical Examination of Service Users during Admission to Hospital', had a low compliance rate with many patients not having baseline health data on record. As the process developed, the authors discovered that only by moving away from treating physical health checks as separate from mental health, and by introducing a more holistic stance on treatment, improved compliance to a notable level.

Hassan et al 2019 Improving physical h

21. Haw C, Stubbs J. What are we doing about weight management in forensic psychiatry? A survey of forensic psychiatrists. The British Journal of Forensic Practice. 2011 Aug 16.

Patients in forensic psychiatric settings are at high risk of obesity because of antipsychotic medication, restrictions on freedom and poor motivation to maintain a healthy lifestyle through diet or exercise. 183 Psychiatrists working in forensic psychiatry were surveyed regarding how consultants working in this area manage obesity. total of 68.9 per cent said their patients did not have unrestricted access to food, however others viewed such measures as unethical and an unacceptable restriction of patients' rights. Use of weight loss drugs such as orlistat was infrequent. A few patients had been referred for bariatric surgery but most had been judged unsuitable. The paper confirmed that lack of uptake and engagement with physical exercise and other non-pharmacological methods of weight loss is a cause for concern and requires further examination to improve patient engagement.

Ha and Stubb what are we doing about

Indicative search strategy

"physical health*"; excerc*; "physical activ*"
AND
Pysch*; "mental health";
AND
Ward; inpatient*

Sources searched

CINAHL, Cochrane, Medline, NICE, PsychINFO, Pubmed

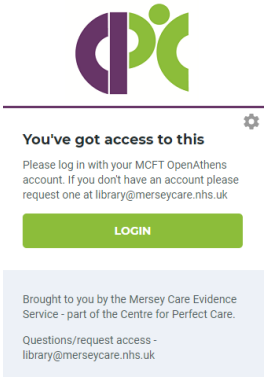
A structured public domain search for unpublished research.

Did this help?

We'd love to know if this information helped you.
Let us know at: library@merseycare.nhs.uk

This review is a summary of the best available evidence that has been selected using expert searching in order to answer a specific query. It may not be representative of the entire body of evidence available. No responsibility can be accepted for any action taken on the basis of the information presented herein.

BMJ Best Practice
Clinical decision making tool and app



For quick access to full-text articles- use the Chrome browser on a MCFT device or download the Library Access extension