connection for those adolescents, who by virtue of the severity and complexity of their mental illness, were required to spend much longer periods in these units.

(b) Adolescents who had spent long periods of time in acute inpatient units generally came to BAC with an expectation that the service could provide them with hope of a better life.

(c) It had been my experience that staff in an extended treatment and rehabilitation unit such as BAC can genuinely convey hope because they have seen multiple adolescents make a meaningful recovery.

(d) Although acute adolescent inpatient units provided some activities in common with the rehabilitation program that was offered at BAC (for example the weekly cooking group), there was not the active intensive focus on comprehensive rehabilitation activities that was possible at BAC.

(e) The less structured rehabilitation activities on offer at BAC, which were considered to be particularly beneficial to the cohort of adolescents receiving treatment at BAC, would often occur during the evenings and throughout the weekend and were less likely to available in an acute inpatient unit.

(f) The adolescents had an active say in their environment and community through their representation on the BUMC. They could also on occasions be present at the weekly Case Conferences to raise any relevant issues. These opportunities were simply not possible to the same extent in an acute inpatient setting where the average length of was considerably less.

(g) The aim at BAC was to employ staff who possessed the particular skill set and experience to promote recovery for the sub-population of adolescents treated there. As explained above, this sub-population of adolescents were seen rarely in individual services within each CYMHS. This made it difficult for the staff in these individual services to develop and enhance their skill set to treat and manage these particularly complex adolescents.

(h) It was observed at BAC that factors which promoted recovery for many of the adolescents were social inclusion and social connectedness. There were opportunities for these on a daily basis at BAC, with many different adolescents in similar circumstances requiring treatment over longer periods. I was concerned that these adolescents would not have the necessary exposure to these important aspects of recovery in an acute inpatient unit were there was likely to be no more than a couple of other adolescents in a similar situation to them

(i) As explained above, the appropriateness of the physical environment, including ready access to external spaces, is important for adolescents requiring longer term inpatient treatment. It had been my observation of the acute adolescent inpatient units in South East Queensland that the adolescents in those units tended not to have

ready access to external spaces. Further, the spaces to which they did have ready access to from the ward, generally did not provide a sense of an open environment.

(j) Adolescents with severe social isolation in acute inpatient units were able to avoid contact with peers which is counter-productive.

(k) The approach of the staff in acute inpatient units was to have the adolescents discharged back into the community as quickly as possible. While this approach is entirely appropriate for many adolescents with mental health issues, it is not appropriate for those more complex cases requiring longer periods of inpatient treatment. The underlying approach of the staff treating these adolescents in a unit such BAC was to offer them hope while in a supportive environment.

(l) I have observed that acute inpatient units provide opportunities for stabilisation, but limited opportunities for therapy. Multiple therapeutic interventions were integral to the BAC program.

228. Being informed of the closure on 2 November 2012, but not being able to tell staff about it placed me in a very difficult position. There were many long term dedicated staff at BAC who I thought should have been privy to this information. Further, BAC Specific Purpose School was due to have its Quadrennial School Review Day on 8 November 2012. This was a formal process which involved weeks of collaboration between staff from both Education Queensland and Queensland Health and the adolescents. This review day was to be attended by staff, adolescents, senior staff from within Education Queensland and former adolescents who would be speaking of their experience at BAC and how it had impacted on their lives. The purpose of the day was to officially unveil the plans for the next four years. I felt very uncomfortable being involved with this review day knowing that BAC would be closing in less than two months as it was information that very significantly impacted upon the plans for the centre which were being unveiled.

Whilst feeling very uncomfortable, I decided to proceed with the conference as I considered it would hopefully assist in commencing the process of identifying an alternative future service that may have been able to accommodate the particular adolescent's needs.

229. I was also very concerned regarding the impact that the closure of BAC within such a short time frame would have on CYMHS services in the State and that additional services needed to be urgently developed within the community. For this reason I wrote to my child and adolescent psychiatrist colleagues as I was very anxious to ensure that the BAC adolescents could be adequately cared for once the centre closed. My concerns included a potential lack of an adequate knowledge base regarding adolescent mental health within the MHAODD Branch and the impact of the closure on acute inpatient beds in Brisbane, which I understood to be largely close to full occupancy. I was also concerned with how rehabilitation services were going to be incorporated within the existing system. The

treatment and management of these adolescents had been the subject of much consideration over the preceding 20 years with no alternative service to BAC having been identified. It was a very complex issue which was going to require a solution within an extremely short time frame. These concerns were in addition to my overriding concern of seeking to successfully treat longer stay adolescents with severe and complex mental health issues, within acute adolescent inpatient units.

230. The BAC staff and families learnt of the planned imminent closure through the media on 8 November 2012. Many of them had been with me at the Quadrennial School Day and were understandably unhappy that I had not told them. It was the reactions of the various interest groups to the media reports that seemed to trigger a proper review process.

231. There was an initial meeting in the MHAODD Branch on about 20 November 2015. I was in attendance at this meeting, as were the directors of adolescent inpatient units and the directors of major child and youth mental health services. Ms Dwyer stated at this meeting that there would be a period of review and development of alternative services that would occur prior to the closure of BAC and that it would not be closed by 31 December 2012. This was obviously news to me given my discussion with Ms Kelly on 2 November 2012, as detailed above. By the time of this initial meeting, two online petitions opposing the closure were circulating and parents had written to the Minister, Ms Dwyer and a number of my child psychiatrist colleagues voicing their disapproval of the plan. It was soon after this that the Expert Clinical Reference Group (**ECRG**) and the Planning Group were announced. The ECRG was to make the recommendations on alternative services, and the Planning Group would consider these recommendations. I was a member of both the ECRG and the Planning Group.

232. I personally took a number of steps to voice my concerns. I wrote to the Chief Executive of the West Moreton HHS to clarify the role of BAC in State-wide CYMHS (Exhibit C). Further, I wrote to Dr Bill Kingswell, as I was concerned that he may not have appreciated the difficulties in the acute adolescent inpatient units absorbing adolescents from BAC. Exhibited and marked '**K**' to this statement is a copy of the email I wrote to Dr Kingswell. I followed this up with a letter to my child psychiatry colleagues.

233. Once the ECRG was established, I made multiple submissions about the types of facilities and the use of acute inpatient units and day patient facilities for this cohort of adolescents. Exhibited and marked '**L**' to this statement are copies of those submissions.

234. The last meeting of the ECRG was on 23 April 2013. The final wording was agreed to, and the Report of the ECRG was finalised on 8 May 2013. I agreed with the recommendations in the context of the whole text and endorsed them as a member of the ECRG. Exhibited and marked '**M**' to this statement is a copy of ECRG report.

235. On 15 May 2013, the Planning Group met. It accepted most of the recommendations.

236. On 21 May 2013, I emailed Dr Kingswell and Ms Kelly in relation to my concerns about a 'wrap around' service' for existing BAC patients. A copy of that email is exhibited and marked '**N**' to this statement.

237. On 5 or 6 August 2013, I and Ms Vanessa Clayworth, A/NUM of BAC met Ms Dwyer, and were informed that BAC would close in January or February 2014 utilising a 'wrap around' model of care for existing patients. I recall Ms Dwyer saying that she noted I had concerns about a 'wrap around' model of care. My recollection is that staff were advised of the proposed closure date at a subsequent meeting later that day and then the adolescents were to be told by staff.

238. After staff and adolescents were told of the intended closure I sat in the office of Ms Kelly and rang each of the parents or carers of the adolescents. I can recall that there was a rush to do this before the Minister's announcement on ABC 612 radio that evening. I think some of the parents may have been notified after the Minister's announcement. I was concerned about parents being notified of the closure after the Minister's announcement as they had not been consulted, contrary to the Project Plan of the Planning Group and West Moreton HHS and MHAODD policies on consumer and carer consultation with the development of services..

Impact of decision to close on staff and adolescents

239. I do not have access to the data, but my recollection is that clinical incidents which adversely affected transition processes were more frequent during August and September 2013. All incidents were recorded on the PRIME system.

240. The problems with adequate and experienced nursing and allied health staff at BAC were exacerbated by the announcement of the closure because:

    (a) Permanent staff left to seek employment elsewhere on account of the uncertainty of the future of BAC.

    (b) To the best of my recollection there were only 13 or 14 permanent nursing staff (excluding the NUM) to cover three shifts a day for seven days a week. The remainder of a shift comprised nurses on short term contracts of 3 to 6 months and casual nurses. Two of the nurses on short term contracts were very competent and would have been an asset to the pool of permanent staff. Both left after the announcement of the closure.

    (c) The available casual staff often had little experience or training with adolescents.

241. Instability of nursing staff contributed to maintenance of some of the poor peer behaviours, particularly in 2013. Some casual nurses chose to spend time on their mobile phones rather than interact with the adolescents. The use of both prn medication and of seclusion increased during this period, because untrained staff used these interventions rather than talking to adolescents.

242. Nursing staff issues during the transition period until I left in September 2013, were brought to the notice of more senior management by me, the Nurse Unit Manager, through the recording of same in the minutes of the BUMC meetings and by a letter from a parent who was concerned about the inconsistent staffing.

243. On 6 July 2013 I emailed senior management regarding the necessity for stability for allied health staff. Exhibited and marked '**O**' is the attachment to the email. I cannot recall any response.

244. It is my recollection that the teaching staff remained stable through the period of transition until September 2013 when I left BAC. The teaching staff were integral members of the BAC team although employed by a different department. Mr Kevin Rodgers, the principal of the school was on the BUM Committee for more than 25 years. Teaching staff were regular attendees at the morning meetings, Case Conferences and the Care Planning Workups. They were involved in integrating their programs, particularly with programs organised by the occupational therapists. Facilities obtained through the Department of Education were for the use of the unit as a whole. The BUM minutes of 17 May 2013 record "Kev stated that there has been no liaison between Health and Education on the Unit's future. The Education Department would like to keep the School going. There are different degrees of angst amongst the teaching staff. Permanent staff have been promised jobs by the Department." Exhibited and marked '**P**' is a copy of the minutes.

245. I can recall at the time of the Health Minister's announcement in August 2013 that teaching staff were initially in attendance at the meeting with Ms Dwyer. However they were asked to leave partway through the meeting, and the communication resumed with Queensland Health staff only. I kept Education Queensland staff informed of any developments as I became aware of them. Although Mr Rodgers was on the ECRG and a representative of Education Queensland was on the Planning Group, there was no representation from Education Queensland on the State-wide Adolescent Extended Treatment and Rehabilitation Implementation Strategy Steering Committee.

246. The draft ECRG minutes of 13 March 2013 are exhibited and marked '**Q**'. The minutes recorded "Feedback from current and past BAC clients indicates that there is a need for consistency in staffing. This is supported by carers and families." My recollection is that this was to be a recommendation to Ms Kelly to ensure stability of staffing at BAC until its closure.

247. On 3 October 2013, I wrote to senior staff at The Park requesting that consideration be given to retaining BAC staff in any new service to be developed. I considered that this gave the best chance of optimising the transition of the current group of adolescents. I emailed Dr Stephen Stathis, Acting Director of Children's Health Queensland CHYMS copies of the two submissions I had made to the ECRG in the first half of 2013 (Exhibit L). I also forwarded him my email to Dr Kingswell and Ms Kelly (Exhibit N) so he understood my concerns regarding the implications of a wrap around process. Dr Stathis was on the Planning Group, and I knew the sub-population of adolescents at BAC was not his area of expertise.

248. Senior staff at The Park (Mr Paul Clare, Ms Lorraine Dowell and Mr Padraig McGrath) were nominated to be on the *Financial and Workforce Planning Working Group* of the State-wide Adolescent Extended Treatment Rehabilitation Implementation Strategy Steering Committee. Whatever new services were to be developed I considered that the best chances to optimise transition of the current group of adolescents relied on having

staff whom they knew being an essential part of the new service. I wrote a letter to Mr Clare setting out these views. A copy of this letter is exhibited and marked '**R**' to this statement. I received an acknowledgement from Ms Dowell that she had received the letter but no other responses.

249. Prior to 6 August 2013 I believed that BAC should continue to work with adolescents in the way that it normally would with regards to an orderly transition. The reasons that I believed this were:

(a) The ECRG had made recommendations with respect to the need for a Tier 3 unit and warned of the dangers of closing BAC without an adequate replacement (Exhibit M).

(b) As explained above, I made submissions to the ECRG regarding the level of care I considered the adolescents needed and a copy of these submissions had been provided to Dr Stathis. These submissions were forwarded a week before the 24 May 2012 meeting of the West Moreton HHS Board. I had also written to Dr Kingswell and Ms Kelly detailing my concerns regarding a wrap around service. A copy of this email was provided to Dr Stathis.

(c) In response to an invitation from the Chair of the West Moreton HHS Board, Dr Mary Corbett, to write to her and request a visit from the Board to a facility, I wrote in May 2013 to invite the Board to visit BAC. I thought that they could be informed in their deliberations about the future of BAC. I had no response.

(d) I did not receive notice of any further Planning Group meetings after 15 May 2013. In these circumstances I assumed that the proposed closure had been put on hold pending further discussions about the timing for closure and the appropriate arrangements for the ongoing management of the adolescents. At some point between November 2012 and August 2013, I can recall writing to Ms Lesley Dwyer by email to advocate for delaying the closure of the unit until August 2014. Had the rebuilding of the unit at Redlands proceeded, BAC would have continued at The Park until this date. The text of the attachment sent to Ms Sharon Kelly on 6 July 2013 (Exhibit O) does not convey any awareness of the imminence of the closure and argues the need for stabilised staffing whatever the outcome. The minutes of the BUM of 19 July 2013 record that I had heard nothing about the future of the unit.

(e) Both the MHAODD Branch and the West Moreton HHS had clear policies on consumer and carer engagement strategies. I was aware that there had been no consumer or carer consultation. The Planning Group Plan clearly identified a period of consultation with stakeholders (which included consumers and carers) about the preferred model of care. I thought that because engagement of adolescents and parents to discuss the preferred model had not occurred, that this was an indication that closure was not imminent.

250. After 6 August 2013 my focus was primarily to stabilise BAC with respect to staffing, the adolescents' concerns, well-being and mental health and to explore what transition options

were available. I held particular concerns regarding the transitioning of some of the adolescents out of BAC. These included the following:

(a) [redacted] This was a particularly difficult time with an increase in depressed mood, PTSD symptoms and self-harm and suicide attempts. I could not envisage them working through this important phase of the treatment in the time periods available because of the disruptions on the unit and anxieties about the closure. Following the [redacted] they required significant support over a period of months with adolescent developmental tasks to consolidate identity which was damaged by their experiences of trauma. I was concerned that against this background it was not possible to appropriately transition these adolescents within the allocated time frame.

(b) Another adolescent with significant self-harm and suicide attempts was just commenced engaging in therapy and in the tasks of adolescent development. I considered [redacted] to be a high risk of suicide or living a life of chronic impairment and was concerned that it was not possible to appropriately transition [redacted] within the allocated time frame.

(c) Accommodation was looming to be a problem [redacted] of the adolescents in that they required significant support to live independently with a range of wrap around services. The indications were that their behaviours had not yet sufficiently stabilised to live in this supported accommodation.

(d) Another adolescent who was [redacted] posed a considerable risk because of [redacted] levels of anxiety and a failure to progress in tasks of adolescent development, which were impacting on [redacted] identity. The continued presence of BAC in the past for adolescents such as this was important in that they could continue accessing the BAC services when they were distressed. They could usually ring up at most times and discuss issues with a staff member whom they trusted.

(e) [redacted] there was evidence they would regress when in the community e.g. when they went on leave they spent most of their time in the house. Considerable support was necessary over many months to transfer the gains they had made at BAC back into the community.

251. On 15 August 2013 I recommended that staff from BAC be involved in any transition services to be established because of their expertise in the area. I drew the analogy to expertise in infant mental health and forensic mental health, which was recognised by Children's Health Queensland. Ms Judi Kraus, Executive Director in CYMHS, Children's Health Queensland replied that no positions could be guaranteed.

252. On 16 August 2013, I, Ms Judi Kraus and Dr Stephen Stathis travelled to Melbourne to visit Youth Prevention and Recovery Care (**Y-PARC**) facilities at Dandenong and Frankston and a residential facility. Y-PARC was an alternative model suggested to the Planning Group.

253. On 30 August 2013 I was involved in a visit to the Logan Hospital to look at the suitability of a ward as an interim service which was to become vacant with the commissioning of a new ward. This potential interim service had been suggestion by Dr Kingswell. Dr Stephen Stathis, Mr Rodgers and Ms Clayworth also attended the site visit. We concluded that it was a potential solution, particularly if there were some refurbishments. I fractured my left elbow after a bike accident and I underwent surgery on it on 2 September 2013. I was at work for limited periods recovering from the surgery in the following week.

254. I was a member of the State-wide Adolescent Extended Treatment and Rehabilitation Implementation Strategy Steering Committee which met for the first time on 26 August 2013. I attended that meeting and one subsequent meeting on 9 September 2013. At the time of this subsequent meeting there remained no clear ideas of potential services to which adolescents would transition. These meetings essentially involved developing the Terms of Reference and establishing the various Working Groups.

255. From the perspective of working with the adolescents at BAC, there was always a mindset of developing competencies and linking the adolescents in with family, school and community agencies which would enable them to transition fully from BAC. This continued to be the mindset throughout the period from November 2012 until August. My primary strategy beyond this was to ensure that they were transitioned into the best facility possible.

256. My involvement with BAC after I ceased working at BAC in September 2013 was very limited. I recall that Dr Anne Brennan was appointed to take over my role as Clinical Director and to implement the transition arrangements. Initially I was told that Children's Health Queensland had appointed Dr Elisabeth Hoehn to take my place. I expressed concern that her expertise were in infant mental health. I was told that Dr Anne Brennan would be assisting her in clinical matters. I regarded Dr Brendan very highly as a child and adolescent psychiatrist, but nevertheless I enquired about Dr Cary Breakey being involved as he was familiar with BAC and many of the adolescents. The response was that Children's Health Queensland had made the decision.

257. I only had intermittent contact with Dr Brennan. Occasionally I saw her at conferences or functions, or discuss an adolescent with her if we were both involved in the treatment of the adolescent. I did not provide a formal handover to Ms Brennan. This is because I was told by Sharon Kelly at the time my employment with BAC was suspended that I was to have no further input into the care of the adolescents at BAC and the staff were instructed to not have contact with me.

Other matters

258. On 20 May 2015, at the request of the Office of the State Coroner, I provided a written report on three deceased adolescents who were ex BAC adolescents. I knew each of these adolescents and was saddened to hear of their deaths.

259. In the last 20 or so years I am not aware of any other adolescents who have died within 12 months of discharge from BAC.

260. I understand that the advisability of a replacement unit to BAC is a vexed issue amongst my professional colleagues and health service administrators. Providing the most appropriate care for the sub-population of adolescents with severe and complex mental health problems needs to be the paramount consideration. Based on my experience (both inpatient and outpatient), my visits to other ATERCs worldwide and my review of the literature, and having given this issue much consideration, I am of the view that this cohort of adolescents are best treated through the treatments, interventions and services provided in a facility similar to BAC.

261. The advantages I see in this model of care for the particular sub-population of adolescents are explained in detail in the paragraphs above. My concerns as detailed above regarding the appropriateness of acute inpatient facilities for such adolescents remain and have been reinforced by my experiences as a locum in 2014 and 2015.

262. This in no way intended to take away from the great work of CYMHSs. In recent years CYMHSs have adopted a much more recovery oriented approach. Clinicians in community teams, as well as providing treatment, engage a wide range of Non-Government Organisations (**NGOs**) to provide comprehensive services to support families and to facilitate progress in the tasks of adolescent development. Many community clinicians are highly competent and provide high levels of interventions. There are some CYMHS acute inpatient services that have the capacity to address the above issues to a certain degree, through incorporating a range of interventions which include FBT for anorexia, art therapy, music therapy and a range of other therapies. However, in spite of clinicians utilising a range of therapies, some adolescents remain unwell. Adolescents were often referred to BAC by community clinicians because they did not have access to the necessary range of interventions, or the number of interventions required were difficult to implement in the community or acute inpatient setting. Some services had only a component of the expertise necessary to provide optimal clinical services. This remains the case. A combination of severity of the impairments due to mental illness, severity of the mental illness and impacts on safety or health and in some cases family factors, limit the degree to which any community interventions can be effective.

263. Further, based on referral patterns to BAC and my own observations from my years of treating adolescents in non AETRC settings, I would say the average child and adolescent mental health practitioner (i.e. psychologist, social worker, occupational therapist, mental health trained nurse, psychiatrist) is likely to individually encounter an adolescent with the level of difficulty requiring referral to AETRC only once in every three to five years. It is difficult to develop an adequate skill set with such a group when one is seeing them so infrequently.

264. Experienced clinicians report a significant increase in the number of adolescents with self-harm behaviours, suicidality and eating disorders. It seems that clinical severity and complexity of adolescents with mental health issues is increasing.

265. For the reasons stated in paragraphs 40 to 42 above, reported occupancy statistics in relation to BAC were in no way reflective of the true situation. While BAC only treated and managed a small cohort of adolescents, it was those adolescents with serious and

complex mental health issues who could not be stabilised in the community or acute inpatient settings. One can only speculate as to the total cost to the community for these extremely unwell adolescents if they are not to be given the best chance of recovery.

266. I would be only too happy to provide further information if considered necessary.

OATHS ACT 1867 (DECLARATION)

I Trevor Bruce Sadler do solemnly and sincerely declare that:

(1) This written statement by me dated 11 December 2015 and contained in pages numbered 1 to 56 is true to the best of my knowledge and belief: and

(2) I make this statement knowing that if it were admitted as evidence, I may be liable to prosecution for stating in it anything I know to be false.

And I make this solemn declaration conscientiously believing the same to be true and by virtue of the provisions of the _Oaths Act 1867_.

.....[redacted].....Signature

Taken and declared before me at .....Brisbane..... this 11th day of December2015.

Taken By .....[redacted].....

~~Justice of the Peace / Commissioner for Declarations /~~ Lawyer

CURRICULUM VITAE - Trevor Sadler

Contact details

Address Trevor Sadler

Email

Phone

Current Position

November 2014 – Senior Visiting Psychiatrist, Mater Young Adult Health Centre/Adolescent Drug and Alcohol Withdrawal Services

Temporary Position

2/11/2015 – Temporary Senior Staff Specialist, Royal Brisbane Women's Hospital Adolescent Inpatient Unit

15/9/2015 – 30/10/2015 Locum Psychiatrist, Metro South CYMHS (Community)

Other Positions

1989 – 1998	Visiting Psychiatrist – Child and Youth Mental Health Service, Mater Health Service
1990 – 2013	Director (variously Business Unit Director, Clinical Director) Barrett Adolescent Centre, Wolston Park Hospital (later The Park – Centre for Mental Health)
2014	Visiting Senior Psychiatrist, The Park – Centre for Mental Health
1998 – 2013	Visiting Senior Psychiatrist, Barrett Adolescent Centre, Wolston Park Hospital
1988 – 1998	Visiting Psychiatrist, Barrett Adolescent Centre, Wolston Park Hospital
1986 – 1988	Medical Officer, Barrett Adolescent Centre, Wolston Park Hospital
1986	Psychiatry Registrar, Royal Derwent Hospital, New Norfolk
1984 – 1985	Psychiatry Registrar, Royal Brisbane Hospital, Brisbane
1979 – 1983	Medical Officer, Division of Youth Welfare and Guidance, Redcliffe
1978 – 1979	Medical Officer, Division of Youth Welfare and Guidance, Wilson Youth Hospital, Brisbane
1977 – 1978	Medical Officer, Baillie Henderson Hospital, Toowoomba
1975 – 1976	Resident Medical Officer, Royal Brisbane Hospital, Brisbane

Qualifications

1989	Certificate of Child Psychiatry, Royal Australian and New Zealand College of Psychiatrists
1988	Fellowship Royal Australian and New Zealand College of Psychiatrists
1974	Bachelor of Medicine, Bachelor of Surgery

Memberships of Committees and Professional Service

June 2015 -	Co-chair, Adolescent Mental Health in Chronic Illness Working Group
2010 - 2012	Member, Child and Youth Mental Health Services Eating Disorders Working Group

2009 - 2013	Member, Steering Committee, State Wide Child and Youth Clinical Network
2009 - 2010	Member, State Wide Mental Health Services Advisory Group
2008 - 2012	Co-Clinical Lead, Tri- Clinical Network Collaboration on Adolescents with Chronic Illness
2007 - 2012	Clinical Chair, Child and Youth Mental Health Services Clinical Collaborative
2007 - 2012	Member, State Wide Child and Youth Mental Health Services Advisory Group (formerly Network)
2007 - present	Clinical Senior Lecturer, Discipline of Psychiatry, University of Queensland
1993 – 1996	Chair, Queensland Branch and Member of National Executive, Faculty of Child and Adolescent Psychiatry, RANZCP

Memberships of Committees and Professional Service

2013	Member, Expert Clinical Reference Group, Adolescent Extended Treatment and Rehabilitation Services, Queensland Health
2012	Member, Working Party CYMHS Day Program Model of Service Delivery, Queensland Health
2010 - 2012	Member, Child and Youth Mental Health Services Eating Disorders Working Group
2009 - 2013	Member, Steering Committee, State Wide Child and Youth Clinical Network
2009 - 2010	Member, State Wide Mental Health Services Advisory Group
2008 - 2012	Co-Clinical Lead, Tri- Clinical Network Collaboration on Adolescents with Chronic Illness
2007 - 2012	Clinical Chair, Child and Youth Mental Health Services Clinical Collaborative
2007 - 2012	Member, State Wide Child and Youth Mental Health Services Advisory Group (formerly Network)
2007 - 2014	Clinical Senior Lecturer, Discipline of Psychiatry, University of Queensland (currently applying for renewal of appointment)
2006 – 2007	Member, Queensland CoAG Mental Health Group, Child, Youth and Education Sub Group
2006 – 2011	Member, Training Monitoring Subcommittee, Queensland Branch, RANZCP
1994 – 1995	Member, Reference Group, Child and Youth Mental Health Policy, Mental Health Branch
1994	Member, Steering Committee for the Review of Child Guidance Services, Mental Health Branch
1993 – 1996	Chair, Queensland Branch and Member of National Executive, Faculty of Child and Adolescent Psychiatry, RANZCP
1990 – 2000	Member of Council, Royal Queensland Bush Children's Health Scheme
1990 – 1991	Member, Suicide Prevention Strategies Group
1990	Member, Committee for Rotation and Placement of Psychiatrists in Training, Queensland Health
1989 -	Member, Faculty of Child and Adolescent Psychiatry, RANZCP
1988 -	Fellow, RANZCP

Conference Presentations

Invited Presentations

May 2013	*Identifying Potential Psychosocial Barriers in Adolescents with Type 1 Diabetes* (co-presentation with J Pennisi, H D'Emden) Novo Diabetes Conference, Gold Coast
November 2011	*Psychosocial issues and Mental Illness in the Adolescent with Type 1 Diabetes* Diabetes Collaborative Project Forum, Brisbane
June 2011	*Using Chart Reviews to Ascertain Psychosocial Issues Affecting Diabetes Management* Australian Diabetes Educator Association Conference, Brisbane
October 2010	*A perspective on Adolescent Medicine,* RACP Division of Paediatrics and Child Health Queensland Branch Professional Development Conference, Gold Coast
December 2009	*Teenagers who Find it Difficult to go to School,* Mater Kids in Mind School Refusal Research Conference, Brisbane
August 2009	*A Framework to Analyse Needs of Young People in Care,* Presentation to Placement Directors, Department of Child Safety, Brisbane
February 2009	*Multiple Network Interventions for Adolescents with Chronic Illness*, Child and Youth Networks Forum, Brisbane
February 2008	*School Refusal and Social Anxiety*, State wide Grand Rounds in Child and Adolescent Psychiatry, Brisbane
November 2006	*The Role of Attachment in Treating Syndromes of Trauma*, State wide Grand Rounds in Child and Adolescent Psychiatry, Brisbane
September 2006	*The Role of Attachment in Professional Interactions with Traumatised Adolescents,* Royal Children's Health District Seminar on Trauma and Attachment, Brisbane
July 2006	*Adolescents, Trauma and Adolescence*, Toowoomba District Health Service/ University of Queensland Seminar on Adolescent Trauma, Toowoomba
March 2005	*Resilience vs Anxiety and Depression in Adolescents with Diabetes* Queensland Diabetes Conference, Brisbane
March 2004	*Borderline Personality Disorder in Adolescents*, Bi-National Grand Rounds in Child and Adolescent Psychiatry, Brisbane (with video-conference link)
October 1998	*Key Assumptions Behind Child & Youth Mental Health Policy: Dilemmas for Clinicians* 5th Annual Child & Youth Mental Health Conference, Brisbane
August 1997	*Research Questions in Adolescent Health*, AMAQ/Queensland Health Symposium on Adolescent Health, Brisbane
June 1995	*Issues in Adolescent Mental Health,* Queensland Association for Mental Health, Brisbane

Submitted Presentations

May 2011	*Concepts of Complexity in Child and Adolescent Mental Health,* CYMHS Collaborative Forum, Brisbane
June 2005	*The Meaning of Care in Child and Youth Mental Health Services* Mater Child and Youth Annual Conference
June 2003	*Outcome Scales for Children and Adolescents (HoNOSCA) in an Inpatient Unit,* Queensland Health Mental Health Research Conference, Brisbane
May 1995	*A Model for Delivering Mental Health Services to Children in Rural and Remote Areas*, Inaugural National Child and Adolescent Mental Health Conference, Adelaide

Workshops and Short Courses

May 2013	*A Recovery Model for an Adolescent Day Program* provided to Townsville Acute Inpatient and Day Program Clinicians, Townsville
August 2012	*Incorporating the Tasks of Adolescent Development into a Day Program Model* provided to Toowoomba Acute Inpatient and Day Program Clinicians, Toowoomba
April 2011	*A Framework for Providing Adolescent Mental Health Services*, A workshop provided to Cairns District Evolve Therapeutic Services and Child and Child and Youth Mental Health Services, Cairns
February 2009	*Workshop in Recovery in Adolescent Mental Health*, Queensland Health (Barrett Adolescent Centre), Mater Kids in Mind, University of Queensland
September 2008	*Trauma, Self Harm, Suicide and Risk Assessment*, Royal Children's Hospital CYMHS Skills Development Workshop
March 2007	*Trauma, Self Harm, Suicide and Risk Assessment* CYMHS Key Skills Development Workshop, Brisbane
October 2006	A *history of Mental Health Services to Children in Care,* Evolve Therapeutic Services Workshop
May 2005	*Recovery Workshop*, Queensland Health (Barrett Adolescent Centre), University of Queensland
1998 – 2003	*Seminars in Adolescence* Series, Barrett Adolescent Centre, Brisbane

Peer Reviewed Journal Publications

Harnett PH. Loxton NJ. Sadler T. Hides L. Baldwin A. (2005) *The Health of the Nation Outcome Scales for Children and Adolescents in an adolescent in-patient sample. Australian and New Zealand Journal of Psychiatry* 39(3):129-35

Young ES. Perros P. Price GW. Sadler T. (1995) *Acute challenge ERP as a prognostic of stimulant therapy outcome in attention-deficit hyperactivity disorder* Biological Psychiatry. 37(1):25-33, 1995 Jan 1

Teaching

2009 – 2010	*Self Harm and Suicide* Year 1 MB, BS Students, University of Queensland, Ipswich
2007 -	*Assessing Depression and Self Harm*, Year 3 MB, BS Students, University of Queensland, Brisbane
2006	*Mental Health Issues in the ED Series*, Registrars and Residents, Mater Children's Hospital
1992 -	*Adolescent Psychopathology*, Basic RANZCP Trainees, Brisbane
1994 -	*Adolescent Therapy*, Advanced RANZCP Trainees in Child and Adolescent Psychiatry, Brisbane
2011 -	*Leadership in Child and Adolescent Services*, Advanced RANZCP Trainees in Child and Adolescent Psychiatry, Brisbane
2010 -	*Recovery and Rehabilitation in Child and Adolescent Services*, Advanced RANZCP Trainees in Child and Adolescent Psychiatry, Brisbane
2010 -	*Spirituality in Child and Adolescent Psychiatry*, Advanced RANZCP Trainees in Child and Adolescent Psychiatry, Brisbane

CONFERENCES ATTENDED

2000 2nd International Early Psychosis Conference New York
2002 Asian Pacific Eating Disorders Congress Melbourne
2003 14th Symposium of the International Society for Psychological and Social Approaches to Psychosis Melbourne
2005 2nd Asia Pacific Eating Disorders Conference Melbourne
2006 RANZCP Congress Perth
2007 CBTE Conference Chris Fairburn Brisbane
2007 6th World Congress on Stress Vienna
2007 20th European Conference of Neuropsychopharmacology Conference Vienna
2008 RANZCP Congress Melbourne
2008 RANZCP Section of Psychotherapy Conference Hobart
2009 9th Workshop of International Centre for Mental Health Policy and Economics Venice
2009 RANZCP Congress Adelaide
2010 Eating Disorders International Conference London
2010 RANZCP Faculty of Child and Adolescent Psychiatry Conference Barossa Valley
2011 12th International Society for the Study of Personality Disorders Conference Melbourne
2011 RANZCP Section of Psychotherapy Conference Melbourne
2011 8th Conference of International Society for Adolescent Psychiatry and Psychology Berlin
2011 18th Eating Disorders Research Society Conference Edinburgh
2011 Royal College of Psychiatrists Faculty of Child and Adolescent Psychiatrists Conference Cambridge
2012 RANZCP Faculty of Child and Adolescent Psychiatry Conference Sydney
2013 RANZCP Congress Sydney
2013 RANZCP 2nd Youth Mental Health Symposium Melbourne
2013 National Suicide Prevention Conference Melbourne

Summary of the units I have visited in the United Kingdom and Switzerland

Unit	Comments
2010	
Klinic Neuhas, Berne Switzerland	In German speaking area of Switzerland. Large unit with three distinct sub-sections which allowed for separation of acute inpatients, those with longer term disorders and those on a forensic order. Longer term patients included those with self-harm, psychosis and eating disorders. Very large school, therapy and rehabilitation area with potential for a range of therapeutic and rehabilitation interventions. Some of these we had access to at BAC, some we would have found useful. Model had much in common with BAC approach. Community services not as well developed.
Department of Child Psychology, Psychiatry and Psychotherapy, Fribourg, Switzerland	In a French speaking part of Switzerland – different therapeutic approaches to the German part. Emerging from a predominantly psychoanalytic tradition. Now having to accept more acute presentations, and finding programs for adolescents requiring longer stays difficult. Range of therapeutic interventions (music, art as well as more traditional verbal therapies). Lacked a strong rehabilitation program.
Skye House, Glasgow	New build. Adolescents resided in three separate complexes. Average length of stay (**LOS**) 3 – 4 months, with occasional adolescents up to 12 months. Adolescents with self-harm, eating disorders and psychosis were the main presentations. Moving to take more acute presentations with shorter lengths of stay. School and therapies blocks a substantial part of the complex.
Newberry Centre, Middlesbrough	Recent build. Complex with two residential sections – including a more and less secure wards. My recollection was the more secure ward housed young offenders. I did not visit that. The less secure section had a mean LOS of 3 – 4 months, with a mixture of short stay, acute presentations medium stay and occasional very long stay (12 months). Group programs were oriented to the medium stay adolescent. No clearly defined model of care for those requiring longer LOS. Not a clearly defined rehabilitation program, although there were many comparable elements. No therapeutic conceptualisation of adolescents with complex trauma.
The Junction, Lancaster	New build. Smaller unit to Middlesbrough, but many of the same comments apply. One longer stay patient in process of being transferred to private sector inpatient unit with specialist program. As for Middlesbrough, struggled with a mix of acute and medium/long stay inpatients. Both units encourage much more adolescent independence with meal preparation than we utilised at BAC. The equivalent of Child Safety services seemed better resourced in these northern areas than I observed in Queensland.
Pine Lodge/Maple Ward Chester	Maple Ward is an acute adolescent inpatient unit. Staff at Chester Lodge noted this contributed to more targeted programs for the medium to longer stay patient. Building was a large old converted house which offered challenges to programming and therapeutic interactions. Very high proportion of adolescents with severe eating disorders at Chester Lodge because of expertise of Prof Simon Gowers, the Director. (They took patients from the north and west of England into Wales.) Rehabilitation component limited because of

	space constraints.
St Andrews, Northampton	Privately owned forensic secure unit funded under the NHS. Strong, well-articulated rehabilitation program which had many similarities to our program.
Parkview Clinic, Birmingham	Recent build. Three sections which allowed for some streaming of patients into acute or medium/long term. As for Middlesbrough and Lancaster, programs aimed for those of anticipated LOS of 3 – 4 months, with no clearly defined model of care for those who stayed longer. Not a well-defined rehabilitation program. Some innovative ideas with multi-family therapy for eating disorders. The impression was that community services not as well developed.
Leith House, Winchester	Similar mix to other general adolescent inpatient units, with similar problems in mixing acute and longer stay patients. However they did have a well-articulated rehabilitation program which was very similar to the program in use at BAC. Building design had adequate space for a range of school, therapy and rehabilitation activities. The ward design had similar constraints which I had observed in other units in communal spaces which affected adolescent interactions and staff capacity to observe and intervene. One significant problem for this unit was that community Child and Adolescent Mental Health Services (**CAMHS**) were in a separate Trust to the inpatient unit. My impression was that this was not an uncommon problem.
Althea Park Services, Stroud	Althea Park was a therapeutic residential, not an inpatient unit. It had both a house in Stroud as well as another location in a rural setting some kilometres away. They specialised in rehabilitation of those with severe and persisting eating disorder and histories of recurrent self-harm. Both conditions had to be reasonably stabilised. They noted identified similar processes of interactions between young people as being important to outcomes as we did at BAC. They offered some similar rehabilitation components. Some adolescent units I visited had referred an occasional young person to this centre while one unit was wary because of limited range of professionals within the staff profile.
Northgate Clinic, London	I visited this unit because it nominated a specialist area of interest in young people who self-harmed. Acute and longer stay sections were separate. The longer stay section was very psychoanalytically oriented. I was invited into a group meeting with the adolescents and felt uncomfortable with the process.
Priory Hospital, Ticehurst	Priory is a private organisation which runs a number of publicly funded inpatient beds in centres throughout England. This was a general adolescent unit in an older building with similar issues to other general adolescent inpatient units with respect to mix of acute and longer stay patients, lack of a clear rehabilitation program and lack of a model of care for the occasional adolescent who may stay longer than six months.
2011	
Lime Trees, York	A general adolescent inpatient unit with adolescents housed in three separate dwellings designed so that they could be sold as houses if the unit closed. This limited space for rehabilitation activities. They were trending towards shorter mean LOS, predominantly because they were taking more acute inpatients. Nevertheless they had an occasional long stay patient for whom there was no satisfactory

	model of care. I have observed that adolescents with anxiety disorders were really in inpatient units. I enquired at Lime Trees why this is so and what alternative services were available. The psychiatrist there was unsure of services for this sub-population of adolescents.
Prudhoe Hospital, Northumberland	New build – in commissioning phase when I visited. Three distinct sections for forensic, general and learning difficulties. Some advantages, some deficits in design.
St Georges Eating Disorder Service	I visited to this unit to attend a one day workshop on eating disorders, and spoke with a psychiatrist later. Adolescents referred to this unit tended to be of longer duration. Therapy was multimodal with a strong psychoanalytic component. There was little in the way of an articulated rehabilitation component.

C

EXTENDED TREATMENT AND REHABILITATION FOR ADOLESCENTS IN THE CONTEXT OF NATIONAL MENTAL HEALTH PLANNING

The West Moreton Health and Hospital Service issued the following statement to staff and families of adolescents at the Barrett Adolescent Centre;

> *The West Moreton Health and Hospital Service supports the national reform agenda to ensure young people are treated closer to their homes in the least restrictive environment, and with minimum possible disruption to their families, educational, social and community networks. As all of you would be aware, the National Mental Health Service Planning Framework clearly recommends community-based and non-acute care settings for the care of mental health consumers, particularly young people.*

This is a commendable statement. The future of an Extended Treatment and Rehabilitation Service for Adolescents needs to be examined in the total context of the *National Mental Health Policy* and the *Fourth National Mental Health Plan.* Individual statements within this release are analysed within the context of these documents and current practice.

1, Community based treatment

"The West Moreton Health and Hospital Service supports the national reform agenda to ensure young people are treated closer to their homes in the least restrictive environment,"

The *Fourth National Mental Health Plan* states

> *Care is now delivered primarily in community settings, compared with the previous heavy reliance on inpatient services that characterised Australia's mental health system.*

and

> *Expand community based youth mental health services which are accessible and combine primary health care, mental health and alcohol and other drug services.*

The Barrett Adolescent Centre is 100% in agreement with the last statement and the statement by the WMHHS. However child and youth mental health services throughout Australia, and certainly in Queensland have always been predominantly community based.

The evidence is very clear that this is so in Queensland, and we support this approach:

- In the 2010 – 11 financial year, Community CYMHS in Queensland opened 15,043 cases. Of these, 9,033 had face to face POS. Private child psychiatrists collectively saw another 4,000 plus cases. An unknown number had acute admissions. Of these 13,000 + young people were managed in the community, only about 40 were referred to BAC, and less than 20 accepted for admission. Child and youth mental health services in Queensland are overwhelmingly community based.

- It is ironic that the one component of our service which is community based – having day patients (consistent with maintaining links with networks in the least restrictive environment) - is not formally recognised as part of our activity by the MHAODD Directorate, although this has been part of our model of service delivery for the past 30 years. We were given approval to continue this service while we were at The Park, but it was not to be part of the model at Redlands. The Redlands team's opinion was that it would have been a well used local resource. Moreover, the MHAODD Directorate either has a day program in Toowoomba and plans to open one in Townsville. Yet it is closing the one in West Moreton. Population projections predict significant growth in this area, and a greater population than Toowoomba.

- Barrett has always, since its inception, insisted on exhausting community treatment prior to an adolescent being considered. We are very aware of the disruption to family, social, educational and community networks. The need for exhaustive community treatment prior to being considered for Barrett is well documented in our Model of Service Delivery. As community services have expanded and gained expertise, so the threshold for admission has been raised.

- We have formally supported local CYMHS in developing expertise in supporting adolescents with severe, complex and persistent mental illness in the community. We have run four workshops to equip community based services to more effectively manage adolescents with severe and complex mental illness. I am scheduled to run a 2 day workshop in Townsville in May 2013. I supervise child and adolescent psychiatrists working in Evolve Therapeutic Service via a monthly videoconference link up to enhance quality community interventions.

- I have gained a wide range of clinical experience which enables me to gauge the threshold of what can be managed in the community, and what needs to come to Barrett. Over the years I have treated over 3,000 young people in community settings (public and private) and an estimated 1,000 adolescents at Barrett. Our peer supervision group has varied in membership over the years, but has always been made up of child and adolescent psychiatrists in public and private, community and inpatient settings. In the past decade we have discussed approximately 200 of the young people we struggle the most

with. In addition, I continue on the after hours roster for the Mater. This gives me perspective of who can be managed in the community vs. who needs admission; who is suitable for an acute admission, and who may potentially need to come to Barrett. All of this experience has informed me in setting the threshold for admission at a high level of severity and complexity.

2. Maintaining networks

The next part of the statement to be analysed is to "*ensure young people are treated ..... with minimum possible disruption to their families, educational, social and community networks*"

This is a fundamentally important concept. It is a vital part of our analysis of the need for admission. Thus, of adolescents admitted to Barrett in the last five years

- 98% had disengaged from their educational networks for at least 6 months prior to admission. Those that had not were either able to be admitted as a partial day patient and involved in the educational setting, or the educational setting was a continuing stressor which adversely affected their mental health.
- 90% had no face to face contact with peers. Some had even disengaged from online networks.
- 83% had disengaged from community networks – they either did not or rarely went to shops, caught public transport etc.
- 12% had been abandoned or removed by family networks. 35% had tenuous family networks – they slept under the same roof as the parent, but parents were disengaged, neglectful or abusive. 55% had adequate family networks. These families however describe tremendous strain from needing to support a young person with severe mental illness – sleepless nights, giving up jobs, sometimes severe family conflict, sometimes fear of the young person dying, younger siblings having to witness lacerated arms.

Therapeutic leave is an important intervention at Barrett to maintain and re-establish family, social, community and educational networks. Inevitably this means a bed is not occupied overnight for the period of leave. It is ironic that the MHAODD Directorate's only indicator of our activity – the OBD – records this as a vacancy.

A range of settings for young people is a priority

As all of you would be aware, the National Mental Health Service Planning Framework clearly recommends community-based and non-acute care settings for the care of mental health consumers, particularly young people.

Having clearly supported the primacy of the community based setting, this discussion turns to the place of the non-acute settings.

The Barrett Adolescent Centre includes two components of non-acute care settings - the Day Program and the inpatient setting. Other models (which we recommended in 2006) include the therapeutic residential and the step-down unit.

The *Fourth National Mental Health Plan* contains many statements which together mandate the continued existence of Barrett.

1. It recognises the potential wide ranging impairments in young people with mental illness

   For most people, the mental illness they experience in adult life has its onset in childhood or adolescence. For example, of those who will experience an anxiety or affective disorder, two thirds will have had their first episode by the time they are 21 years of age.

   Because many illnesses affect the individual's functioning in social, family, educational and vocational roles, the early age of onset can have long term implications. Mental illnesses are the largest single cause of disability in Australia, accounting for 24% of the burden of non-fatal disease (measured by total years of life lived with disability, Figure 4). This has a major impact on youth and people in their prime adult working years.

2. The potential need for highly intensive mental health interventions is implicit in the *Plan*

It is implicit in the statement

> *Mental health should be provided at a standard at least equal to that provided in other areas of health.*

that there will be a range of service interventions according to the severity and persistence of a disorder, and the degree of impairment. A young person with cystic fibrosis may be predominantly managed by their GP, with periodic visits to a specialist, but there exists a range of services including specialised inpatient care up to a lung transplant for those with severe disorder.

If this range is the level of care available to a young person with a serious health problem, it is evident that care for young people with a mental illness ranges from community care to very specialised intensive treatment.

Indeed, this is explicit

> *A national service planning framework will include acute, long stay, 'step up/step down' and supported accommodation services, as well as ambulatory and community based services. It will take account of the contribution of public, non-government sectors and private mental health service providers, and clearly differentiate between the needs of children and young people, adults and older people.*

and

> *Service options need to be responsive to the needs of different age groups, including young children and older people, and to the differing needs of those who suffer particular illnesses such as perinatal mental health problems and eating disorders*

Unfortunately in Queensland there has been a tendency by those familiar with extended care in adults to fail to differentiate the needs of children and young people, and to understand the developmental nature of an adolescent extended care service. By restricting the types of care that young people receive to community and acute inpatient (with some being able to access a day program), service planners are not sensitive to the particular needs of young people with severe, incapacitating mental illness.

3. It recognises that the level of intensive care provided in a service such as Barrett cannot be provided throughout the state (particularly a decentralised state like Queensland.

> *While it is not appropriate or possible that uniform service provision exists in every area or across all age groups, we should strive for equity of access and equity of quality. Services should strive to be accessible and responsive. The level of service provision and the outcomes of care should be transparent to consumers and carers*

and

> *Supporting local solutions for local communities will enable 'wrap around' services to better respond flexibly to individuals with complex needs, while understanding the constraints imposed by geographical location, and workforce availability.*

4. It recognises that two groups of people frequently admitted to Barrett have priority needs.

Those who have been traumatised.

> *Develop tailored mental health care responses for highly vulnerable children and young people who have experienced physical, sexual or emotional abuse, or other trauma.*

Those at high risk of suicide

> *Coordinate state, territory and Commonwealth suicide prevention activities through a nationally agreed suicide prevention framework to improve efforts to identify people at risk of suicide and improve the effectiveness of services and support available to them.*

5. It mandates approaches that promote recovery and social inclusion

Mental health service providers should work within a framework that supports recovery .... — both as a process and as an outcome to promote hope, wellbeing and autonomy. They should recognise a person's strengths including coping skills and resilience, and capacity for self determination.

and

Recovery in the context of mental illness is often dependent on good clinical care, but means much more than a lessening or absence of symptoms of illness. Recovery is not synonymous with cure. For many people who experience mental illness, the problems will recur, or will be persistent. Adopting a recovery approach is relevant across diagnoses and levels of severity. It represents a personal journey toward a new and valued sense of identity, role and purpose together with an understanding and accepting of mental illness with its attendant risks. A recovery philosophy emphasises the importance of hope, empowerment, choice, responsibility and citizenship. It includes working to minimise any residual difficulty while maximising individual potential. This is relevant to all ages, including the elderly, and to all those involved – the individual consumer, their family and carers, and service providers.

and

Adopt a recovery oriented culture within mental health services, underpinned by appropriate values and service models.

and

Recognition of the importance of social, cultural and economic factors to mental health and wellbeing means that both health and social issues should be included in the development of mental health policy and service development. The principle includes support to live and participate in the community, and effort to remove barriers which lead to social exclusion .....

and

People should feel a valued part of their community, and be able to exert choice in where and how they live. Some groups are at risk of entrenched social exclusion, including those with chronic and persistent mental illness. Developing pathways that support community participation and that allow movement towards greater independence minimises the risk of social exclusion.

Policy and service development needs to recognise the importance of a holistic and socially inclusive approach to health in promoting mental health

and wellbeing, that includes social as well as health domains and supports people to establish community engagement and connectivity.

There is very clear evidence, based on the persistence and severity of their illness, and the disruption to their educational, social and emotional networks, that young people admitted to the Barrett Adolescent Centre face greater challenges in attaining recovery and social inclusion than other young people managed in the community. The corollary to this is that more intensive recovery focused interventions are needed than are available in either a community setting or an acute inpatient unit.

A recovery focus is implicit in Barrett's philosophy since its exception, even though the term was not used in this sense in the 1980's.

6. It mandates that programs should be provided to reduce impairment and enhance community participation

Coordinate the health, education and employment sectors to expand supported education, employment and vocational programs which are linked to mental health programs.

Among the indicators for monitoring change are

Participation rates by young people aged 16–30 with mental illness in education and employment.

Rates of community participation by people with mental illness

These are strong elements of the Barrett program. While they may occur also in other settings, the clear evidence of impairments of the adolescents admitted to our service demonstrates that they are not of the intensity necessary to prevent severe impairment. Indeed, out experience is that integration into community participation and education requires considerable support to both initiate and maintain engagement. The resources necessary for this engagement are not well captured by superficial formulae for FTE's based on community or adult extended care models.

7. It mandates the need for supported housing.

Develop integrated programs between mental health support services and housing agencies to provide tailored assistance to people with mental illness and mental health problems living in the community.

In spite of repeated requests and written submissions to the Mental Health Branch (now MHAODD Directorate) from 1992 until the present for both step down accommodation and supported housing, adolescents have still not been provided with any services, although multiple programs have been trialled in the adult sector.

8. It outlines a rationale for developing services

> *Most importantly, development of a national service planning framework for mental health services needs to be based on sound epidemiological data that quantifies the prevalence and distribution of the various mental illnesses, ...*

We know from epidemiological surveys and models of the burden of illness that the patterns of admission to the Barrett Adolescent Centre reflect both the incidence of disorder in the youth population, and the relative contributions of various disorders to the burden of illness.

It continues

> *based on ..... evidence based guidelines that identify the treatment required for the range of conditions. Construction of the service framework needs to translate this knowledge about illness prevalence and required treatments into resources, measured in terms of the workforce and service components required to establish an adequate service system.*

Those who are thoroughly familiar with the literature on the treatments for severe depression, PTSD, anxiety disorders and eating disorders in adolescence (which together account for 90% of admissions) know the basis of evidenced based guidelines are usually based on interventions with varying rates of success, but invariably there are some that do not respond. If the non-response to standard interventions is persistent and causes impairment, a young person is likely to be referred to Barrett. Thus the usefulness of these guidelines to our population is limited.

For instance, the most recognised treatment for an adolescent with anorexia is the Maudsley model of family therapy. It is suitable for about 70% of those with anorexia. No clear alternative exists for those not responsive to this intervention. This is particularly so of those with a persisting disorder. This is, however, the young person who is likely to require admission to Barrett.

It is clear then that while this part of the *Plan* may inform community based care in particular, it cannot be expected to provide guidance for those who do not respond.

It continues to provide some guidance.

> *Services should be informed by the available evidence and look to innovative models as examples of service improvement.*

What constitutes "available evidence" and why "innovative models" are necessarily examples of "service improvement" are not clear.

On first consideration, "available evidence" might be thought to be found in the literature, or by scholarly publications. There are pitfalls, however. *"Models of collaborative care for children and youth (0-25 Years)"* is a report of the National Advisory Council on Mental Health. It could appear to offer an alternate model for

the adolescents seen at Barrett. However, it demonstrates two short comings of models derived solely from the literature.

- The groups of adolescents who received interventions in the examples they quote were more similar to those seen in Evolve Therapeutic Services than to those at Barrett. The characteristics of the population receiving an intervention must be clearly understood before recommending that intervention.
- There were premature claims to the value of some interventions that reflected the orientation of two of the authors. Those who are not familiar with the literature would miss this.

What is the alternative to what constitutes available evidence? I suggest four elements.

- A comprehensive search of the literature in each of the relevant areas – e.g inpatient care, complex trauma etc.
- Extensive clinical experience which can observe the applications of interventions to a population, note the gaps which the literature does not address, and observes the process of change where this has not been documented to guide future service delivery.
- Uses this combined knowledge to seek further knowledge from national and international conferences. The value of conferences beyond the literature is that it allows for more "real life" research to be presented, allows interaction with the presenter to tease out practical application, elucidation of the patient population and determine other contextual factors (e.g. built environment) which may be significant, but overlooked in the actual documenting of the process.
- Discussions with colleagues in like settings as to practices, models, factors which either facilitate or mitigate against change. For instance, when I visited units in the UK, all those who had combined acute stay and long stay adolescents reported that those who stayed longer missed out, because the treatments were packaged "short stay oriented" treatments that were recycled. I know that observations like this are not in the literature. However, one who does not have the knowledge available from the literature and clinical experience will not appreciate subtle contextual factors which may influence outcomes.

I suggest that the best "available knowledge" comes from those who have gained knowledge from as many of those areas as possible. The challenge is to discern these voices from those who simply have strong opinions, but no knowledge.

LISTS OF EVALUATION AND INTERVENTIONS

1. ASSESSMENTS AND EVALUATIONS

The first section lists the range of standardised assessments and a limited number of non-standardised assessments. Standardised assessments are of two broad types. The first ascertains abilities and characteristics which are unlikely to change (e.g. intelligence), but which must be accommodated in a rehabilitation program. The second type of standardised assessment allows for testing after a period of time or on discharge as part of an evaluation of treatment and rehabilitation. These are marked with an *.

The primary purpose of this list of assessments is to outline additional areas of evaluation. A number of unstructured assessments (observations of family, parent assessments, peer interactions, general behaviour etc.) are not described. These were an important component of the formulation.

1. Psychology Assessments

Core psychological tests were administered following admission. The following were the most commonly used psychometric tests at BAC, shown to have good validity and reliability.

- *The Reynolds Adolescent Depression Scale, Second Edition (RADS-2)
- *The Revised Children's Manifest Anxiety Scale, Second Edition (RCMAS-2)
- *The Adolescent Anger Rating Scale (AARS)
- *The Eating Disorder Inventory-2 (EDI-2)
- *The Childhood Trauma Questionnaire (CTQ)

Where there was a direct concern surrounding cognitive and academic ability the following measures were used:

- *Intelligence* - The WISC-IV
- *Achievement/Academic* - The WIAT-II
- *Memory* – The Children's Memory Scale

A neuropsychology referral is made if necessary, to further assess attention and concentration, memory and executive functioning, or to determine capacity or decision-making competency.

2. Occupational Therapy Assessments

Adolescent

- *Activity Configuration (how adolescents occupy a 24 hour period)
- *Adaptive Behaviour Assessment System (ABAS - II)
- Adolescent/Adult Sensory Profile
- The Handwriting Speed Test (HST)
- Beery-Buktenica Developmental Test of Visual-Motor Integration
- *Canadian Occupational Performance Measure (COMP)
- *Living Skills Checklist
- *Interest Checklist

- *Barriers to Leisure and Leisure Hopes Checklist

Parent

- *Living skills Information – Initial Parent /Carer Interview
- (Adaptive Behaviour Assessment System (ABAS - II)
- Adolescent/Adult Sensory Profile
- *Living Skills Checklist

Ongoing Assessments

- Cooking assessment
- Vocational Education Interest Form
- Adventure Therapy Assessment

3. Speech Pathology Assessments

Specialist communication assessments.

- Test of Adolescent and Adult Language (TOAL -3/4)
- Children's Evaluation of Language Function – Revised (CELF-4)
- *Test of Problem Solving (TOPS)
- The Test of Auditory Processing Skills – 3rd Edition
- Test of Language Competence – Expanded edition (TLC-E)
- Language Processing Test – Revised edition
- The Children's Communication Checklist – second edition
- Test of Word Knowledge, Literacy Tests

4. Dietetic Assessments

All adolescents undergo an initial nutrition screening process which may consist of one or more of the following:

- Medical and psychosocial History - reason for admission, medical history & medications, psychosocial history, socioeconomic status & history
- *Growth and development – height, weight, BMI plotted on CDC 2000 growth charts, weight and height history
- *Dietary intake, physical activity - meal and snacking patterns, appetite, food likes, dislikes, food allergies/intolerances, special dietary practices, nutrition supplement use, food security, alcohol consumption. physical activity levels
- Physical parameters – blood pressure, pulse, lipids, iron studies (females)

As well there may be indications for an in-depth nutrition assessment

- Medical and psychosocial history - medications known to have drug-nutrient interactions, depression or dysthymia, diagnosed eating disorder (AN, BN, EDNOS), at risk of re-feeding syndrome, disordered/fussy eating, ASD, developmental delay, chronic disease i.e. diabetes
- Growth and development - underweight, overweight, at-risk of overweight, short stature
- Dietary intake and physical activity - history of food insecurity, meal skipping, inadequate micronutrient intake, excessive intake of total or saturated fat, food allergy or intolerance, vegetarian diet, dieting, fasting, alcohol consumption, minimal/excessive sport/physical activity
- Physical observations and biochemistry – hypertension, hyperlipidaemia, iron deficiency anaemia

SECTION 2: INTERVENTIONS

This list of interventions was taken from APPENDIX 2 of the Response to the Barrett Review (see *Barrett Commission of Inquiry/2009 Barrett Review/Response_to_the_Barret_Review_2009*). Clinicians providing interventions at the time of the Review were contacted and asked to provide a list of:

- The range of interventions they provided at the time of the Review
- The evidence base for these interventions (including any reviews since the Review)

These interventions are listed in three categories

- Interventions Specific to a Disorder
- Treatment Interventions across Disorders
- Rehabilitation Interventions to Address Impairments across Disorders

1. Interventions Specific to a Disorder

School Refusal/Social Anxiety Disorder and Co-morbid Anxiety Disorders

- Behavioural Interventions – exposure individually or via groups
- Social Skills Enhancement
- Cognitive Therapies
- Family Therapy

Depression, Dissociation and PTSD

- Trauma Focussed Cognitive Behaviour Therapy and Stress Inoculation Therapy
  In addition, expressive therapies (art, sandplay) facilitate the expression of emotions and expression of traumatic events related to trauma focussed therapy.

Eating Disorders

- Integrated Management Program
- Dietetic Management
- Psychotherapies (including Motivational Enhancement and CBT-E) and Family Therapies.

2. Treatment Interventions across Disorders

Individual Therapies

Family Therapies

The following group interventions are adaptations of interventions described in the literature. Each group is described briefly.

Groups – Dialectical Behaviour Therapy

DBT is a therapy approach, with skills that can be used for any individual who has difficulty tolerating distress, regulating emotions and relating effectively with others.
Four core skills learned in DBT: mindfulness, distress tolerance, emotional regulation, interpersonal effectiveness. It has been found that DBT is most successfully incorporated into the treatment program by a weekly group of one hour for all adolescent patients at BAC. One DBT skill is addressed each term. Outcomes are measured by evaluation of checklists

of attendance, behaviour, participation and progress has generally shown a gradual improvement in group performance over each term. Changes in the cohort tend to alter group dynamics. Increased participation coincides with anonymous group participation and collective group activities.

Groups – Social Skills and Community Access Groups

Community Access - to develop skills enabling independence in the community e.g. Public Transport, accessing community facilities, purchasing and consuming meals in public planning leisure-based outings; to encourage development of organisational and planning skills; to improve social skills through participation in group processes; to provide exposure to reduce anxiety around food, socialising, talking to shop assistants and promoting safety whilst in public spaces; to be able to work well within a group setting.

These groups have both treatment and rehabilitation components.

Groups – Adventure Therapy

Adventure therapy creates an environment of experiential learning where adolescents face challenges which enable them to learn to problem solve to overcome challenges; learn to identify emotions and cognitions associated with challenging situations and implement strategies to moderate. Adventure activities can facilitates experiential learning by providing a tool to enable adolescents to reflect, generalise and apply what they have learnt from an adventure based experience. It utilises communication skills and skills in group participation. The main components are problem solving activities, challenging activities and camping. Observation suggests that individual A-B-A research designs may be more valid than group evaluations because of the heterogeneity of the group and variations.

3. Rehabilitation Interventions to Address Impairments across Disorders

A range of group and individual interventions are aimed at improving function in adolescents with a range of developmental impairments.

There is a dearth of research into rehabilitation interventions for adolescents with severe and complex mental illness. This suggests either that adolescents with severe and complex mental illness

- do not suffer impairments in function secondary to severe and complex mental illness or
- that any functional impairments resolve on treatment of the disorders or
- that impairments in function are commonly overlooked by clinicians or
- that rehabilitation interventions to address functional impairments are not as easy to address in common research paradigms

The first two possibilities are not supported by clinical observation.

Groups – psycho-education

Psycho-education – delivered in a group process to foster acceptance and tolerance within the ward environment – reducing stigmatisation and bullying. The group enables adolescents to understand differences between people.

Groups – fitness and physical activity

Sporting group, gym group, bike riding group, walking group run in 8- 10 week programs. Most adolescents including those with anorexia nervosa and social anxiety engage in solitary leisure pursuits prior to admission and either solitary or no exercise. Engaging in leisure accounts for 50-57% of most young people's time. Leisure enhances competencies, self efficacy and self worth. Adolescents that feel less competent are more likely to choose solitary activities and use these opportunities to ruminate on their problems. Conversely there is evidence to support non-specific psychological effects of exercise

Groups – cooking
Cooking groups involve planning balanced and varied meals, growing or purchasing food to preparation, developing simple to complex cooking skills, trialling new foods, and when consuming the meal, learning meal etiquette and socialising during meal time and learning the basics of eating out.

Individual treatment and rehabilitation interventions – healthy eating (Dietitian + Nursing Staff)
The Dietitian meets with adolescents directly to identify priority areas for behaviour change. Graded dietary changes are developed with supportive meal therapy and Motivation Interviewing techniques where change is necessary. Meal plan developed for adolescents with eating disorders and for adolescents with specific dietary requirements that require support from staff for effective implementation. Special dietary requirements can be met by hospital foodservices.

Individual rehabilitation interventions - self care (Occupational Therapist + Nursing Staff)

- Personal care – showering, dressing, sleep patterns, basic first aid etc,
- Community management – road safety, public transport, budgeting etc.
- Vocational readiness – work interests and goals, motivation to find and work, job search resumes, time management etc.
- House management – chores and home duties, planning meals cooking and preparing simple and complex meal etc.
- School – attending school, addressing difficulties, managing work load, time
- Individualised dietary planning

Individual rehabilitation interventions - leisure activities (Occupational Therapist + Nursing Staff)

- Quiet relaxation – identifying and participating in interests, hobbies etc.
- Active relaxation – sports, outings, travel, exercise, fitness and health
- Socialisation – keeping in touch with family, friends, social participation etc.

Individual rehabilitation interventions – improved communication skills (Speech Pathologist + Nursing Staff)

- individual skills training for social interactions;
- development of self talk for self regulation;
- development and use of language underlying emotional literacy;
- development and use of language underlying for problem solving;
- development and acquisition of vocabulary and sentence construction skills to assist functional communication

Original Investigation | META-ANALYSIS

Performance of Evidence-Based Youth Psychotherapies Compared With Usual Clinical Care
A Multilevel Meta-analysis

John R. Weisz, PhD; Sofie Kuppens, PhD; Dikla Eckshtain, PhD; Ana M. Ugueto, PhD; Kristin M. Hawley, PhD; Amanda Jensen-Doss, PhD

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IMPORTANCE Research across more than 4 decades has produced numerous empirically tested evidence-based psychotherapies (EBPs) for psychopathology in children and adolescents. The EBPs were developed to improve on usual clinical interventions. Advocates argue that the EBPs should replace usual care, but this assumes that EBPs produce better outcomes than usual care.

OBJECTIVE To determine whether EBPs do in fact produce better outcomes than usual care in youth psychotherapy. We performed a meta-analysis of 52 randomized trials directly comparing EBPs with usual care. Analyses assessed the overall effect of EBPs vs usual care and candidate moderators; we used multilevel analysis to address the dependency among effect sizes (ES) that is common but typically unaddressed in psychotherapy syntheses.

DATA SOURCES We searched the PubMed, PsychINFO, and Dissertation Abstracts International databases for studies from January 1, 1960, through December 31, 2010.

STUDY SELECTION We identified 507 randomized youth psychotherapy trials. Of these, the 52 studies that compared EBPs with usual care were included in the meta-analysis.

DATA EXTRACTION AND SYNTHESIS Sixteen variables (participant, treatment, outcome, and study characteristics) were extracted from studies, and ESs were calculated for all comparisons of EBP vs usual care. We used an extension of the commonly used random-effects meta-analytic model to obtain an overall estimate of the difference between EBP and usual care while accounting for the dependency among ESs. We then fitted a 3-level mixed-effects model to identify moderators that might explain variation in ESs within and between studies by adding study or ES characteristics as fixed predictors.

MAIN OUTCOMES AND MEASURES Primary outcomes of our meta-analysis were mean ES estimates across all studies and for levels of candidate moderators. These ES values were based on measures of symptoms, functioning, and other outcomes assessed within the 52 randomized trials.

RESULTS Evidence-based psychotherapies outperformed usual care. Mean ES was 0.29; the probability was 58% that a randomly selected youth would have a better outcome after EBP than a randomly selected youth after receiving usual care. The following 3 variables moderated treatment benefit: ESs decreased for studies conducted outside North America, for studies in which all participants were impaired enough to qualify for diagnoses, and for outcomes reported by informants other than the youths and parents in therapy. For certain key groups (eg, studies of clinically referred samples and youths with diagnoses), significant EBP effects were not demonstrated.

CONCLUSIONS AND RELEVANCE Evidence-based psychotherapies outperform usual care, but the EBP advantage is modest and moderated by youth, location, and assessment characteristics. The EBPs have room for improvement in the magnitude and range of their benefit relative to usual clinical care.

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A half-century of treatment development research has produced an array of evidence-based psychotherapies (EBPs) for children and adolescents (hereinafter referred to as *youths*). These EBPs—ie, treatments meeting multiple scientific criteria, including replicated support in randomized clinical trials (RCTs)—have been featured in numerous scholarly publications[1-3] and governmental and professional association and academy websites.[4,5] Many researchers argue that EBPs should replace the usual treatments used in everyday clinical care.[6-8] Critics disagree,[9-13] arguing that EBPs (1) have been tested mainly in youths with subclinical problems and may not work well in those with more serious, complex, diagnosed disorders treated in real-world intervention settings; (2) are too rigidly manualized to permit the personalizing of treatment that professionals attempt in usual care; and (3) are mainly products of North American Western culture that may not travel well across ethnic, cultural, or national boundaries. Clearly, whether youth EBPs are superior or inferior to usual clinical care is subject to debate.

This debate highlights a critical empirical question: When youth EBPs and usual care are compared directly, does one form of treatment produce superior outcomes? The question is important scientifically, but also practically and clinically. Given the substantial cost of implementing most EBPs—with proprietary manuals and measures and lengthy training and supervision often required—potential users may reasonably ask whether EBPs reliably outperform usual care, and if so to what extent. Most RCTs cannot answer this question because they have compared EBPs with waiting-list or no-treatment (passage of time) conditions, with attention-only control groups, or with psychological or medication placebo control groups.[2] Those comparison conditions are all designed specifically to be weaker than the active treatment, controlling only for the passage of time, attention paid to the patient, or patient expectancies, and are explicitly not designed to have beneficial therapeutic effects. By contrast, usual care is typically a stronger comparison condition because it entails an array of active interventions designed to produce genuine benefit to the patient.

Thus, comparisons of EBPs with usual care are not only important scientifically and clinically, they also generally represent a stronger standard for testing EBPs than other control groups do. To apply this strong standard, we identified 52 RCTs in which youths were randomly assigned to EBPs or usual clinical care. This study collection is larger and meets more rigorous inclusion standards than any previous work on the topic.[14,15] We conducted a meta-analysis of these 52 studies, assessing the effect of EBPs relative to usual care and testing candidate moderators of treatment benefit. To strengthen the analyses, we used a recently developed multilevel approach to research synthesis that has not previously been applied to psychotherapy research. This approach allowed us to model the dependency among effect sizes (ESs) that is common, but typically unaddressed, in psychotherapy meta-analysis.

Methods

Data Sources, Study Selection, Inclusion criteria

We searched for RCTs of youth psychotherapy that encompassed internalizing (eg, anxiety, depression) and externalizing (eg, misconduct, attention-deficit/hyperactivity disorder) dysfunction.[16,17] Our first search used PsycINFO and PubMed from January 1, 1960, through December 31, 2010. For PsycINFO, we used 21 psychotherapy-related key terms (eg, *psychother-*, *counseling*) from previous youth psychotherapy meta-analyses.[18,19] The PubMed-controlled indexing system of Medical Subject Headings searches publishers who may use different keywords for the same concepts; we used *mental disorders* with the search limits *clinical trial, child (3-18 years), published in English*, and *human subjects*. Next, we searched reviews and meta-analyses of youth psychotherapy, followed reference trails, and obtained studies suggested by investigators in the field. Standard guidelines for performing meta-analyses[20-22] recommend addressing publication bias partly by including unpublished studies of acceptable methodological quality. Dissertations are particularly appropriate because they are (1) free of publication bias; (2) reliably identifiable through a systematic search of the Dissertation Abstracts International database; and (3) strong in methodological quality even compared with published studies (perhaps partly because dissertations require faculty committee supervision).[19] Therefore, we searched Dissertation Abstracts International using the same search terms as for the published literature search.

From the studies retrieved, we identified those that compared an EBP with a usual care intervention. Evidence-based psychotherapies were defined as treatments listed in at least 1 of the published reviews systematically identifying EBPs for youths based on the level of empirical support.[1,2,6,23-28] Usual care was defined as psychotherapy, counseling, or other nonmedication interventions provided through outpatient clinics, public programs and agencies (eg, child welfare, probation), or residential facilities (eg, inpatient, group home, detention) for youths. Usual care in which participants sought their own outside services were only included if the authors facilitated service use (eg, arranged intake appointments) or documented that equivalent percentages of participants in usual care and EBP groups (ie, not differing by more than 10%) received services. Other inclusion criteria were (1) participant psychopathology (mental disorder or elevated behavioral/emotional symptoms) documented through pretreatment and posttreatment assessment; (2) random assignment to treatment conditions; and (3) a mean age of 3 to 18 years. We defined psychopathology as meeting criteria for a *DSM* disorder (study years spanned *DSM-II*, *DSM-III*, and *DSM-IV*) or showing elevated behavioral/emotional symptoms because diagnostic and symptom approaches to operationally defining psychopathology are common in the youth treatment outcome literature. Youths who have elevated behavioral/emotional symptoms experience serious impairment[1,2,29,30] and are often referred to and treated in mental health

clinics.[3,31] Including both kinds of studies allowed us to test whether requiring vs not requiring a diagnosis was a moderator of treatment effects.

Data Extraction

Studies were coded for study and sample characteristics, treatment procedures, and multiple candidate moderators of treatment outcome. To assess intercoder agreement, 30 randomly selected studies were independently coded by 4 project coders (D.E., A.M.U., K.M.H., and A.J.D.). Agreement was good for both categorical codes (κ values, 0.71-0.91) and continuous codes (intraclass correlation coefficients, 0.94-0.99).

Data Synthesis: ES Calculation

Effect sizes were represented as Cohen *d* values,[32] reflecting the standardized mean difference between EBP and usual care. Most ES calculations were based on raw data reported in the studies or obtained by contacting study authors; we calculated the difference between the EBP and usual care group means divided by the pooled SD. A positive ES implied superiority of EBP compared with usual care. For studies reporting results using other metrics (eg, frequencies, significance test results), we transformed data to d values using Lipsey-Wilson procedures.[22] Studies reporting only *P* values or significant effects (assumed to reflect $P < .05$ if not otherwise stated) were assigned the minimum d value that would achieve that significance level given the sample size. Studies merely reporting a nonsignificant effect were assigned a d value of 0. Effect size values were adjusted using the Hedges small sample correction.[33]

Data Synthesis: Rationale for and Description of the Multilevel Approach

Because most studies (46 studies [88%]) reported on multiple outcome measures and/or multiple time points, generating multiple ESs per study, the assumption of independence that underlies traditional meta-analytic approaches was violated.[22] Common strategies to deal with dependent ESs have included averaging the ESs within studies, selecting only 1 ES from each study, ignoring the dependency, or applying a "shifting unit of analysis" approach. These approaches ignore or avoid dependency and can distort meta-analytic results.[34] In contrast, multilevel models can more appropriately address multiple ESs within the same study.[35,36] Although multilevel models largely parallel traditional random-effects models,[37] the former do not require independence of ESs; rather, dependence among multiple ESs within studies is modeled by adding an intermediate level. We used a 3-level model including the sampling variation for each ES (level 1), variation across ESs within a study (level 2), and variation across studies (level 3). The basic model consists of the following 3 regression equations referring to each of these levels:

$$d_{jk} = \beta_{0jk} + r_{jk} \text{ with } r_{jk} \sim N(0, \sigma^2_{r_{jk}})$$
$$\beta_{0jk} = \theta_{00k} + u_{0jk} \text{ with } u_{0jk} \sim N(0, \sigma^2_u)$$
$$\theta_{00k} = \gamma_{000} + v_{00k} \text{ with } v_{00k} \sim N(0, \sigma^2_v)$$

The first-level equation (equation 1) indicates that the *j*th observed ES from study *k* equals its population value, plus a random deviation, which is assumed to be normally distributed. In a meta-analysis, this residual variance is estimated before performing the meta-analysis. The mean observed sampling variance of standardized mean difference was used in this study; it equaled 0.105. The second-level equation (equation 2) states that the population values comprise a study mean and random deviation from this mean, which is again assumed to be normally distributed. At the third level (equation 3), study mean effects are assumed to vary randomly around an overall mean.

We used this extension of the commonly used random-effects meta-analytic model to obtain an overall estimate of the difference between EBP and usual care. Similarly to traditional mixed-effects models, we subsequently fitted a 3-level mixed-effects model to identify moderators that might explain variation in ESs within and between studies by adding study (level 3) or ES (level 2) characteristics as fixed predictors. Moderator analyses were only conducted if each category contained at least 3 studies. Because including multiple moderators with multiple categories may inflate type II error rates,[38] separate 3-level mixed models were fitted for each moderator variable. Afterward, we fitted a 3-level mixed-effects model that included moderators found to be significant in the separate models, to address possible confounding among moderators.

Parameters estimated in a multilevel meta-analysis are the regression coefficients of the highest-level equations and the variances at the second and third level. Fixed-model parameters are tested using a Wald test, which compares the difference in parameter estimate and the hypothesized population value divided by the standard error with a *t* distribution. For categorical variables with more than 2 categories, the omnibus test of the null hypothesis that the group mean ESs are equal follows an *F* distribution. Likelihood ratio tests comparing the deviance scores of the full model and models excluding variance parameters were used to test variance components. Parameters were estimated using the restricted maximum likelihood procedure implemented in SAS PROC MIXED.[39] Observed ESs were weighted by the inverse of the sampling variance, with a general Satterthwaite approximation used for the denominator degrees of freedom for tests of the regression coefficients.

Publication Bias

We addressed risk of publication bias[22,40,41] in 4 ways. First, we included unpublished dissertations, as discussed above. Second, we compared the mean ES for published studies vs dissertations; the difference was not significant ($t_{53.9} = -0.70$; $P = .49$). Third, we created a funnel plot[42]; standard error was plotted on the vertical axis as a function of ES on the horizontal axis. The plot should resemble an inverted funnel with studies distributed symmetrically around the mean ES if publication bias is absent. With publication bias, the funnel plot should look asymmetrical.[40] Our plot, tested using the weighted regression test of Egger et al,[43] was not asymmetrical ($t_{50} = 0.76$; $P = .45$). Fourth, we computed a classic fail-safe N value,[41] which showed that 565 studies with a mean ES of 0 would need to be added to yield a nonsignificant summary effect. This re-

sult exceeded Rosenthal's[41] benchmark of 80 ($5n + 10$), suggesting that our findings are robust to the threat that excluded studies might have yielded a nonsignificant effect.

Methodological Rigor

Methodological rigor was assessed using the following risk of bias criteria suggested by the Cochrane Collaboration[21]: (1) random sequence generation, (2) blinding of participants, and (3) completeness of outcome data (ie, attrition rate). Because less rigorous studies have been found to yield overestimates of ES,[44] we tested whether ESs differed according to the separate criteria. All studies passed the random sequence generation criterion, and we found no significant differences in mean ES on the blinding criterion ($t_{148} = -1.19$; $P = .24$) or the completeness criterion (ie, attrition rate <40% [$t_{97} = -0.64$; $P = .52$]).

Results

Study Pool

Our search yielded 52 RCTs (45 published trials and 7 dissertations) that met the inclusion criteria (Figure). These RCTs included 341 dependent ESs comparing EBPs with usual care.[45-111] The studies, spanning 1973 through 2010, included 5101 participants at the first available measurement point after treatment; mean group size was 46.4 (SD, 67.0); mean age, 12.63 (SD, 2.84) years; and mean sex distribution, 62.67% male (SD, 29.67%). The types of EBP and usual care interventions are described within **Table 1**. Most studies (n = 49) assessed outcomes after therapy; 22 studies included follow-up assessment, ranging from 8 to 76 weeks after the end of treatment (mean [SD], 30.92 [18.74] weeks); 3 studies included only a follow-up assessment. Of those studies reporting race/ethnicity, white youths were the majority in 22 and ethnic minorities in 15. More studies focused on adolescents (n = 37) than children (n = 15). Table 1 provides the other study characteristics.

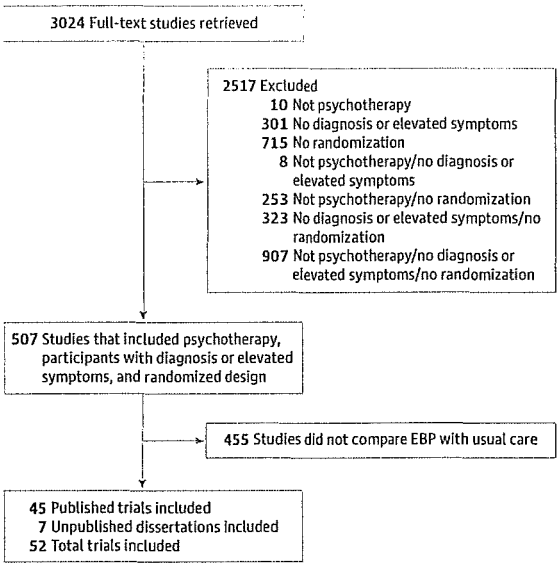
Power

Given the novelty and complexity of the applied 3-level meta-analytic approach, a priori power calculation remains an understudied area. Therefore, we used the procedures of Borenstein et al[20] for standard meta-analysis for an approximate a priori estimate of power. Assuming a high level of between-study variance, a statistical power of 0.80, and an α value of .05, at least 32 studies with a mean sample size of 25 participants would be needed to detect a small overall ES ($d = 0.20$).

Difference Between EBP and Usual Care

Our 3-level model without moderators focused on the overall difference between EBP and usual care across the 341 dependent ESs retrieved from the 52 studies. The mean ES (d value) was 0.29 (95% CI, 0.19-0.38; $t_{47.7} = 5.95$; $P < .001$). Effect sizes differed significantly between studies ($\sigma_v^2 = 0.096$; $\chi^2_1 = 112.2$; $P < .001$); differences between dependent ESs within studies were marginally significant ($\sigma_u^2 = 0.011$; $\chi^2_1 = 3.5$; $P = .06$). About 45% of the total ES variance was attributable to differences between studies and about 5% to differences within studies. To assess the effect of larger, more recent trials on the overall mean ES, we calculated the mean of the ES values for the 10 studies in the most recent decade with samples larger than 100; taking into account the multilevel structure of the data, their mean ES was 0.14 (95% CI, 0.02-0.26). This result did not suggest that including more of the larger modern trials would have increased the overall mean ES. Table 1 shows the mean ES for each of the 52 studies.

Figure. Flowchart



Flowchart for the search and identification of randomized clinical trials comparing evidence-based psychotherapy (EBP) with usual clinical care.

Moderator Analyses

Given the heterogeneity of ESs, moderator analyses were first conducted for each moderator separately to identify characteristics that might explain these differences; moderators found to be significant ($P < .05$) were then examined simultaneously to address confounding. Results of the first step, presented in **Table 2**, are summarized herein.

Assessment Timing

Testing whether ES is smaller at follow-up than in the posttreatment period can shed light on the holding power of treatment effects. We found almost identical mean ESs for immediate posttherapy assessments and follow-up assessments a mean of 30.92 (SD, 18.74) weeks later. The number of weeks between the posttherapy assessment and follow-up was also not significantly associated with ES. In the 19 studies that included posttherapy and follow-up assessments, we found no significant effect of assessment time ($t_{51.8} = 0.20$; $P = .84$) or the number of weeks since the end of therapy ($t_{67.4} = -0.19$; $P = .85$). In summary, we found no evidence that effects were significantly weakened over time after treatment.

Table 1. Characteristics of the 52 Randomized Clinical Trials of Evidence-Based Psychotherapies vs Usual Care Included in the Meta-analysis

Source	Target Problem	Sample Size[a]	Mean Age, y	Male Sex, %	Type of EBP	Type of Usual Care[b]	Mean ES[c]
Alexander and Parsons,[45] 1973; Parsons and Alexander,[87] 1973; Klein et al,[77] 1977	Delinquency	29	14.5	44.2	Behavioral Family Systems Therapy (later renamed Functional Family Therapy)	Usual outpatient services (client-centered family groups or psychodynamic family therapy)	0.24
Asarnow et al,[46] 2005	Depression	344	17.2	22	CBT (quality improvement intervention)	Usual outpatient services	0.18
Bank et al,[47] 1991	Delinquency	54	14	100	BPT (Oregon Parent Management Training)	Usual outpatient services	0.07
Barrington et al,[48] 2005	Anxiety	29	9.99	35.19	CBT (for youths, parents, and family)	Usual outpatient services	0.06
Borduin et al,[51] 2009	Delinquency: sexual offenses	46	14	95.8	Multisystemic therapy	Usual outpatient services	0.80
Borduin et al,[49] 1990	Delinquency: sexual offenses	16	14	100	Multisystemic therapy	Usual outpatient services	0.71
Chamberlain and Reid,[54] 1998; Eddy and Chamberlain,[61] 2000; Eddy et al,[62] 2004	Delinquency	79	14.9	100	Multidimensional Treatment Foster Care	Usual residential services	0.46
Davidson,[55] 1976[d]	Delinquency	24	14.5	91.7	Behavioral contracting and usual care	Usual system/agency services	0.40
Deblinger et al,[57] 1996; Deblinger et al,[58] 1999	Anxiety: PTSD	90	9.8	17	CBT for youths; parent training in youth CBT and youth management skills; combination of CBT for youth and parent training	Usual system/agency services	0.53
Diamond et al,[59] 2010	Depression	60	15.1	16.66	Attachment-based family therapy	Usual outpatient services	0.40
Dirks-Linhorst,[60] 2004[d]	Delinquency	141	14.38	63.63	Multisystemic therapy	Usual system/agency services	−0.07
Emshoff and Blakely,[63] 1983; Davidson et al,[56] 1987	Delinquency	136	14.2	83	Behavioral contracting and advocacy	Usual system/agency services	0.14
Fleischman,[64] 1982	Conduct problems	64	7.5	Not provided	BPT (Oregon Parent Management Training)	Usual outpatient services	0.00
Garber et al,[110] 2009	Depression	301	14.8	41.5	CBT (Coping With Depression Course-Adolescents)	Usual outpatient services	0.27
Gillham et al,[65] 2006	Depression	215	11.5	46.86	CBT (Penn Resiliency Program)	Usual outpatient services	0.17
Glisson et al,[66] 2010	Multiple problems	285	14.9	69.1	Multisystemic therapy	Usual outpatient and residential services	0.03
Grant,[67] 1988[d]	Delinquency	26	15.8	100	CBT (problem solving training and usual care)	Usual residential services	−0.25
Hawkins et al,[68] 1991	Delinquency	141	15.5	73	CBT (CBT Skills Training and usual care)	Usual residential services	0.96
Henggeler et al,[69] 1991; Henggeler et al,[70] 1992; Henggeler et al,[71] 1993	Delinquency	56	51.5	77	Multisystemic therapy	Usual system/agency services	0.68
Henggeler et al,[73] 1996; Brown et al,[52] 1999; Henggeler et al,[72] 1999	Delinquency + substance abuse	140	15.7	79	Multisystemic therapy	Usual system/agency services	0.27
Huey et al,[74] 2004	Depression	110	12.9	65	Multisystemic therapy	Usual residential services	0.08
Jarden,[75] 1995[d]	Conduct problems	50	13.5	100	Problem solving skills training and usual care; problem solving skills training, generalization component, and usual care	Usual residential services	0.27
Leve et al,[79] 2005; Chamberlain et al,[53] 2007; Kerr et al,[76] 2009	Delinquency	81	15.3	0	Multidimensional Treatment Foster Care	Usual residential services	0.34
Leve and Chamberlain,[78] 2007; Kerr et al,[76] 2009	Delinquency	83	15.3	0	Multidimensional Treatment Foster Care	Usual residential services	0.43
Luk et al,[80] 1998; Luk et al,[81] 2001	Conduct problems	30	8.6	62.5	CBT (parent-youth modification), Behavioral Family Systems Therapy	Usual outpatient services	−0.39
Mann et al,[82] 1990; Borduin et al,[50] 1995	Delinquency	176	14.8	67.5	Multisystemic therapy	Usual outpatient services	0.48
McCabe and Yeh,[111] 2009	Significant behavioral problems	58	4.4	70.69	BPT (Parent-Child Interaction Therapy-standard and -culturally modified)	Usual outpatient services	0.62
McLaughlin,[83] 2011[d]	Depression	22	11.82	59	CBT (Coping With Depression Course-Adolescents)	Usual outpatient services	0.25

(continued)

Table 1. Characteristics of the 52 Randomized Clinical Trials of Evidence-Based Psychotherapies vs Usual Care Included in the Meta-analysis (continued)

Source	Target Problem	Sample Size[a]	Mean Age, y	Male Sex, %	Type of EBP	Type of Usual Care[b]	Mean ES[c]
Morris,[84] 1981[d]	Delinquency	20	14.75	100	Anger control program and usual care	Usual residential services	0.26
Ogden and Hagen,[85] 2008	Conduct problems	112	8.44	80.4	BPT (Oregon Parent Management Training)	Usual outpatient services	0.15
Ogden and Halliday-Boykins,[86] 2004	Antisocial behaviors	96	14.95	63	Multisystemic therapy	Usual system/agency services and usual residential services	0.23
Patterson et al,[88] 1982	Conduct problems	19	6.80	69	BPT (Oregon Parent Management Training)	Usual outpatient therapy	0.46
Rohde et al,[89] 2004	Conduct problems	64	16.3	100	CBT (Coping With Depression Course-Adolescents)	Usual residential services	0.05
Rowland et al,[90] 2005	Serious emotional disturbance	31	14.5	58	Multisystemic therapy	Usual outpatient services	0.06
Scahill et al,[91] 2006	Disruptive behavior	24	8.9	75	BPT (defiant children)	Usual outpatient services	0.24
Scherer et al,[92] 1994	Delinquency	55	15.1	81.8	Multisystemic therapy (family preservation version)	Usual system/agency services	0.13
Sexton and Turner,[93] 2010	Delinquency	916	15.75	79	Functional family therapy	Usual system/agency services	0.00
Southam-Gerow et al,[94] 2010	Anxiety	36	10.9	43.8	CBT (Coping Cat)	Usual outpatient services	−0.33
Spence and Marzillier,[95] 1981	Delinquency with deficits in interpersonal skills	49	13	100	Social skills training and usual care	Usual residential services	−0.27
Stevens and Pjihl,[96] 1982	Anxiety, low self-esteem, at risk for failure	32	12.5	64.6	CBT	Usual outpatient	0.00
Sukhodolsky et al,[97] 2009	Disruptive/oppositional behavior	26	12.7	92.31	Anger control training	Usual outpatient services	0.80
Sundell et al,[98] 2008	Conduct problems	156	15	61	Multisystemic therapy	Usual outpatient services	−0.10
Szigethy et al,[99] 2007	Depression	38	14.99	49	CBT (PASCET)	Usual outpatient services	0.53
Tang et al,[100] 2009	Depression	73	15.25	34.25	IPT-A-IN	Usual outpatient services	0.71
Taylor et al,[101] 1998	Conduct problems	32	5.6	74.1	BPT	Usual outpatient services	0.50
Timmons-Mitchell et al,[102] 2006	Delinquency: juvenile justice youth	93	15.1	78	Multisystemic therapy	Usual system/agency services	1.30
Van de Weil et al,[103] 2003	Conduct problems	68	10.5	Not reported	Utrecht Coping Power Program	Usual outpatient services	0.00
van den Hoofdakker et al,[105] 2007; van den Hoofdakker et al,[104] 2010	ADHD	94	7.4	80.9	BPT (defiant children, and helping the noncompliant child)	Usual outpatient services	0.17
Weisz et al,[106] 2009	Depression	45	11.77	44	CBT (PASCET)	Usual outpatient services	0.13
Whittington,[107] 1983[d]	Delinquency	44	16	100	Assertiveness training and usual care	Usual residential services	0.27
Young et al,[109] 2010	Depression	52	14.51	40.3	IPT-adolescent skills training	Usual outpatient services	0.30
Young et al,[108] 2006	Depression	40	13.4	14.6	IPT-adolescent skills training	Usual outpatient services	1.23

Abbreviations: ADHD, attention-deficit/hyperactivity disorder; BPT, behavioral parent training; CBT, cognitive behavioral therapy; EBP, evidence-based psychotherapy; ES, effect size; IPT, interpersonal psychotherapy; IPT-A-IN, IPT for depressed adolescents with suicidal risk; PASCET, Primary and Secondary Control Enhancement Training; PTSD, posttraumatic stress disorder.

[a] Sample size reflects the actual number of subjects used to compute ES at the first available measurement point after treatment.

[b] Usual outpatient services included various individual, group, and family-focused interventions in outpatient clinical programs. Usual residential services included various individual and group-focused interventions in youth inpatient, detention, group home, and other residential facilities. Usual system/agency services included various individual, group, and family-focused interventions arranged through probation and child welfare agencies.

[c] Indicates model-based mean ES estimates.

[d] Indicates dissertation.

Study Timing

Effect size was not related to study year ($P = .61$), and we did not find significant interactions of study year with the target problem ($P = .67$), type of EBP ($P = .65$), or developmental period ($P = .51$). The effect of study year was also not significant within any specific category of these moderators (eg, externalizing target problems; $P > .30$ for all).

Study Geographic Location

We tested whether the mean ES differed according to the region in which studies were conducted. Leading EBP researchers[6] have argued that EBPs are evidence based for particular groups and settings, not universally. Because most EBPs were originally developed and tested in North America, they may not fare as well when moved to other locations. Nine

Table 2. Results of Moderator Analyses Based on 3-Level Mixed-Effects Models With 341 Dependent ESs From 52 Studies

Moderator	No. of Studies[a]	No. of ESs	Estimate (95% CI)	Test Statistic	*P* Value
Assessment					
Posttreatment	49	241	0.28 (0.19 to 0.38)	$t_{109} = 0.10$	.92
Follow-up	22	100	0.29 (0.18 to 0.40)		
Posttreatment lag time, wk	39	257	−0.00 (−0.00 to 0.00)	$t_{83.7} = -0.32$	.75
Study year	52	341	0.00 (−0.01 to 0.01)	$t_{51.5} = 0.51$	.61
Location					
North America	42	288	0.33 (0.23 to 0.43)	$t_{44.9} = -2.23$	.03
Outside North America	9	49	0.06 (−0.15 to 0.27)		
Participant recruitment					
Recruited	10	77	0.41 (0.20 to 0.62)		
Referred	19	140	0.17 (−0.02 to 0.32)	$F_{2,44.9} = 1.85$	.17
Nonvoluntary	22	119	0.31 (0.17 to 0.45)		
Same vs different treatment setting					
EBP same as usual care	32	207	0.25 (0.13 to 0.36)	$t_{34.9} = 0.67$	.51
EBP different from usual care	2	14	0.43 (−0.08 to 0.93)		
Sample ethnicity/race majority reported					
White race	22	134	0.42 (0.28 to 0.57)	$t_{31.1} = -1.38$	.18
Ethnic minority	15	116	0.27 (0.10 to 0.43)		
Male sex, %	50	326	−0.00 (−0.01 to 0.00)	$t_{44.8} = -0.46$	.65
Developmental period					
Childhood	15	123	0.16 (−0.01 to 0.33)	$t_{46.6} = 1.73$	.09
Adolescence	37	218	0.34 (0.23 to 0.45)		
Target problem					
Externalizing	34	202	0.31 (0.20 to 0.43)		
Internalizing	14	123	0.30 (0.13 to 0.48)	$F_{2,47} = 1.86$	.17
Mixed	4	16	−0.05 (−0.39 to 0.30)		
Diagnosis given to participants					
All	10	78	0.09 (−0.08 to 0.27)	$t_{14.2} = 2.69$	.02
Some or none	9	82	0.45 (0.26 to 0.65)		
Informant					
Youth	31	117	0.30 (0.19 to 0.40)		
Parent	22	79	0.24 (0.12 to 0.36)	$F_{3,228} = 4.18$	.007
Teacher	9	21	0.10 (−0.10 to 0.29)		
Therapist	3	15	−0.12 (−0.37 to 0.12)		
EBP type					
Youth focused, learning based	21	127	0.31 (0.16 to 0.44)		
Parent or family focused	13	81	0.16 (−0.01 to 0.33)	$F_{3,96.5} = 1.10$	.35
Multisystem approaches	16	99	0.35 (0.19 to 0.52)		
Combinations	4	34	0.29 (0.06 to 0.52)		
Usual care treatment, services					
Outpatient	30	189	0.28 (0.15 to 0.40)		
Residential	11	68	0.26 (0.04 to 0.48)	$F_{2,43.2} = 0.31$	.73
System/agency	9	79	0.37 (0.15 to 0.59)		
Treatment dosage, EBP vs usual care					
More EBP than usual care	11	94	0.45 (0.23 to 0.67)		
Equal	4	15	0.22 (−0.18 to 0.62)	$F_{2,24.5} = -3.29$	.054
Less EBP than usual care	8	51	0.05 (−0.21 to 0.30)		
Investigator allegiance to EBP					
Yes	35	240	0.32 (0.21 to 0.43)	$t_{93.9} = -1.28$	.20
No	19	101	0.21 (0.07 to 0.36)		

Abbreviations: EBP, evidence-based psychotherapy; ES, effect size.

[a] Indicates the number of studies for which information needed for the moderator test was provided.

studies were conducted outside North America (6 in Europe, 2 in Australia, and 1 in Asia). Location showed a significant moderating effect, with lower ES for studies outside North America. Adding this moderator explained 10% of the between-study variance. Two possible explanations for this moderator effect might have been that the efficacy of EBP alone, or usual care alone, differed across countries. However, follow-up logistic regression models based on a logit link function showed no location effect on pretherapy-to-posttherapy gain (0 indicates no gain; 1, gain) for usual care ($t_{145} = -0.10$; $P = .92$) or EBP ($t_{145} = -0.05$; $P = .96$).

Sample Recruitment/Referral

We compared the mean ES for studies involving participants who were recruited (eg, through advertisements), clinically referred, and incarcerated. The groups did not differ significantly in mean ES. However, the mean ES for referred youths was modest ($d = 0.17$) and not statistically significant.

Other Study Variables

Sample Characteristics | We found no significant mean ES difference between studies in which EBP and usual care took place in the same vs different settings. Given that the EBPs were generally not originally designed for minority youths, we investigated whether the difference compared with usual care was smaller in ethnic minority samples than in white samples.[10] The mean ES was somewhat lower for minority than majority samples, but not significantly so. To explore whether sex composition might moderate treatment effects, we tested whether the mean ES was significantly associated with the percentage of boys in the study samples. It was not. We also tested whether EBPs might be more effective with adolescents than children, as suggested by others.[112] The mean ES was more than twice as large for studies with adolescents (mean sample age, ≥12 years; $d = 0.34$) than studies with children (mean sample age, <12 years; $d = 0.16$), but we found no significant moderator effect. Notably, the mean ES for children was not statistically significant. We tested whether ES differed according to the form of youth mental health impairment (ie, internalizing, externalizing, or mixed). Results of the omnibus test were not significant.

Diagnosis | Leaders in the field[113] have suggested that EBP effects may be diminished in samples with more severe psychopathology. Indeed, the mean ES for studies that included only youths with psychopathology severe enough to meet *DSM* criteria was significantly lower than the mean ES for studies not requiring a diagnosis, and the mean ES for diagnosed samples was nonsignificant. Adding this moderator explained 30% of the between-study variance.

Informant | Some researchers have found that youths, parents, and other informants differ in their reports of youth improvement after treatment.[114,115] In our omnibus test, the mean ES differed significantly by informant. Follow-up contrasts revealed a larger mean ES for youth report than teacher report ($t_{228} = 2.00$; $P = .047$) and therapist report ($t_{228} = 3.46$; $P = .001$). The mean ES was also larger for parent report than therapist report ($t_{228} = 2.88$; $P = .004$). Adding the informant moderator explained 27% of the between-study variance and 100% of the within-study variance.

Treatment Variables | The mean ES for parent/family-based treatments was somewhat lower than the mean ES for youth-focused, learning-based, multisystem, or combined treatments, but the difference was not significant. The mean ES was somewhat higher for usual system/agency services than for usual outpatient services and usual residential services; however, the difference among these usual care treatments was not significant. The mean ES was highest ($d = 0.45$) when treatment dose was higher for the EBP than the usual care condition, dropped markedly when dose was the same ($d = 0.22$), and dropped further still when dose was lower for EBP ($d = 0.05$). The mean ES was not significant in the latter 2 conditions. The pattern suggested that EBP superiority might be partially an artifact of larger treatment dose, but the omnibus test was only marginally significant. The dose × type of EBP interaction was also not significant ($P = .27$). The dose was not consistently reported and could be coded in only 23 of the 52 studies.

Investigator Allegiance | Following the example of several researchers,[15] we coded whether study authors had a likely allegiance to the EBP being tested based on whether or not the EBP developer was an author of the article or a committee member for the dissertation. Although the mean ES appeared somewhat larger when investigator allegiance was evident ($d = 0.32$ vs $d = 0.21$; both means were significant), the difference between them was not significant.

Addressing Confounding Among Moderators

Although moderators are the keys to explaining ES differences, moderators may not only be associated with ES but also with each other, complicating the interpretation of single-moderator effects. To address this issue, we simultaneously included all 3 moderators that had shown significant effects within a 3-level mixed-effects model to test the effect of each moderator holding the others constant. We also used a parsimonious modeling approach to test for interactions between moderators, adding possible interactions one at a time. Because results of the moderator analysis for the informant variable revealed similar mean ESs for youth and parent reports and for teacher and therapist reports, these pairs of categories were collapsed into youth or parent reports vs teacher or therapist reports to increase power. Missingness was also coded to reduce loss of information when modeling multiple moderators.

The mean ES for the base category—EBP vs usual care comparisons reported by youths or parents from studies conducted in North America not requiring a diagnosis—was calculated as $d = 0.43$ (95% CI, 0.21-0.66; $t_{43.2} = 3.71$; $P < .001$). The mean ESs decreased significantly when teachers or therapists were the informants ($d = 0.22$; $t_{331} = -2.29$; $P = .02$) and nonsignificantly when studies were conducted outside North America ($d = 0.25$; $t_{44.6} = -1.42$; $P = .16$) and when all participants received a formal diagnosis ($d = 0.17$; $t_{42.7} = -1.60$; $P = .12$). We also found a significant study location × informant inter-

action ($F_{2,232}$ = 5.63; P = .004); in North American studies, EBPs outperformed usual care for youth or parent reports (d = 0.30), but not for teacher or therapist reports (d = −0.11). For studies outside North America the opposite held, with EBPs outperforming usual care on teacher or therapist reports (d = 0.17), but not on youth or parent reports (d = −0.19). The study samples outside North America all met formal diagnostic criteria, which might partially explain their lower mean ESs, but the study location × diagnosis interaction was not significant ($t_{42.3}$ = 0.09; P = .93).

Discussion

Our findings support the perspectives of both EBP proponents and critics. In support of the proponents who argue that EBPs should replace usual care, we found that EBPs produced better outcomes than usual care. The mean standardized difference of 0.29 was not only significant but rather durable as well. Effects at follow-up assessments a mean of 31 weeks after treatment ended were very similar to effects in the immediate posttreatment period, suggesting that the benefit of EBPs relative to usual care may last well beyond the end of treatment.

That said, the mean ES of d = 0.29 was modest, somewhat above the Cohen threshold[32] for a small effect and reflecting a probability of only 58% that a randomly selected youth receiving EBP would be better off after treatment than a randomly selected youth receiving usual care.[116] These findings suggest that (1) the youth EBPs that have been tested to date may be less potent than some have assumed, when pitted against active usual care treatments, and (2) some forms of usual care may be more potent than some have assumed. Indeed, a review of Table 1 reveals several instances in which certain forms of usual care outperformed EBPs. Moreover, the effects of EBPs varied widely, even the effects of the same EBP when tested in relation to different forms of usual care (eg, the variation for multisystemic therapy in Table 1). These variations in ES may also relate to trial design. Studies using tightly controlled efficacy designs might be expected to produce somewhat larger effects than studies using effectiveness designs in which EBPs are evaluated under more usual clinical practice conditions.

Our findings appear to support some of the concerns raised by critics of EBPs[9-13] and noted in the introduction. The concern that EBPs have been tested mostly among youths with subclinical psychopathology and might not fare well among youths with the more serious, complex, diagnosed disorders seen in real-world treatment settings was supported by the low and nonsignificant ES values we found for studies using exclusively diagnosed samples (d = 0.09) and studies focused on clinically referred youths (d = 0.17). In addition, more severe cases may need medication, alone or in combination with psychotherapy. The concern that EBPs may not generalize well beyond their culture of origin was supported by our finding that EBPs, which looked relatively strong within studies in North America, where most EBPs were developed (d = 0.33), showed a much-diminished and nonsignificant effect in studies from other countries (d = 0.06). This finding suggests the potential value of cultural adaptation of treatments.[117] A third concern noted in the introduction—that EBPs are too rigidly manualized to permit the personalization that professionals can attempt in usual care—could not be tested directly in this meta-analysis, but the recent success of modular strategies for personalizing EBPs (eg, trial by Weisz and colleagues[118]) suggests that this possibility bears study in the future. One further concern was raised by our finding that EBP effects that were significant for outcomes reported by the youths (d = 0.30) and parents (d = 0.24) who participated in therapy became nonsignificant for outcomes reported by teachers (d = 0.10), who were more likely to be blinded to treatment condition. These caveats may warrant attention by those considering the costs of implementing EBPs (described in the introduction) relative to the benefits.

Limitations of this meta-analysis suggest future directions. First, usual care interventions were not described in detail in most of the studies, making it difficult to characterize them precisely. The fact that some studies showed usual care matching or outperforming EBPs suggests that those usual care interventions may deserve further study in their own right. Second, additional research in the future will generate more EBP vs usual care comparisons, increasing power to detect additional moderators and interactions among them (eg, a properly powered test of whether the informant effect differs by target problem). Third, an interesting feature in research of this type is that EBP vs usual care studies tend to be carried out in programs, settings, and contexts where research is valued, or at least allowed. This preference might affect the meaning of findings in ways that are understood poorly at present, and findings might be different in clinical settings where research has low priority. Fourth, a growing body of research focuses on pharmacotherapy and its impact in relation to and in combination with youth psychotherapy; that research, not included here, could be a useful topic in its own right for future meta-analyses. Finally, usual care varies across studies and settings and in some instances could include some elements of empirically tested treatments, thus reducing the difference between EBPs and usual care in studies like those reviewed here. This variability further highlights the need for investigators to document thoroughly the contents of the usual care interventions they study.

Our findings show a modest advantage afforded by current EBPs and the limits of that advantage (eg, for youths with diagnosed disorders and those outside North America), which could be seen as a reality check for clinical scientists who develop EBPs for youths. The findings suggest a need in the years ahead to strengthen and broaden the benefit afforded by these treatments for youths and families who seek help. At a more fine-grained level, the accumulation of research in the future should make identification of specific EBPs that do and do not reliably outperform common forms of usual care increasingly possible. Findings at this level of specificity may be valuable to clinicians, clinical directors, and policy makers, helping to inform their decisions as to which EBPs offer sufficiently robust gains over usual care to justify the effort and expense of implementing them in practice.

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Shrinking the Gap Between Research and Practice: Tailoring and Testing Youth Psychotherapies in Clinical Care Contexts

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Abstract

Most youth psychotherapy research involves conditions quite unlike the clinical practice it is designed to strengthen. Most studies have not tested interventions with clinically referred youths and practicing clinicians in clinical care settings, nor have they tested whether new treatments produce better outcomes than usual practice. Limited exposure to real-world conditions and questions may partially explain why empirically supported treatments show such modest effects when tested under more representative conditions, against usual care. Our deployment-focused model calls for intervention development and testing with the kinds of participants (e.g., clients and clinicians) and in the contexts (e.g., clinics) for which the interventions are ultimately intended, and for randomized comparisons to usual clinical care. Research with the Child STEPs (system and treatment enhancement projects) treatment approach illustrates the methods and potential benefits of the deployment-focused model. Findings supporting Child STEPs are but one part of a rich research matrix needed to shrink the gap between intervention research and clinical practice.

Contents

INTRODUCTION

Evan, age 13, is referred for treatment in a clinic that specializes in youth depression. Evan meets the criteria for major depressive disorder, and he has no other psychiatric disorder and no other significant problems that could interfere with depression treatment. Evan's therapist, an expert who treats only depression, uses a cognitive behavioral manual that includes 17 structured sessions, and she devotes 45–60 minutes before each session to planning and preparing the session, as the manual suggests. The sessions begin with psychoeducation, then focus on a series of depression-coping skills in a prescribed order (e.g., positive activity scheduling, mood management through relaxation, problem solving, building social skills, identifying and changing unrealistic depressogenic cognitions), then conclude with a planned termination that includes summarizing the skills learned and discussing when those skills will be needed in the future. The treatment goes smoothly. Evan attends every session and learns the skills in the prescribed order, with no unexpected problems arising that might change the focus on depression and no unexpected crises that might need to be addressed outside the manual. At termination, Evan no longer meets criteria for any depressive disorder, and he is functioning well at home and in school.

Clinical practitioners who work with children and teens will correctly conclude that Evan's case report is fiction. It would be very difficult to find clinics or clinicians who have the luxury of treating only youth depression, or clinics in which clinicians are allowed an hour of prep time before each session; most clinics and clinicians deal with a broad range of psychopathologies and confront significant financial and time pressures. It would also be very difficult to find many

referred youngsters who have only one psychiatric disorder and no other significant problems; among referred youths, comorbidity is the rule, in addition to multiple significant problems that can affect the course or outcome of treatment though they may not meet diagnostic criteria. As a consequence, when the structured, manual-guided treatments that so much of our clinical research has produced are used in everyday clinical practice, they may encounter challenges that disrupt the prescribed sequence of sessions, crises that make the planned focus on one disorder difficult to sustain, and life events that wipe out plans for a predictable course of treatment and an orderly termination. Stated briefly, everyday treatment is often not as linear as most treatment manuals are. This article discusses the gap between actual clinical practice and the products of scientific research designed to improve practice. We focus on the nature of that gap, how it came to exist, and some steps that can be taken to bridge it, with the goal of bringing the science and practice of youth mental health care closer together.

HISTORICAL ORIGINS, EARLY EVALUATIONS, AND EVOLUTION OF YOUTH PSYCHOTHERAPIES

Psychotherapy for children and adolescents has deep roots, extending through thousands of years of history and tradition within two broad streams. One stream entails parenting guidance, epitomized by biblical injunctions (e.g., "The rod and reproof give wisdom, but a child left to himself brings shame to his mother"; Proverbs 29:15). The other stream involves guidance on how to help people change, as epitomized by the classical Greek philosophers who used human discourse to provoke new ways of thinking and behaving. For example, Socrates' (469–399 BCE) philosophical dialectic, later labeled the Socratic method, involved questioning others to prompt them to reexamine their beliefs and the actions stimulated by those beliefs. A confluence of guidance on parenting and strategies for human change—together with many other influences—contributed, over time, to what is now known as youth psychotherapy. The notion of psychotherapy as a profession can be traced back about a century (Freedheim et al. 1992), arguably to the work of Sigmund Freud (1856–1939), including his consultation with the father of Little Hans and the psychoanalysis of his own daughter, Anna (1895–1982), who became a prominent child analyst in her own right. The psychoanalytic model eventually competed with treatment models derived from the grand theories of personality, from humanistic alternatives, and from early forms of behaviorism.

As multiple forms of therapy sprang up, optimism about their supposed benefits spread. So it was a shock to many when Eysenck (1952) published a review of research suggesting that psychotherapy might not actually work, and Levitt (1957, 1963) reached the same conclusion about youth therapy in particular. Levitt's reviews concluded that rates of improvement in troubled youths were about the same with or without treatment. These mid-century reviews prompted some serious rethinking regarding what therapy should look like. In their wake, therapy models that had been rather vaguely characterized gave way over later decades to more structured approaches that were increasingly well documented in treatment manuals. The targets of therapy were also better defined, with the manuals identifying which kinds of problems the treatments were designed to address. In addition, research methods grew more rigorous, with randomized controlled trials (RCTs) becoming a gold standard. Finally, an increasingly detailed diagnostic system, with successive iterations of the *Diagnostic and Statistical Manual of Mental Disorders*, helped tighten the linkage between treatment manuals and specific disorders. This linkage was bolstered by funding agencies whose grant review priorities favored diagnosis-specific treatments. Now, after this long sequence of steps, we have an array of structured treatment manuals, most of which are designed for one target disorder or problem or a homogeneous cluster (e.g., depressive disorders or conduct-related disorders or problems).

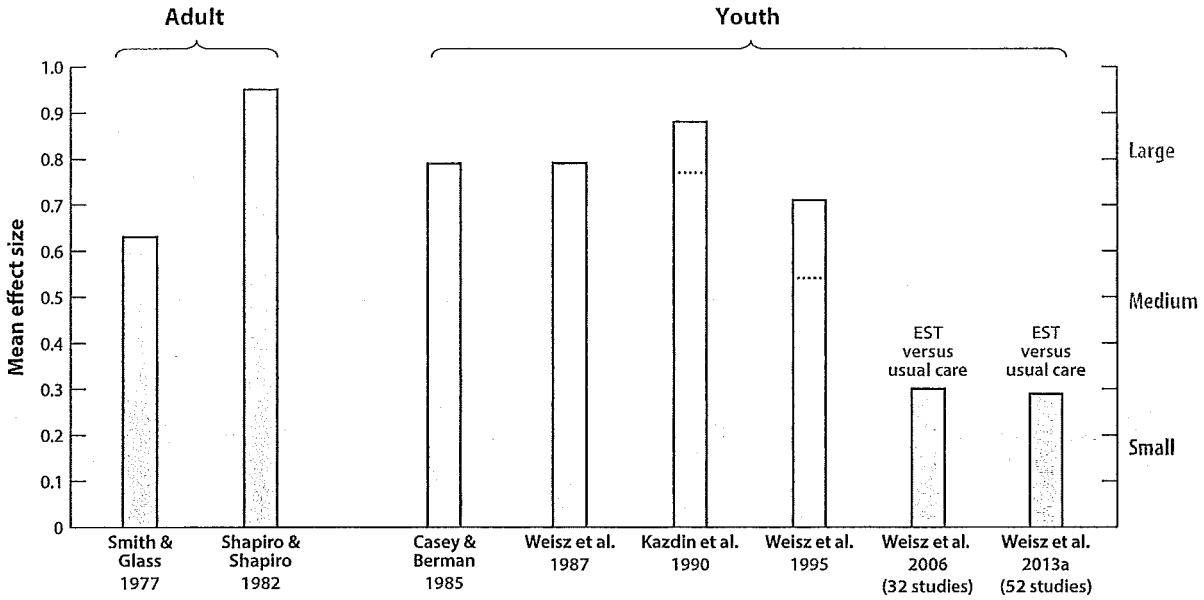


Figure 1

Mean effect size values in meta-analyses of adult psychotherapy randomized controlled trials (RCTs) (*left* two bars), youth psychotherapy RCTs (*middle* four bars), and (*c*) youth RCTs pitting empirically supported treatments (ESTs) against usual care (*right* two bars), analyzed by Weisz et al. (2006) (32 studies) and Weisz et al. (2013a) (52 studies). The two meta-analyses comparing ESTs to usual care revealed a probability of only 0.58 (versus chance at 0.50) that a randomly selected youth from the EST condition would show a better outcome after treatment than a randomly selected youth from the usual care condition. The full bar for Kazdin et al. (1990) shows the mean effect size for treatment versus inert control group comparisons; the dashed line shows the mean effect size for treatment versus active control group comparisons. The full bar for Weisz et al. (1995) shows the mean effect size when unweighted least squares analyses were used; the dashed line shows the mean when weighted least squares analyses were used. Figure adapted with permission from John R. Weisz.

META-ANALYTIC FINDINGS ON THE BENEFITS OF YOUTH PSYCHOTHERAPIES

The level of benefit derived from research-tested treatments can be summarized through research syntheses called meta-analyses, which involve pooling the findings of multiple RCTs. Among these meta-analyses, four have synthesized findings from especially broad arrays of youth treatments and forms of dysfunction. In the first of these, Casey & Berman (1985) focused on studies with children aged 12 and younger. In a subsequent meta-analysis, Weisz et al. (1987) included studies with 4- to 18-year-olds. Kazdin et al. (1990) also pooled findings of studies with 4- to 18-year-olds, and Weisz et al. (1995) included studies spanning ages 2–18. Mean effect sizes found in these four meta-analyses are shown in **Figure 1**; a comparison to two widely cited meta-analyses of predominantly adult psychotherapy is shown to the left (Shapiro & Shapiro 1982, Smith & Glass 1977). As the figure shows, the youth psychotherapy effect sizes fall roughly within the range of what has been found for adult therapy, and on average within the range of what Cohen (1988) suggests as benchmarks for medium (i.e., 0.5) to large (i.e., 0.8) effects.

IDENTIFYING EMPIRICALLY SUPPORTED TREATMENTS

As accumulating research evidence pointed to the beneficial effects of well-documented (typically manual-guided) psychotherapies for youths, adults, couples, and families, efforts were launched to

identify empirically supported treatments (ESTs). Task forces and review teams were formed—notably the American Psychological Association's Division 12 Task Force on Promotion and Dissemination of Psychological Procedures (e.g., Chambless et al. 1998)—to distill the evidence from outcome studies and identify therapies that reached threshold for different levels of empirical support. The criteria for EST status at various levels vary somewhat across review groups, but most of them require empirical support in more than one study (e.g., with the target treatment showing outcomes superior to those of a viable control or comparison group) and that the studies meet certain standards of methodological rigor. Building on the work of the Division 12 Task Force, experts in youth psychotherapy carried out systematic reviews, sometimes including meta-analytic findings, to compile reports on ESTs for children and adolescents (see Lonigan et al. 1998, Silverman & Hinshaw 2008b). In the most recent report, edited by Silverman & Hinshaw (2008a), reviewers identified psychotherapies that met criteria for four levels: well established (e.g., two good group-design experiments by different research teams in two different settings, showing the treatment to be "superior to pill or psychological placebo or to another treatment") (Silverman & Hinshaw 2008b, p. 5), probably efficacious (e.g., "at least two good experiments showing the treatment is superior... to a wait-list control group") (Silverman & Hinshaw 2008b, p. 5), possibly efficacious (e.g., "At least one 'good' study showing the treatment to be efficacious in the absence of conflicting evidence") (Silverman & Hinshaw 2008b, p. 5), or experimental (e.g., "not yet tested in trials meeting task force criteria...") (Silverman & Hinshaw 2008b, p. 5). **Table 1** shows the kinds of treatments classified at the two highest levels—i.e., well established and probably efficacious—in the Silverman & Hinshaw (2008a) special issue. A different system, the National Registry of Evidence-Based Programs and Practices, sponsored by the US Substance Abuse and Mental Health Services Administration, as of January 17, 2015, listed 211 interventions for youths aged 17 and under that met its criteria (see **http://www.nrepp.samhsa.gov/ViewAll.aspx**).

YOUTH PSYCHOTHERAPY RESEARCH AND THE NATURE OF CLINICAL CARE

The work of treatment developers over the past five decades has been remarkable, the products of that work have dramatically altered the face of youth psychotherapy, and the identification of ESTs has been a major advance. However, concerns have been raised about how well these therapies fit into the context of the everyday clinical care that they are designed to improve. Some critics have argued that these structured, manual-guided treatments have significant limitations that undermine their usefulness in usual clinical practice. They have suggested that ESTs (*a*) have often been developed and tested with relatively simple, sometimes subclinical cases and thus may not work well with the complex and severe cases seen in usual clinical care; (*b*) have been designed for single problems or diagnoses and thus may not work as well with the comorbid cases so often seen in usual clinical care; (*c*) are so prescriptive and linear in design that they make it hard to individualize treatment to meet distinctive client needs; (*d*) have so many procedural proscriptions that they constrain therapist creativity in addressing unusual or unexpected events in clients' lives; and (*e*) inhibit the spontaneity and flexibility needed to build rapport and develop a good therapeutic relationship. Several of these concerns reflect the view that ESTs may not be well suited to the challenge of treating clinically referred individuals in the context of usual clinical care (see examples of such concerns discussed in Addis & Krasnow 2000; Addis & Waltz 2002; Garfield 1996; Havik & VandenBos 1996; Strupp & Anderson 1997; Weisz & Addis 2006; Weisz & Gray 2008; Weisz et al. 2011b; Westen et al. 2004a,b).

Our review of the scientific literature on youth treatment outcomes and our testing of standard manualized youth treatments in everyday clinical practice contexts have highlighted some of these

Table 1 Youth psychotherapies identified as well-established or probably efficacious[a,b]

Problem/disorder category	Well-established therapies	Probably efficacious therapies
Early autism (Rogers & Vismara 2008)	Lovaas model: intensive behavioral intervention	Pivotal response treatment
Eating disorders in adolescence (Keel & Haedt 2008)	Family therapy for anorexia nervosa	None
Depression (David-Ferdon & Kaslow 2008)	Cognitive-behavioral therapy (CBT) for children CBT for adolescents Interpersonal psychotherapy for adolescents	Behavior therapy for children
Phobic and anxiety disorders (Silverman et al. 2008b)	None	Group CBT Group CBT for social phobia Group CBT with parents Individual CBT Social effectiveness training for social phobia
Obsessive-compulsive disorder (Barrett et al. 2008)	None	Individual exposure-based CBT
Youths exposed to traumatic events (Silverman et al. 2008a)	Trauma-focused CBT	School-based group CBT
Attention-deficit/hyperactivity disorder (Pelham & Fabiano 2008)	Behavioral classroom management Behavioral parent training Intensive peer-focused behavioral interventions in recreational settings	None
Disruptive behavior (Eyberg et al. 2008)	Parent management training—the Oregon model	Anger control training Group assertive training Helping the noncompliant child Incredible years child training Incredible years parent training Multidimensional treatment foster care Multisystemic therapy Parent–child interaction therapy Positive parenting program—enhanced Positive parenting program—standard Problem-solving skills training (PSST) PSST + parent management training PSST + practice Rational-emotive mental health program
Adolescent substance abuse (Waldron & Turner 2008)	Functional family therapy Group CBT Individual CBT Multidimensional family therapy	Behavioral family therapy Brief strategic family therapy Multisystemic therapy

[a]Table based on reviews in Silverman & Hinshaw (2008a).

[b]This table shows classifications for broad forms of psychotherapy (e.g., CBT); some reports in the special issue of the journal (Silverman & Hinshaw 2008a) also classified specific treatment subtypes (e.g., group CBT for children, individual adolescent CBT plus parent/family component), which are not included in the table due to space limitations.

concerns. In our review of youth RCTs (Weisz et al. 2005b), we found that most studies took place in settings created for research (e.g., university labs and lab clinics), with treatment provided to youths who were recruited (e.g., through ads) and delivered not by practicing clinicians but rather by graduate students or other individuals dependent on the researcher for their employment, income, or evaluation. Recently, we examined 461 youth psychotherapy RCTs from the 1960s through the most recent decade, including 1,160 treatment and control groups (Weisz et al. 2014). We found that the great majority of the 1,160 treatment and control groups involved youths who had not been referred for clinical care, therapists who were not practitioners, and therapy that was not delivered in clinical practice settings (see Weisz et al. 2014). Across the five decades, only 2.1% of all study groups were described by authors as involving clinically referred clients treated by practitioners in practice settings; even for studies in the most recent decade, the figure was only 4.5% (see **Table 2**). Conducting research outside the clinical practice context has very clear advantages experimentally. Structuring treatment trials in ways that provide control over the nature of the study sample, the behavior and adherence of the therapists, and conditions in the treatment setting reduces experimental noise and—in principle—adds precision to the test of the intervention. Precision and control are often amplified by using participants who are good treatment candidates and who have the target disorder without potentially interfering comorbidities; therapists who are screened, tested with practice cases, and paid by the researcher; and settings (e.g., university lab, lab clinic, or designated rooms in a school) over which the researcher has significant design authority and day-to-day control. Although such provisions may well enhance experimental control, there may also be a cost when the topic under study is clinical intervention. In these cases, controlling complicating factors that are so often present in everyday clinical care may reduce opportunities to learn how to make treatments effective in the crucible of real life, with all the noisy variables that constitute what we have called "the mental health ecosystem" (Weisz et al. 2013b, p. 274). That ecosystem includes child characteristics (e.g., comorbid disorders and co-occurring problems, which are characteristic of most referred youths), family characteristics (e.g., parental mental illness, stress, and time constraints, which can lead to missed appointments and treatment dropout), practitioner factors (e.g., full caseloads, which can compete with the session preparation needed for manualized treatments), clinic factors (e.g., limited resources for training and supervision or productivity requirements generated by insurance rules that eliminate most nonreimbursable activities), and a broad variety of other real-life factors (e.g., parental job loss, dangerous neighborhoods, intervention of child protective services). Such ecosystem factors, detailed further in **Table 3**, might well prevent youths from being enrolled in an RCT populated through ads, but any of these factors could well be in play within everyday clinical practice.

PUTTING EMPIRICALLY SUPPORTED TREATMENTS INTO CLINICAL CARE CONTEXTS

The emphasis on experimental control may therefore have been a double-edged sword. On the one hand, that emphasis may support scientific rigor, and it is quite understandable for all of us who are trained to do well-controlled studies that minimize noise; moreover, the practice has been incentivized by the guidelines and practices of some of the funding agencies without whose support few treatment studies would be possible. On the other hand, these research practices may have reduced opportunities for us as researchers to learn what we need to know to navigate the real-life conditions that arise in actual clinical practice but are so often minimized in clinical research. It is an interesting paradox that funding designed to improve clinical care through research may have produced treatments that do not fit the very clinical care they were designed to improve. One risk is that manual-guided psychotherapies that look relatively strong in traditional treatment outcome

Table 2 Percentage of treatment/control groups in youth psychotherapy outcome studies that employed clinically representative youths, therapists, and treatment settings[a]

Decade	1960s	1970s	1980s	1990s	2000s	All decades
Number of studies	13	62	99	100	187	461
Number of groups	35	183	273	244	425	1,160
How youths were enrolled in the study						
Recruited, nontreatment-seeking	62.9	85.8	65.9	57.8	62.8	66.1
Clinic-referred, treatment-seeking	5.7	4.9	24.2	26.2	24.5	21.1
Required via court or justice system	17.1	8.2	8.8	11.5	7.8	9.1
Enrollment method not reported	14.3	1.1	1.1	4.5	4.9	3.6
Who provided the treatment						
≤50% therapists are practitioners	65.7	42.1	55.3	40.2	35.5	43.1
>50% therapists are practitioners	2.9	9.8	7.7	10.7	19.1	12.7
Therapist vocation not reported	14.3	27.9	23.4	32.0	25.4	26.4
No treatment or waitlist	17.1	20.2	13.6	17.2	20.0	17.8
Where the treatment took place						
Research setting	11.4	6.6	9.9	18.4	19.5	14.7
Custodial, school, or supervised setting	8.6	29.5	32.6	20.5	22.6	25.2
Clinical service setting	0	2.7	5.9	11.5	14.8	9.7
Correctional setting	14.3	1.1	5.1	4.1	2.1	3.4
Treatment setting not reported	48.6	39.9	33.0	28.3	20.9	29.1
Waitlist or no treatment	17.1	20.2	13.6	17.2	20.0	17.8
Sum of representativeness factors						
No factors reported	91.4	83.6	70.0	63.9	61.2	68.3
One factor reported	8.6	15.3	22.7	25.4	23.8	22.1
Two factors reported	0	1.1	7.0	9.0	10.6	7.6
Three factors reported	0	0	0.4	1.6	4.5	2.1

[a]Because treatment provider and setting are group-level variables, percentages of treatment/control groups rather than percentages of studies are reported for all three variables. Three studies that employed a combination of nontreatment-seeking and treatment-seeking youths, and one study with a treatment condition that employed a combination of clinical and research settings, were excluded from the analysis. Table reproduced with permission from John R. Weisz.

studies may not look as strong when tested under more representative clinical practice conditions. That is, when ESTs are introduced into everyday practice contexts, they may be hampered by the kinds of ecosystem factors represented in **Figure 2** to which their research was not exposed. The treatment outcomes they generate may suffer as a consequence. Because limited research exposure to such ecosystem factors is characteristic of many tested treatments (as shown in **Table 2**), some of the treatments that enjoy considerable research support may not look so strong when tested in more clinically representative contexts.

We have tested this notion in two different ways: through randomized effectiveness trials and through meta-analyses pitting ESTs head-to-head against usual care. The effectiveness trials took place in Los Angeles County. One trial tested a cognitive behavioral therapy (CBT) program for youth depression (Weisz et al. 2009); the other tested a CBT program for youth anxiety disorders (Southam-Gerow et al. 2010). Both effectiveness trials were conducted at multiple community mental health clinics. Both trials focused on children and adolescents who had been referred to the clinics through normal community channels; there were no ads and no recruitment. In both studies,

Table 3 Components and characteristics of the youth public mental health ecosystem that can affect the use of empirically supported psychotherapies[a]

Participants	Characteristics
Clinically referred youths	Comorbidity and co-occurring problems; high rates of externalizing problems; frequent crises and shifts in most pressing needs during treatment
Families and caregivers	Relatively low income; high stress; caregiver and sibling psychopathology; complex family systems and single parenthood; ethnocultural diversity; seeking help for youth problems of daily functioning, not diagnoses
Practitioners	Differing theoretical orientations and educational backgrounds with limited exposure to empirically supported treatments (ESTs); large caseloads; diverse caseload with broad array of problems; minimal to no time for treatment preparation, supervision, and additional training; fee for service or salaried with high productivity requirements
Provider organizations	Extreme financial pressures resulting in staff layoffs; shrinkage in the percent of salaried employees and increases in the percent of fee-for-service employees; escalating productivity requirements; significant staff turnover; minimal incentives and potential financial risk for investment in EST trainings
Networks of youth service systems (i.e., primary care, juvenile justice, schools, child welfare)	Rules, regulations, and procedures of the systems make it difficult for them to work together; systems may work against each other based on tradition and policies; difficult to implement ESTs across various systems
Policy context	Reimbursement is based largely on categories of care provided and amount of time provided, not on the nature of the intervention or whether it is supported by scientific evidence; no real policy or fiscal incentives to using ESTs; changes in political leadership influence mental health care system

[a]Table adapted from Weisz JR, Ugueto AM, Cheron DM, Herren J. 2013. Evidence-based youth psychotherapy in the mental health ecosystem. *J. Clin. Child Adolesc. Psychol.* 42:274–86, published by Taylor & Francis Group, LLC.

treatment was carried out by practitioners who were employed by the clinics, not by our research team. In both trials, we randomized participating practitioners within each clinic to be trained in CBT (for either anxiety or depression) or to continue their usual treatment procedures (the usual care condition). Youths in each clinic were randomized to the CBT or usual care condition. Thus, in both studies manualized CBT interventions were carried out in representative clinic settings, children were referred through normal pathways, and they were treated by practitioners who worked in those settings and would have normally treated such children. Consistent with the concern raised previously, we found that these CBT interventions, compared to usual care, did not fare as well in actual clinical practice contexts as they had in prior research. In fact, most differences in clinical outcome between the CBT and usual care conditions were not statistically significant.

As a complement to our own effectiveness trials, we have drawn on a larger database to conduct two relevant meta-analyses. For both of these, we identified RCTs in which youth treatments classified as empirically supported (also known as evidence-based psychotherapies) were tested directly against usual clinical care. For the first of these meta-analyses (Weisz et al. 2006), our search identified 32 such studies; for the second meta-analysis (Weisz et al. 2013a) we found 52 studies. Not surprisingly, these studies involved more clinically representative conditions (i.e., more referred youths, clinical practitioners, real-world treatment settings) than the overall youth psychotherapy RCT database. In both meta-analyses, we found, as shown in **Figure 1**, that treatment benefit dropped markedly when the ESTs were tested in these more representative conditions and compared to usual clinical care. **Figure 3** shows effect size values for all 52 studies in our 2013 meta-analysis. This figure shows that there was considerable variability in findings but that a substantial number of studies produced effects either well below zero (indicating superior outcomes

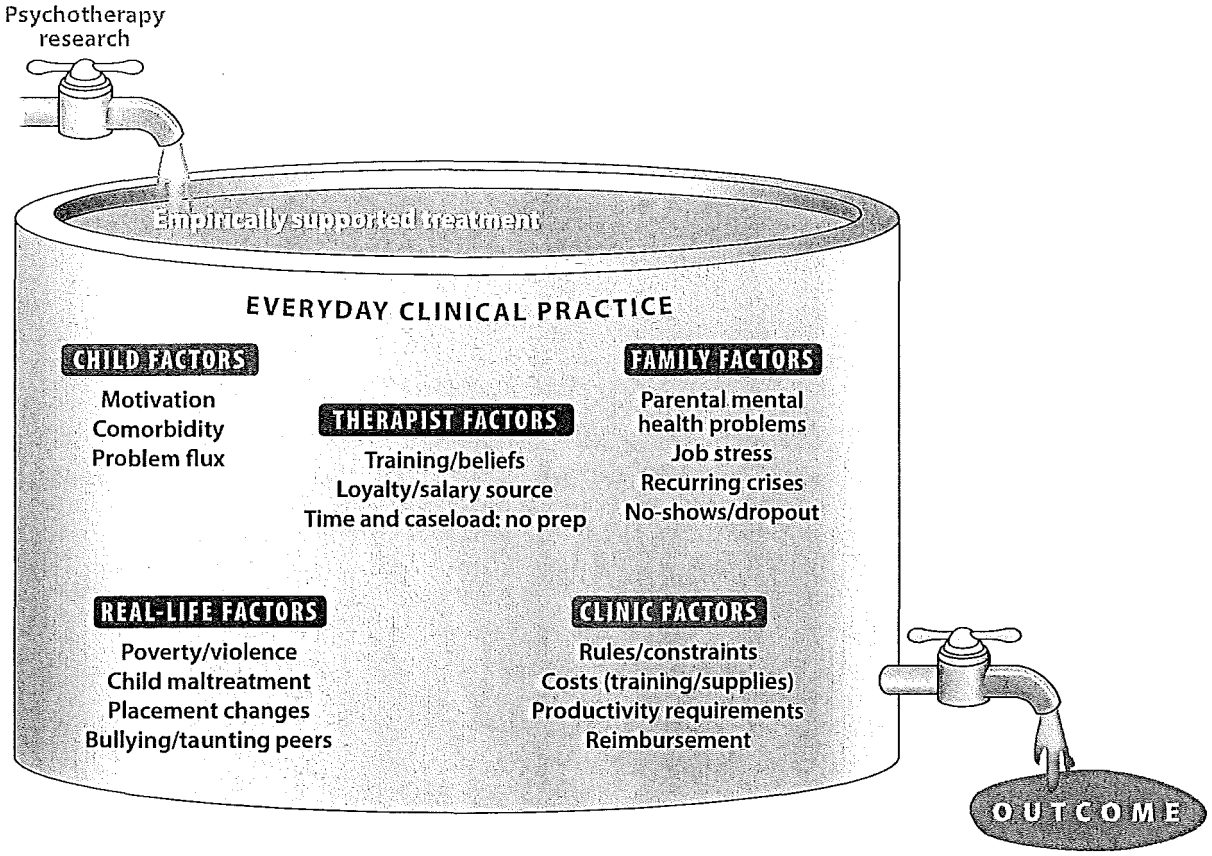
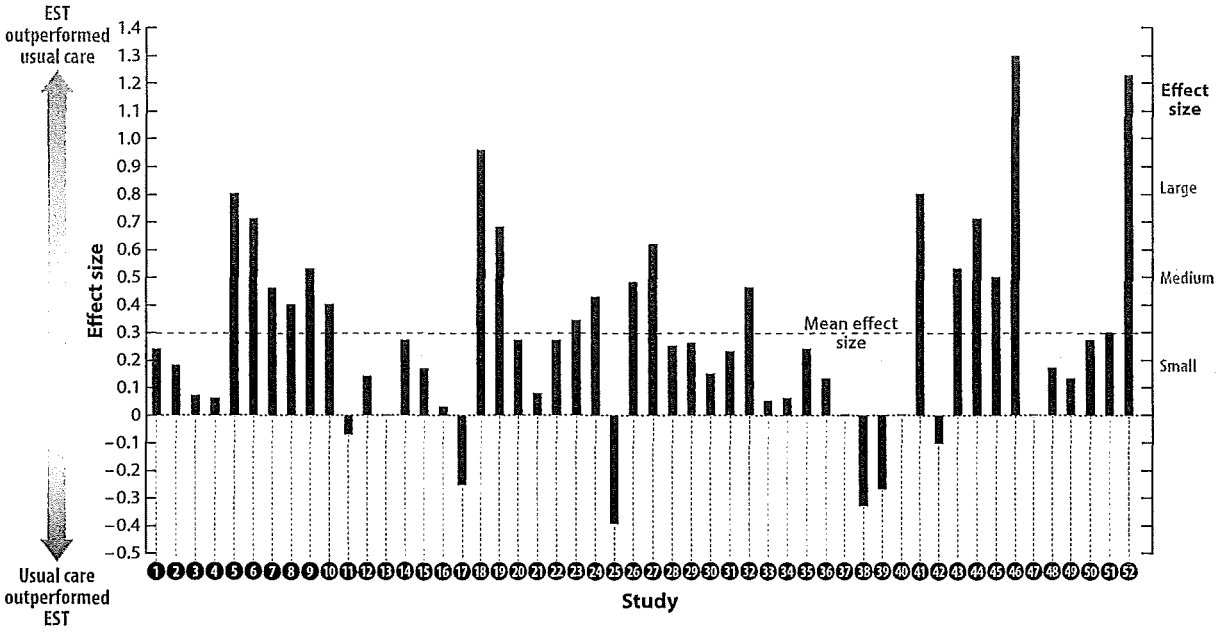


Figure 2

When empirically supported treatments are introduced into everyday clinical practice, therapies whose research base has excluded the kinds of mental health ecosystem factors shown here may have difficulty addressing those factors, and their outcome may be adversely affected. Figure adapted with permission from John R. Weisz.

for usual care) or close to zero (indicating similar outcomes for ESTs and usual care). Overall, we found markedly lower mean effect sizes than in the main body of RCT research, as reflected in the four middle bars in **Figure 1**. In fact, the mean effect sizes of 0.30 (Weisz et al. 2006) and 0.29 (Weisz et al. 2013a) in these EST versus usual care meta-analyses reflect a probability of only 0.58 (versus chance at 0.50) that a randomly selected youth from the EST condition in these studies would be better off after treatment than a randomly selected youth from the usual care condition. Especially worrisome was the finding in our 2013 meta-analysis that empirically supported therapies did not significantly outperform usual care among studies with clinically referred youths or youths impaired enough to meet criteria for a formal diagnosis. This is bad news because these are two groups for whom treatment success should have especially high priority.

The challenge of fitting the tested youth treatments into everyday practice and making them work well in that context may help explain why everyday use of most of these treatments has not spread very fast despite the diffusion of training opportunities. Our research team has learned a good deal about practitioner response from our community clinic implementation efforts. For example, 3–5 years after completing the Los Angeles County effectiveness trials described earlier (Southam-Gerow et al. 2010, Weisz et al. 2009), our research team contacted the practitioners we



1. Alexander & Parsons (1973); Parsons & Alexander (1973); Klein, et al. (1977)
2. Asarnow, et al. (2005)
3. Bank, et al. (1991)
4. Barrington, et al. (2005)
5. Borduin, et al. (1990)
6. Borduin, et al. (2009)
7. Chamberlain & Reid (1998); Eddy & Chamberlain (2000); Eddy, et al. (2004)
8. Davidson II (1976)
9. Deblinger, et al. (1996); Deblinger, et al. (1999)
10. Diamond, et al. (2010)
11. Dirks-Linhorst (2003)
12. Emshoff & Blakely (1983); Davidson II, et al. (1987)
13. Fleischman (1982)
14. Garber, et al. (2009)
15. Gillham, et al. (2006)
16. Glisson, et al. (2010)
17. Grant (1987)
18. Hawkins, et al. (1991)
19. Henggeler, et al. (1991); Henggeler, et al. (1992); Henggeler, et al. (1993)
20. Henggeler, et al. (1996); Brown, et al. (1999); Henggeler, et al. (1999)
21. Huey, et al. (2004)
22. Jarden (1995)
23. Leve & Chamberlain (2007); Kerr, Leve, & Chamberlain (2009)
24. Leve, et al.(2005); Chamberlain, et al. (2007); Kerr, et al. (2009)
25. Luk, et al. (1998); Luk, et al. (2001)
26. Mann, et al.(1990); Borduin, et al. (1995)
27. McCabe & Yeh (2009)
28. Mclaughlin (2010)
29. Morris (1981)
30. Ogden & Hagen (2008)
31. Ogden & Halliday-Boykins (2004)
32. Patterson, Chamberlain, et al. (1982)
33. Rohde, Jet al. (2004)
34. Rowland, et al.(2005)
35. Scahill, et al. (2006)
36. Scherer, et al. (1994)
37. Sexton & Turner (2010)
38. Southam-Gerow, et al. (2010)
39. Spence & Marzillier (1981)
40. Stevens & Pihl (1982)
41. Sukhodolsky, et al. (2009)
42. Sundell, et al. (2008)
43. Szigethy, et al. (2007)
44. Tang, et al. (2009)
45. Taylor, et al. (1998)
46. Timmons-Mitchell, et al (2006)
47. Van de Weil, et al. (2003)
48. Van den Hoofdakker, et al. (2007); van den Hoofdakker, et al. (2010)
49. Weisz, et al. (2009)
50. Whittington (1982)
51. Young, Mufson, & Davies (2006)
52. Young, Mufson, & Gallop (2010)

Figure 3

Effect sizes reported in 52 randomized trials comparing empirically supported treatments (ESTs) to usual care (in Weisz et al. 2013a). Bars above 0 indicate that EST was superior to usual care, bars at 0 indicate no difference in outcome, and bars below 0 indicate that usual care was superior to the EST. The horizontal line at 0.29 shows the mean effect size across the full study set. Note the number of studies for which usual care showed effects similar to or superior to EST. References cited in the figure are available in the **Supplemental Material** associated with this article; access it by following the **Supplemental Materials link** from the Annual Reviews home page at **http://www.annualreviews.org**. Figure adapted with permission from John R. Weisz.

Supplemental Material

had trained in CBT, asking them how often they still used the CBT treatments they had mastered during the trial (Chu et al. 2014). The practitioners reported using the full CBT protocol for anxiety (i.e., Coping Cat) with only 7.5% of their anxiety cases and the full CBT protocol for depression [i.e., Primary and Secondary Control Enhancement Training (PASCET)] with only 20% of their depression cases. Interestingly, the practitioners did report using selected components of both protocols (e.g., graduated exposure, problem solving, cognitive restructuring) quite often (78.5% for anxiety, 58.6% for depression), presaging an approach to treatment tailoring that we have come to appreciate and adopt (see the Modular Approach to Therapy for Children section below).

We have found that a variety of youth mental health ecosystem factors like those shown in **Figure 2** and detailed in **Table 3** can make it difficult for practitioners to use fully intact treatment protocols in their everyday practice. A number of the most important challenges relate to the fact that most tested youth treatments are designed for a single disorder or homogeneous cluster (e.g., depressive disorders or conduct problems). This is a problem for at least three reasons:

1. **Practitioner caseloads.** Most youth practitioners carry rather broad caseloads encompassing a diverse array of disorders and problems. Learning a new treatment for one disorder may not be relevant to most of the caseload.
2. **Youth comorbidity and co-occurring problems.** Most clinically referred youths have multiple disorders and problems, often including both internalizing and externalizing forms of dysfunction. An EST for one disorder or problem may not address the others.
3. **Flux in the problems that need attention in treatment.** Youths in everyday clinical care often present a moving target. There is flux in the problems that most need attention during a treatment episode, and of course new information acquired during treatment may change the picture of what the core problems actually are. A clinician who knows only an EST for depression may struggle when a young client begins to show serious conduct problems or intense fear of separation from parents.

Stated simply, most ESTs are more narrowly focused, and more linear in design, than the everyday clinical practice they are designed to enhance. This is quite understandable, given the value clinical scientists have learned to place on clarity, focus, and logical order. These values make it appealing to design protocols that plan treatment steps in a prescribed order—in CBT for depression, for example, an ideal sequence might begin with relationship building and psychoeducation and then proceed to problem-solving skills, to learning to schedule pleasant activities, to identifying and modifying negative cognitions, and ultimately end with a planned termination, always with a focus on depression. The problem is that such linear plans may not fit the reality of everyday treatment for many young people.

RESTRUCTURING YOUTH THERAPIES (AND ASSESSMENTS) TO FIT CLINICAL CARE: THE CHILD STEPs APPROACH

What can be done to address the areas of mismatch between most ESTs and the nature of treatment in everyday practice? There may certainly be many useful strategies. The approach we describe here was developed as part of the work of the Research Network on Youth Mental Health (see Schoenwald et al. 2008), which was formed in part to address challenges that can arise in the implementation of ESTs in everyday clinical care. Our focus in the network was on community clinic and school-based clinic settings, the contexts where most youth mental health care is provided in the United States. However, there is plenty of room to broaden that focus in the future, extending efforts to adapt and tailor interventions to the many other contexts in which care is provided (e.g., medical settings, child welfare services, juvenile justice programs). The approach we developed

in the network is called Child STEPs (child system and treatment enhancement projects). It includes (*a*) a modular, transdiagnostic treatment protocol and (*b*) a clinical information system that provides ongoing monitoring of youth treatment response and frequent feedback to therapists to guide their decision making throughout episodes of care.

Modular Approach to Therapy for Children

The treatment manual that emerged from our network is essentially a menu of common components of ESTs for particularly common youth problems, concise descriptions of each component in the menu, and decision support in the form of flowcharts to help therapists individualize each treatment episode by selecting from the menu. In this respect, the approach is integrative or transdiagnostic. Our goal (see Chorpita & Weisz 2009, Weisz & Chorpita 2011) was to provide broader and more flexible coverage of youth problems and disorders than most standard treatment protocols do, while retaining the core components of the ESTs that have been developed and tested so carefully over the decades by so many distinguished treatment developers and clinical scientists. The current version of this treatment manual is called *Modular Approach to Therapy for Children with Anxiety, Depression, Trauma, or Conduct Problems* (MATCH; Chorpita & Weisz 2009).

The Structure of the Modular Approach to Therapy for Children

The MATCH manual includes 33 modules; brief summaries (3–4 pages each) of treatment components that are frequently included in CBT for depression (e.g., behavioral activation); CBT for anxiety, including posttraumatic stress (e.g., graduated exposure); and behavioral parent training for disruptive conduct (e.g., teaching caregivers to give clear instructions and use labeled praise). Examples of the modules are shown in **Figure 4**. Because MATCH includes so many modules and spans multiple disorders and target problems, considerable decision making is required of clinicians throughout treatment—for example, decisions about which modules to use when and about when the treatment focus should shift from one problem area to another. MATCH includes flowcharts to guide this decision making. Because a treatment episode may begin with any of four problem foci—anxiety, posttraumatic stress, depression, or conduct—there is a flowchart for each of these starting points. For each problem area, the flowchart begins with a default sequence of modules—that is, a suggested order the clinician may use if treatment is routine and does not need to address other problem areas. For example, the default sequence for depression begins with getting acquainted and building rapport, followed by psychoeducation on depression for the youth and caregiver, followed by skill building in problem solving, behavioral activation, relaxation and self-calming, social interaction (presenting a positive self), and identifying and restructuring unrealistic negative cognitions. The flowchart also includes branches or detours the clinician may take if there is interference—for example, if progress in using the depression modules is undermined by youth conduct problems or anxiety. When such interference arises, the flowcharts provide suggestions for the use of modules designed for other problem areas. For example, if a youngster learns depression-coping skills in therapy but resists using them outside therapy sessions (where they are most needed), and thus is not showing reduced depression, the therapist and parents might use the rewards module from the conduct section of MATCH to create a plan for incentivizing frequent use of those skills at home and at school (see the case of Sophia, below, for an example).

Treatment with the Modular Approach to Therapy for Children

Treatment with MATCH begins with an initial assessment designed to determine which of the problem areas is the most appropriate initial focus of treatment. In cases in which treatment can

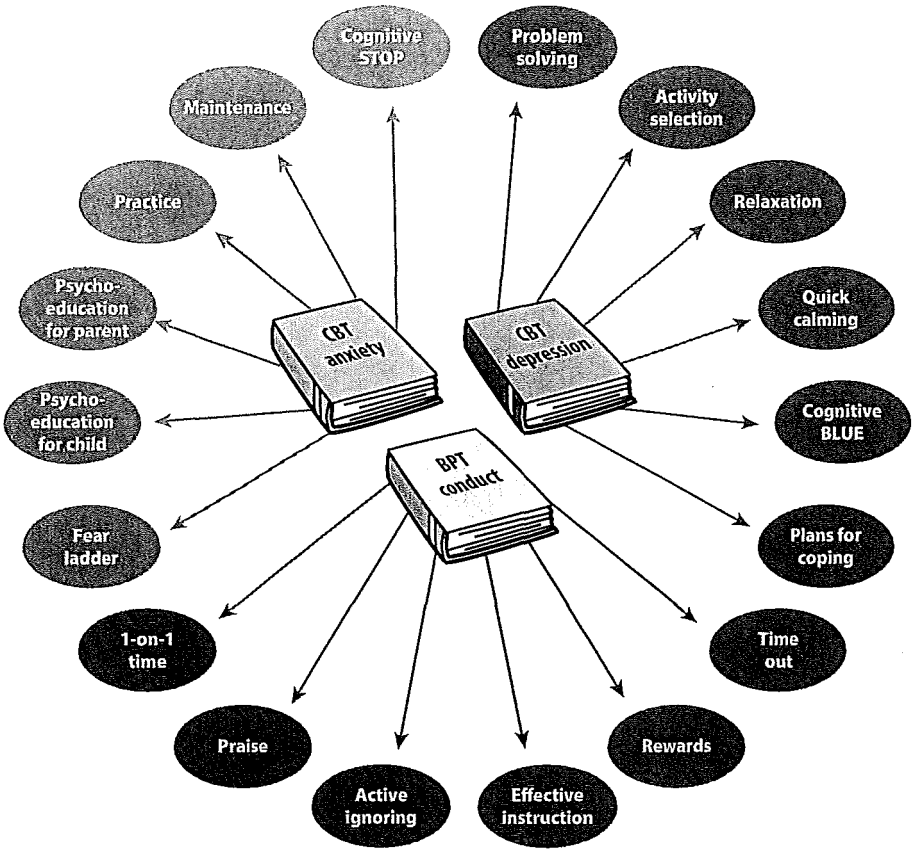


Figure 4

Selected modules illustrating the structure of *Modular Approach to Therapy for Children with Anxiety, Depression, Trauma, or Conduct Problems* (Chorpita & Weisz 2009). Abbreviations: CBT, cognitive-behavioral therapy; BPT, behavioral parent training. BLUE is an acronym representing four different patterns of depressogenic thinking: B, blaming myself; L, looking for bad news; U, unhappy guessing; and E, expecting bad things to happen. Figure adapted with permission from John R. Weisz.

focus in a linear fashion on a single problem area throughout the episode of care, the default sequences described previously may be sufficient. However, in the much more frequent cases in which treatment interference arises or a youth's treatment needs shift, therapists can respond by navigating across problem areas and modules—like those shown in **Figure 4**—to adjust the focus of treatment as needed. By encompassing multiple broad domains of psychopathology, the modular treatment approach can address the concern that practitioners typically carry broad caseloads and that referred youths tend to have multiple co-occurring disorders and problems. The multiproblem focus of MATCH and the decision-support flowcharts also make it possible to address the flux in treatment needs and problems that youths so often show during episodes of care.

Using Frequent Assessment to Monitor Treatment Response and Guide Therapists

The decision making required in this process is informed by an assessment approach that provides weekly feedback to the clinician on the youth's response to treatment. This assessment

strategy is the second element of the Child STEPs approach to treatment. Navigating across modules—and sometimes between sections of the manual (e.g., the depression and the conduct sections)—requires ongoing feedback on the youth's current functioning and response to treatment. This need for ongoing, frequent feedback has led us to develop two brief, psychometrically sound measures—one standardized, the other idiographic. The Brief Problem Checklist (BPC; Chorpita et al. 2010) is a 12-item measure used to obtain standardized weekly youth and caregiver reports on the severity of the youth's internalizing and externalizing problems. The BPC was derived from the Child Behavior Checklist (CBCL) and Youth Self-Report (YSR), which are standardized 118-item parent- and youth-report problem checklists described in Achenbach & Rescorla (2001), using item response theory analyses. (The BPC has now been replaced by a somewhat longer measure, the Brief Problem Monitor, for which a license is required by the ASEBA Corporation; **http://www.aseba.org**.) The other measure, Top Problems Assessment (TPA; Weisz et al. 2011a), involves an idiographic consumer-driven assessment approach; the youth and the caregiver each identify, at pretreatment, the three most important problems for which help is needed in therapy and then rate the severity of these problems frequently throughout treatment. Weekly ratings on these two measures are displayed within a web-based system that provides quick access for therapists and clinical supervisors and can thus be used to make intervention plans and adjust these plans throughout treatment. This monitoring and feedback system provides the kind of frequent updates on the youth's response to treatment that can guide decisions as to whether shifts in treatment focus are needed and which modules may be most appropriate for the next steps of treatment. Emerging evidence indicates that such monitoring and feedback systems may enhance the effectiveness of psychotherapy even when ESTs are not being used (Bickman et al. 2011, Shimokawa et al. 2010).

Child STEPs Case Example: Sophia

The Child STEPs model pairs this ongoing monitoring and feedback with the modular MATCH protocol to support therapists' efforts to personalize treatment for each of their young clients. A simple case example, depicted in **Figure 5**, illustrates a Child STEPs treatment episode in which MATCH modules from different problem areas were used to address comorbidity and interference, and monitoring and feedback were used to document and guide the treatment process. Thirteen-year-old "Sophia" (a pseudonym) and her father sought treatment to deal with Sophia's depression and defiant behavior at home; these problems spiked after her parents' separation and divorce, following her mother's ongoing drug use and physical abuse of Sophia. A multi-informant assessment indicated that Sophia's depression was the most prominent area of concern, so the therapist used a standard sequence of modules for depression in MATCH (e.g., systematic problem solving, engaging in mood-boosting activities, and cognitive restructuring). However, the safety planning module was also needed, early on, given the risks posed by Sophia's mother. Sophia learned most of the depression-coping skills, but one aspect of her defiant behavior was that she resisted using them at home. Therefore, the therapist worked with Sophia and her father—using the rewards module from the conduct problems section of MATCH—to develop a reward system that would incentivize daily home use of the coping skills. For example, when Sophia was down in the dumps about a problem at school or with peers, her father reminded her that she could earn extra video game time if she would work through her problem-solving steps; when Sophia made unrealistic, gloomy comments, her father reminded her that she could earn points for special privileges if she could come up with realistic positive counterthoughts. The bottom half of **Figure 5** shows the modules used, week by week; the top half shows Sophia's response to treatment. As the figure shows, real reductions in Sophia's internalizing problem

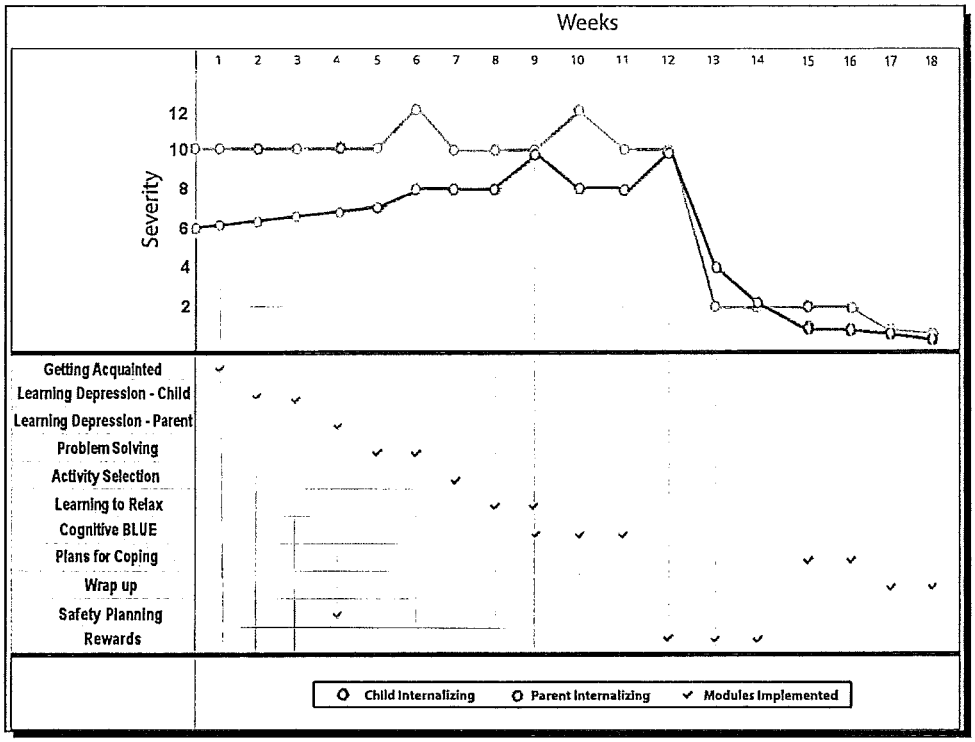


Figure 5

Case example: Sophia's course of treatment using the modular approach to therapy for children (MATCH), displayed using one version of a monitoring and feedback system. In this version, the upper panel displays changes in Sophia's problem ratings (here limited to parent and child internalizing problem scores) across 18 weeks of treatment. The lower panel shows which MATCH modules were implemented in each treatment session. BLUE is an acronym representing four different patterns of depressogenic thinking: B, blaming myself; L, looking for bad news; U, unhappy guessing; and E, expecting bad things to happen. Figure reprinted with permission from John R. Weisz.

levels were evident only after the rewards module had been implemented and Sophia had begun to use her depression-coping skills regularly. This case, and the diagram in **Figure 5**, illustrates the value of regular feedback on youth treatment response. First, Sophia's persistent high ratings on internalizing problems, despite receiving all the depression modules, showed that some other module was needed. Second, the rapid drop in internalizing scores as soon as the rewards module was implemented showed that this particular module had been a wise choice. Third, the subsequent sustained low levels of internalizing problems, as reported by both Sophia and her father, indicated that treatment gains were in place and that termination planning could begin.

TESTING CHILD STEPs IN A RANDOMIZED EFFECTIVENESS TRIAL

We have tested the Child STEPs approach in one published randomized effectiveness trial (Weisz et al. 2012) and a two-year long-term outcomes report on that trial (Chorpita et al. 2013). In the original trial, community practitioners from ten different outpatient service settings were randomly assigned to three conditions: standard manual treatment (therapists used separate, preexisting, linearly designed manuals for CBT for depression, CBT for anxiety, and behavioral parent training for conduct problems), MATCH (the modular manual encompassing common components of

CBT for depression, CBT for anxiety, and behavioral parent training for conduct problems), and usual care. Outcomes were assessed during treatment using the weekly BPC and TPA measures and through standardized diagnostic assessments at pre- and posttreatment.

Our analyses showed that MATCH produced significantly steeper trajectories of improvement than usual care and standard treatment on both the BPC and TPA measures and that youths treated with MATCH also had significantly fewer diagnoses at posttreatment than youths treated with usual care. In contrast, outcomes of standard manual treatment did not differ significantly from usual care in the Weisz et al. (2012) report. The long-term follow-up report (Chorpita et al. 2013) focused on outcomes via the full 118-item CBCL and YSR measures, which were administered at quarterly intervals over a two-year period beginning at pretreatment. The long-term findings showed continued evidence that MATCH outperformed usual care and that standard manual treatment did not (although MATCH did not significantly outperform standard manual treatment in the long-term analyses). Findings from both pre- to posttreatment assessments (Weisz et al. 2012) and the two-year follow-up (Chorpita et al. 2013) suggest that a modular, transdiagnostic redesign—one that integrates core elements of empirically supported treatment for multiple forms of dysfunction—may be an effective approach to adapting ESTs for everyday clinical care. Other randomized effectiveness trials of MATCH, in the years ahead, should help clarify the boundary conditions within which MATCH may be effective and useful.

DESIGNING AND TESTING TREATMENTS WITH THEIR DESTINATION IN MIND: THE DEPLOYMENT-FOCUSED MODEL

Our experience conducting meta-analyses has taught us that one treatment trial is rarely definitive. Further tests will be needed for a full and fair evaluation of MATCH, as for any treatment. Moreover, MATCH, and the modular approach in general, is only one of many possible strategies for bridging the gap between research and practice. Newer and quite likely better approaches will emerge over time; indeed, some current treatment approaches seem to bridge the research–practice gap effectively for certain groups in the child welfare and juvenile justice populations (Henggeler & Schaeffer 2010, Smith & Chamberlain 2010). Treatment methods aside, we do believe that the effectiveness research strategy used in the initial test of MATCH warrants attention and continued use. That strategy includes testing the candidate treatment (*a*) with individuals who have actually been clinically referred (i.e., not recruited), (*b*) with the treatment being delivered by clinical practitioners (i.e., not research employees), (*c*) in clinical care settings (i.e., not settings that have been structured for research), and (*d*) in comparison to representative usual care. These four design features ensure that a study can answer such critical questions as how the treatment performs with the clientele and providers, and in the settings of actual clinical practice, and in comparison to the treatment that would ordinarily be provided in those settings. If a new treatment is designed to improve on current practice, research should certainly be structured to address this last question. Indeed, answering each of these questions is important for any treatment that is ultimately intended for use in real-world clinical practice.

This research strategy is part of a broader approach that has been identified in prior work (e.g., Weisz 2004, Weisz et al. 2005a) as the deployment-focused model of treatment development and testing. This model includes a series of steps designed to locate the process of building and testing interventions within the real-world contexts that are most relevant to the interventions' intended applications. The idea is that interventions should be tested with the clientele, with the clinicians, and in the contexts for which they are ultimately intended, and tested for their effectiveness relative to current practice in those contexts to determine whether the new interventions actually represent an improvement. A primary aim of the

deployment-focused model is to create a process through which the treatment characteristics needed for success in real-world clinical application can be identified and built into the intervention as a natural part of the scientific process. The model rests on the testable premise that the potential of an intervention to be beneficial in a practice context is most likely to be realized if the treatment has been adapted to practice conditions as part of its ongoing development.

The model is consistent with evidence from implementation science (Fixsen et al. 2005) that when interventions that have been successful in one setting are moved to a very different setting, they may struggle or fail initially. Some will ultimately be successful, after multiple steps of intervention adaptation. The deployment-focused model is a way of making that adaptation process a natural, ongoing part of treatment development and testing, with the objective of efficiently building treatments that are practice-ready and likely to succeed in real-world clinical care contexts.

The deployment-focused model grew out of a concern that successfully implementing interventions in actual clinical practice may be most difficult when there are big differences between the implementation context and the context in which treatment development and testing took place. As suggested by **Table 2**, most randomized trials through which the majority of youth ESTs have been shaped and tested have not exposed the therapies to the broad array of factors present in the clientele, clinicians, and clinical care contexts of everyday treatment. That might not be such a big problem for psychotropic medication or other interventions whose mechanisms of action are mainly biological; but for psychosocial interventions, a process of development and testing that bypasses those human and environmental factors that can so profoundly affect treatment process and outcome could leave the resulting therapies poorly prepared for everyday treatment conditions.

A common pattern in youth therapy research has been for investigators to devote many years to carefully controlled efficacy studies and to build an evidence base for their protocols, with the plan that effectiveness tests in representative clinical conditions will come later. However, this last step has been rather rare in youth psychotherapy research to date. Moreover, even when that last step is taken, the differences between treatment within efficacy research and treatment in actual practice may well be too numerous and pronounced to be bridged in one final step of research. The number of dimensions along which treatment must be adjusted to span the lab-to-clinic gap may make the task of moving efficacy-tested treatments into everyday clinical care so complex that the task really needs to be a part of the ongoing treatment development process, from start to finish. Indeed, the very real-world factors that efficacy trial researchers might view as a nuisance or noise (e.g., youth comorbidity, parent pathology, family stressors that produce no-shows and dropouts, therapists with heavy caseloads) and thus attempt to avoid (e.g., by recruiting and screening cases, applying exclusion criteria, adding incentives for therapy attendance, hiring their own therapists) may in fact be precisely the kinds of factors that need to be understood and addressed if psychotherapy treatment protocols are to be created that fit well into clinical practice. ESTs that are stymied by these real-world factors may not fare so well in practice, no matter how strong they look in efficacy trials.

A related point is that implementing ESTs in practice settings may require creating adjunct interventions specifically to address obstacles. For example, treatments that call for weekly sessions with youths or parents may require new family engagement, problem anticipation, and problem-solving procedures (e.g., Nock & Kazdin 2005) to generate reliable attendance. And interventions that do not fit easily into an organization's standard procedures (e.g., assessment or supervision requirements that go beyond clinic routines) may be workable only if paired with organizational assessment and with interventions designed explicitly to modify organizational practices and culture (e.g., Glisson & Schoenwald 2005). Developing and testing treatments, and potentially the

adjunctive interventions needed to support them, within the settings for which they are ultimately intended may be needed to support effective implementation in practice.

CHALLENGES FOR THE DAYS AHEAD

The goal of building empirically supported treatments that can fit smoothly into everyday practice and work well with clinically referred youths is worthwhile but challenging. In our pursuit of this goal, we have encountered challenges related to the referred youths, their families, the practitioners who serve them, the organizations within which the practitioners work, and the broader service system within which they all function. There are no villains here; the challenges arise because conditions, constraints, and possibilities are so very different from these different perspectives. Some of the challenges are summarized conceptually in **Table 3**, but a few more specific examples may clarify the kinds of concerns and issues that will need attention in the near future on the intervention development front.

1. **Growth in intervention scope and complexity can create implementation challenges.** Efforts to build treatments that encompass multiple and diverse problems and disorders can bump against limitations in what busy practitioners have time to learn and master and in the resources available to sponsoring organizations. MATCH, for example, includes so much content that training alone requires 5–6 full days, and clinicians may need a year of subsequent weekly case consultations from MATCH experts before they can work independently. This places significant time demands on busy clinicians, who are likely to face productivity pressures in their workplaces. Our impression is that individual or very small group consultation works best, and that when consultation groups grow large, treatment quality and outcomes are undermined; however, more individualized consultation requires more expert consultants' time and increases costs. It is possible that the time and cost requirements of complex treatments like MATCH may limit their implementability.
2. **Flexibility calls for clinical decision making, which cannot be entirely evidence based.** Protocols like MATCH that offer clinicians increased flexibility also increase clinicians' responsibility for decisions that are not required in more linear protocols. Practitioners using MATCH must decide, for example, which module to use first, when to switch to another, when to rely on the default order in a flowchart and when to detour out of the default, whether (and if so, when) to shift to a new problem focus (e.g., from conduct to depression), and so forth. The flowcharts described earlier do provide useful guidance and a structure for such decision making, but they do not eliminate—in fact, they require—the use of clinical judgment. To illustrate this point, consider a youth in treatment for depression for whom the activity selection (i.e., behavioral activation) module has been used for three sessions but doesn't seem to be working. Does this reflect simply a wrong choice of activities such that further tweaking and perseverance are needed, or does this represent interference in the form of misconduct and thus a need to shift to modules from the conduct section of MATCH? The flowchart requires a judgment on such questions but does not tell the clinician how to make that judgment. Moreover, there is no reliable way to assess whether such clinical judgments are correct. In sum, increased flexibility may actually necessitate increased clinical decision making, which cannot be entirely evidence based.
3. **Monitoring and feedback systems can inform, but not replace, clinical judgment.** The kinds of clinical decision making just discussed can certainly be informed and assisted by the evidence that monitoring and feedback systems (MFS) can provide (see **Figure 5**, for example). On one hand, the clinicians we work with place a high value on weekly data conveying how each youth is responding to treatment. On the other hand, these data do

not tell clinicians what is causing good or bad treatment response or what to do when treatment response is poor. If a youth's problem levels have not changed after four weeks of treatment using one particular module, does that mean the clinician should try different ways of introducing and practicing that module, abandon that module and try another from the same problem area of MATCH, or shift entirely to a different problem focus? MFS data can tell the clinician what the youth's trajectory of change has been and whether the youth is responding well to treatment, but the data cannot tell the clinician why this is happening or what to do in response. The MFS can substantially enrich the mix of data a clinician uses to inform clinical judgments—and that is a positive development—but the MFS cannot make the judgment for the clinician.

4. **Comprehensive treatment may lack a unified theoretical core.** MATCH may have practical utility in its coverage of both internalizing and externalizing problems, but that very coverage also means that it lacks a single unified theoretical core. A focus on anxiety and depression alone might build on theories and evidence on internalizing problems and even prior research on neurosis. MATCH is too broad to have such a core and thus tends to be more pragmatic than theoretical in its focus. This may be a problem in efforts to explain effects and identify mechanisms of change. It can also mean that the therapist facing a dilemma during treatment cannot resolve the dilemma by drawing guidance from a single core theory. However, a case could be made for the value of a treatment approach that builds on both CBT (for anxiety and depression) and behavioral theory (for conduct problems). It is possible that the most complete and accurate models accounting for therapeutic change may ultimately encompass both theoretical frameworks. If that turns out to be the case, the trans-theoretical approach underlying MATCH may be a virtue.
5. **Efforts to adapt and fit treatments must be structured to address the challenges of implementation and sustainability.** This article has focused mainly on the importance of developing and adapting ESTs to fit clinical care contexts and on how to accomplish that goal using strategies of the deployment-focused model. However, once these ESTs are developed and adapted, a great deal will need to be known about how to implement them effectively and cost-effectively in clinical practice settings. Building that knowledge base will require research on what are the best methods for training clinicians, what approaches to case consultation are most effective in building fidelity and competence, what kinds of organizational supports are needed to make implementation successful, and a variety of related questions. An associated question, a major one for many organizations and funders, is how best to sustain continued use of the ESTs and ensure continued fidelity after the clinician training and skill building are done to maximize ongoing benefit to those receiving treatment. Researchers have only recently begun to study these important topics, and a great deal remains to be learned (see McHugh & Barlow 2010, Stirman et al. 2012, Weisz et al. 2014).
6. **Adaptation and fitting become more complicated when we go beyond traditional treatment settings and outside the conventional US healthcare system.** As this article illustrates, it is a significant challenge to fit ESTs into traditional US mental health clinic contexts and the standard reimbursement systems within which those clinics function. The challenges grow even thornier when efforts reach beyond such standard contexts. Compared to treatment in traditional mental health clinics, for example, treatment in schools tends to involve briefer sessions, more unpredictable locations (there are no therapy rooms in most schools), and clinicians for whom therapy is a much less significant part of the workweek and job expectations (see, e.g., Fox et al. 2014, Stark et al. 2009). Therapy in primary care settings has its own distinctive characteristics (Asarnow et al. 2005). Complexity escalates

dramatically when one tries to fit treatments tested in the United States into new cultural contexts and nations where the mental health and payment systems are markedly different. At the extreme, efforts to implement ESTs in countries that lack an organized mental health delivery system—and even for youth problems not seen in the United States (e.g., emotional problems of former child soldiers)—may require a totally different way of thinking about how to structure and deliver treatments (see, for example, Betancourt et al. 2014). Clearly, our work and that of our colleagues on adapting and fitting treatments to real-world intervention contexts is but a tiny part of what will be a massive ongoing process engaging many intervention scientists and practitioners and touching a broad array of organizational, cultural, and national contexts.

7. **Efforts to fit treatments to contexts may need to be complemented by changing the contexts.** Although it is useful to adapt treatments to existing contexts, it is important to note that the contexts themselves may also be modified to better reach and serve those who need mental health care. Kazdin & Blase (2011) have advocated for expanded models of treatment delivery that go beyond the traditional model of weekly 50-minute office visits to increase the public health impact of interventions. These authors propose a broad portfolio of delivery methods to reduce the burden of mental illness (see also Rotheram-Borus et al. 2012). Strategies particularly relevant for youths include embedding interventions within everyday settings such as summer camps (e.g., Pelham et al. 2005, Santucci & Ehrenreich-May 2013) and using technology to meet youths on their own turf through interactive, computer-based treatments such as Camp Cope-A-Lot (Khanna & Kendall 2010) the BRAVE Program (Spence et al. 2011) for youth anxiety, and SPARX (Merry et al. 2012) for youth depression. Efforts like these, restructuring where and how mental health services are received, will be a valuable complement to the kind of work described in this article.

SUMMARY AND CONCLUSIONS

Youth psychotherapy and psychotherapy research have deep historical roots and a shared objective of improving mental health and adaptive functioning in boys and girls. Despite this common ground, clinical care and treatment research have diverged significantly over the decades, such that most treatment research has tested interventions under conditions that do not look very much like the clinical practice that research is designed to strengthen. The research has generally not tested interventions with clinically referred youths treated by practicing clinicians in actual clinical care settings, and it has not addressed the critical question of whether interventions created through research actually produce better clinical outcomes than treatment as usual in practice settings. One consequence may be that the interventions identified as empirically supported, based on research that is not very clinically representative, may have difficulty coping with those real-world factors in everyday clinical care that they have not had to confront during development and testing. This may partially explain why the mean effects of ESTs look quite modest when tested under more representative conditions and compared in randomized trials to usual clinical care.

To address this problem, we have proposed a deployment-focused model: Intervention development and testing within this model are conducted from a very early stage with the kinds of participants (e.g., clients and clinicians) and in the kinds of contexts (e.g., community clinics) for which the intervention is ultimately intended, and new treatments are tested against usual care. The development and testing of one particular treatment protocol—a modular intervention called MATCH—illustrates key aspects of the deployment-focused model. The findings supporting the efficacy of MATCH are but one part of a rich research matrix needed in the days ahead. This should include MATCH replication trials, studies of optimum methods for implementation and

dissemination in treatment settings, research on ways to ensure sustainability once training and clinician skill building in a new treatment have ended, studies of treatment adaptation to fit contexts other than mainstream US clinics (e.g., schools, primary care, treatment settings in diverse cultures, and implementation in countries that lack any mental health care system), and research on adapting treatment delivery methods and contexts to better reach and serve those who need effective mental health care.

DISCLOSURE STATEMENT

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COLLEGE CENTRE FOR QUALITY IMPROVEMENT CCQI

RC PSYCH ROYAL COLLEGE OF PSYCHIATRISTS

Quality Network for Inpatient CAMHS (QNIC) and Quality Network for Community CAMHS (QNCC) position statement: hospital access, admission and discharge

Introduction

This position statement has been jointly produced by QNIC and QNCC in response to the increasing numbers of young people being admitted to hospital in the UK. A number of emerging problems are highlighted and the QNIC and QNCC quality standards are used to illustrate best practice in access, admission and discharge of young people from hospital.

Evidence

The vast majority of children and young people with severe, complex or persistent mental health problems never require hospital admission. Instead they can be safely and successfully treated in primary care services or by community based specialist teams[1]. However, inpatient admission is an essential part of the care pathway and evidence of effectiveness has been demonstrated.[2]

Children and young people should only be admitted to hospital if they cannot be safely supported and managed by community services or other alternatives. Despite evidence for a range of community based services[3] these are not routinely available across the UK and in most areas are few and far between or not available at all[4]. The predominant model of Tier 4 intervention for young people in the UK remains admission to hospital.

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[1] McDougall et al. (2007). Tier 4 CAMHS: inpatient care, day services and alternatives. Journal of Child and Adolescent Mental Health

[2] Jacobs, B; Green, J; Beecham, J; Kroll, L; et al (2004). Children and Young Persons Inpatient Evaluation (CHYPIE): a prospective outcome study of inpatient child and adolescent psychiatry in England. Presented at the Royal College of Psychiatrists Faculty of Child and Adolescent Psychiatry Annual Residential Conference.

[3] National Institute for Health Research. (2008). Research Summary: Alternatives to Inpatient Care for Children and Adolescents with Complex Mental Health Needs. London: NIHR

[4] Shetty P (2007) Mental health services for children patchy in the UK. The Lancet, 370(9582): 123-124

As more adolescent units are offering emergency access, unplanned admissions have been steadily increasing. At the same time, the number of planned admissions has been steadily reducing. This trend is of concern since research shows that services are more effective if access to them is not dependent upon crisis situations but by following planned referral pathways and a continuum of care for defined clinical needs[5]

Referral
Referrals to most inpatient services are made by professionals in Tier 3 CAMHS or adult mental health services. On the basis of providing the 'least restrictive alternative' service, a guiding principle for referral to hospital should be that the young person's needs cannot be managed safely or effectively within the community.

Admission
In the last few years the numbers of young people being admitted to hospital in England has been increasing. The reasons for this are complex, but causal factors appear to relate to lowering of thresholds for managing self harm and suicidal behaviour in the community; direct access to emergency beds; and the impact of funding cuts in health and social care services[6].

An over reliance on hospital admission to meet the needs of young people in crisis has led to an increasing number of out of area referrals and admissions. The demand for local beds for young people deemed to require admission is increasingly in excess of local supply. Where local adolescent units are full young people are being admitted to other areas of the UK. This isolates them from their family and friends and makes visiting and involvement by parents and professionals difficult.

Hospital admission may make some young people's overall difficulties worse rather than better[7]. This is due to the potential to disrupt personal, social, education and family functioning and to impede rather than assist recovery. QNIC and QNCC are concerned about the increase in hospital admissions which should always be carefully considered and regarded as a major intervention in a young person's life.

National guidance on inpatient CAMHS states that admission must operate within a pathway of care, involving the local community teams. This is essential to avoid a protracted length of stay or care episode; the development of dependency on inpatient treatment; and loss of contact by

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[5] Massie, L. (2008). What Works?: Right Time, Right Place. National Service Framework Development Projects. London: Department of Health

[6] McDougall, T. & Cotgrove, A. (2013). Specialist Mental Health Care for Children and Adolescents: hospital, intensive community and home based services. London: Routledge

[7] Green, J. & Jones, D. (1998). Unwanted effects of inpatient treatment: anticipation, prevention and repair. In Green, J. & Jacobs, B. (Eds). Inpatient Psychiatry: modern practice, research and the future. London: Routledge

the young person with their family, local community and professionals that may be supporting them[8].

Discharge

Planned discharge is associated with better outcomes than discharge that is not planned with parents or carers and the multi-agency team[9]. The further away a young person is from their local area, the harder it is to plan discharge collaboratively. Parents and professionals may struggle to attend care planning meetings and leave from the inpatient unit is difficult to facilitate if the young person is displaced many miles from their home.

The process of planning discharge should occur before a young person is admitted to hospital. Good discharge planning by the inpatient team will involve the establishment of regular communication with referrers, clarification of their ongoing involvement and exploration of the possibility of joint interventions whilst the young person is in hospital. However, many crisis admissions are facilitated by adult mental health services which may have little or no involvement in planning discharge.

QNIC recommendations

NHS England, Local Clinical Commissioning Groups and Local Children's Safeguarding Boards are strategic partners responsible for the whole system and pathway of care for young people requiring hospital admission. They should review local arrangements for young people requiring admission to ensure that only those with the greatest needs are admitted to hospital as close as possible to home.

There should be implementation of a strategic framework to manage local, regional and national demand for hospital admission which is underpinned by the principles of local access and evidence based care. A regional approach to commissioning most Tier 4 services should be preserved, but some highly specialised and children's units should be managed as National clinical networks.

Relevant quality standards

Number	QNCC standard
6.3	Young people who require inpatient care are referred to units that meet their individual needs with effective continuing care.
6.3.2	Young people are referred to a unit that is as accessible as possible so that contact with home and family is maintained.

[8] Sergeant, A. (2009). Working within child and adolescent inpatient services: a practitioner's handbook by Angela Sergeant. London: HMSO

[9] Pfeiffer, S; Strzelecki, S. (1990) In-patient Psychiatric Treatment of Children and Adolescents: A Review of Outcome Studies. Journal of the American Academy of Child and Adolescent Psychiatry, 29, 847-853.

6.3.5	If inpatient care is required the key worker or equivalent contacts the inpatient soon after admission and attends review meetings during the inpatient.
6.6	Staff work closely with he young person's locality CAMHS team or inpatient service to arrange effective handover and joined up provision of continuing care after the community based intensive intervention.
Number	**QNIC standard**
3.3	There is equity of access to inpatient units in relation to location of residence.
3.5	Families are involved throughout assessment.
3.6	Before discharge decisions are made about meeting any continuing care needs
4.6	Young people can continue with their education whilst admitted.
4.6.7	Educational and unit staff support the young person to reintegrate back to their local educational facility.

Tim McDougall, Chair –
on behalf of QNIC and QNCC Advisory Groups
August 2013

Contextual factors in the transition process

Transitioning young people who were inpatients or day patients of the Barrett Adolescent Centre into either the community or (in the minority of cases) to an adult mental health service was a process that occurred literally hundreds of times during the years that I was at the Centre. During this time we developed a clear conceptual framework to help optimise the transition. I also became aware that that there were factors within the clinical environment which contributed to a successful transition in a timely manner.

Transition to the community was only considered if there appeared to be sufficient stability in the acuity and severity of presenting symptoms for management in the community without either danger to life or repeated acute hospital presentations. However mental states appeared stable for a time while they were given partial leave to transition but then subsequently deteriorated. From a rehabilitation perspective, transition was a process which had its roots in many activities which prepared a young person for the community. Transition then was a continual monitoring of stages of treatment, stability of symptoms, and progress in developmental tasks. In a similar way the point at which we ceased to have contact with the young person was quite variable and often prolonged.

To give context to the transition processes for each of the deceased I shall describe briefly

- those adolescents who were admitted to the Barrett Adolescent Centre
- the evidence base for treatment, interventions and transition processes
- the conceptual framework of treatment, rehabilitation and transition
- the impact of the clinical environment in facilitating transition
- the timetable for closure of the Centre to examine the applicability of transition decisions.

Adolescents Admitted to the Barrett Adolescent Centre.

Of approximately 15,000 young people seen in both public and private child and adolescent mental health services only 20 to 30 a year were referred to the Barrett Adolescent Centre. These were referred because they had severe and persistent mental illness which had not responded to treatment in either community and/or acute inpatient care. Because of their mental illness, they experienced significant delays in development which resulted in impairment in functioning. Often these impairments in functioning exacerbated the mental illness or contributed to secondary mental health symptoms. They came from a range of social situations with some parents being quite supportive, while others contributed to varying degrees to perpetuating the mental health symptoms in the young person.

The predominant disorders with which young people presented to the Barrett Adolescent Centre were severe and persistent:

- depression with the dissociated self harm and depression
- anxiety, especially social anxiety disorder
- Post Traumatic Stress Disorder (PTSD)
- eating disorders, both anorexia nervosa and bulimia nervosa
- psychotic disorders.

Typically they had co-morbid disorders and these are often complicated by developmental delays including Asperger's Syndrome, Receptive Expressive Language Disorder, ADHD and various learning difficulties.

The Evidence Base for Treatment and Interventions.

The literature regarding the treatment of the above disorders invariably described interventions which were successful in a number of participants in the study trial. Nevertheless a small proportion would invariably have not responded to treatment. I maintained up to date literature searches on self harming and suicidal behaviours, Social Anxiety Disorder, Generalised Anxiety Disorder, inpatient and residential care recovery in mental health. I attended national and international conferences on the treatment of eating disorders, PTSD and psychotic disorders. Other staff sought in a similar way to maintain currency with trends in the treatment of various disorders. The information gleaned from these sources provided guidance as to the best treatment options which may be trialled in or adapted to the group of adolescents we were treating.

While there is a reasonable literature on impairments due to developmental delays very little is written about impairments due to mental illness in adolescents. Even less is written about the process of rehabilitation in mental illness in adolescents. In 2010 and 2011 I visited (at my own expense) a number of inpatient units with characteristics similar to Barrett Adolescent Centre in the United Kingdom and Switzerland. This provided a comparative perspective on processes in adolescents with severe and complex disorders.

Since the late 1990s a movement which describes recovery in mental illness has gained momentum. Key principles have been enunciated particularly during the last decade. I maintained a literature search on the concept of recovery in mental illness from approximately 2002. In November 2013 Federal Government released a publication entitled *National Framework for Recovery Oriented Mental Health Services.* Although it was released after I had finished at Barrett, I refer to it because it encapsulates key principles which we had identified as being important to the service over the previous decade. These principles were key in our understanding of transition processes. The main points of this Framework are listed in Appendix A. This identifies important intangible factors such as hope, connectedness, social inclusion, empowerment and development of an active sense of self. Nevertheless these concepts are derived from primarily adult populations. The literature about recovery in adolescents is scant.

We regarded these factors identified in the recovery literature as being important in both the preparation for and through the process of transition. They are not readily captured in the research literature on treatment of specific disorders which relies on measuring definable quantities.

A key element of our evidence base was feedback from young people after they had transitioned as to what they had found helpful. This feedback was formalised in a collaborative process between the health and education sectors of the Centre in a quadrennial review from which the individual elements of the program were refined.

A second key element of our evidence base was observing the process and nature of interventions and of the transition process in adolescents more than two decades. We synthesised available evidence from the literature and conferences with what we were observing about recovery, feedback from former and current adolescents with these observations to develop both a treatment and rehabilitation program and to guide the transition process.

The Conceptual Framework of Treatment, Rehabilitation and Transition

Treatment used adaptations and modifications of recognised pharmacological, family and psychological interventions which included both verbal and non-verbal therapies. Adaptations and modifications were required for a number of reasons. Typically if there is a single disorder, treatment continues in a linear and uninterrupted fashion until there is significant symptom resolution. The adaptations necessary with the patients who were at Barrett including treating one of the co-morbid disorders to a certain stage before treatment on another disorder could commence. Individual therapy sometimes occurred concurrently with family therapy, but at other times one or other would need to proceed to allow significant emotional resolution. At times the more formal therapy for a particular disorder would be interrupted by the need to explore the current emotions around the dynamics of the Centre.

In the absence of significant literature on rehabilitation in adolescents we developed a program of interventions to address moratoriums and impairments in the tasks of adolescent developmental. (refer to Text Box next page). These interventions were based

on observations over the years of what appeared to be effective together with feedback from adolescents after they left Centre about what was useful in their the recovery.

Rehabilitation interventions included adapting a school program, supporting transition into an external school, group activities e.g. community access, cooking group, and social skills group and even the unstructured activities on evenings and weekends provided opportunities to develop peer relationships and explore a range of activities to occupy leisure time, or the opportunity to effectively set boundaries.

Tasks of adolescent development

Negotiate physical changes
Develop cognitive maturity
Negotiate school
Negotiate peer relationships
Develop emotional maturity
Established good self-care
Occupy leisure time
Establish boundaries
Establish moral maturity
Develop competencies to become independent
Individuate within the family
Establish identity
Develop life schemas
Develop a sense of the future

In physical disorders, e.g. a fractured hip treatment occurs first and then rehabilitation. We observed that treatment and rehabilitation were intertwined. Often therapeutic engagement would not occur until there was progress in developmental tasks. Conversely if an adolescent was engaged in some therapy which was particularly challenging there might be a moratorium on the rehabilitation component. They might for instance sit in class without engaging in any school work. At times an activity was both the treatment and rehabilitation intervention, e.g. a community access outing might address the rehabilitation goal of competencies to become independent whilst for an adolescent with social anxiety it may be an important element of exposure in treatment.

Rehabilitation programs laid a foundation for transition.

Integral to the process of treatment and rehabilitation were two key concepts from the recovery literature – maintaining hope and social connectedness.

Developing and maintaining hope was a central

therapeutic goal to ensure a positive transition. In practical terms hope was developed through gaining mastery in developmental tasks, good clinical relationships with staff that they came to trust and a reduction in distressing symptoms. Optimally hope was maintained by developing strong positive relationships with their family, but this did not always eventuate. Contact with trusted staff was an important element of maintaining hope during the transition process, particularly if they needed to move into independent or semi-independent accommodation.

Two of the concepts that the adult literature in recovery does not adequately capture are "regaining identity" and "empowerment". The former is a key developmental task of adolescence, the latter part of the process of adolescent emancipation.

Working through the issues of identity can be challenging for a number of adolescents with adequate mental health. However the combination of the effects of persistent mental illness, impairments in developmental tasks, trauma where it has been present and severe conflict within the family can all disrupt the process of identity formation. In our experience consolidation of identity is an important aspect of a successful transition. Interventions which may help to consolidate identity range from individual therapy to re-evaluate their perception of family relationships through to activities which help them engage with the broader community including peers, and facilitating progress in educational and developmental goals.

Admission to the Centre had complex effects on empowerment. On the one hand there were increasing restrictions due to communal living and for two of them, being placed on a Involuntary Treatment Order. On the other hand there were processes to ensure they had a say in their environment. These included regular morning meetings where issues with the programs, rules of the unit, staff or adolescents were discussed. . Other processes facilitating empowerment included progress in education, financial planning and management, developing skills for independent living and being engaged in a range of activities within the community.

Obviously empowerment was integral to the process for transition. However it was such a continuing process from the time of admission that it merged imperceptibly into transition, again making identification of a point of transition difficult.

The adult focused literature on recovery uses terms such as "mental health care" and "recovery-oriented mental health care" to describe a general approach to the patient. The premise of this care is an approach which enables an adult to achieve a new level of independence.

The child and adolescent developmental literature describes the necessity in families of a more nurturing and personal type of care to facilitate development. . "Professional care" refers to care provided within the professional boundaries, available from multiple staff members who showed the same consistent qualities to all adolescents. It was clear that this care was only available while a staff member was on duty and was not intended to replace any care from the parents. The more personal nurturing style of care was manifest in the tone of voice, manner in which limits were set, compassion, sensitivity, capacity for understanding and support in times when the adolescent was extremely distressed, availability to listen as

well as calmness in a crisis. Typically adolescents would observe staff for several months before responding more to those who provided this level of care. It was evident across disciplines, although not all staff reflected this quality.

Whilst this style of care facilitated both treatment and rehabilitation there was a necessity to guard against the adolescent becoming dependent on such care. Ultimately the young person would either be discharged back to the care of the family or to semi--independent or independent living. The latter scenario required a level of self containment in which they did not continually seek for the care which they perceived to missing out on in younger life.

The way in which we sought to as achieve this transition from necessary therapeutic levels of care to being able to tolerate semi-independence was analogous to the "Circle of Security" program used in toddlers. This program encourages parents to encourage their child to appropriately explore the environment while providing a secure base to which the child could return. In our situation we facilitated transitions by addressing tasks of it adolescence (particularly competencies to become independent) and by providing longer periods of leave to partial hospitalisation, day program attendance if it was appropriate and beneficial, on occasions outpatient care, to in the end having only contact by telephone or drop in whenever necessary. Throughout this process they were supported in being integrated into the community and linking with other service providers.

Becoming dependent on the Centre was a particular risk in vulnerable adolescents who required a long period of hospitalisation. We sought to minimise this through an active program which both addressed developmental delays and maintained exposure to the community. We observed that if we succeeded in this task the adolescent would be wanting to move away from the Centre because they now felt equipped to do so and because of certain adverse effects of the environment. However this was always an issue to consider when transitioning a patient if there appeared to be barriers to transition.

Finally we observed stages through which adolescents who experienced childhood abuse progressed. These presented with recurrent self harm and severe depression. In some the abuse was not known, in others the abuse was explicit, but there was no realisation by the young person that the abuse was connected to their current symptoms.

As they experienced good clinical care (either in outpatient or inpatient settings), symptoms of PTSD emerged, including periods of dissociation, derealisation, flashbacks, abuse related nightmares etc. We termed this the "connection phase". If symptoms were severe, they were unable to concentrate at school, lose interest in peers and further impairment in tasks of adolescent development. Typically they became more depressed, suicidal and self harmed more in this phase.

Some learned through psychological measures e.g. Dialectical Behaviour Therapy (DBT) to "isolate" the memories at the cost of "numbing out" emotions. Most went into adult life not requiring further inpatient care, but often seeing a mental health professional for several years post discharge.

Others could not isolate the intrusive memories but decided to move ahead in their tasks of adolescent development. The only way to resolve the effects of the intrusive memories was to undergo trauma focused psychotherapy. The process of trauma focused psychotherapy was often associated with an increase in depression, suicidality and self harm because of the increased effect of the memories that they were recalling and the emotions surrounding them. We termed this the "working through" phase. They were particularly vulnerable during this phase. Young people who successfully negotiated this phase often had an unsettled period for up to 6 months after discharge but did not require long term mental health care in adult life.

Adolescents who were particularly vulnerable to PTSD symptoms appeared to be those more likely to keep anger within themselves. One of the emotions that are frequently emerged during the "working through" phase was anger. Both young people and staff found this unsettling and it required skilful management.

An issue in the psychotherapy of traumas which were not discussed with anyone for some years after their occurrence was to avoid eliciting false memories. This was a feature of the "repressed memory therapies" of the 1990. There was no absolute way of avoiding false memories. It was important however that we did not seek to elicit memories before the adolescent was ready to talk about them.

The Impact of the Clinical Environment

Three factors within the clinical environment had the capacity to affect the timing and quality of transition in a number of ways.

1. Staffing availability and stability.
2. Peer relationships on the unit.
3. The level of acuity among adolescents including those who need high levels of care

1. Staffing availability and stability

Having a stable staffing contingent is crucial to provide not only quality treatment and rehabilitation but also timely and appropriate transition to the community.

Nursing Staff

Barrett Adolescent Centre was established on the principle of a closed roster for nursing staff. This ensured staff knew the adolescents well and management of adolescents was consistent. Knowing an adolescent well enabled them to recognise early warning signs of distress.

Adolescents in transition were often anxious. If staff on a shift did not pick up on their anxiety it could develop into a situation adversely affecting their mental health. Consistent staffing enabled an adolescent in transition to approach a number of staff with whom they felt comfortable. This was particularly important when other adolescents were in a time of crisis, and required more intensive nursing interventions. The availability of trusted nursing staff to whom an adolescent in transition could speak was reduced, but with constant staffing there would still be some to approach.

Consistent nursing staff is recognised as good practice in inpatient units in the UK. The extract below is taken from the Quality Network of Inpatient CAMHS Standards 2011 (a quality initiative of the Royal College of Psychiatrists).

2.1.5 1 The unit is staffed by permanent staff, and bank and agency staff are used only in exceptional circumstances e.g. in response to additional clinical need.

Guidance: *A CAMHS inpatient unit is likely to have a problem with over-use of agency nurses if more than 15% of staff are agency staff during a week or if more than one member of staff on a shift are from an agency. Agency staff should not be used for more than two shifts in a day.*

Ref 8, pg 19: 'Service user feedback reinforces the importance of a regular and stable workforce which enables the development of therapeutic relationship and trust in providing support at distressing times. The National Audit of Violence (HC 2005) found that lack of leadership, inexperienced ward staff combined with an over reliance on bank and agency staff can have a negative effect upon the continuity of care and overall safety of the acute inpatient ward.'

2.1.6 2 Where bank and agency staff are used, they are familiar with the service and experienced in working with young people with mental health problems."

The impact of unstable nursing staff was an issue raised by the adolescent representatives

I was so concerned by nursing instability that I began to note the number of nursing staff working on the Unit from information from the Staff Lists. The regular complement of nursing staff from July 2012 – 2013 was 20 regular staff and 3 staff in training on a 3 month rotation. During the last quarter of 2012, 61 different nursing staff worked on the ward. Essentially there were 38 strangers during that quarter who did not know the adolescents. In the first quarter of 2013 there were 55. I could not break down the numbers below fortnightly numbers. However, the percentage of non-regular nursing staff in a fortnight ranged from 19% to 39% - well above the QNIC recommendations. At times there were up to four non-regular nurses on a shift, which again is well above QNIC recommendations.

There were a number of implications for permanent staff:

- they were often required to act up as Clinical Nurse for a shift with an associated increase in administrative and supervisory responsibilities which could take away from their availability as the Care Coordinator for a young person in transition and
- adolescents in crisis preferred to approach permanent staff which also contributed to their Care Coordinator role for an adolescent in transition and
- adolescents who have experienced severe trauma and were in the "working through" phase of their recovery, which occurred through their transition process needed nursing staff they knew and trusted in periods when they were partly dissociating or experiencing flashbacks.

Staffing inconsistency was a problem from at least 2003. It was exacerbated in the last year of operation because:

- permanent staff left to seek employment elsewhere because of the uncertainty of the future of the unit
- available casual staff often had little experience or training with adolescents and
- predominantly short term contracts were offered to suitable casual staff which dissuaded some from taking them up because they needed more stable employment.

These issues were brought to the notice of more senior management by both the Nurse Unit Manager, minutes of the Business Unit Management Committee meetings, a letter from a parent who was concerned about inconsistent staffing and also by myself.

Allied Health Staff

There was considerable uncertainty and instability among Allied Health staff during the period of transition .

- The permanent social worker had personal problems necessitating extended periods of leave in the second half of 2012. He resigned suddenly in January 2013. A

replacement social worker was not appointed until late may 2013. This delay compromised our ability to provide jamily therapy to these adolescents.

- One permanent occupational therapist had periods of severe medical illness during the latter part of 2012 and into 2013. The role of the occupational therapist in transition was vital this placed some limitations on the services we could provide.
- A locum occupational therapist who had been with this for nearly 3 years replacing a colleague on maternity leave knew the adolescents well, they knew and trusted her and she worked exceptionally hard when her colleague was on periods of extended sick leave. She was simply unable to provide the level of interventions she desired. Although we were under budget, her position as a second occupational therapist was continually in doubt although she played a vital role. She never knew until she got to the end of a three month contract as to whether her contract would be extended for another three months. Finally the uncertainty was too great. Although she was committed to the adolescents she accepted a permanent position in another service in late July 2013.
- Psychology staffing consisted of a full time permanent psychologist who had returned half time from maternity leave and two half time, long term locum psychologists. The two locum psychologists were in a similar position to the locum occupational therapists in that they never knew until the end of a three-month contract whether the contract would be extended. Indeed my recollection is that they continued to work for the adolescents in despite of the contract being technically ended. This lack of certainty of whether they would be there in a month's time made it difficult for them to know whether they should be winding up their interventions with adolescents in transition or whether to continue as they normally would. Finally in April 2013 one of the locum part time psychologists [redacted] was given approximately 2 to 3 weeks notice of termination. This is inadequate notice in long term therapy and did have an impact on transition [redacted].

I sent e-mails to senior management regarding the necessity for stability for the Allied health staff. Appendix B contains the last one sent in July 2013. The Expert Clinical

Reference Group, in a meeting of about March 2013, made a recommendation to the Ms Sharon Kelly to ensure stability of staffing at Barrett until the Centre closed.

After I left the service in September 2013 I wrote to various senior members of staff of The Park asking for consideration of retaining our Barrett staff in the new services to be developed. A copy is attached in Appendix C. It was unclear at that stage what transition services for our young people would look like but I believe that the best outcome would be achieved if we could retain core Barrett staff who knew the adolescents in assisting them to make a successful transition to the community.

Teaching Staff

Fortunately teaching staff remained stable through the period of transition until at least September 2013 when I left the unit.

2. Peer relationships on the unit

. It was perhaps one of the major adversities of being in an adolescent unit of unsuitable design over an extended period of time.

Living in close proximity with other adolescents day and evening, (sometimes for weeks on end if they were too unwell to go on leave); cyber bullying and the effects of mental illness including increased irritability, poor sleep and developmental delays (e.g. Aspergers Syndrome, Attention Deficit Disorder with Hyperactivity, Receptive Language Disorders) all contributed to difficult peer interactions. There were multiple interventions to enhance peer relationships on the unit and foster greater co-operation.

Negotiating peer difficulties was sometimes the focus of therapy, rather than therapy for their mental illness. This could slow down the rate of the transition process.

Instability of nursing staff contributed to maintenance of some of the poor peer behaviours, particularly in 2013. A casual nurse was unlikely to pick up on furtive or covert bullying behaviour in adolescents. They were often inconsistent about what they regarded as bullying or inappropriate behaviours between peers. Because of the patients were unfamiliar some chose to spend time on their mobile phones rather than interact with the adolescents.

3. The level of acuity among adolescents

"Acuity" refers to behaviours in adolescents requiring more staff interventions above the ordinary. These included predominantly self harm and attempted suicide is and to a lesser degree aggression and absconding they had a variety of effects on any of the adolescents in the various phases of their transition programs.

I do not have the data but it is my recollection that clinical incidents which adversely affected transition processes were more frequent during August and that portion of September 2013 that I was at the unit. There is an inference of this in the clinical notes, but more documentation of ward instability would be found in the PRIME report.

November 5, 2002

Dr P Brown
Director
Mental Health Unit
Queensland Health

Dear Peggy,

This is more of a colleague to colleague letter rather than a Director to Director one.

You will be aware of the *Draft Report on the Need for Child and Adolescent Secure Services Inpatient Services and the Redevelopment of Extended Treatment Adolescent Inpatient Services*, and I know it will ultimately go through all the channels in the Structural and Services Reform Unit process.

I have taken the liberty of sending you our reply from the Barrett Adolescent Centre. I think what disappointed me the most about this document was the complete lack of understanding of the extraordinary pain and distress which many of these adolescents experience, the fragmented or destructive environments from which they come, the impairments of function which they labour under and the tremendous change that occurs over time.

Barrett Adolescent Centre is a very different unit from that which we worked in 1987 (or was it 1988?), in terms of the severity and complexity of the disorders, the difficult environments, the expertise of the staff and the programs we offer. We have sought adequate mesures to describe the difficulties, the complexity and the distress (some of which are described in the report). We waited for Barry Nurcombe's and Len Bickman's measures, which have not gone anywhere. We have been working for a while on establishing a common data base with the other units. On Barry's recommendation, we have been doing the HoNOSCA for two years. The data that is emerging is positive about the therapeutic efficacy of what we are doing.

That is why I think the whole process should be evidence driven. Dr Felicity Waters from Rivendell came out to the unit in May. They see a far less severe and complex population, but have come to the conclusion that some of the adolescents who have benefitted greatly from our program are untreatable. Graham Martin said in South Australia they end up in the adult system, with poor outcomes. Our Senior Clinical Supervisor, Dr Paul Harnett worked at Griffith with others there in the development of the RAP program, and wrote most of a booklet on anxiety (Graham is the key author). He visited the UK lately, and said they are confronting the same problems, but their answer is to establish a quaternary unit. There is no evidence anywhere that the community clinics can do what we do, or that there are any better alternatives.

Peggy, I think that the Mental Health Unit, and Queensland Health should be proud of the CYMHS system it has established. I really think we are up in front in Australia with the treatment of the whole spectrum of severity. There is a lot of enthusiasm, a lot of innovation at all levels. I really think that we are in an excellent position to be leading the way in some serious clinical pathways research. When I stepped down from chairing the Queensland Branch of the Faculty in 1996, I felt that child and adolescent psychiatrists should be able to prevent 98% of young anorexics from having an eating disorder at 18. This is no longer true. But with the variety of facilities, I think we can do some good naturalistic studies and clearly delineate clinical pathways for this disorder.

Please consider that before any decisions are made, we look at the evidence, and do some

good talking about and implementation of research. Too much is at stake in young lives who have the dice so loaded against them.

I also have included a copy of the group response from those who are or have been directors of the inpatient units. Two of them (Nigel and Geoff) are (or in the case of Geoff were) also primarily involved in the community CYMHS clinics, so there is a mix of both perspectives. We had no problems agreeing about the wording of this document, but got stuck on a few areas of discussion about some of the fine points of the Youth Forensic Policy. I mentioned that I was dropping the BAC response past, and offered to drop this document off also. It proved a bit of a nightmare to collect all of our signatures, so they just suggested it be sent in with their names attached.

We wondered how Barry got it so wrong (about three weeks hospitalisation for stabilisation, and then back to the community) because he is an astute clinician. We came to the conclusion that, although he understood psychoanalytic practice well (from which he was withdrawing) he did not understand the limitations of cognitive behaviour therapy. He assumed that the only reason people took a long time was because of the process of therapy. Rather, that style of therapy accommodated many of the difficulties in their cognitive and emotional schemas which prevents adolescents from working through issues rapidly. As you would be aware, just about any new psychologist in Queensland has a strong CBT background. Those who use it rigidly not only do not help those at the most severe end, they are sometimes destructive. Certainly Barry was acknowledging these issues more, and acknowledging the extreme distress some experience before he left. There is simply no one therapeutic technique. That is why, through observation, we (at BAC) have developed a problem solving framework over the past seven years which can be used from a community clinic through to an acute or extended care inpatient unit which can identify the processes of and barriers to treatment within a variety of therapeutic modes.

Peggy, all I ask is that Queensland Health recognises the strengths of what it has, evaluates carefully, and only make changes on demonstrated evidence that there is evidence that there is something better, but we have the capacity to do it that way.

Kind regards,

.....
Trevor Sadler
Director
Barrett Adolescent Centre

REPLY TO THE DRAFT REPORT ON THE NEED FOR CHILD & ADOLESCENT SECURE INPATIENT SERVICES AND THE RE-DEVELOPMENT OF EXTENDED TREATMENT ADOLESCENT IN-PATIENT SERVICES BY THE BARRETT ADOLESCENT CENTRE

Thank you for the opportunity to comment on the "*Report on the Need for Child & Adolescent Secure Inpatient Services and the Re-development of Extended Treatment Adolescent Inpatient Services.*"

Our response is primarily to the aspects of the Draft Report which pertain to the Barrett Adolescent Centre. Minor comment will be made in relation to any possible role the Barrett Adolescent Centre may have in relation to the Secure inpatient services.

1. THE BARRETT ADOLESCENT CENTRE IS ONE END OF THE SPECTRUM OF STATE WIDE CYMHS SERVICES

As the Draft Report has not sought any information about the Barrett Adolescent Centre or its programs, this section will provide a perspective on our place in the development of services.

1.1 Historical Overview

The Draft Report correctly notes that the Barrett Adolescent Centre (BAC) at Wolston Park Hospital and the Child and Family Therapy Unit (CAFTU) at the Royal Children's Hospital were the only two inpatient facilities for children and adolescents through the 1980's into the mid 1990's. CAFTU took children up to 12. BAC admitted adolescents from 13 – 17. Unlike the adult mental health system, the child and adolescent mental health services in the 1980's and 1990's was primarily community based.

BAC has always been a short to medium term unit, never an acute unit, although there was a period in the early 1990's when it did attempt to admit less than 10 acute adolescents.

BAC observed first hand the adverse effects on adolescents who were admitted to acute adult inpatient units. It was a strong advocate for the establishment of acute adolescent inpatient. Reports from BAC staff (in varying capacities) were written to the then Director of the Mental Health Branch, Dr. Harvey Whiteford, reports to Ministers and the response to the Solomon report to lobby for the establishment of acute adolescent inpatient units.

We also highlighted the inequitable funding to child and adolescent mental health services, and advocated strongly for the need for more community services throughout Queensland, which had declined from the early 80's into the early 90's.

We have always regarded ourselves as ideally being part of the spectrum of child and youth services throughout Queensland, albeit a small services which addressed the needs of adolescents with the most severe and complex mental disorder..

1.2 Changes in the BAC admission policy

The criteria for admissions to the Barrett Adolescent Centre have certainly changed in the past decade. These changes have been driven by two factors.

- The desire to ensure equitable access to the services for all adolescents with severe and complex mental health problems
- The dynamic recognition of who is, and is not able to be helped by our program. We realise that we are an expensive service. We seek to admit those who may be likely to benefit from our service.

The changes we have introduced are:

- The short lived experiment to admit acute inpatients in the early 1990s out of concern for the impact on adolescents of an acute adult inpatient admission. This was abandoned because of the detrimental impact on longer stay patients.
- Admission of adolescents with severe and complex mental disorder irrespective of their living arrangement from the early 1990s. This provided access to treatment for adolescents living on the streets.
- The introduction of the two week trial admission in 1994. Conduct disorder per se has always been an exclusion criterion to BAC. However, we noted that this was disadvantaging youth with co-morbid emotional disturbance. This policy (which still continues) helps to determine those who will benefit from an extended admission, from those who do not.
- Admission of older adolescents (of 17 years) and retention of a number past their 18th birthday. This is consistent with the later age of leaving school, the *Future Directions for Child & Youth Mental Health Services (1996)* and the concept of specialist child and adolescent services being directed towards the unemancipated adolescent, as enunciated by Werry.
- Admission of adolescents with increased severity and complexity of mental disorder and family dysfunction.

One change not introduced was any lowering of age to maintain our bed numbers, as stated by the Draft Report. The notion that adolescent beds are for those over 14 years is an artefact of the *Future Directions for Child & Youth Mental Health Services (1996)*. This has never been the case in Queensland. Puberty, the transition to high school, significant changes in peers/ family relationships and independence all occur around thirteen. For the last decade, the decision to admit to either a children's or an adolescent unit has been made on what is clinically and developmentally the most appropriate for any particular individual considering the mix of patients on either ward at the time. The age range in *Future Directions for Child & Youth Mental Health Services (1996)* coincided more with WHO data which collects data for children (10 – 14 years) and adolescents (15 – 19 years).

1.3 Changes in the patterns of referrals to BAC

The late 1990's saw the establishment of the Royal Brisbane Adolescent Unit, and community CYMHS became more adolescent orientated. We noted that our referrals were most likely to come from the RBH and those community CYMHS with the most effective adolescent outreach. During this period we had a waiting list.

- Acute inpatient services provided a flexible treatment approach. Consistent with the principles of *Future Directions*, they provided a locally based service to as many as they could. Only those with the most severe disorder, and the greatest level of functional impairment were referred to BAC.

- Our referrals came primarily from both inpatient settings (the Mater and Royal Brisbane) and community CYMHS with the most effective programs to adolescents – a paradox which suggests that as competency increased the identification and recognition of the needs of adolescents with severe disturbance improved, and the full range of treatment options considered.
- There was a marked conceptual change in the treatment of eating disorders, with primary interventions being provided by gastro-enterologists. Re-feeding has primacy. This was contrary to our experience. BAC was always a tertiary admission centre for adolescents with anorexia (with a couple of exceptions) with adolescents having had twelve months or more of outpatient and inpatient treatments. We used a very flexible operant behavioural program together with psychological and developmental interventions. Two years after discharge, 75% of adolescents had stabilised their weight and established regular eating and exercise patterns. Only two were treated in the adult system. However, we are finding less than 40% are responding to our treatments after extensive periods of continuous nasogastric feeding for twelve months or more.
- We are concerned by the perception that there are no effective treatments for those with certain conditions, particularly recurrent self harm. Adult units referred these, simply because they were too difficult in their system. Now some are not being referred, simply because of a they are regarded as untreatable. We are actively seeking to educate clinicians in this area.

1.4 BAC and *Future Directions for Child & Youth Mental Health Services (1996)*

The Draft Report noted the lack of a place for BAC in the development of mental health services for adolescents in Queensland. We have always agreed with *Future Directions* that services need to be community and locally based where possible. Indeed, an adequate trial of community treatment (unless dictated otherwise by absolute clinical necessity was always part of admission criteria. On the other hand we are acutely aware of the extreme pain, distress and regression of adolescents with severe and complex mental health problems. Our observations on this document in the six years since it was produced are:

- It was always paradoxical that a document which sought specifically to address the needs of those with the most severe problems sought to close a facility for adolescents at the most severe end of the spectrum, to provide more services for those with less severe problems. The forecasts that interventions at an earlier point would prevent adolescents from reaching these levels of distress were never fulfilled. These assumptions revealed a lack of understanding of the mental disorders involved, the dynamic interaction with the adolescent's environment, and the limitations of treatment interventions. Our own experience, and anecdotal experience from clinicians from interstate and internationally is that these issues are becoming even more potent. The relevant societal influences are poorly understood.
- The Draft Report notes the strong community response to the intended closure of BAC, but completely fails to understand the passionate dynamics of this response. The Adolescent Unit at the Royal Brisbane Hospital was then operating, and had referred a number of patients to BAC. The community had experience of the efficacy of community, acute hospital and extended hospital treatments. There was incredible anxiety and anger that BAC, which had been most efficacious in treating these adolescents with severe and complex disorder, would be unavailable not only to

themselves but also to similar adolescents in the future. The closure of BAC without proven alternatives will inevitably generate the same response.

- The Draft Report states *"The Ten Year Mental Health Strategy for Queensland foreshadowed the ability to meet the extended treatment needs of children and adolescents through enhanced community based services in association with the new acute units and day treatment programs"*. These premises were based on United States experience, which was in rapid transition from long stay, psycho-analytically orientated units to very short stays dictated my managed care. The premises were theoretical, without research or practical support. BAC had few parallels with the US experience to make any comparisons or predictions meaningful. The continued high levels of referral to BAC from CYMHS acute inpatient, day patient and community clinics are strong evidence that the ability of these facilities to meet the extended treatment needs remain no more than shadows. Indeed they are perhaps even mirages.
- The Draft Report states *"In line with this, it was foreshadowed that the Barrett Adolescent Centre would be closed and the funds redirected to enhance community-based services."* The reality is completely different. Closure of BAC would mean that a proportion of beds in the acute inpatient adolescent units are occupied by longer stay adolescents. These units then cannot be as responsive to the needs of the community CYMHS. (This was evident in north Brisbane in 1997 – 98 when BAC had a waiting list, and could not take some of the longer stay adolescents from RBH. CYMHS clinics reported an excess of resources supporting adolescents in the community who desperately needed hospitalisation.) The evidence is that the community CYMHS can have a disproportionate amount of their time consumed with the ineffective treatment of adolescents who can receive effective help in either acute or extended care settings. Eventually this would be resolved by labelling adolescents with the most severe and complex problems "untreatable". The effective functioning of community clinics depends on the existence of an integrated spectrum of care, which includes effective treatment of those requiring extended care.
- The Draft Report states *"This (best practice) includes a broader range of treatment options with a move away from institutional style settings to psycho-social models which focus on treatment in the context of the social and family setting, closer to where the young person and their family, carers and support networks live."* We agree totally with this sentiment. However, what both the Draft Report and the *Future Directions for Child & Youth Mental Health Services (1996)* fail utterly to comprehend is the devastating and destructive effects on both the adolescent when those very family, social, school and support networks have partially or totally disintegrated, either as a cause or a consequence of the mental disorder. Indeed, leaving adolescents to suffer in these environments is totally contrary to best practice. In this context, BAC has developed best practice with a well developed psychosocial model to treat both the mental disorder and either restore or re-establish appropriate networks.

2. THE BARRETT ADOLESCENT PROGRAM

The Draft Report states *"The Barrett Adolescent Centre located within the Wolston Park Hospital complex is the only specialised extended treatment in-patient facility in Queensland for adolescents"* yet fails to acknowledge the specialist components of the service. An open heart unit has clearly identifiable features that distinguish it from an acute coronary care unit. These differences are not as obvious at BAC. They range from those that may be developed elsewhere, to those that are unique to Barrett.

Unlike orthopaedic procedures eg, a fractured femur, treatment and rehabilitation to do not follow in sequence. They are closely interwoven from soon after admission.

- The BAC program has been developed around clear conceptual principles to address both therapeutic and developmental needs in an integrated manner. We have avoided highly structured programs. The interstate experience from similar long term units is that treatment options for adolescents are limited if they do not fit the program requirements. Instead, our program is flexible to provide a highly individualised program for each adolescent, with clear pathways of therapeutic and rehabilitative intervention for each.
- BAC staff bring an invaluable mix of expertise to the program. This expertise ranges from extensive experience with adolescent inpatient treatment through to varying recognised treatment modalities through to the development of early intervention and mental health promotion projects and activities. The continued improvement in outcomes reflects the enormous experience, maturity, and professionalism of BAC staff. The acute inpatient units will continue to develop staff expertise, but it should not be assumed that reallocating beds means that this resource is readily replicated.
- The Barrett Special School is a unique partnership of Education Queensland and Queensland Health to provide a integrated service which is vital to the whole program.
- The program incorporates both very low stimulus and high stimulus activities according to the need of the individual adolescent.
- The program is flexible, allowing for full hospitalisation, partial hospitalisation, and day patient treatments, according to individual needs.
- The BAC care management plan is developed in conjunction with the community clinic that referred the adolescent or that is likely to be involved in their care on discharge.
- The BAC treatment program involves the community CYMHS in the treatment process wherever possible.
- Discharge planning and transition back to the community is an integral part of the program since 1995, but requires considerable staff time.
- The physical setting of the unit allows developmental and therapeutic needs to be addressed. This is regarded as an absolutely essential part of the program.
- The program is not disrupted by acute adolescents with a variety of behavioural and substance unit problems moving rapidly in and out of the unit.

It is the integration of all these factors, some of which are unique to the BAC program, which provides the specialist element of BAC. Adolescents need time to work through the psychosocial issues in a relatively constant environment with physical space to either be solitary or move with various groups.

Emerging outcome data from the BAC support the anecdotal claims of the efficacy of the BAC program, particularly for those who have required longer term care. Queensland is in the fortunate position of offering a range of treatment options to adolescents with severe and complex mental health problems. This is not so in most other states in Australia.

The conceptual model used by BAC has found wide application to both community and inpatient settings. Up until this year, and again in 2003 it is part of the training program in

child and adolescent psychiatry. It provides a framework for a variety of treatment modalities and interventions with an emphasis on realistic goal directed treatment.

3. MEASURING RESOURCE UTILISATION

The Draft report repeatedly refers to bed occupancy as a measure of activity. This is an extremely crude measure in child and adolescent inpatient units, and does not reflect at all the Best Practice models of the these centres. Nevertheless numbers do fluctuate, and all units operate below capacity at times.

Our data for the month of October, when we had 13 – 15 inpatients and 2 – 3 daypatients (ie close to capacity) shows that the bed occupancy was only 61%. The reasons for this are:

- A number of adolescents went on weekend leave (consistent with best practice).
- A number of adolescents had their week end leaves extended by their parents because it was not convenient to bring them back on the Sunday evening.
- A number of adolescents had extended leave over the holidays (consistent with best practice).
- A number of adolescents were away from the unit on an outdoors program.
- Some adolescents were in the process of discharge, but had beds held should there be a crisis (consistent with best practice).
- Some adolescents were transferred to a partial hospitalisation program (consistent with best practice).
- [redacted]

We believe that there needs to be a uniform data set across the adolescent inpatient units which adequately reflects the resource utilisation activities of those units. Such a data set should measure:

- Bed occupancy rates
- Adolescents on leave
- Day patient activity
- Activity not on the unit
- High dependency needs (eg. those who require one to one special care).
- Indicators of disturbance. Bed numbers are lower when there is an unstable mix of adolescents.
- Community integration programs. The latter are time intensive on a one to one basis.

Referrals to BAC from the other inpatient and community CYMHS units have fluctuated over the past six years. They appear to be stabilising in the last six months. The reasons for this fluctuation are:

- As each inpatient unit opened, there was an initial period of consolidation lasting six months or more. During this period, the unit was in the process of developing its program, determining those who did or who did not benefit from the program. Every attempt was made to treat every adolescent within that facility. Referrals from the client Districts to BAC dropped during this period.

- Perceptions of which adolescents benefited from inpatient treatments varied across the units. In such cases the choice was never community versus inpatient treatment. It was always no treatment vs inpatient treatment. We have worked hard to ensure that those who would benefit from an extended treatment program had access to it, rather than receive no treatment at all.
- The treatment of eating disorders has changed dramatically over the past six years. Although re-feeding programs are short term, a cohort of adolescents face repeat admissions with no progress in treatment. A study by Dr Philippa Bowen showed that the total lengths of inpatient stay over a year for this group ranged from three to six months, mostly in medical units. We have indicated our concerns that such prolonged treatment may be detrimental, and needs to be reviewed.
- The general perceptions of community and acute inpatient CYMHS are that BAC is very difficult to admit adolescents to. We have improved on this perception, but it does affect admission rates, sometimes to the detriment of the adolescent when they are finally admitted, because of the continuing adverse psychosocial effects of their environment.

Finally the Draft Report proposes the solution that resource utilisation be maximised by aggregating function. Each unit needs to have time to consolidate its staff and programs, which are the effective therapeutic tools during quieter periods. Treatment does not occur in a therapeutic vacuum, simply with the administration of medication. Moreover, with Queensland's growing population, it is not realistic to cut beds in the short term.

3. MEASURING OUTCOMES

For the past six years we have sought adequate measures which reflect the distress these adolescents experience, the deterioration in their function, and the difficulties in their home environment. We have:

- Sought measures of family functioning. These include a request to Prof Gavin Andrews to computerise the WHO Parent Interview Schedule for the Psychosocial Axis of the Multiaxial Classification of Child and Adolescent Psychiatric Disorders, referral of NIMH and British surveys of family function to Professor Barry Nurcombe and Dr Len Bickman.
- We are in the process of developing measures of social and emotional functioning. No adequate measures currently exist, yet they are critical to measures of vulnerability.
- Begun a data base that is presently undergoing analysis.
- Using the HoNOSCA as a global measure of distress. Preliminary data is emerging indicating the efficacy of treatments.

4. THE PHYSICAL ENVIRONMENT

We acknowledge that the Barrett Adolescent Centre is ancient in terms of current mental health facilities in Queensland. Specifically there are difficulties with noise levels, security and distance from the city. This latter has become less of a problem with the freeway system and rail transport.

The Draft Report contains some misperceptions of BAC.

- While indoor recreation areas are considered less than optimal, they far exceed those of any adolescent acute inpatient unit.

- The dining facilities are no more or less adequate than the adolescent acute inpatient units
- The proximity to the adult secure forensic facility is overstated. This latter unit is visible in the distance, with green space in between, which will be planted with trees.

However, the current site does offer some advantages.

- The ground level construction reduces chances of suicide by jumping
- The open space around the units which has a positive impact, and creates a feeling that they are in the least restrictive environment.
- The unit is isolated from adult psychiatric inpatients compared to any acute adolescent inpatient facilities
- BAC has access to a range of recreational facilities
- BAC is stimulated in its professional development by a high level of psychiatric care in The Park – Centre for Mental Health.
- A buffer zone for adolescents who attempt to abscond.
- There are fewer reminders of being sick in hospital, and more emphasis on addressing tasks of adolescent development.

We believe that while the building may be antiquated, the effects of the environment need to be acknowledged in any decision on where to rebuild BAC.

5. SERVICES TO ADOLESCENTS IN THE FORENSIC SYSTEM

It is noted that the few adolescents requiring inpatient admission from the Brisbane Youth Detention Centre are acute. The reasons for which BAC might consider it has a role are:

- Its proximity to the Brisbane Youth Detention Centre, allowing ease of access to CYMHS forensic staff visiting both facilities
- That if BAC were redeveloped, it would need to be with a high dependency unit.

6. RECOMMENDATIONS

We believe that there is strong evidence that the Barrett Adolescent Centre is an effective, integrated facility within the State wide CYMHS network of services. Queensland Health can be proud of its record in providing effective treatment to the most adolescents with the most serious and complex disorders, often from extremely adverse environments.

In view of the strategic importance of the Barrett Adolescent Centre within the Child and Youth Mental Health Services, and the lack of any credible alternatives, we propose:

- A two year moratorium on all plans
- Use that period to establish and implement a data base of adequate measures of resource utilisation across all inpatient units
- Use that period to establish and implement measures of severity and complexity, family environment and function across CYMHS services
- Use that period to establish and implement outcome measures, and begin delineation of clinical pathways across CYMHS services.
- Use that period to research whether there are viable and well established alternatives to extended inpatient treatment.
- Include the redevelopment of BAC as an option at the end of this period.

The Timetable for Closure of the Centre

One of the pertinent issues with respect to transition processes for the deceased is what was known or unknown about the potential closure of the Centre and whether earlier knowledge would have changed either the course or timing of transition processes in the period I was there. This section simply outlines my knowledge of the closure. I was a member of both the Expert Clinical Reference Group (ECRG) and the Planning Group which formed a steering committee to consider the recommendations of the (ECRG).

Date	Outcomes of Process	Comments on what I assumed
2 November 2012	Informed be Ms S Kelly that the unit would close on 31.12.2012. Informed that a group of experts would review the options and report back in a month.	I notified child psychiatry colleagues because this had significant impacts for CYMHS services in the state.
16 November 2012	A commitment was made by the WMHHS to delay the closure until the review process occurred.	
Mid February 2013	The ECRG had met on several occasions. They sought permission from the planning group to include inpatient beds among available replacement options. This was previously excluded from the brief from the Planning Group. The Planning Group agreed.	I thought that the possibility of the final recommendations of the ECRG including beds was stronger. The closure of the unit was likely to be delayed as there were no bed options.
Late April 2013	The ECRG delivered its recommendations to the Planning Group. This included a Tier 3 service with beds.	
15 May 2013	The Planning Group met. It accepted most of the recommendations, but Dr Kingswell objected to the Tier 3 service. He recommended a "wrap around" service for existing patients. (The model I understand was put in place.)	I wrote to Dr Kingswell and Ms Kelly in late May to express my concerns about a "wrap around" service for our patients, including those in transition. (See Appendix D)
Early August 2013.	I heard no more from the May meeting, nor were there further Planning Meetings of which I was aware.	I assumed key decision makers adopted all the ECRG recommendations, and would make appropriate decisions which facilitated transition of the current group of adolescents.
5 August 2013	Informed by Ms L Dwyer that the unit would close "January/February 2014" utilising a wrap around model of care for existing patients. She acknowledged my concerns. This was followed by a public announcement by then Health Minister Springborg.	Alternate and transitional care options were unclear during the period from 5/8/2013 – 9/10/2013. There was no idea of the range of potential options to which we may be transitioning patients. Dr Stathis said Dr Kingswell was determined to close by late January 2014. This made a "Wrap around" option the only available one in spite of the inherent risks.
14 August 2013	Visited units in Melbourne to examine alternate models of care.	
31 August 2013	Visited Logan inpatient unit where an unused ward may become available.	

----- Original Message -----
From: Trevor Sadler
To: Bill Kingswell
Cc: Brett McDermott ; David Hartman ; Ian Williams ; Jagmohan Gilhotra ; Judi Krause ; Leanne Geppert ; Lesley Dwyer ; Michelle Fryer ; Neeraj Gill ; Sean Hatherill ; Sharon Kelly ;

Sent: Monday, November 19, 2012 6:26 PM
Subject: Re: Information re Barrett Adolescent Centre Stakeholder Meeting

Hello Bill,

I will be away for four weeks. I raise a few points about comments made in the meeting last Thursday.

1. You said the bed occupancy for beds for adolescent units was 50%, even accounting for reduced occupancy on weekends.

That figure surprised me. In my experience, the acute adolescent inpatient units in Brisbane often have only one or two vacancies each, if any.

I know from my time as Chair of the CYMHS Clinical Collaborative that information which the Directorate possesses was only about 50% - 80% of information necessary to get a picture of clinical activity. Linda Ryan would go out and present the data we had to clinicians. Inevitably there were other things to consider which are not evident in the data available to the Directorate. I would always make premature assumptions about service activity which needed to be corrected.

I cannot remember any discussion between inpatient units and the Directorate about appropriate levels of clinical activity, what constitutes best practice in CYMHS. I know at times we have had to balance an excess of bed resources against a relative scarcity of human resources to manage several high acuity patients at once, or more recently, having clinicians with sufficient expertise to manage patients. I imagine the same occurs in acute inpatient units. Disorders seen in CYMHS inpatient units are different to the adult system, they are more sensitive to dysfunctional family environments, so use of trial leave is highly appropriate. From my experience with the Collaborative, I thought when you quoted that figure that I would like more information about the patterns of activity. There are definitely some seasonal patterns in CYMHS.

One of the other factors which made me question that figure was that many adolescents appear to have had admissions to multiple inpatient units before being referred to us. Often they will have been in 2 - 4 units prior to admission. If occupancy was so low, they would surely be readily able to access the inpatient unit for their catchment area. This lack of continuity of care between community CYMHS and acute inpatient units works against good clinical outcomes. Again, my impression may be fragmentary. However, I think it is worth reviewing the data on that.

I also wonder about occupancy trends over the last five years. Certainly my impression is that occupancy appears to have increased over that time. My colleagues in peer supervision are noticing more adolescents with resistant anxiety and depression. We're not sure why this is. Presumably the Directorate felt sure enough about the trend to build more acute beds in Toowoomba, although occupancy was reportedly low at the beginning of that process.

2. Although I understood there was to be a review before the suggested closure of the unit on 31st December, I was nevertheless surprised not only that services could respond to such a massive upheaval that quickly, but that it would also require significant work on the Models of Service Delivery and the Clinical Services Capability Framework. You might remember I was sceptical of the latter process, but having appreciated it more in regards to paediatrics (I was invited to be on the working party for the paediatric CSCF), as well as CYMHS, I saw the importance of both of these documents. You are very aware of the significant amount of time invested by both the Directorate and CYMHS leaders in developing these documents. The alternative I heard proposed seems to bypass these altogether, which is a concern.

3. Finally you quoted a figure for the running of the unit. This figure surprised me. I know our budget, and have a fair estimate of the school budget. One thought was that if we could be allocated the amount you suggested, and the difference in budget put aside, we could perhaps save up in four or five years to provide a new building.

Kind regards,

Trevor

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SEEKING AN EVIDENCE BASE TO DETERMINE THE REQUIREMENTS FOR RESIDENTIAL CARE

(SHOULD INPATIENT CARE BE A COMPONENT OF THE NEW MODEL?)

SUMMARY

The literature on alternatives for adolescent inpatient admission is reviewed. The literature identifies a number of interventions appropriate to either adolescents presenting for acute admission, or young people who have different disorders to those admitted to Barrett or of a predominantly different age group. This literature describes a group of adolescents who do not respond to these interventions, or have a level of severity of presentation where the described intervention would not be appropriate. The literature does not describe alternative interventions for those with severe, persistent disorder.

The literature on length of stay is largely contextual, set against a background of changes in therapeutic approaches, third party influences necessitating change in the length of stay and changes in the disorders treated in inpatient units. Some patient and family variables related to length of stay are described. These are largely contextual to the cohort of adolescents admitted to that unit.

There is considerable evidence from observations over the past 25 years of the level of skills needed in staff to manage adolescents with the severity, persistence and complexity of those admitted to Barrett Adolescent Centre. These include:

- Levels of acuity in some adolescents requiring high levels of continuous and close observations
- Adolescents on an Involuntary Treatment Order requiring admission to an Authorised Mental Health Service
- In rare instances having the capacity to offer seclusion as a necessary intervention
- Observations to the therapeutic process from providing continuity of care vs breaks in continuity by transferring adolescents with high acuity to other units
- Observations from changes in the stability and permanency of staff
- Observations on the contributions of staff of various skill levels
- Observations on the necessary skills registered nurses bring to the unit which are required to manage adolescent of this level of complexity and severity. These skills include knowledge of mental illness, skills in assessing mental state, skills in assessing level of risk, knowledge of and capacity to generalise skills developed in specific therapeutic interventions, capacity to manage emotional dysregulation, capacity to manage behaviours, capacity to monitor and manage impaired medical states, capacity to provide therapeutic interventions as necessary across settings and across time, and capacity to provide care coordination.

It is concluded that substantial evidence exists to recommend that an inpatient service is a necessary component of care to manage adolescents with the severity, complexity and persistence of disorders of those currently admitted to the Barrett Adolescent Centre

THE LITERATURE

Medline and PsycInfo databases were searched for articles related to adolescent inpatient admission. Several papers were identified which consider the characteristics of innovations in inpatient admission and alternatives to admission, at times in randomised controlled trials of the alternative intervention vs inpatient admission. These can be grouped into interventions for general disorders, interventions for specific behaviours and interventions for specific disorders. In addition, several papers were identified that examined issues around length of stay.

Papers were examined for their relevance to the population of adolescents currently seen at Barrett in terms of age, the range of disorders treated, persistence of symptoms, and persistence of impairment. Some reviewers (Gowers & Rowlands, Inpatient services, 2005) noted differences in the range of acuity among the papers they surveyed. Examples of the criteria for admission are contained in the current Model of Service Delivery for the Adolescent Extended Treatment and Rehabilitation Service.

"Severe and complex mental illness in adolescents occurs in a number of disorders. Many adolescents present with a complex array of co-morbidities. AETRC typically treats adolescent that can be characterised as outlined below:

- *Adolescents with persistent depression. This is often in the context of childhood abuse. These individuals frequently have concomitant symptoms of trauma eg. PTSD, dissociation, recurrent self harm and dissociative hallucinoses.*
- *Adolescents diagnosed with a range of disorders associated with prolonged inability to attend school in spite of active community interventions. These disorders include Social Anxiety Disorder, Avoidant Disorder of Childhood, Separation Anxiety Disorder and Oppositional Defiant Disorder. It does not include individuals with truancy secondary to Conduct Disorder.*
- *Adolescents diagnosed with complex post traumatic stress disorder. These individuals can present with severe challenging behaviour including persistent deliberate self harm and suicidal behaviour resistant to treatment within other levels of the service system.*
- *Adolescents with persistent psychosis who have not responded to integrated clinical management (including community-based care) at a level 4/5 service.*
- *Adolescents with a persistent eating disorder such that they are unable to maintain weight for any period in the community. These typically have co-morbid Social Anxiety Disorder. Treatment will have included the input of practitioners with specialist eating disorders experience prior to acceptance at AETRC. Previous hospital admissions for treatment of the eating disorder may have occurred."*

Some papers were excluded from this review because they described interventions for young people with a behaviour disorder or young people who were 6 – 12 years of age.

Interventions for General Disorders

Two European studies (Mattejat, Hirt, Wilken, Schmidt, & Remschmidt, 2001; Schmidt, Lay, Gopel, Naab, & Blanz, 2006) conducted trials of allocation to inpatient treatment vs home treatment for children and adolescents aged 6 -17 years.

The mean age of the Mattejat et al trial was 11 years and 9 months at the time of the intervention, and 15 years and 6 months at follow up. Young people were randomly allocated to home treatment

or inpatient interventions. Disorders treated at two centres included (in order of frequency) emotional disorders, conduct disorders, anorexia and other eating disorders, encopresis and enuresis, neuroses and ADHD. Because the early papers describing exclusion criteria (e.g. need for hospitalisation because of safety) were in German, it is difficult to gauge the numbers who may have needed hospitalisation and thus excluded from the randomised process. Because the follow up was an analysis of each group, they did not address the issue of varying trajectories within each group, including the need for subsequent admission.

The mean age of the Schmidt et al trial was 10.9 years in the home treatment group and 11.3 years in the inpatient group. This study excluded young people with cachetic anorexia, who were acutely psychotic or suicidal. Nearly 65% of the young people had a primary diagnosis of an externalising disorder, and 14% were admitted for a developmental disorder. Over 85% of young people in both groups had prior inpatient or outpatient treatments. 17% in the home treatment group and 13% in the inpatient group had subsequent inpatient admissions. Overall 17% in both groups declined in functioning.

A Community Intensive Treatment Team was developed in Firth, Scotland in response to the closure of the adolescent inpatient unit (Simpson, Cowie, Wilkinson, Lock, & Monteith, 2010). The age of young people described and the presenting disorders were more equivalent to the Barrett population. The HoNOSCA scores on admission were significantly elevated, characteristic of those admitted to acute inpatient units. Both the problems with family life and relationship and impairment subscales on the HoNOSCA were less than in Barrett on admission. This seems to be a population who were acutely unwell and who may be treated otherwise in an acute inpatient unit. As yet, impairment was not established. 3 of the 57 deteriorated over the time, and a further 6 required hospitalisation out of area.

The value of this study is its application to young people who may be otherwise admitted to an acute inpatient unit. The mean length of time in treatment was 23 weeks, substantially more than the average time in CYMHS outpatient treatment.

Multi-systemic Therapy (MST) is an intensive community based treatment introduced initially for delinquent youth. This was subsequently extended in a randomised trial comparing MST to hospitalisation to youth presenting to emergency departments with self harm or suicide intent, homicide ideation and psychosis. (Henggeler, et al., 1999). The average age of youth was 13 years, 85% had previous mental health care, 35% had previous hospitalisation. More than half had either Oppositional Defiant Disorder or Conduct Disorder and 25% had contact with the juvenile justice system. At one year follow up (Henggeler, et al., 2003), 49% of those in the MST required hospitalisation in the first four months, and 47% of both groups required out of home care. Periods of hospitalisation were brief (< 14 days). There were initial gains for those in the MST group in a number of measures, but these dissipated after a year. A subsequent paper (Halliday-Boykins, Henggeler, Rowland, & DeLucia, 2004) noted the heterogeneity of outcomes among the youth, with 17% showing marked deterioration. No papers have been published for this group since 2005, in contrast to continuing research for MST for delinquent and substance abusing youth.

Three crisis interventions were trialled (Evans, Armstrong, Greenbaum, Brown, & Kuppinger, 2003) with young people from 5 – 17 years (mean age 12.9 years) who would otherwise have been hospitalised with a range of disorders and behaviours including disruptive, adjustment, mood,

psychotic and anxiety disorders. 82% were maintained in the community. 5 – 10% were hospitalised because they were a danger to themselves.

Interventions for Specific Behaviours

Alternatives to inpatient admission for adolescents with self harm behaviours continue to be evaluated. A rapid response outpatient model for reducing inpatient admission is described (Greenfield, Larson, Hechtman, Rousseau, & Platt, 2002). This is a specific intervention evaluated in a controlled trial against routine evaluation in an emergency department. Rates of inpatient hospitalisation following attempted suicide or presentation with self harm were decreased using this intervention. Follow up was for 6 months. Some young people required readmission during that period.

Interventions for Specific Disorders

Treatment for anorexia was evaluated in a multi-centre trial of specialist community based eating disorder services vs generalist CAMHS vs inpatient treatment (Gowers S. G., et al., 2007; Gowers S. , et al., 2010). First line inpatient treatment showed no advantage over either specialist community treatment or generalist CAMHS treatment. The value of long term admission for those requiring subsequent hospitalisation for either community group was doubtful, although the lead author continues to consult at a longer term inpatient unit.

Literature on Length of Stay

Up until the 1980's, length of stay was often determined by the type of therapy, in particular psychoanalytically informed therapy (Nurcombe, 1989) which continues to be a factor in some European inpatient units (Hoger, et al., 2002). In the USA in particular, pressures from the health insurance industry necessitated dramatically curtailed lengths of stay (Nurcombe, 1989; Larson, Miller, Fleming, & Teich, 2007; Butts & Schwartz, 1991; Gifford & Foster, 2008; Case, Olfson, Marcus, & Siegel, 2007). Units changed practices in number of ways including the types disorders for which young people were admitted (Pottick, Barber, Hansell, & Coyne, 2001) and a shift from treatment to crisis intervention, short term stabilisation and transition to community treatment (Gold, Heller, & Ritorto, 1993). The UK has faced pressures to admit acute admissions in to what were previously longer stay wards, resulting in a mix of lengths of stay (Corrigall & Mitchell, 2002).

One study (Hoger, et al., 2002)noted that diagnosis is not an indicator of length of stay, although there is some evidence (Hanssen-Bauer, et al., 2011; Swadi & Bobier, 2005) that psychosis predicts a longer length of stay in acute inpatient units.

Factors described as being associated with longer lengths of stay include persistent aggression (Dean, et al., 2008), callous-unemotional traits (Stellwagen & Kerig, 2010), having a co-morbid disorder with an eating disorder (Lievers, et al., 2009), variation in the response rates in those with a depressive disorder (Subramaniam, Lewis, Stitzer, & Fishman, 2004) – although the causes of this variation is unclear - and active suicidal preoccupation without active preparation or attempt. (Lesaca, 1992). Because of the individual characteristics of these units, it is difficult to extrapolate many of these factors to an adolescent extended treatment unit.

Conclusions from the Literature

Numerous naturalistic and controlled studies have described alternatives to inpatient care. However, these are characterised by:

- predominantly being alternatives to acute admission for a cohort of adolescents with first or early presentations
- often being interventions for a younger age group to those at Barrett
- often being interventions for disorders which would not be a primary reason for admission to Barrett
- often excluding from the study a cohort who were severe enough to absolutely require admission
- often identifying a cohort who deteriorated from baseline after 4 – 6 months (on average) of the intervention under investigation
- not providing details of further interventions for this latter cohort.
- not adequately describing factors contributing to longer lengths of stay in a unit utilising multimodal interventions for a cohort of adolescents with severe, persistent disorders with severe impairment.
- did not consider residential treatment as an alternative to admission

Since adolescents admitted to Barrett are likely to be either those who were too unwell to participate in the interventions described in the literature, or deteriorated in spite of the intervention, the literature does not provide guidance regarding alternatives to admission.

Moreover, the literature provides little guidance regarding length of stay for adolescents with severe and persistent disorder with impairment.

ALTERNATIVE EVIDENCE TO CONSIDER FOR THE NEED FOR INPATIENT ADMISSION

Various observations from Barrett Adolescent Centre provide a range of evidences for the necessity for an appropriately staffed inpatient service.

1. Continuous Observations

Continuous observations are one measure of acuity. It is a carefully considered measure, because it is an expensive resource, is potentially aggravating to the young person at a time when they are already in considerable distress and is demanding on staff. It is an indication of a level of acuity which is not tolerated in units staffed by residential workers (e.g. ADAWS), and would necessitate transfer to an inpatient unit.

The decision to utilise continuous observations is made most often because of heightened risk of suicide, whether in the context of profound depression or psychotic illness. This may be associated at times with extreme anxiety and agitation. Uncommonly adolescents who are nutritionally impaired due to a range of eating disorders may be placed on continuous observations for a period after meal times, or to support physical health. The decision is made with consideration to other measures available including locking the ward (it is normally an open unit where adolescents have free access to outside spaces).

Average hours of continuous observations per year for the following five year periods

1998 = 2002	4510 hours per year
2003 – 2007	4580 hours per year
2008 – 2012	5200 hours per year

In addition, to continuous observations, an equal number of hours may be spent in a state of "high acuity" – 5 minute observations, or restricted to an area of the ward where they are readily visible.

Changes in the permanency of staff in the unit during the period of uncertainty of relocation of the unit since 2008 allow conclusions to be drawn about staff who know an adolescent doing continuous observations vs those who may be contracted for a shift or for a series of shifts.

Skilled permanent staff

- continually monitor mental state for improvements (to enable lessening of the conditions of continuous observations) or deterioration. During periods of deteriorated mood, adolescents show considerable ingenuity in obtaining means for a suicide attempt if a staff member is unaware of their usual behaviours and early warning signs.
- have a thorough understanding of the history and course of the adolescent's illness
- develop judgment when to leave an adolescent, and when to attempt to engage them
- help to implement strategies to assist with distress tolerance or contain emotional dysregulation
- avoid attempts at rescue
- utilise relationships that have previously developed to engender trust and hope during periods of profound hopelessness and despair
- utilise relationships developed during periods of continuous observations to consolidate therapeutic relationships and enhance ongoing interventions once the crisis has eased and in future states of distress

2. Adolescents on an Involuntary Treatment Order (Inpatient Status)

The Model of Service Delivery states that *"The AETRC is gazetted as an authorised mental health service in accordance with Section 495 of the Mental Health Act 2000 [http://www.health.qld.gov.au/mha2000]"*

52% of adolescents admitted to Barrett from January 2008 – December 2012 were either admitted with, or at some point during their treatment placed on an involuntary treatment disorder. Two thirds were because of their suicidal risk.

3. Seclusion

Seclusion is an intervention of the last resort. In the five years in which comparative data was collected by the Seclusion and Restraint Benchmarking Project, and later the CYMHS Clinical Collaborative, Barrett had the lowest rates of seclusion of the adolescent inpatient units in Queensland, although the adolescents often presented with sustained high acuity. Seclusion has most often been used for an adolescent who is not only at extreme risk to themselves, but also to

staff. It is not used to manage aggressive behaviours per se, because of the availability of open spaces and other measures for de-escalation.

Under the *Mental Health Act 2000,* seclusion can only be used on an involuntary patient in an Authorised Mental Health Service.

4. Observations on Continuity of Care

Over the years, various interventions have been trialled with adolescents including managing high acuity in acute inpatient units e.g. highly suicidal behaviours or the need for nutritional restoration where the medical condition is such that it could be managed in an mental health unit rather than a medical unit.

There are perhaps five instances in the last 25 years where this has aided therapeutic progress. In most instances, it has proved to be a significant disruption to therapeutic alliances important for treatment and rehabilitation. This is particularly significant for those adolescents whose history of loss has contributed significantly to their current psychopathology.

Having skilled staff who can manage high levels of acuity is important.

5. Observations on Stability of Staff

A closed roster for nursing staff has 21 permanent staff on a fortnightly roster to cover the three shifts over seven days a week. Nursing numbers are reduced over the weekend because some adolescents are on leave.

Over the past two years we have had 14 permanent staff, with 3 or 4 graduate nurses on 4 month rotations, and other positions filled by contract and casual staff. Recently we have been able to secure the services of some excellent contract staff. However, for the 12 months from June 2010, we were only able to have staff on 6 week contracts. With holidays, sick leaves etc, and the demand for staff if several adolescents were on continuous observations, there were some shifts that had only one or two permanent staff. In addition, there were two vacant Clinical Nurse positions, so clinical leadership on a shift was inconsistent.

These variations in staff stability and permanency allow observations about the importance of stable skilled workforce to the unit. Briefly, we observed:

- adolescents and their parents complained about inconsistencies in management. Adolescents complained about the lack of staff with whom they built trust and rapport
- therapeutic interventions (described below) did not occur
- the use of prn medication increased, because staff on a shift may have lacked skills for more appropriate interventions
- rates of seclusion increased a little
- adolescents were placed on continuous observations at a lower threshold, because staff lacked the experience of patients to recognise early warning signs
- graduate nurses did not benefit from their placement because of the lack of mentoring and staff cohesion

6. Observations on Skill Mix for the Inpatient Unit

The majority of staffing for the residential section has been Registered Nurses. The exceptions are

- two long term Enrolled Nurses have made an invaluable contribution
- 3 – 4 graduate nurses undertaking their mental health training have been a regular part of the nursing establishment for the past decade. Observations of the performance of this group of staff who have considerable training provide some evidence for staffing with residential workers.

Graduate nurses report the skills they develop on the unit include:

- learning to observe mental state and behaviours for early warning signs of distress
- learning the skills of therapeutic relationships including boundaries, promoting and monitoring developmental tasks, application of a range of interventions
- developing a range of behavioural interventions for specific behaviours

Some are observed to develop these skills from early in their rotation, but the majority are beginning to grasp the basic concepts by the end of a four month rotation. Those who return to the unit after they have finished their formal training continue to develop over the next twelve months. This is consistent with internships in other areas.

These observations that registered nurses offer the necessary skills for an inpatient unit compared to being staffed with a majority of pre-graduate residential workers is consistent with overseas experience (Greenfield, Larson, Hechtman, Rousseau, & Platt, 2002). In this study, the intervention was conducted utilising experienced mental health nurses or final year medical students, both supervised by a child and adolescent psychiatrist. Improvements were greater on all measures with experienced mental health nurses.

7. Observations on Skills Utilised by Registered Nurses During 24 Hours of Care

Skills observed to be necessary in staff, and available through registered nurses include:

- Possessing knowledge of the presentations of mental illness. Often adolescents admitted to Barrett have complex presentations which makes diagnosis unclear. For example, some adolescents become elevated in mood and behaviour for a few days. Skilled observations of the range of behaviour and continuing assessment of mental state is necessary to determine whether this is a picture of an emerging bipolar illness or a transient elevation in mood.
- The unit is an open unit, with free access to outside areas. Careful observations of mental state are necessary to enable decisions to be made as to whether a potentially suicidal adolescent may require either closer monitoring, or is at risk of absconding. Conversely, some distressed adolescents will benefit from time out in the open spaces. A high capacity to assess risk is necessary to determine which interventions are the most appropriate.
- Generalisation of skills learnt in groups or individual therapy to the adolescent's day to day living situation. Skills include those that are part of Dialectical Behaviour Therapy, skills from Social Skills group or maintenance of graduated exposure through activities.
- Managing emotional dysregulation. This is a complex set of skills because staff need to be able to recognise the impact of their own emotional responses, know when to allow to

ventilate, when to set limits, when to simply sit with an extremely sad adolescent, when to offer hope or simply contain an affect, when to offer specific interventions e.g the sensory room or the opportunity to do art and when to use the opportunity to process the current emotion. This is one of the most important therapeutic processes in adolescents who are very distressed. The relationships built up during these periods are a necessary function of furthering therapeutic interventions from both nursing staff and other professionals.

- Managing behaviours. Again, this requires a complex set of skills of observing antecedents, utilising an appropriate behavioural intervention and monitoring the outcome. Self harm in this population of adolescents is not uncommon. Contagion effects occur at times, but most adolescents, by the time they are referred here, utilise self harm as a specific coping measure, and are minimally influenced by others. At times the self harm may be associated with increased levels of suicidal ideation. Staff must be able to recognise and contain their own anxiety, understand the interpersonal and systemic dynamics of self harming behaviours and decide on a range of appropriate interventions including closer observations, minimising risk to others, enabling adolescents to process the role of self harm and alternative strategies, and negotiate acceptable practices around self harm.
- Monitoring and managing compromised medical states. It is not unusual for adolescents with histories of complex trauma to have significant difficulties for periods of maintaining an adequate oral intake. The impact of this on nutritional status ranges from a barely adequate intake resulting in weight loss, but no changes in physical signs to severe dehydration to severe malnourishment. Interventions are difficult. At the most basic level, staff must be able to monitor basic physical signs, and note changes indicative of deterioration. Skilled staff with an understanding of the impact of trauma can negotiate (in conjunction with advice from the dietitian) a basic level of intake to maintain homeostasis. At times, intravenous hydration or parenteral nutrition may be required. Although this may be initiated in a medical setting, it may need to be continued at Barrett if it continues for any length of time. The success of this intervention is dependent on a skill level to be able to manage intravenous or parenteral nutrition administered by staff with whom the adolescent has already developed a sound therapeutic relationship.
- Providing therapeutic interventions. For example, an adolescent with a severe Social Anxiety Disorder may be phobic eating with other adolescents. Skilled staff will be able to negotiate a process for eating meals with progressive gradual exposure to being able to tolerate eating with others. They must be able to recognise whether a reluctance to proceed to increased contact with others at meal times is simply entrenched avoidant behaviour, or whether the anxiety is still too high. Another example is managing symptoms of Post Traumatic Stress Disorder in adolescents with histories of severe and complex trauma. Frequently dissociation and flashbacks occur in the evening, and interrupt sleep if the adolescent is woken by nightmares. This requires a complex set of skills in staff from grounding, emotional containment, allowing appropriate exploration of the trauma if the adolescent needs to do that at that time and encouraging the adolescent to employ strategies and skills they have been developing.
- Provide Care Coordination. Relationships are built with adolescents and their families across shifts and in a variety of situations not available to other professions. This, together with the skills of nursing staff enables them to function in the complex role of Care Coordinator.

8. Observations on Referrals from the Mater Acute Inpatient Unit/Day Program

There have been occasions where adolescents have had extended inpatient care in the Mater CYMHS Acute Inpatient Unit and attended the Day Program. Although this has continued for a time, they have been referred to Barrett for further treatment and rehabilitation due to the unsuitability of being in an Acute Inpatient Service. Although this is an unusual pathway for referral, it does illustrate the limitations of acute inpatient care for this population.

In summary, multiple lines of evidence – high acuity, the need for an appropriate level of care as an Authorised Mental Health Service, the need for continuity of care and the requirements for the skills of registered nurses – together with lack of alternative models described in the literature for this population, suggests that inpatient care must be a component of the new service.

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APPENDIX - UTILISING ACUTE ADOLESCENT INPATIENT BEDS

Current Utilisation of Adolescent Inpatient Beds

Two trends are readily discernible in bed utilisation in child and youth mental health inpatient units. These trends are apparent in both Australia and the United Kingdom.

1. Some young people will be given trial periods of leave with their families prior to discharge. The purpose of this leave in Acute Child and Adolescent Inpatient Units is to ascertain the stability of the young person's mental health in the context of the home environment, and without the support and supervision of staff. In addition, for young people from the Barrett Adolescent Centre, leave enables them the opportunity to maintain or re-establish family, social and local networks.
2. Presentations to Acute Child and Adolescent Inpatient Units show seasonal patterns. This is most marked from the last week of school prior to the Christmas – New Year holidays to the first week of the new school year. Lesser fluctuations may be apparent in the term and semester holiday periods.

These factors impact on measures of bed occupancy.

The nominal occupancy is measured by Occupied Bed Days. Under new funding arrangements, this is the only measure of activity. Anecdotally, child and adolescent inpatient units report a change in their practices around leave to adjust to these funding arrangements. The actual occupancy is the number of beds allocated to young people – it is the nominal occupancy + those on leave. It is a more accurate indicator of bed utilisation. The difference between nominal and actual occupancy may range from 1% - 10%.

Seasonal changes in bed utilisation commonly show a variation of 30% - 40% between utilisation during terms compared with utilisation over holiday periods.

Consequently, annual average bed utilisation in Child and Youth Acute Inpatient Units based on the nominal occupancy is not a good indicator of the availability of beds throughout the year. For example, a unit which has an annual occupancy of 76% (where the actual occupancy is 82%) may have six months or more where the actual occupancy exceeds 90%. In practice, this translates to an average of only one bed vacant during the month.

Modelling the Use of Acute Inpatient Beds for Adolescents Requiring Extended Treatment and Rehabilitation Services

The availability of adolescent beds at various points during the year is one factor to be considered in modelling the use of Acute Inpatient beds for adolescents requiring extended treatment and rehabilitation. Two other factors are also important – the nature and location of beds and he number of beds required.

1. The nature and location of beds.

Since the mean age of adolescents on admission to Barrett is 15 years and 10 months, beds in the Child and Family Therapy Unit are unlikely to be utilised.

Queensland Government

Barrett Adolescent Strategy

Expert Clinical Reference Group

Proposed Service Model Elements
Adolescent Extended Treatment and Rehabilitation Services (AETRS)

Preamble

Mental health disorders are the most prevalent illnesses affecting adolescents today. Of particular note is the considerable evidence that adolescents with persisting and severe symptomatology are those most likely to carry the greatest burden of illness into adult life. Despite this, funding for adolescent (and child) mental health services is not proportional to the identified need and burden of disease that exists.

In the past 25 years, a growing range of child and youth mental health services have been established by Queensland Health (and other service providers) to address the mental health needs of children and adolescents. These services deliver mental health assessment and treatment interventions across the spectrum of mental illness and need, and as a service continuum, provide care options 24 hours a day, seven days a week. No matter where an adolescent and their family live in Queensland, they are able to access a Child and Youth Mental Health Service (CYMHS) community clinic or clinician (either via direct access through their Hospital and Health Service, or through telehealth facilities). Day Programs have been established for adolescents in South Brisbane, Toowoomba and Townsville. Acute mental health inpatient units for adolescents are located in North Brisbane, Logan, Robina, South Brisbane and Toowoomba, and soon in Townsville (May/June 2013). A statewide specialist multidisciplinary assessment, and integrated treatment and rehabilitation program (The Barrett Adolescent Centre [BAC]) is currently delivered at The Park Centre for Mental Health (TPCMH) for adolescents between 13 and 17 years of age with severe, persistent mental illness. This service also offers an adolescent Day Program for BAC consumers and non-BAC consumers of West Moreton Hospital and Health Service.

Consistent with state and national mental health reforms, the decentralisation of services, and the reform of TPCMH site to offer only adult forensic and secure mental health services, the BAC is unable to continue operating in its current form at TPCMH. Further to this, the current BAC building has been identified as needing substantial refurbishment. This situation necessitates careful consideration of options for the provision of mental health services for adolescents (and their families/carers) requiring extended treatment and rehabilitation in Queensland. Consequently, an Expert Clinical Reference Group (ECRG) of child and youth mental health clinicians, a consumer representative, a carer representative, and key stakeholders was convened by the Barrett Adolescent Strategy Planning Group to explore and identify alternative service options for this target group.

Between 1 December 2012 and 24 April 2013 the ECRG met regularly to define the target group and their needs, conduct a service gap analysis, consider community and sector feedback, and review a range of contemporary, evidence-based models of care and service types. This included the potential for an expanded range of day programs across Queensland and community mental health service models delivered by non-government and/or private service providers. The ECRG

have considered evidence and data from the field, national and international benchmarks, clinical expertise and experience, and consumer and carer feedback to develop a service model elements document for Adolescent Extended Treatment and Rehabilitation Services in Queensland. This elements document *is not a model of service* – it is a conceptual document that delineates the key components of a service continuum type for the identified target group. As a service model elements document, it will not define how the key components will function at a service delivery level, and does not incorporate funding and implementation planning processes.

The service model elements document proposes four tiers of service provision for adolescents requiring extended mental health treatment and rehabilitation:

- **Tier 1** – Public Community Child and Youth Mental Health Services (existing);
- **Tier 2a** – Adolescent Day Program Services (existing + new);
- **Tier 2b** – Adolescent Community Residential Service/s (new); and
- **Tier 3** – Statewide Adolescent Inpatient Extended Treatment and Rehabilitation Service (new).

The final service model elements document produced was cognisant of constraints associated with funding and other resources (e.g., there is no capital funding available to build BAC on another site). The ECRG was also mindful of the current policy context and direction for mental health services as informed by the National Mental Health Policy (2008) which articulates that *'non acute bed-based services should be community based wherever possible'.* A key principle for child and youth mental health services, which is supported by all members of the ECRG, is that young people are treated in the least restrictive environment possible, and one which recognises the need for safety and cultural sensitivity, with the minimum possible disruption to family, educational, social and community networks.

The ECRG comprised of consumer and carer representatives, and distinguished child and youth mental health clinicians across Queensland and New South Wales who were nominated by their peers as leaders in the field. The ECRG would like to acknowledge and draw attention to the input of the consumer and carer representatives. They highlighted the essential role that a service such as BAC plays in recovery and rehabilitation, and the staff skill and expertise that is inherent to this particular service type. While there was also validation of other CYMHS service types, including community mental health clinics, day programs and acute inpatient units, it was strongly articulated that these other service types are not as effective in providing safe, medium-term extended care and rehabilitation to the target group focussed on here. It is understood that BAC cannot continue in its current form at TPCMH. However, it is the view of the ECRG that like the Community Care Units within the adult mental health service stream, a design-specific and clinically staffed bed-based service is essential for adolescents who require medium-term extended care and rehabilitation. This type of care and rehabilitation program is considered life-saving for young people, and is available currently in both Queensland and New South Wales (e.g., The Walker Unit).

The service model elements document (attached) has been proposed by the ECRG as a way forward for adolescent extended treatment and rehabilitation services in Queensland.

There are seven key messages and associated recommendations from the ECRG that need to underpin the reading of the document:

1. Broader consultation and formal planning processes are essential in guiding the next steps required for service development, acknowledging that services need to align with the National Mental Health Service Planning Framework

- The proposed service model elements document is a conceptual document, not a model of service. Formal consultation and planning processes have not been completed as part of the ECRG course of action.
- In this concept proposal, Tier 2 maps to the Clinical Services Capability Framework for Public and Licensed Private Health Facilities Version 3.1 (CSCF) Level 5 and Tier 3 maps to CSCF Level 6.

Recommendations:

a) Further work will be required at a statewide level to translate these concepts into a model of service and to develop implementation and funding plans.

b) Formal planning including consultation with stakeholder groups will be required.

2. Inpatient extended treatment and rehabilitation care (Tier 3) is an essential service component

- It is understood that the combination of day program care, residential community-based care and acute inpatient care has been identified as a potential alternative to the current BAC or the proposed Tier 3 in the following service model elements document.
- From the perspective of the ECRG, Tier 3 is an essential component of the overall concept, as there is a small group of young people whose needs cannot be safely and effectively met through alternative service types (as represented by Tiers 1 and 2).
- The target group is characterised by severity and persistence of illness, very limited or absent community supports and engagement, and significant risk to self and/or others. Managing these young people in acute inpatient units does not meet their clinical, therapeutic or rehabilitation needs.
- The risk of institutionalisation is considered greater if the young person receives medium-term care in an acute unit (versus a design-specific extended care unit).
- Clinical experience shows that prolonged admissions of such young people to acute units can have an adverse impact on other young people admitted for acute treatment.
- Managing this target group predominantly in the community is associated with complexities of risk to self and others, and also the risk of disengaging from therapeutic services.