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Assessment by pit appointment as an alternative to full psychiatric consultation

Collaborative 30-minute psychiatry consultations involving a family doctor, a psychiatrist, and a patient were rated as effective by participants and found to reduce wait times for mental health assessment at a university health clinic.

ABSTRACT

Background: **Wait times for psychiatric consultations are long, leaving many patients suffering and untreated. This was found to be a concern for students presenting with mental health issues to University Health Services at the University of Victoria, where the average wait time for a psychiatric consultation in 2013 was 43 days. In an effort to reduce wait times, University Health Services implemented a collaborative 30-minute assessment process inspired by Atul Gawande, who suggested that medical staff should function more like a pit crew in a car race when examining and treating patients. The pit appointment, developed by the Psychiatric Interdisciplinary Team Project, begins with the family doctor and psychiatrist meeting for 5 minutes; the family doctor reviews the case and the psychiatrist seeks clarification. The patient then joins them for the next 20 minutes and issues are explored, questions are posed, a diagnosis is discussed, and a treatment plan is made. During the last 5 minutes the psychiatrist leaves to complete the medical record for both physicians and the family doctor writes prescriptions and makes follow-up plans with the patient as needed. After the introduction of pit appointments in May 2014, the Psychiatric Interdisciplinary Team continued to define and refine the requirements and applications of the intervention at University Health Services and to incorporate suggestions from students and staff.**

Method: **In May 2015 data collection began for a study of pit appointments. Wait times were calculated for all students who attended a psychiatric consultation and/or a pit appointment between January 2013 and December 2016, allowing for analysis of both preimplementation and postimplementation data. Medical staff completed confidential interviews that were recorded, transcribed, and thematically analyzed. Both staff and students were surveyed about their experiences with pit appointments and their responses were reviewed and analyzed.**

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Results: **Wait times for 984 patient appointments (375 pit appointments and 609 full psychiatric consultations) were analyzed. Average wait times in 2016 were 10 days for a pit appointment, and 15 days for a consultation, a significant reduction from 43 days for a consultation in 2013. Surveys completed by 11 medical staff (psychiatrists and family doctors) and 38 students indicated the assessment process was effective, with 100% of psychiatrists and family doctors finding the intervention "somewhat helpful" or "very helpful" and 87% of students finding the intervention "somewhat helpful" or "very helpful."**

Conclusions: **Although there were several limitations to this study related to the evolving nature of the intervention and the lack of sufficient students responding to measure significance, pit appointments were found to be a cost-effective and efficient way to assess postsecondary students with mental health concerns. Potentially, this model could help many more patients receive treatment in a timely way, shorten wait times for full psychiatric consultations, lead to fewer patients requiring urgent mental health care in the emergency department, and provide a collaborative model appreciated by both psychiatrists and family doctors. Further research is needed to obtain standardized evidence of patient improvement and determine if pit appointments might be used in general practice and other clinical settings.**

Background

Atul Gawande's 2012 TED Talk about improving health care (How do we heal medicine?) proposes that medical staff should function like a pit crew in a car race, with each skilled crew member having a well-defined role and working quickly and collaboratively to enable the car to continue its journey.[1] This proposal is especially applicable to the 1 in 5 Canadians who develops a mental illness in their lifetime.[2]

Mental illness produces a tremendous burden in patient and family suffering, time lost at work, and costs of care. The economic burden of mental illness in Canada is estimated at $48 billion per year.[2] Between 25% and 50% of primary care patients have mental illness[3-6] and many patients have their first contact with the mental health system through the emergency department.[7]

Unmet needs

Despite the burden of mental illness, many Canadians do not receive any treatment at all.[2] According to the National Physician Survey, access to psychiatry services in Canada is an area of concern.[8] Wait times for psychiatric consultation are long. Traditionally, consultations have required that a patient, no matter how ill, go to a psychiatrist's office, and often there is a delay before the report on the consultation reaches the family doctor.

