EXHIBIT 306   CHS.900.006.0001

In the matter of the *Commissions of Inquiry Act 1950*

Commissions of Inquiry Order (No.4) 2015

Barrett Adolescent Centre Commission of Inquiry

AFFIDAVIT

Professor Graham Edward Douglas Martin of

retired Child and Family Psychiatrist, solemnly and sincerely affirms and declares:

1.   I have been issued with a requirement to produce a supplementary written statement by the Barrett Adolescent Centre Commission of Inquiry dated 8 February 2016. **Exhibit A** to this affidavit is a copy of this document.

2.   In my affidavit, when I refer to Patient   I am referring to

Explain:

   a. your clinical opinion of the desirability of an extended treatment and rehabilitation centre for adolescents with similar diagnostic profiles as the Barrett Adolescent Centre (BAC) Cohort;

3.   As stated in my previous affidavit, I have always tried to manage young people in my care outside of an inpatient setting, if at all possible. Sometimes this is neither reasonable nor possible. For example, if the patient threatens or actually attempts suicide, or their condition becomes so severe that it is unreasonable for them to stay

---

Page 1

A.J.P., G.Des., Solicitor

AFFIDAVIT

On behalf of the State of Queensland

Crown Solicitor
11th Floor, State Law Building
50 Ann Street
BRISBANE QLD 4000

EXHIBIT 306　　　　　　　　　　　　　　　　　　　　　　　CHS.900.006.0002

in their home environment, or they become psychotic, then it is crucial to refer them to a hospital inpatient service, so that they can be treated temporarily in a place of containment and safety. This can sometimes mean that they are discharged back to my care on a number of medications that have to be carefully managed in the outpatient clinic environment prior to, or alongside, the resumption of the prior psychotherapeutic process.

4. I do not have a clear understanding of the diagnostic profiles of the BAC cohort, given I have not had professional contact with the service since 2004/5, through to the point of considering referral of

5. I do know that some young people are so severely traumatised by emotional, physical or sexual abuse within their immediate or extended family, that they need an extended time away from their family and the negative home environment, so that they can recover. During this time away, the young person may be trained in and learn a range of cognitive and emotional personal management skills to cope with negative emotions should these occur in the future. A part of this process is experiencing supportive caring professional staff, learning that not all people in life are abusive, and that the fact that you have been abused is not your fault. In a sense the young person undergoes what can be called a 're-parenting' process and this can take an extended period of time, partially replacing inner negative parental figures with positive figures (Bernstein et al., 2007; and Farrell et al., 2009 provided at **exhibit B**). Of course, an important part of that process involves continuing education/ schooling for the young person. Ultimately, if we do not deal with issues of family conflict, there is a major concern that such young people will end up homeless 'on the street' (SEE HILLIER AND THYER, 2015 provided at **exhibit C**).

Page 2

Deponent　　　　　　　　　　　　　　　　　　　　A.J.P., C.Dec., Solicitor

EXHIBIT 306   CHS.900.006.0003

6.   Given symptoms and serious problems like suicidality can recur even after a year or more (SEE PRINSTEIN ET AL., 2008 provided at **exhibit D**), I believe a strong case can be made for extended treatment for young people in this circumstance. Such a 're-parenting' process can occur in the outpatient clinic, but may take 1 or 2 years to complete satisfactorily so that the young person can protect themselves in life whatever the future challenges.

7.   In the inpatient setting the process can be shortened, but may still take 6-12 months. Of course expressions of suicidality may put pressure on the inpatient staff, who may be constantly worried by the possibility of inpatient suicide, or of suicide of a patient on leave, or suicide a short time after discharge (SEE SAKINOFSKY, 2014 provided at **exhibit E**).

8.   There are other models that can be implemented to manage these serious problems in mental health, but the research associated with them is limited to date. Long term foster care may provide similar changes over time, especially if therapy can be made available alongside the care. There are also models in which inpatient care is used intermittently with a group care home or foster home, and other programs for reunification of young people with their families further to conflict (SEE RUBYS REUNIFICATION PROGRAM provided at **exhibit F**). At this point in time, I have not been able to find any sound evidence to support the programs replacing an inpatient unit that can manage these seriously troubled young people.

b.   any concerns held by you in relation to the clinical governance at the BAC, providing details of the specific incidents giving rise to your concerns; and

Deponent   A.J.P., C.Dec., Solicitor

Document No: 6350835

EXHIBIT 306

CHS.900.006.0004

9. As noted, I have not been privy to, and know nothing about, the clinical governance at the BAC. I have not been informed about any specific incidents occurring at the BAC that would give me reason to be concerned.

c. any concerns held by you in relation to the currency of model of care at the BAC, providing details of evidence-based research supporting your concerns.

10. In not having a detailed understanding of the current model of care employed by the BAC prior to its closure, it is difficult to comment in more than general terms. A major problem for mental health generally, and possibly inpatient services in particular, is a paucity of evaluation of programs to a degree that we can be confident in recommending any particular treatment, or in recommending treatment A over treatment B.

11. I have attempted to locate evidence-based research that supports long term youth treatment facilities. I have found very little quality evidence (SEE BABALOLA ET AL, 2014 provided at **exhibit G**). However, it is also true that there is little evidence-based outcome research that supports many other treatment programs. As an example, within the therapeutic literature, there is considerable research evidence for Cognitive Behaviour Therapy, but the harder and more complex the case, the less a course of CBT is likely to have a sustained effect (SEE HAZELL ET AL., 2009. ABSTRACT provided at **exhibit H**). Recent longitudinal studies have reasserted psychoanalytic informed therapy as having an effect on Depression that lasts much longer than CBT (SEE LEICHSENNING 2008 ABSTRACT provided at **exhibit I**). Recent summaries of randomised controlled studies have found strong support for Mindfulness based therapies in Depression and Anxiety in adults. One of my PHD students recently

Deponent

A.J.P., G.Dec., Solicitor

EXHIBIT 306

CHS.900.006.0005

adapted this work for adolescents, using a randomised controlled trial approach; this showed surprisingly good results (SEE TAN AND MARTIN 2014 provided at **exhibit J**). However the work was in a standard CYMHS clinic environment, and not with inpatients. There is emerging evidence for Dialectical Behaviour Therapy (DBT), which incorporates CBT strategies but adds a range of other skill developments, including Mindfulness. Studies of DBT have shown good results for seriously disordered adults (SEE A BRISBANE-BASED AUSTRALIAN STUDY: PASIECZNY AND CONNOR, 2011 ABSTRACT provided at **exhibit K**), and there are now some good studies with adolescents (SEE A REVIEW: GROVES ET AL, 2011 provided at **exhibit L**), as well as some studies addressing DBT in long term inpatient adolescent care (SEE MCDONELL ET AL., 2010 provided at **exhibit M**). Sadly, there is a paucity of outcome studies in the various styles of Family Therapies that can be used to work with troubled families to keep them together, or that might be used in reintegrating young people into their families after a lengthy admission.

12. These therapies may each have been included in the Barrett model; I am not in a position to comment on this. However, in general terms if we do move forward to a longer term inpatient unit for Queensland, my view is that we should fully examine and understand the current literature, and incorporate best international practice into the programs within such a unit. I would go further in saying that there is then an obligation on such a unit to thoroughly evaluate outcomes from the programs used, and publish the work in international journals, thus contributing to the future of mental health service delivery.

Provide your clinical opinion regarding whether there is a lack of alignment between adolescent and adult mental health services in that patients in the 18-25 year age group are not adequately dealt with by either adolescent or adult mental health services. If so:

Page 5

Deponent

A.J.P., C.Dee., Solicitor

EXHIBIT 306

CHS.900.006.0006

> a. *Does this lack of alignment mean that patients in that age group commonly experience problems in their transition from adolescent to adult mental health services?*

13. From my personal experience, I believe patients can experience difficulty because of the bureaucracy involved in the way services are defined and administered.

14.

15. Another example I recall is from my liaison work with the Royal Children's Hospital Burns Unit. During my time, several young people approaching the age of 15 were required to be transferred to the Adult Burns Unit. Again, this involves young people ceasing positive therapeutic relationships because of arbitrary age requirements.

16. I am aware that this is a problem for many health and other services and is not confined to mental health services.

> b. *Is there a need for mental health services directed to the 18 to 25 year age group, or a similar age group and if so, explain generally what services are needed?*

17. I do not believe there is a need for special, discrete mental health services for a particular or arbitrary age group. I believe there is a need for clinicians with special

Deponent

A.J.P.; C.Dec., Solicitor

EXHIBIT 306

CHS.900.006.0007

clinical interests and expertise to be enabled to provide appropriate and relevant services for patients and their families. The contract between the therapist and the patient and their family (if you like, 'the therapeutic alliance') should be supported to continue until the best possible result is achieved. Administrative arrangements should be there to provide and support the best quality services. There are many groups in Mental Health who claim that their clients are special, and can only be dealt with by a service focussed on their need. I have heard arguments advanced by clinicians who seek to focus on infants and young families, on early childhood, on adolescents, on young adults, on adults, on older adults, on old people. I agree that clinicians may need special skills to enable them to work with these groups, and should be encouraged and supported to work in an area of expertise. I agree that the therapeutic environment may need to be tailored to be attractive and comfortable for any given group. But if you develop a bureaucracy for each and every service for these groups, you duplicate the overall administrative burden, and end up not being able to afford the clinicians or the time necessary to complete the work.

A number of documents produced to the Commission refer to "cutting" as a form of self-harm. The Commission understands that you have particular expertise in relation to this matter. Explain your clinical opinion, and provide details of any relevant research conducted by you or others (where appropriate), in relation to:

a.   *what the term "cutting" means?*

18.   I have devoted significant time and academic effort into the research and prevention of youth suicide since 1986 following the suicide of a 16-year old young woman. I have been involved in extensive publication of scientific papers in International journals, and attach a list of all publications specifically relevant to, and focused on, this area (SEE

Deponent

A.J.P., C.Dec., Solicitor

Document No: 6350835

EXHIBIT 306

CHS.900.006.0008

PROFESSIONAL PUBLICATIONS PROF G MARTIN provided at **exhibit N**). Over the last 20 or so years, I have been a member of relevant national and state committees, and have attended and presented our work at numerous conferences in Australia and other countries.

19.   The term 'cutting' may also be described as 'non-suicidal self-injury' or 'NSSI'. That is,

b.   the pathology or psychology behind adolescents engaging in "cutting" or self harm;

20.   Seven key psychological mechanisms have been posited as involved in this process. David Klonsky has suggested that Affect-Regulation (Crouch & Wright, 2004); Anti-dissociation (Miller & Bashkin, 1974); Anti-Suicide (Messer & Fremouw, 2008); Interpersonal Boundaries (Claes & Vandereycken, 2007); Interpersonal Influence (Messer & Fremouw, 2008); Self-Punishment (Linehan, 1993); Sensation-seeking (Klonsky, 2007). You will note 'Anti-suicide' - many young people tell us that cutting reduces the feelings and stops the urge to die. This, however, is not always the case. The 'inter-personal' reasons centre around the idea 'to show someone just how distressed I feel'. We have included a discussion on how to find solutions to these mechanisms in 5 published booklets targeted to educate Young People, their Families, School Staff, GPs, and Emergency Department staff (SEE THE 5 BOOKLETS MARTIN ET AL., ADDRESSING EACH OF THESE AREAS, covers and extract provided at **exhibit O**). Many thousands of these booklets have been sent out (free of charge) Australia wide to increase awareness of how to manage this problem.

Deponent

A.J.P., C.Dec., Solicitor

EXHIBIT 306

CHS.900.006.0009

21. The vast majority of research supports that non-suicidal self injury is not a behaviour confined to adolescents, and I attach a paper published in the Medical Journal of Australia showing that while it may peak in adolescence to young adulthood, in fact it is used as a mechanism, for some people, right across the lifespan (SEE MARTIN ET AL., 2010 provided at **exhibit P**)

22. Our early work in suicide prevention in young people demonstrated the importance of the use of suicide attempts and self-injury (sometimes called 'self-harm') in letting family members and others know about the level of psychological distress they experienced. Having had extensive training in a number of family therapy approaches to helping young people with mental health problems, I was intrigued by the work of Professor Gordon Parker from Sydney who developed an instrument called the Parental Bonding Instrument. He speculated that a certain style of parenting ('Affectionless Overcontrol") appeared to be associated with a range of pathology in young people (now confirmed in a large number of studies) (SEE AFFRUNTI AND GINSBURG, 2012 provided at **exhibit Q**). In 1994 we published research work showing this was also true of suicidal and self-harming young people (SEE MARTIN AND WAITE, 1994 provided at **exhibit R**). Subsequently, many researchers have confirmed this importance of parental affectionless overcontrol, including recent work in Holland (SEE BAETENS ET AL, 2015 provided at **exhibit S**). An important issue to understand here is that if family dynamics are not helped to change, then the same old perceptions and patterns continue to influence the children of the family for many years to come (SEE WILHELM ET AL., 2004 provided at **exhibit T**).

23. This work on family dynamics, now confirmed in many international studies, has implications for therapy with adolescents. First it suggests that sustained change for the adolescent may not occur unless the family dynamics can be encouraged to

Deponent

A.J.R., C.Dee., Solicitor

EXHIBIT 306   CHS.900.006.0010

change. This implies that family therapy approaches (whatever the style) may be extremely important. However, there is a paucity of international literature on outcome studies of family therapy programs. Just because you know something does not mean that you can necessarily change it. Just because you can change something does not provoke many therapists to complete the outcome research to prove that you can gain good outcomes. Just because you get good clinical outcomes, and really want to do the outcome studies to prove it, does not mean that either bureaucracies will provide the funding to support such research, or that current research funding bodies in Australia will be excited to provide the necessary funding. The second implication is that the family needs to be involved in inpatient care as much as outpatient care. This may be complex if the serious issue of abuse is central to the young person's problem, and the primary aim of hospitalisation is to separate the young person from the family. And then, later, there is a complexity related to what kind of reintegration is feasible, and safe. A third implication is that our therapists must be enabled to have the time, the opportunity, and service support to gain the relevant experience in a range of individual and family therapies. If this does not occur, and if the primary focus of a bureaucracy is not the support of therapists to be enabled to do the best job they can, then services will fail to produce the outcomes we all seek.

c.   any strategies or treatments to c. manage "cutting" or self-harm in adolescents.

24.   Our research has latterly focused on how and why young people stop self-injury, and we have concluded that 'seeking help from a therapist or from others' is important, as is 'family support' or the 'support from friends'. Internally, it is an obvious fact that removing mental health problems (or at least reducing them) with therapy goes a long way to reduce self-injury. In addition, we have evidence that building (or rebuilding)

Page 10

EXHIBIT 306

CHS.900.006.0011

'resilience' in self-injurers is crucial (SEE ROTOLONE AND MARTIN 2012 provided at **exhibit U**). Latterly we have shown (in an as yet unpublished paper) that an increase in 'mindfulness' is associated with lower rates of self-injury; seemingly supporting the idea that therapies that include mindfulness will be helpful.

25. Latterly my research staff and I were involved over some years in attempts to prevent self-injury (or at least repetition), through identification of young people at year 8 (first year high school). This may have little to do with The Commission's investigation of the Barrett Adolescent Centre, but I believe it is informative to know about possible futures that could reduce the therapeutic burden of the serious problem of self-injury. We used a school-based program called Aussie Optimism (developed by Professor Clare Roberts in Perth). This is a 20-week, once a week lesson program taught by class teachers focused on 1. Social Skills, and 2. Optimism and Resilience. We worked closely with about 13 Catholic schools across Brisbane, training their staff in the program, but also measuring depression, resilience and personal strengths and difficulties on standard international instruments. We measured before the program, and then some weeks after completing the program. We then sat down with senior school staff to discuss the results, highlighting in particular those young people who did not benefit from the program, and suggesting ways to manage the problems in school and out. Unfortunately, the money for this program was not renewed. However, we have continued to work with one school that took up our ideas strongly, and developed a 'Wellness Centre' to provide easy access support for troubled adolescents. The school rate of self-injury has dropped from 13-15% of self-injurers in years 8 and 9 down to almost nothing. There is a long way to go in this work to reduce self-injury, and hopefully others will take up the challenge of researching the area now I have retired. We would argue that once a young person has a serious mental disorder

Deponent

~~A.J.P.~~, ~~C.Dee.~~, Solicitor

EXHIBIT 306

CHS.900.006.0012

that includes self-injury, it is complex and costly to provide therapy. It would be so much better for the young person, their family, and for us as mental health professionals to get in early if we can and prevent the problem escalating.

In paragraph 19 of your Statement affirmed on 18 January 2016 (Statement), you state that "*Associate Professor Brett McDermott, