

# Proactive and integrated consultation-liaison psychiatry for older medical inpatients: A mixed methods description of training, care provided and clinician experience in the HOME study

Michael Sharpe<sup>a,\*</sup>, Mark Toynbee<sup>a</sup>, Maïke van Niekerk<sup>a</sup>, Luke Solomons<sup>b</sup>, Colm Owens<sup>c</sup>, Annabel Price<sup>d</sup>, Michael Yousif<sup>e</sup>, Aelfrida Palmer<sup>c</sup>, Felix Clay<sup>d</sup>, Gunes Berk<sup>d</sup>, Jonathan Burns<sup>c</sup>, Laura Hill<sup>c</sup>, Jessica Harris<sup>f</sup>, Tomasz Bajorek<sup>b</sup>, Gabrielle Sirois-Giguere<sup>g</sup>, Nicholas Magill<sup>h</sup>, Peter Aitken<sup>i</sup>, Chris Dickens<sup>j</sup>, Jane Walker<sup>a</sup>

<sup>a</sup> Psychological Medicine Research, University of Oxford Department of Psychiatry, Warneford Hospital, Oxford, UK

<sup>b</sup> Oxford University Hospitals NHS Foundation Trust, Oxford, UK

<sup>c</sup> NHS Devon Mental Health, Learning Disability and Neurodiversity Provider Collaborative, Devon, UK

<sup>d</sup> Cambridgeshire and Peterborough NHS Foundation Trust, Cambridge, UK

<sup>e</sup> West London NHS Trust, London, UK

<sup>f</sup> Gloucestershire Health and Care NHS Foundation Trust, Gloucester, UK

<sup>g</sup> Université de Sherbrooke, Quebec, Canada

<sup>h</sup> Department of Medical Statistics, London School of Hygiene and Tropical Medicine, London, UK

<sup>i</sup> Sussex Partnership Foundation Trust, Worthing, UK

<sup>j</sup> University of Exeter, Exeter, UK

## ARTICLE INFO

### Keywords:

General hospital  
Proactive  
Integrated  
Older inpatients  
Consultation-liaison psychiatry

## ABSTRACT

**Objectives:** To describe the practical experience of delivering a proactive and integrated consultation-liaison (C-L) psychiatry service model (PICLP). PICLP is designed for older medical inpatients and is explicitly biopsychosocial and discharge-focused. In this paper we report: (a) observations on the training of 15 clinicians (seven senior C-L psychiatrists and eight assisting clinicians) to deliver PICLP; (b) the care they provided to 1359 patients; (c) their experiences of working in this new way.

**Method:** A mixed methods observational study using quantitative and qualitative data, collected prospectively over two years as part of The HOME Study (a randomized trial comparing PICLP with usual care).

**Results:** The clinicians were successfully trained to deliver PICLP according to the service manual. They proactively assessed all patients and found that most had multiple biopsychosocial problems impeding their timely discharge from hospital. They integrated with ward teams to provide a range of interventions aimed at addressing these problems. Delivering PICLP took a modest amount of clinical time, and the clinicians experienced it as both clinically valuable and professionally rewarding.

**Conclusion:** The experience of delivering PICLP highlights the special role that C-L psychiatry clinicians, working in a proactive and integrated way, can play in medical care.

## 1. Introduction

Consultation-liaison (C-L) psychiatry has the potential to improve the care of medical inpatients and to reduce the time that they spend in hospital [1]. However, the traditional way of delivering C-L psychiatry, which is to see referred patients and then to make recommendations on their care, has major limitations [2]. Its reliance on the ward team to

decide which patients are referred leads to only a minority of those who might benefit being seen [3]. In addition, its dependence on the ward team to make changes to the patient's care frequently leads to psychiatric recommendations not being implemented [4].

New approaches to delivering inpatient C-L psychiatry aim to address these limitations. Proactive C-L psychiatry services screen ward admissions to ensure that all patients who might benefit from a

\* Corresponding author: Psychological Medicine Research, University of Oxford Department of Psychiatry, Warneford Hospital, Oxford OX3 7JX, UK.

E-mail address: [michael.sharpe@psych.ox.ac.uk](mailto:michael.sharpe@psych.ox.ac.uk) (M. Sharpe).

<https://doi.org/10.1016/j.genhospsych.2023.12.009>

Received 22 September 2023; Received in revised form 27 December 2023; Accepted 28 December 2023

Available online 1 January 2024

0163-8343/© 2024 The Authors. Published by Elsevier Inc. This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>).

psychiatric consultation receive one [5,6]. Integrated C-L psychiatry services embed C-L psychiatrists in the ward team to allow co-management of the patient's care and ensure that recommendations are implemented [7,8].

Proactive integrated C-L psychiatry (PICLP) combines these approaches in a new service model designed for older medical inpatients [9]. PICLP is explicitly biopsychosocial in order to address older patients' complex problems, which include multiple medical illnesses, psychosocial difficulties and psychiatric disorders [10–12]. It is also discharge-focused in order to prevent long hospital stays, which worsen older patients' outcomes and increase the cost of care [13,14].

PICLP is operationalized in a service manual and a clinicians' workbook which is completed for each patient (Appendix) [9]. It is delivered by senior C-L psychiatrists supported by assisting clinicians (doctors or allied health professionals), all of whom have experience in the psychiatric care of older medical inpatients and training in the PICLP service model.

PICLP is delivered in four stages: Stage 1 is the initial proactive biopsychosocial assessment. PICLP clinicians see every older inpatient soon after their admission to the ward. The senior psychiatrist interviews the patient and the assisting clinician gathers information from their family, ward team and all available medical records. The findings of this assessment are used to create a comprehensive list of the patient's problems, including psychiatric diagnoses. This process is aided by a checklist in the clinicians' workbook. As a goal of PICLP is to avoid the patient spending more time in hospital than they need to, those problems judged likely to lengthen their hospital stay or lead to early readmission are prioritized. Stage 2 is the formulation of an action plan to address the prioritized problems. Stage 3 is the delivery of the interventions specified by the action plan. This is done by the PICLP clinicians working in an integrated way with other members of the ward team. The patient's progress is monitored daily and the action plan modified as needed. Stage 4 is communication with out-of-hospital care providers about unresolved problems and recommendations for care at the time of discharge.

Whilst there have been a number of useful descriptions and evaluations of proactive and integrated C-L psychiatry services, little has been published on the practical experience of delivering them. We had the opportunity to do this using data collected during The HOME Study [15]. In this ancillary, mixed methods study we aimed to describe the practical experience of delivering PICLP including: (a) observations on the training of clinicians to deliver PICLP; (b) the care provided by the PICLP clinicians; (c) the PICLP clinicians' experiences of working in the new service model.