In a recent article about improving access to mental health care, David Gratzer and David Goldbloom recommend that psychiatrists "work more closely with family doctors, seeing their role not simply as consultants but also as educators and partners. . . . Collaborative care models are being tried across the country and are increasingly incorporated into resident teaching programs. Still, many psychiatrists and family doctors will not work in this formal structure, and stronger ties are needed."[9]

On postsecondary campuses, the mental health needs of many students remain unmet and the shortage of resources has been highlighted in the media.[10-12] Young people age 20 to 29 years have higher rates of mental illness and substance use disorders than any other age group.[2] Addressing mental health concerns in students is vital.[13] The 2013 Canadian reference group data report for the American College Health Association-National College Health Assessment II (ACHA-NCHA II)[14] found that many Canadian students reported suffering from anxiety (58%) and depressive feelings (35%) within the previous 12 months. However, only 13% reported receiving professional treatment for anxiety and 12% for depression.[14] Students at the University of Victoria reported similar rates of problematic symptoms and untreated illness in 2013.[15] Mental illness is highly detrimental to these young people, delaying or preventing their education, increasing student loan amounts, and potentially compromising students' abilities for successful futures. Timely care could treat illness faster, improve academic function and retention, and change the neurobiological course of illness in the young brain.[16]

Development of pit appointments

In 2013 the average wait time for a psychiatric consultation at University Health Services (UHS) at the University of Victoria (UVic) was 43 days. Inspired by Gawande's pit crew proposal,[1] the Psychiatric Interdisciplinary Team (PIT) Project (see www.pitproject.ca) set out to reduce long wait times for consultations and address the shortage of psychiatric resources.

During 2 weeks in March 2014 nearly a quarter of the patients seen by UHS family doctors (229 of 981) presented with mental health concerns. In April 2014 psychiatrists reviewed records for 24 psychiatric consultations that had been completed the previous month and determined that 12 patients (50%) had not required a full consultation. A psychiatrist and UHS family doctors then reviewed the records for 40 patients awaiting psychiatric consultation and agreed that 36 might be served by brief pit appointments. These 36 pit appointments were done in May 2014 and were deemed successful. Subsequently pit appointments were offered as an alternative to psychiatric consultation at UHS. Since the introduction of pit appointments, University Health Services staff have continued to define and refine the requirements and applications of the intervention and have incorporated suggestions from students and staff. Today, the clinical intervention that has resulted from the PIT Project begins after a patient has presented to UHS with mental health concerns. The family doctor determines if a pit appointment is appropriate, manages the patient's expectations by providing an information sheet (**Figure 1**), and then fills out a referral form (**Figure 2**). Some doctors find it useful to complete the form with the patient.

A pit appointment starts with a 5-minute meeting that allows the family doctor to review the case and the psychiatrist to seek clarification. The patient then joins the family doctor and the psychiatrist for a 20-minute meeting. The family doctor introduces the psychiatrist and gives a brief summary of what the psychiatrist has been told. The psychiatrist asks questions and explores issues, drilling down to clarify answers to the particular questions posed. A diagnosis and/or suggestions are made and a layperson's explanation is given. A plan is established. On rare occasions, if the psychiatrist is not immediately sure of next steps, written recommendations are provided within 24 hours and the family doctor informs the patient of these. Notably, if the next step is a full psychiatric consultation, an attempt is made to have the same psychiatrist do the consultation to provide continuity of care. During the final 5 minutes of the appointment, the psychiatrist leaves to complete the medical record for both physicians, and the family doctor outlines the plan with the patient, writing prescriptions and scheduling follow-up as needed.

Method

In May 2015 the PIT Project received funding from the Specialist Services Committee, one of four joint collaborative committees representing a partnership of Doctors of BC and the Ministry of Health. This funding was used to provide and evaluate services for students seeking treatment at UHS for mental health concerns (**Table 1**). After ethics approval was obtained from the UVic Human Research Ethics Board, data collection began and continued until December 2016.

Establishing wait times

Wait times were calculated for all students who received a consultation and/or a pit appointment between January 2013 and December 2016. Because pit appointments were introduced in May 2014, this allowed for the analysis of more than a year of preimplementation data and more than a year of postimplementation data. Wait times were determined by counting the days between the referral and appointment dates (i.e., for either psychiatric consultation or pit appointment).

Recording diagnostic information

Initially, diagnoses for patients seen by psychiatry were recorded using *DSM-IV-TR*[17] and *DSM-5*[18] definitions. Later, the reason for referral and whether the type of appointment given was deemed appropriate were also recorded.

Table 1. Diagnostic categories used for students seeking mental health care at University Health Services, University of Victoria.