2. Methods

2.1. Study design and setting

We conducted a prospective mixed methods observational study, using data collected as part of a randomized controlled trial (The HOME Study, trial registry number ISRCTN86120296) [15]. The trial compared PICLP with usual care in 24 acute medical wards of three United Kingdom (UK) National Health Service (NHS) general hospitals over a two-year period. These wards were staffed by physicians, nurses, physiotherapists, occupational therapists and healthcare assistants. The hospitals all had discharge coordination services, social workers (social workers in the UK mainly organize social care and do not generally provide psychotherapy) and referral-based C-L psychiatry. Table 1 summarizes the data sources, methods and analyses for each of the three study aims.

2.2. Observations on the training of clinicians to deliver PICLP

The training was overseen by the two C-L psychiatrists who led the design of the PICLP service model. The PICLP trainers kept contemporaneous records during the training process. They were also interviewed

Table 1  
Study aims, data sources, methods and analyses.

Aims: to describe	Data sources	Method	Analysis
Observations on the training of clinicians to deliver PICLP	- Contemporaneous records kept by the PICLP trainers - Interviews with the PICLP trainers - Clinician-completed PICLP patient workbooks	Qualitative	- PICLP trainers' observations on the training process
The care provided by the PICLP clinicians		Quantitative	- Percentage of patients with problems in each of the biopsychosocial domains (and the twelve categories within these) at the Stage 1 assessment - Percentage of patients with problems impeding discharge in each of the domains at the Stage 1 assessment (that is, problems which were prioritized in the Stage 2 action plan) - Percentage of patients whose care (during Stages 3 and 4) included each of a pre-specified list of intervention categories - Percentage of patients with problems impeding discharge in the three domains on each day following allocation to PICLP - Mean time spent by the PICLP clinicians on each patient in total and by PICLP stage
The PICLP clinicians' experiences of working in the new service model	- Interviews with the PICLP clinicians	Qualitative	- PICLP clinicians' experiences of the proactive approach - PICLP clinicians' experiences of the integrated approach - PICLP clinicians' experiences of the biopsychosocial perspective - PICLP clinicians' experiences of the discharge focus

PICLP = Proactive Integrated Consultation-Liaison Psychiatry.

by a clinical researcher about their observations on training (the interviews were audio-recorded and transcribed verbatim). Two researchers analyzed the combined data from the contemporaneous records and interviews using inductive thematic analysis and discussed discrepancies in their coding until they achieved consensus.

The clinicians who were trained to deliver PICLP were seven senior C-L psychiatrists and eight assisting clinicians. The senior C-L psychiatrists each had at least five years of clinical experience post-specialist training. Six of the assisting clinicians were psychiatrists in training and two were experienced mental health occupational therapists. The clinicians' previous experience of C-L psychiatry was all in traditional referral-based services. Training took place on a part-time basis over several months and required the clinicians to: (a) practice aspects of the service model on their own hospital wards and (b) attend whole group workshops. The workshops focused on challenges that the clinicians encountered when practicing PICLP and included role plays with peer feedback. The clinicians' initial training was judged to be complete when they had demonstrated adherence to the PICLP service manual. The trainers evaluated each clinician's adherence by observing them delivering PICLP on their own hospital wards and using a structured assessment (Appendix). After completing initial training, the clinicians met weekly for peer supervision by videoconferencing across the three hospitals. The supervision sessions focused on challenges in the delivery of PICLP to individual patients and included discussions about: (a) how best to intervene in complex clinical problems; (b) which problems could be deferred to post-discharge care; (c) how to overcome obstacles to discharge. The clinicians' adherence to the service manual was reassessed every three to six months and additional training provided if required.

### 2.3. The care provided by the PICLP clinicians

We obtained data on the care provided by the PICLP clinicians from the clinician-completed PICLP patient workbooks. The workbooks had a section for each stage of PICLP, which included a checklist and space for additional notes (Appendix). For Stage 1, there was a checklist of 12 problem categories grouped into biomedical, psychological and social domains. The clinicians recorded whether patients had problems in each of these categories and, if so, whether they were impeding discharge. The Stage 2 checklist prompted the clinicians to make an action plan for each problem that was impeding discharge. For Stage 3, a monitoring checklist reminded the clinicians to review the patient daily, record whether they had biomedical, psychological and social problems impeding their discharge, and modify the action plan as needed. The final checklist, used in Stage 4, was intended to ensure that the clinicians had communicated any relevant information with out-of-hospital providers at the time of discharge. During The HOME Study, the PICLP clinicians also completed a study-specific recording sheet of what they did for each patient (Appendix). The workbooks were developed using a process of iterative testing by the PICLP clinicians. Paper workbooks were used in preference to electronic ones, in order to facilitate their use at the bedside. We analyzed the quantitative data from the checklists and recording sheets using descriptive statistics. We also used the clinicians' handwritten notes in the workbooks to give examples of: (a) problems / diagnoses in each of the 12 problem categories, (b) specific interventions in each of the intervention categories.

The 1359 patients who received care from the PICLP clinicians were participants in The HOME Study (for full details of the trial recruitment procedures, see the published protocol [15]). They had all been admitted to the wards in an emergency, usually via the hospitals' admissions units. The most common reasons for admission were cardio-respiratory symptoms (e.g. chest pain, shortness of breath), falls and confusion (Appendix). The patients had a mean age of 82 years (range 65 to 103) and approximately half were male. They had a median of four (range 0 to 20) active medical conditions and ten (range 1 to 33) prescribed medications noted in their medical records. Patients had been on

the ward for a mean of two days before being allocated to PICLP, and remained there for a mean of 11 days.

### 2.4. The PICLP clinicians' experiences of working in the new service model

The 15 clinicians were each interviewed after they had spent substantial time (median four months) delivering PICLP. These semi-structured interviews were conducted by clinical researchers, audio-recorded and transcribed verbatim. The reported experiences of the senior psychiatrists and assisting clinicians were similar and are therefore reported together. To analyze the interview data, we used a hybrid of the deductive and inductive approaches to thematic analysis. Three researchers initially used the deductive approach to code data into the four major pre-defined themes. These were experiences of: (1) the proactive approach, (2) the integrated approach, (3) the biopsychosocial perspective and (4) the discharge focus. This process provided a framework for grouping data that was aligned with the semi-structured interviews and also allowed the researchers to quickly familiarize themselves with the data. They then inductively coded data within these themes. In order to enhance the quality of the analysis, researcher triangulation was carried out and any discrepancies in the process of coding were discussed until consensus was achieved.

### 2.5. Ethical approval

The trial (including collection of the data used in this paper) was approved by the English South Central Research Ethics Committee (17/SC/0497) and Confidentiality Advisory Group (17/CAG/0160). The PICLP clinicians gave written informed consent for this aspect of the study.

## 3. Results

### 3.1. Observations on the training of clinicians to deliver PICLP

Two main themes emerged from the thematic analysis of the training data. These were barriers to, and facilitators of, successful clinician training; that is, achievement of adherence to the PICLP service manual (Table 2).

#### 3.1.1. Theme 1: barriers to successful training

The trainers observed that, as the clinicians were all experienced in providing traditional, referral-based C-L psychiatry, they had to unlearn their usual way of working as well as learn the new way. The trainers also observed that gaining confidence in the new proactive role required practice. For example, the senior psychiatrists needed to practice initiating consultations with patients who had not been referred to them with an obvious psychiatric problem. In addition, they noted that it was necessary for the clinicians to spend time in their new integrated role before they became fully comfortable in it.

#### 3.1.2. Theme 2: facilitators of successful training

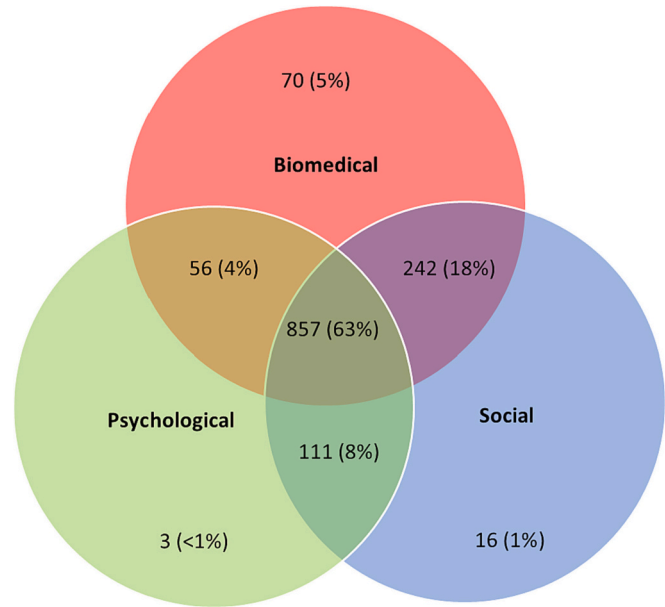
The trainers found that involving the clinicians in the refinement of the service manual and clinicians' workbook facilitated their engagement in training. They also found that training them together in group workshops provided peer support for the necessary changes in role. They reported that checklists helped the clinicians to be systematic in their assessments and to stay focused on discharge from hospital. The trainers also noted that the clinicians benefited from role-playing scenarios they found difficult and that this learning was reinforced by observation of PICLP delivery on the wards with feedback from the trainers.

### 3.2. Care provided by the PICLP clinicians

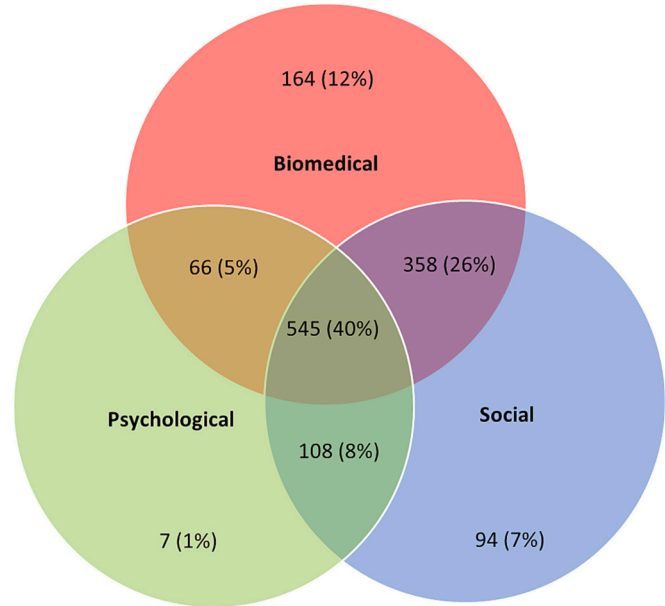
At the initial assessment (Stage 1), the clinicians found that 90% (1225/1359) of the patients had problems in the biomedical domain,

**Table 2**  
Observations on the training of clinicians to deliver Proactive Integrated Consultation-Liaison Psychiatry (PICLP).

Theme	Code	Sample quotes
Barriers to successful training	The need to unlearn a familiar way of working as well as learn a new one	"They've got to unlearn the way they did it before as well as learn the new way and...there is a constant risk they'll revert to the familiar."
	There is a tendency to revert to the usual practice of focusing on certain problems rather than being systematically biopsychosocial	"There a tendency to focus on...personal expertise or interests."
	There is a tendency to revert to the usual practice of treating in hospital rather than being discharge-focused	"People will fall back to...treating every problem the patient has, before they leave hospital. In which case we could easily end up making length of stay much longer."
	The need to gain confidence in the new proactive role	"The psychiatrist being confident in their role on the ward is key to being proactive, and it's interesting how much, and surprising how much, this has flushed out lack of confidence."
	The need to become comfortable in the new integrated role	"We've actually challenged their identity. So what they normally do is react to another doctor...go in explicitly as a psychiatrist, an expert in mental illness, and they deliver an opinion...and then they go away, and they maintain an identity...as separate mental health people."
Facilitators of successful training	Involvement in refining the service manual and clinicians' workbook	"Everyone that's doing [PICLP] is comfortable both with the manual and the checklist. I think if we hadn't...allowed so much feedback and co-development, we might have not been in a good place."
	Working as a group over time	"I think one of the most helpful things was that they're now...bonding as a group."
	Using checklists	"I think having a checklist that reminds them every time, like a surgical checklist, even when people are very skilled, humans forget stuff and a reminder is very useful."
	Role playing scenarios with feedback from peers	"Role play...provides a slightly threatening, but relatively safe space for the person to make a fool of themselves and get sympathetic feedback from colleagues."
	Observation of PICLP delivery on the wards with feedback from the trainers	"We definitely need the observation...Pretty much everyone who has had [an adherence assessment] has not met all the basic criteria for following the service model [first time]. With, clear and honest feedback they normally do [at the next assessment]."



**Fig. 1.** N (%) patients with problems in each of the biopsychosocial domains as recorded at the Proactive Integrated Consultation-Liaison Psychiatry (PICLP) Stage 1 assessment. Total percentages are: biomedical 90%, psychological 76% and social 90%  
N = 1359. 4 patients had no identified problems.



**Fig. 2.** N (%) patients with problems judged to be impeding their discharge in each of the biopsychosocial domains as recorded at the Proactive Integrated Consultation-Liaison Psychiatry (PICLP) Stage 1 assessment. Total percentages are: biomedical 83%, psychological 53% and social 81%  
N = 1359. 17 patients had no identified problems impeding discharge (all were discharged soon after the assessment).

76% (1027/1359) had problems in the psychological domain, and 90% (1226/1359) had problems in the social domain. Most patients had problems in at least two of these three biopsychosocial domains (Fig. 1). In the biomedical domain, the most common problem was the patients' active medical conditions (Appendix). In the psychological domain, cognitive impairment (delirium with or without dementia) was highly prevalent and depression and anxiety were also common. Substance misuse and other psychiatric diagnoses (such as schizophrenia) were



**Table 3**  
Interventions delivered by the Proactive Integrated Consultation-Liaison Psychiatry (PICLP) clinicians (N = 1359 patients).

Intervention category	n (%)
Stage 3:	
Regular communication with ward team	1245 (92)
Focussed discharge planning with ward team	1233 (91)
Focussed discharge planning with patient	1061 (78)
Driving implementation of management plan	1050 (77)
Advice to ward team about psychiatric diagnoses	825 (61)
Focussed discharge planning with family and friends	742 (55)
Routine board round discussions	660 (49)
Advice to ward team about environmental and functional optimisation	633 (47)
Advice to ward team about medications	627 (46)
Psychological interventions with patient	623 (46)
Advice to ward team about psychological and behavioural interventions	554 (41)
Advice to ward team about investigations	477 (35)
Participating in multidisciplinary team meetings	443 (33)
Focussed discharge planning with hospital staff other than ward team	397 (29)
Participating in discussions with other medical specialties	343 (25)
Psychological interventions with the patient's family	314 (23)
Focussed discharge planning with out-of-hospital services	129 (10)
Seeing patient jointly with ward team members	124 (9)
Advice to ward team about risk minimisation on ward	119 (9)
Focussed discharge planning with paid carers	113 (8)
Psychological interventions to ward team	89 (7)
Advice to ward team about the use of mental health legislation	86 (6)
Stage 4:	
Advice to primary care physician	384 (28)
Referral to community psychiatry	97 (7)
Advice to other community healthcare professionals e.g. palliative care	90 (7)
Advice to other out-of-hospital professionals e.g. social services	42 (3)

infrequent in this population. In the social domain, dependency on others for help with daily tasks was common. The majority of problems were judged to be impeding the patients' discharge from hospital (Fig. 2) and they were therefore prioritized in the initial action plans (Stage 2).

The PICLP clinicians' main activity during Stage 3 was to champion a biopsychosocial, rather than a solely biomedical, approach to patients' care and to use this to drive discharge planning. The specific interventions they delivered are shown in Table 3. The most common intervention was communicating with the ward team, patient, and family about the patient's care and discharge plan. The PICLP clinicians also attended rounds and multidisciplinary meetings in order to discuss patients under their care. They gave advice on the management of psychiatric disorders (e.g. the diagnosis and treatment of depression), the use of medications (e.g. when to prescribe drugs for symptoms of dementia), and the need for and timing of medical investigations (e.g. organizing a non-urgent scan for after discharge). They also provided psychological interventions directly to the patients (e.g. graded exposure therapy to help patients overcome anxiety about rehabilitation after a fall) and spent time with families helping them to anticipate patients' needs after discharge (e.g. by explaining the difference between transient delirium and progressive dementia). During the clinicians' daily reviews, they monitored the patients' progress and identified the problems that were currently impeding discharge, in order to update the action plans. These reviews revealed that the percentage of patients who had biomedical or psychological problems impeding their discharge fell with time in hospital, but the percentage with social problems impeding discharge did not (Fig. 3). At the time of the patients' discharge (Stage 4), the PICLP clinicians made recommendations and referrals to out-of-hospital care providers (Table 3). For 28% (384/1359) of patients this included specific advice (e.g. regarding medications) to their primary care physicians and for 7% (97/1359) a referral to a community psychiatric service.

The senior psychiatrists spent a mean of 71 min (SD 42, range 0 to 370) delivering PICLP to each patient and the assisting clinicians a mean of 75 min (SD 70, range 0 to 540). This time included all PICLP activities

(seeing the patient and their family, speaking with other clinicians, attending ward rounds and meetings, making telephone calls, completing the PICLP workbooks and other clinical records). Fig. 4 shows the mean time spent on each stage of PICLP. It can be seen that the senior psychiatrists spent only 31 min on the Stage 1 biopsychosocial assessment and the assisting clinicians only 12 min. Most of the clinicians' time was spent on Stage 3, working in an integrated way with the ward team to deliver interventions.

3.3. The PICLP clinicians' experiences of working in the new service model

The clinicians' experiences are summarized in Table 4.

3.3.1. Theme 1: experience of the proactive approach

The PICLP clinicians found that, by working proactively, they saw patients with a much broader range of psychosocial and psychiatric problems than they did in their referral-based practice. They also reported that seeing patients earlier in the admission provided more opportunity to shape their care. They said that they found it liberating to be able to formulate their own clinical questions, rather than being constrained by those of a referring clinician. Whilst being generally positive about the proactive way of working, some PICLP clinicians expressed skepticism about whether every patient really needed to see a senior psychiatrist. Some also suggested that outside the context of the trial (where it took an average of 3.5 days from arrival at the hospital for patients to be recruited and allocated to PICLP) it might be helpful to assess patients even earlier in their stay.

3.3.2. Theme 2: experience of the integrated approach

The PICLP clinicians valued being a member of the ward team, rather than a visiting specialist. They found that establishing themselves in their new role and gaining the trust of the ward team took time. As well as building new relationships, they had to challenge the view that they were only there to treat severe mental illness. The clinicians welcomed having greater responsibility for care and found that daily patient contact gave them a much richer, evolving perspective than that afforded by one-off consultations. It also allowed them to develop stronger and much more therapeutic relationships with both the patients and their family members. In fact, the PICLP clinicians often found themselves providing continuity of care and helping patients understand the general medical, as well as the psychiatric diagnoses and treatments. As they became increasingly secure in their integrated role, they found opportunities to model holistic patient care to the busy and task-focused ward staff. However, the clinicians also commented that working in the context of an individually randomized trial sometimes made it difficult to be fully integrated into the ward. For example, during rounds they had to refrain from giving advice about patients who had not been allocated to PICLP.

3.3.3. Theme 3: experience of the biopsychosocial perspective

The PICLP clinicians found that adopting an explicitly biopsychosocial perspective, rather than focusing solely on diagnosing psychiatric disorders, was a rewarding and clinically appropriate way to work with older medical inpatients. They noted that the initial Stage 1 assessments required a high level of skill, because patients typically had complex biopsychosocial problems, and were therefore best done by a senior C-L psychiatrist. They also noted that the use of checklists helped them achieve a consistent and comprehensive patient assessment.

3.3.4. Theme 4: experience of the discharge focus

The clinicians found that the longer they did PICLP, the more they became convinced that timely discharge benefited patients. However, they were frequently frustrated in achieving this by ward staff attitudes and bureaucratic processes. In particular, they observed that many ward staff underestimated the risks of lengthy inpatient stays and overestimated the risks of returning home. They noted that the senior psychiatrists' clinical expertise and authority were important in challenging

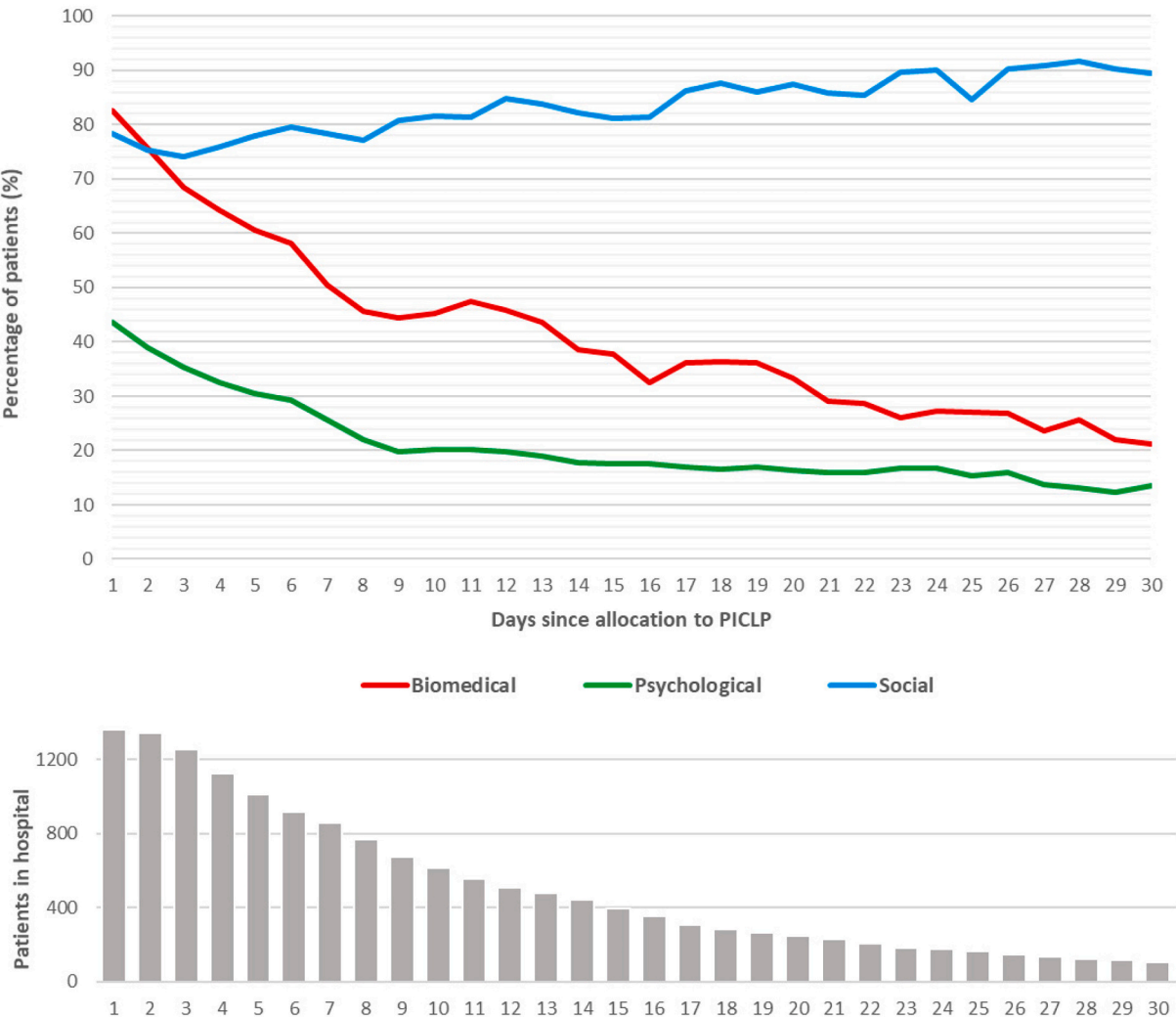


Fig. 3. Percentage of patients with problems judged to be impeding their discharge in each of the biopsychosocial domains on each day following allocation to Proactive Integrated Consultation-Liaison Psychiatry (PICLP).

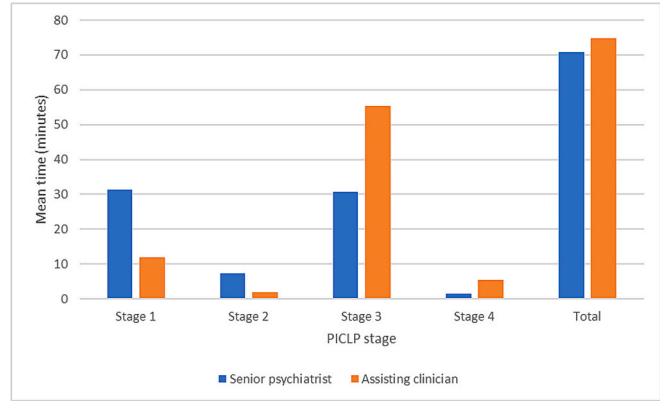


Fig. 4. The mean time spent by the Proactive Integrated Consultation-Liaison Psychiatry (PICLP) clinicians on each patient by stage.

these attitudes. They found themselves proselytizing for the benefits of prompt discharge and advocating for patients who said that they wanted to go home. The only times they wavered in this view was when they had concerns about the adequacy of out-of-hospital services for patients who needed ongoing psychiatric care.

4. Discussion

4.1. Main findings

In this mixed methods study, we aimed to describe the practical experience of delivering PICLP, a proactive and integrated C-L psychiatry service model which is explicitly biopsychosocial and discharge-focused. Seven senior C-L psychiatrists and eight assisting clinicians were all successfully trained to deliver PICLP using a combination of workshops and practice. They proactively assessed 1359 older medical inpatients and found that most had multiple biopsychosocial problems impeding their timely discharge from hospital. The PICLP clinicians worked in an integrated way with the ward teams to provide a range of discharge-focused interventions. Their daily reviews indicated that the percentage of patients who had biomedical or psychological problems impeding their discharge fell with time in hospital, but the percentage with social problems impeding discharge did not. The delivery of PICLP took a modest amount of clinical time, totaling a mean of less than two and a half hours per patient over an average stay of 11 days. The clinicians' experienced PICLP as both clinically valuable and professionally rewarding.

**Table 4**  
Clinicians' experiences of delivering Proactive Integrated Consultation-Liaison Psychiatry (PICLP).

Theme	Code	Sample quotes
Experience of the proactive approach	Good to see patients with a broader range of problems than in referral-based practice	“You get a much broader view of the sorts of patients that come into the hospital. So I've enjoyed that.”
	Useful to see patients earlier in their admission	“With regular C-L psychiatry, you're at the mercy of the clinicians on the ward...recognizing people with problems and referring them...that can sometimes be several weeks...we see people a lot earlier.”
Experience of the integrated approach	Seeing patients who have not been referred is quite different	“I generally think [it would be better if we got involved] as early as possible...once they are on the emergency assessment unit.” “Superficially it looks like you're just doing psychiatry, but...eventually you will realise it is a radically new approach because you are seeing patients proactively, as in they haven't been referred, no-one is asking you to get involved...And you have to think about the patients in a totally new way.” “What I really like about PICLP is that you find your own questions. You come to it... without the water being muddied by what other people are thinking, and that allows you to formulate your own judgements, and then to set your own questions with the relevant answers.” “Other times it feels like we see patients that I think don't need us really.”
	Feel part of the ward team	“You're really part of the ward community...you're there as a visitor in usual care, you're there as part of the team [in PICLP]...Rather than being there as an advisor you're there, you feel like actually you've got real responsibility to make the whole of this person's stay work.”
	Need to establish role in ward team	“If you want to be part of the ward team, and be seen as just another ward member, you need to be doing what they're doing which is being on the ward all day every day.” “I just think it's all about building relationships, I think that's the key to it.” “There's definitely been times where people have raised eyebrows and thought...you're talking to us about their medical plan or talking to us about their occupational therapy plan or talking to us about their social care plan, that's not your job.” “It's quite difficult to integrate oneself in wards where you're only involved in half the patients that are recruited to the study, and obviously not all the patients on the ward are recruited to the study either. In an ideal world you would be based on a ward where every single one of the patients was somebody that you took an interest in.”
	Feel more responsibility for patient	“And being able to be more integrated you do have more of a sense that this is your patient, that you're responsible.” “It's been a positive experience in having that level of responsibility and potential level of influence over when they go home and where they go. Especially when it comes to positive risk-taking and doing what the patient wants.”
	Benefit of daily contact with patients	“Knowing what's happening day to day probably does make a really big difference because you can set a plan up one day and if you then go back to it three days later, if it's gone off track...well it's hard to pick up on those difficulties if you're only going back to these things very infrequently.”
	Build relationships with patients and families	“It allows you the opportunity to really get to know patients during their time in hospital.”
	Provide continuity of care	“Often feels like we build up a good working relationship with...not just the patients but with the family members as well.” “My sense is...that a lot of the patients enjoy seeing us...every day, where...actually with the medical teams they don't get to see the same face every day.”
	Help patients to understand their medical treatment	“Some of the work that we've done has been bridging that gap, saying actually this person has no understanding of what's going on for them regarding their diagnosis or their investigations or the plans for treatment.”
	Help patients to actively engage in rehabilitation	“I feel we are...really pushing our patients to engage in therapy, get moving...it makes a big difference.”
	Good to be involved in all aspects of care	“One does feel empowered to [intervene] in not only all the psychiatric care but the medical care and the social care.”
	Help ward team to provide more holistic care	“One of the positives is being able to help the ward...see the patient from a more holistic point of view” “I think that one brings compassion to the general hospital ward in a way that it's distinctly lacking...and I think...that I have been able to model, kind, respectful care for patients.”
Experience of the biopsychosocial perspective	Gratifying to do a quick but comprehensive biopsychosocial assessment	“It's quite an exciting, and I would say quite gratifying, way to be practising and it feels quite good. You can quite quickly...actually have quite an impact, you can be quite focussed, you can come away after an hour, 45 min...you can kind of feel ‘I've done a really comprehensive quick, and troubleshooting of course and focussed, but I've really given a good...wide thought to this patient and really thought about a whole lot of things, and it's stretched what I would normally come up with.’”
	Pick up on problems that would otherwise be missed	“It's all about picking up on things that medics wouldn't see or the rest of the team wouldn't pick up on.”
	Important that initial assessment is done by a senior C-L psychiatrist	“I think...it...probably leads to high quality... plans...and I think it's probably quite efficient in terms of time management in that... more experienced clinicians...don't spend a lot of time asking all the routine questions and they tend to hone in quite quickly on the important factors.”
	Value the more systematic approach	“It's quite a good way of us doing what we should be doing in a more disciplined way.” “I think the difference is that it makes me quite methodical. So, something like alcohol for example, is something that I've often got to the end of consultations with patients and gone ‘I haven't asked you about alcohol’... it's not something that I was very good at remembering routinely...so I like having the prompts there...and I think my focus on the social aspects of people's lives has probably upped with the checklist.”

(continued on next page)

Table 4 (continued)

Theme	Code	Sample quotes
Experience of the discharge focus	Important to challenge the idea that being in hospital is good	"It is a big change in mentality because often...the idea that being in hospital is not a good thing isn't something that is just in the public mindset, I think it's in the mindset of doctors, including the ones that should know better like the physicians that are running the medical wards. There is still this sense that if you keep the patient [in hospital] you're 'giving them a bit longer', you're giving them something good. Rather than you're taking away their chance to escape infections, you're taking [away] their time out of hospital." "I've always had an inkling that sometimes a hospital can be a bit of a vortex and, once you're in, it sucks you in, but sometimes it does feel like some professionals really don't want patients to leave. Even though I had a bit of an inkling about that, I've been surprised how ingrained the risk aversion is sometimes." "That's been their stated desire when they've come in, they've said 'I don't want to stay in' and we've been able to get them out quickly with the appropriate care."
	Advocating for what patients want	"The discharge system is not in tune with patients' interests...it's very hard for a patient to leave hospital if all they want to do is leave hospital."
	Requires a senior C-L psychiatrist	"There is something about a senior psychiatrist being able to take responsibility alongside the senior physician that makes a big difference." "You need that clinical authority that usually only senior doctors seem to be able to carry. Because a lot of it...involves positive risk-taking."
	Frustrated by discharge procedures	"I think there's a lack of mandated leadership on the discharge plan. It's too democratic. There is too much equal weight given to all the different members of the multidisciplinary team."
Reservations about referring psychiatric problems to out-of-hospital providers		"It's frustrating when we have the same problems come up over and over again, and it's a system problem rather than anything else and we are not able to make the changes to the system."
		"Occasional sense of frustration that I can't actually get to the bottom of some of the psychiatric things because...they're not the reason that the person is really in hospital and therefore they're not my focus at this time." "I know that the community teams and the memory service are under huge pressure"

4.2. Previous literature

Useful summaries of proactive and integrated C-L psychiatry services have previously been published [6,7]. However, we are unaware of any publications that provide detailed descriptions of the training of clinicians to deliver these types of services, the care they provide to patients and their experiences of working in them. The findings we have reported highlight a number of issues, questions, and implications for inpatient C-L psychiatry services, which are discussed below.

4.3. The proactive approach

We found that training, which included group workshops and practice on the wards, enabled the PICLP clinicians to work confidently in a proactive way. This observation raises the general issue of how best to prepare experienced clinicians seeking to change from referral-based to proactive working. Our findings also highlight the important question of when and how proactive services should select and assess patients. In PICLP all older medical inpatients are assessed early in their ward admission, in order to proactively identify biopsychosocial impediments to discharge. We found that these assessments took a modest amount of C-L psychiatry time (31 min for the senior psychiatrist and 12 min for the assisting clinician). However, this approach was potentially inefficient, as some patients were discharged soon after the assessment. A different method, used by many proactive services, is to select patients by screening medical records [6]. This may be an efficient method for services which focus on severe mental illness. However, it is likely to be less useful for service models like PICLP which seek to address a broader range of problems that are typically poorly documented in medical records. With regard to the timing of the proactive assessment, some of the PICLP clinicians suggested that seeing patients earlier, for example in the emergency unit, might achieve greater influence on their discharge planning. However, it is likely that doing this would result in the assessment of even more patients who leave hospital too quickly to benefit from C-L psychiatry. Ideally, proactive services would be able to select those patients at high risk of a long hospital stay using information available at the time of admission [16].

4.4. The integrated approach

We found that the process of integrating C-L psychiatry into the ward team took time. The PICLP clinicians had to build relationships with, and gain the trust of, other ward team members. They also had to become comfortable with their new professional identity which changed from visiting expert to integrated team member. These findings highlight the need to help clinicians adapt their professional identities when they start working in integrated services [17]. There were unexpected effects of integrated working, which included providing continuity of care, explaining the patients' medical problems to them and advocating for their wishes. Whether such contributions to patient care are consistent with the mission of C-L psychiatry is a matter for debate [18].

4.5. The biopsychosocial perspective

Although the biopsychosocial perspective has long been advocated, there are still questions about when and how it should be implemented [19,20]. We found it to be clinically appropriate for the care of older medical inpatients, most of whom had multiple biopsychosocial problems that the PICLP clinicians were able to address. The findings of this study suggest that a biopsychosocial perspective may be of value for other medical populations with complex problems, and that its implementation can be facilitated by C-L psychiatry [21]. We also found that the delivery of biopsychosocial care required the skills of senior C-L psychiatrists and benefited from the contributions of assisting clinicians. In addition, the experience of training the PICLP clinicians reminds us of the value of structured guidance in ensuring a consistent and systematic



biopsychosocial approach [22]. These observations about PICLP raise issues for the delivery of inpatient C-L psychiatry in general. Whilst they emphasize the important leadership role played by skilled C-L psychiatrists, they also suggest that assisting clinicians can make care more efficient, and that structured guides can make it more systematic.

#### 4.6. The discharge focus

The experience of delivering a discharge-focused service has implications not only for C-L psychiatry, but also for the care of older patients more generally. The PICLP clinicians identified many obstacles to achieving a prompt discharge. One obstacle was the difficulty arranging adequate out-of-hospital care for patients who were dependent on others for help with daily tasks; an obstacle that was especially relevant for those patients who remained in hospital for a long time. This observation might suggest that a PICLP service should also include social workers, as some other proactive services do [23,24]. However, the hospitals in this study already had social workers and it is not clear that adding more would solve the problem of inadequate out-of-hospital care. Another obstacle was the need to persuade ward staff of the desirability of discharge. The PICLP clinicians noted that some ward staff tended to overestimate the risk of discharge and underestimate the risk of staying in hospital. As a consequence, they found themselves acting as advocates for patients when they said that they wanted to go home. These findings suggest that future strategies, to reduce the time older patients spend in hospital, should consider not only improvements in out-of-hospital care, but also changes in the attitudes of those providing inpatient care.

#### 4.7. Strengths and weaknesses

This study has a number of strengths: (a) we prospectively studied the experience of delivering PICLP for a large number of patients across three hospitals; (b) we used a combination of quantitative and qualitative data; (c) the data were collected systematically over a two-year period. It also has limitations: (a) the PICLP clinicians volunteered for the role and may not therefore represent C-L psychiatry staff in general; (b) each clinician was only interviewed once about their experience, which may have changed over time; (c) the study was done as part of a clinical trial with associated constraints on the delivery of PICLP and effects on the clinicians' experience of delivering it; (d) we studied only one form of proactive and integrated C-L psychiatry and only in a population of older medical inpatients; (e) some patients were excluded from the trial which is likely to have affected the profile of problems identified and interventions delivered by the PICLP clinicians; (f) the data on the care delivered were recorded by the PICLP clinicians themselves and not by independent observers; (g) we studied PICLP in UK NHS general hospitals which may limit the generalizability of our findings to other hospitals and health care systems.

#### 4.8. Conclusions

We have described the practical experience of delivering a manualized proactive and integrated C-L psychiatry service model with a biopsychosocial perspective and a discharge focus (PICLP). The HOME Study main trial outcomes, including the effectiveness of PICLP in reducing the time that patients spend in hospital compared with usual care, will be reported in a future paper. The experience of delivering PICLP highlights the special role that C-L psychiatry clinicians, working in a proactive and integrated way, can play in medical care.

#### CRedit authorship contribution statement

**Michael Sharpe:** Conceptualization, Funding acquisition, Supervision, Writing – original draft. **Mark Toynbee:** Conceptualization, Investigation, Writing – review & editing. **Maike van Niekerk:** Conceptualization, Investigation, Writing – review & editing. **Luke Solomons:** Writing – review & editing. **Colm Owens:** Writing – review & editing. **Annabel Price:** Writing – review & editing. **Michael Yousif:** Writing – review & editing. **Aelfrida Palmer:** Writing – review & editing. **Felix Clay:** Writing – review & editing. **Gunes Berk:** Writing – review & editing. **Jonathan Burns:** Writing – review & editing. **Laura Hill:** Writing – review & editing. **Jessica Harris:** Writing – review & editing. **Tomasz Bajorek:** Writing – review & editing. **Gabrielle Sirois-Giguere:** Writing – review & editing. **Nicholas Magill:** Formal analysis, Writing – review & editing. **Peter Aitken:** Writing – review & editing. **Chris Dickens:** Writing – review & editing. **Jane Walker:** Conceptualization, Project administration, Writing – original draft.

#### Declaration of competing interest

None.

#### Acknowledgements

The authors would like to thank the patients and families who took part in the HOME Study. They would also like to thank the staff of the John Radcliffe Hospital, the Royal Devon and Exeter Hospital, and Addenbrooke's Hospital. This work was supported by the UK National Institute for Health Research (NIHR) Health Services and Delivery Research Programme (grant 15/11/16) and the NIHR Applied Research Collaboration Oxford and Thames Valley at Oxford Health NHS Foundation Trust. The views expressed are those of the authors and not necessarily those of the NHS, the NIHR, or the Department of Health. The funder had no role in study design; in the collection, analysis, and interpretation of data; in the writing of the report; or in the decision to submit the article for publication.

#### Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.genhosppsych.2023.12.009>.

#### References

- [1] Wood R, Wand A. The effectiveness of consultation-liaison psychiatry in the general hospital setting: a systematic review. *J Psychosom Res* 2014;76:175–92.
- [2] Toynbee M, Walker J, Clay F, Hollands L, van Niekerk M, Harriss E, et al. The effectiveness of inpatient consultation-liaison psychiatry service models: a systematic review of randomized trials. *Gen Hosp Psychiatry* 2021;71:11–9.
- [3] Chen KY, Evans R, Larkins S. Why are hospital doctors not referring to consultation-liaison psychiatry? – a systemic review. *BMC Psychiatry* 2016;16:390.
- [4] Leentjens AFG, Boenink AD, van der Feltz-Cornelis CM. Can we increase adherence to treatment recommendations of the consultation psychiatrist working in a general hospital? A systematic review. *J Psychosom Res* 2010;68:303–9.
- [5] Desan PH, Zimbren PC, Weinstein AJ, Bozzo JE, Sledge WH. Proactive psychiatric consultation services reduce length of stay for admissions to an inpatient medical team. *Psychosomatics* 2011;52:513–20.
- [6] Oldham MA, Desan PH, Lee HB, Bourgeois JA, Shah SB, Hurley PJ, et al. Proactive consultation-liaison psychiatry: American Psychiatric Association resource document. *J Acad Consult Liaison Psychiatry* 2021;62:169–85.
- [7] Chan AC, Burke CA, Coffey EM, Hilden DR, Coira DL, Warner-Cohen J, et al. Integrated inpatient medical and psychiatric care: experiences of 5 institutions. *Ann Intern Med* 2018;168:815–7.
- [8] Muskin PR, Skomorowsky A, Shah RN. Co-managed care for medical inpatients, C-L vs C/L Psychiatry. *Psychosomatics* 2016;57:258–63.
- [9] Sharpe M, Toynbee M, Walker J, The Home Study PICLP Group. Proactive integrated consultation-liaison psychiatry: a new service model for the psychiatric care of general hospital inpatients. *Gen Hosp Psychiatry* 2020;66:9–15.

- [10] Lujic S, Randall DA, Simpson JM, Falster MO, Jorm LR. Interaction effects of multimorbidity and frailty on adverse health outcomes in elderly hospitalised patients. *Sci Rep* 2022;12:14139.
- [11] Möllers T, Stocker H, Wei W, Perna L, Brenner H. Length of hospital stay and dementia: a systematic review of observational studies. *Int J Geriatr Psychiatry* 2019;34:8–21.
- [12] Gao L, Berland GK. Nonmedical discharge barriers in prolonged stays on a general medicine ward: a retrospective review. *Brown J Hosp Med* 2022;1.
- [13] Landeiro F, Roberts K, Gray AM, Leal J. Delayed hospital discharges of older patients: a systematic review on prevalence and costs. *Gerontologist* 2019;59: e86–97.
- [14] Chen Y, Almirall-Sánchez A, Mockler D, Adrion E, Domínguez-Vivero C, Romero-Ortuño R. Hospital-associated deconditioning: not only physical, but also cognitive. *Int J Geriatr Psychiatry* 2022;37.
- [15] Walker J, Burke K, Toynbee M, van Niekerk M, Frost C, Magill N, et al. The HOME study: study protocol for a randomised controlled trial comparing the addition of proactive psychological medicine to usual care, with usual care alone, on the time spent in hospital by older acute hospital inpatients. *Trials* 2019;20:483.
- [16] Lequertier V, Wang T, Fondrevelle J, Augusto V, Duclos A. Hospital length of stay prediction methods: a systematic review. *Med Care* 2021;59:929–38.
- [17] Best S, Williams S. Professional identity in interprofessional teams: findings from a scoping review. *J Interprof Care* 2019;33:170–81.
- [18] Smith GC. From consultation–liaison psychiatry to integrated care for multiple and complex needs. *Aust N Z J Psychiatry* 2009;43:1–12.
- [19] Wittink MN, Rosenberg T, Waller C, Qiu P, McDaniel S. Editorial: real-world implementation of the biopsychosocial approach to healthcare: pragmatic approaches, success stories and lessons learned. *Front Psych* 2022;13.
- [20] Lee HB, Oldham M. The biopsychosocial model and consultation-liaison psychiatry: legacy of George Engel and John Romano. *J Acad Consult Liaison Psychiatry* 2022;63:187–8.
- [21] Kathol RG, Kunkel EJ, Weiner JS, McCarron RM, Worley LL, Yates WR, et al. Psychiatrists for medically complex patients: bringing value at the physical health and mental health/substance-use disorder interface. *Psychosomatics* 2009;50: 93–107.
- [22] Huyse FJ, Lyons JS, Stiefel F, Slaets J, De Jonge P, Latour C. Operationalizing the biopsychosocial model: the INTERMED. *Psychosomatics* 2001;42:5–13.
- [23] Oldham MA, Lang VJ, Hopkin JL, Maeng DD. Proactive integration of mental health care in hospital medicine: PRIME medicine. *J Acad Consult Liaison Psychiatry* 2021;62:606–16.
- [24] Triplett P, Carroll CP, Gerstenblith TA, Bienvenu OJ. An evaluation of proactive psychiatric consults on general medical units. *Gen Hosp Psychiatry* 2019;60:57–64.