Bipolar disorder
Pervasive developmental disorder
Anxiety disorder
Obsessive compulsive disorder
Personality disorder
Substance abuse (alcohol, prescription and street drugs)
Eating disorder
Adjustment disorder
Posttraumatic stress disorder
Sequelae of head injury
Depression
Attention deficit disorder
Psychosis (not yet diagnosed—first break) and schizophrenia
Physical disorder (e.g., hyperthyroidism)

Surveying medical staff and patients

To garner insight about the benefits and challenges of pit appointments from the care provider perspective, all clinic staff were invited to participate in confidential interviews during the development of the intervention. The interviews were recorded, transcribed, and thematically analyzed. During monthly team meetings and two annual clinic meetings, we reviewed our methods and adapted the assessment process to compensate for challenges as we acquired knowledge about this approach. After we refined

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Pit Appointment Information Sheet

Your family doctor has decided it would be helpful for you to have a Pit Appointment – a brief consultation with both the family doctor and a psychiatrist.
This information sheet was developed to help you have a clear idea of what pit appointments are, what their limitations are, and what to expect during your pit appointment.

What is a Pit Appointment?

- A 30-minute appointment
- You and your doctor will get advice from a psychiatrist about your specific problem or issue.
- Due to time limitations:
  - The psychiatrist will only be able to address one problem
  - **IMPORTANT:** You and your doctor should have a clear goal set for the appointment. Examples include: help with diagnosis, new medication, treatment options

What a Pit Appointment is Not

- It is not a full psychiatric consultation. Often it is not necessary to consult with a psychiatrist again or on an ongoing basis.

What Happens During a Pit Appointment?

- Your doctor will give the psychiatrist a brief overview of your history and the challenge you are currently facing (approximately 5 minutes).
- Then, you will join your family doctor and psychiatrist (approximately 20 minutes).
  - The psychiatrist will ask you some questions.
  - You may also want to ask some questions.
- The psychiatrist will do his or her best to help. Usually this team of three comes up with a plan during the appointment. In some cases, the psychiatrist may not have a ready answer and may want to think it over and follow up with your family doctor later on.
- The psychiatrist will leave and your doctor will discuss how you and the family doctor will proceed (approximately 5 minutes).

What Happens After a Pit Appointment?

- Hopefully, you will have some new information, treatment options, or medication that will help you.
- Your care plan will incorporate the new information from this appointment.
- You will get follow up with your family doctor.

Figure 1. Information sheet provided to help patients understand what a pit appointment can and cannot accomplish.

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PIT / PSYCHIATRY REFERRAL FORM

Client Information	
Patient:	**DOB:**
PHN:	**Phone:**
Program:	**Year:**
Date of Referral:	**Referring Doctor:**

Reason for referral:

Details of illness/trouble:

While at UHS with the present illness, medications and therapies already tried, or being tried now:

Past psychiatric history (including medications and therapies):

Family psychiatric history:

Any physical illness or medications we need to consider:

Personal history of note:

Present life circumstances of note:

What is the referring doctor hoping for?

What is the patient hoping for?

Figure 2. Referral form used for pit appointment.

the intervention, clinic staff were surveyed anonymously for additional feedback.

To establish what patients thought of pit appointments, medical office assistants distributed flyers inviting students to participate in a survey.

Survey responses from medical staff and patients were reviewed and analyzed.

Pit honors the family physician–patient relationship while enhancing the family doctor's own skill set. It's a win-win.

Results

A total of 984 wait times (375 for pit appointments and 609 for consultations) were analyzed along with survey responses from 38 students (32 females, 6 males), average age 26.3 (SD 8.7) years. Interviews completed by 2 psychiatrists and 4 family doctors who participated in pit appointments were also analyzed, as were survey responses from 3 psychiatrists and 8 family doctors.

Wait times

Looking at the years before and after the introduction of pit appointments, wait times for a full psychiatric consultation decreased from 43 days in 2013 to 15 days in 2016, and wait times for a pit appointment averaged 10 days in 2016.

A factorial ANOVA was used to compare the main effects of appointment type (consultation or pit appointment) and year (2013, 2014, 2015, or 2016), and the interaction effect of appointment type by year on wait times. Overall, the main effect for appointment type ($F(1, 977) = 57.55$, $P < .001$), year ($F(3, 977) = 39.43$, $P < .001$), and the interaction between appointment type and year ($F(2, 977) = 9.27$, $P < .001$) were significant. On average, participants had shorter wait times measured in days for pit appointments (mean 10.8, SE 1.2) than for consultations (mean 28.8, SE 1.01), wait times on the whole decreased significantly between 2013 (mean 42.8, SE 1.6) and 2016 (mean 12.41, SD 1.3), and average wait times for consultation decreased at a faster rate between 2014 (mean 34.5, SE 1.8) and 2016 (mean 15.1, SE = 1.9) than did wait times for pit appointments between 2014 (mean 11.7, SE 2.4) and 2016 (mean 9.7, SE 1.9) (**Figure 3**).

Referral reasons

Diagnoses were not found to be significantly different when comparing patients assessed by pit appointment with those assessed by full psychiatric consultation. The average number of diagnoses for patients who had pit appointments (mean 1.55, SD 0.84) and consultations (mean 1.78, SD 0.90) were similar, with both falling between one and two. Diagnoses alone did not prove valuable for identifying patients best served by pit appointments. However, appropriate reasons for referring a patient for a pit

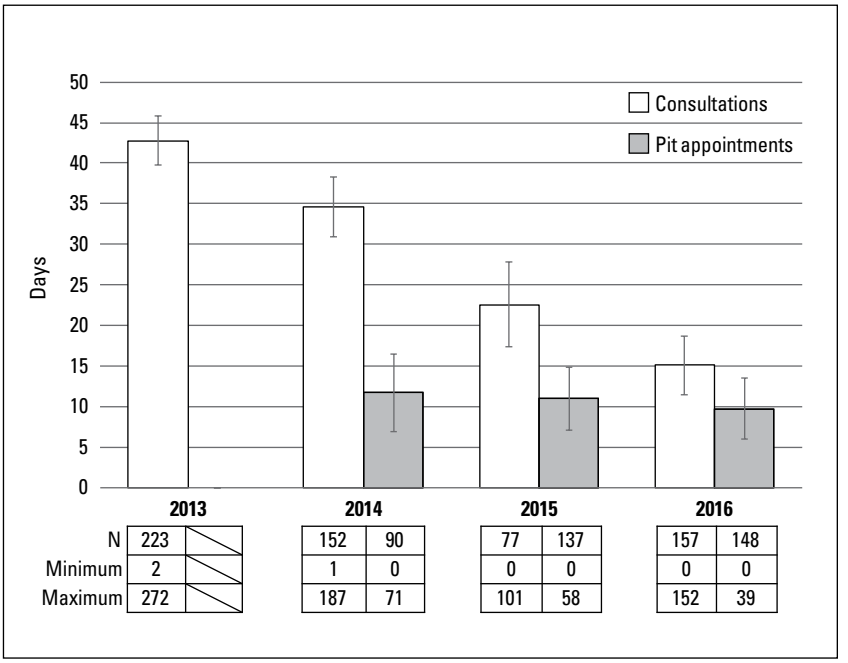

Figure 3. Average wait times for psychiatric consultations and pit appointments by year, 2013 to 2016 (pit appointments introduced in 2014).

appointment or a psychiatric consultation were identified in the course of the study as findings were monitored, refined, and shared among physicians and psychiatrists (**Table 2**).

Rating pit appointments

When rating pit appointments, 33 of 38 patients (87%) found their assessments "somewhat helpful" or "very helpful," while 27% of physicians found them "somewhat helpful" and 73% found them "very helpful."

A majority of patients agreed or strongly agreed with the following statements:

- I felt understood (32/42 = 76%).
- I felt more hopeful as I left (26/38 = 68%).
- I would recommend this type of appointment for someone with my trouble (30/40 = 75%).
- I had a good understanding of my treatment and support plan (34/44 = 77%).
- I received clear information about my medication (28/36 = 78%).
- The services I received have helped me deal more effectively with life's challenges (40/54 = 74%).

Conclusions

Survey and interview responses from psychiatrists, family doctors, and patients about the value of pit appointments were generally positive. Although challenges to wider implementation exist and further research is needed, study results suggest that pit appointments could be useful for other postsecondary institutions and family practices at large, and could result in more timely treatment and other benefits.

Psychiatrist comments

Interviews with UHS staff during the development of pit appointments revealed that psychiatrists and family doctors were not familiar with each other, and they described feeling like "being back in medical school" and performing under the scrutiny of a colleague. This quickly dissipated. As working relationships continued over time, trust and understanding developed and the ability of staff members to collaborate with each other and with patients was enhanced.

Psychiatrists found pit appointments preferable to consultations in the emergency department because of access to the family doctor's information about the patient and the patient's illness. Unlike emergency department assessments, pit appointments are not typically done in a crisis and this allows medical staff to gain a more coherent understanding of the patient's difficulties. The patient is also likely to be more forthcoming and less alarmed about being "sick enough to see a psychiatrist" during a pit appointment because it is held in a familiar place with a family doctor that the patient already knows and trusts participating in the assessment. There is also greater satisfaction for the psychiatrist, who knows that the patient will receive appropriate and immediate follow-up care.

One psychiatrist commented that the "fast" and intense 20 minutes with the patient requires the use of "clinical acumen, judgment, and experience toward what one sees and hears from the patient. Pit appointments rely on my complete knowledge in a whole new way."

Family doctor comments

Family doctors interviewed for the study commented that pit appointments lead to them feeling more competent and confident about mental health issues, various medications, and how to elicit information from patients. One respondent said that the usefulness of "watching a psychiatrist do a history can't be overstated in discussing pit benefits," and family doctors generally appreciated watching another clinician at work.

Family doctors also described acquiring increased capacity to identify characteristics of personality disorders and to elicit coping methods from patients that they can then expand upon.

One family doctor stated, "Pit often helps me answer and move forward

Table 2. Appropriate reasons for referral for pit appointment, for full psychiatric consultation, and for either.

	Reasons
Referral for pit appointment	• Medication question • Consultation wanted by community or patient, but not indicated • Triage for psychotherapy • Need to determine if case is being complicated by a personality disorder • Need to differentiate bipolar disorder from personality disorder • Need to determine if patient is on the right track with treatment
Referral for psychiatric consultation	• Psychosis indicated • Management needed for complicated affective disorder • Patient has long, complicated history and family doctor does not know where to start
Referral for either	• Recommendations needed for crisis management • Recommendations needed for case with potential medicolegal worries • Autism spectrum disorder suspected (patient tolerance specific)

with an issue that I'm stuck on with a patient. Instead of waiting months for direction or having a consult that misses the boat on the issue, I can use my knowledge and relationship with the patient to help guide a useful plan. In addition, seeing a psychiatric clinician conduct an interview builds my own capacity for interviewing skills. Pit honors the family physician–patient relationship while enhancing the family doctor's own skill set. It's a win-win."

Another stated, "Working in the pit has helped me hone my diagnostic acumen and confidence. The pit has empowered me to take the time necessary to understand each patient's symptoms in the context of unique life circumstances. As my skills have grown, I have felt more confident dealing with certain symptoms (e.g., emotional dysregulation). The pit normalizes collaboration, not only between practitioners, but with patients and practitioners. Knowing there is backup emboldens me to make sure patients are confident in their diagnosis and treatment plans."

Yet another family doctor commented on the advantages of collaboration: "I appreciate being able to ask the psychiatrist clarifying or follow-up questions in real time. I find I always discover new things about my patients, even those I think I know well, by observing the interview."

Patient comments

Students surveyed about their pit appointment experience made positive comments such as the following:

- "Because I was in a crisis . . . [I had a pit] instead of waiting for [a] consultation. I'm glad that they realized how important it was for me to start seeing someone immediately."
- "It really helped me to feel supported, as if there really is a team of doctors willing to help me."
- "It was nice that the referring physician had already briefed the psychiatrist regarding my condition and concerns."

Negative comments about pit appointments commonly focused on their brief nature (e.g., "short and rushed"). However, most students (18 of 23) preferred having a shorter wait for a pit appointment than having a longer wait for a full psychiatric consultation.

Pit appointment benefits and challenges

Pit appointments evolved from the grass roots wishes and needs of clinicians at UHS, which in turn meant staff provided significant support to the PIT Project and this permitted rapid initiation and integration of new ideas without the resistance sometimes encountered in an organization.

The dramatic reduction in wait times for psychiatric input has been very rewarding for both clinicians and patients.

In 2016 the National College Health Assessment for UVic[19] reported that the proportion of patients receiving professional treatment for anxiety was 30% (versus 14% in 2013[15]) and for depression the proportion was 16% (versus 11% in 2013[15]). It is possible that the lack of delay in scheduling appointments played a part in this, along with the fact that fewer "no shows" occurred compared with 2013 and fewer patients were "no longer interested" or "unable to be located" with the introduction of faster services.

The dramatic reduction in wait times for psychiatric input has been very rewarding for both clinicians and patients.

We believe pit appointments could benefit the community at large by helping more patients get help sooner. Fewer patients would need to use the emergency department. Fewer psychiatric consultations would be required and therefore wait lists would be shorter. The positive effects of family doctors learning from psychiatrists would also benefit other patients. In addition, the collaboration of family doctors and psychiatrists might inspire the development of new interventions.

Certainly this method of assessment is appreciated by medical staff at UHS and could support family doctors and psychiatrists developing the "stronger ties" recommended by Gratzer and Goldbloom.[9] Pit appointments allow psychiatrists to teach family doctors in real time with their own patients. Also, participating in

pit appointments could be appropriate for semi-retired psychiatrists or those with young families, since there is no ongoing responsibility for care.[20] Pit appointments could also allow the younger generation of psychiatrists interested in psychotherapy practices[21] to continue to participate in community assessments.

One challenge to the wider adoption of pit appointments is funding for family doctors, who typically do not have fee codes for shared care. In some provinces, two doctors are prohibited from billing for the same patient on the same day. While this is not an issue at UHS, where family doctors are on salary, it is an issue elsewhere and governments will need to consider alternative funding models to facilitate the use of pit appointments. Currently in BC, the fee billed by a psychiatrist doing a pit appointment is half that billed for a full psychiatric consultation and requires less documentation. Dealing with the funding challenge is worthwhile, however, given that pit appointments could be useful for other postsecondary institutions and family practices at large, and could result in more timely treatment, decreased length of psychiatric illness, improved lives of patients, fewer patients using the emergency department, and shorter wait times for those requiring full psychiatric consultations.

Limitations of study

The study was affected by a number of limitations, including the lack of measurement before and after pit appointments to provide standardized evidence of patient improvement. As well, students seeking treatment at UHS were approached to participate in the study through invitation flyers distributed by medical office assistants. While this preserved confidentiality and participant anonymity, it meant we could not identify all potential participants and were unable to obtain a reliable response rate.

In addition, our study was limited by the fact that pit appointments were evaluated in conjunction with other new mental health interventions at UHS, including the introduction of a full-time mental health nurse, on-site cognitive behavioral therapy, a set of Managing Emotions modules offered in semester blocks for students with dysregulated emotions, and a focus group for students with diabetes and mental health issues.[22] Survey respondents were asked to provide feedback on all types of mental health appointments they had attended at UHS, and many respondents who provided feedback had attended pit appointments weeks or months before completing the survey. With few participants having attended a pit appointment as their most recent UHS intervention, we were unable to provide reliable estimates of outcome measures.

Before the introduction of pit appointments, patients received one-time-only mental health appointments. Anecdotally, both psychiatrists and patients found one-time-only consultations unsatisfying, as patients had typically waited for an extended period hoping for longer-term treatment, which was not offered. No data about satisfaction with one-time-only psychiatry consultations were collected before pit implementation, nor could such data be found in the literature.

Pit appointments were introduced a year before any data collection began. By the time patients receiving psychiatric consultations were surveyed, they were by definition more severely ill or had more complicated illness and needed more than one session with a psychiatrist. Thus, patients who received consultations went on to receive more care and to develop a therapeutic relationship with the psychiatrist. This was not true for patients who received pit appointments and, therefore, a direct comparison between those who attended pit appointments and those who attended consultations would not be prudent, as the populations and treatments are now inherently different.

Further research

Further research is needed to determine if pit appointments can be used in diverse clinical settings, including general practice clinics. Research might also determine if pit appointments are useful only for young adults without long and complicated histories, even though psychiatrists working in emergency departments suggest this is unlikely, since they often see patients in need of medication suggestions who have deteriorated significantly while on psychiatry wait lists. As well, the study of more detailed performance indicators could elucidate the effectiveness of pit appointments, and the study of implementation in different clinical settings could establish how a clinic's culture influences the introduction of this intervention.

Summary

The collaborative pit appointment introduced at University Health Services in May 2014 was found to reduce wait times significantly for students with mental health concerns. Most psychiatrists, family doctors, and patients who participated made positive comments about the intervention. Pit appointments at UHS were deemed to be cost-effective and to increase the knowledge, abilities, and confidence of family doctors treating mental health disorders. BCMJ

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Competing interests

None declared.

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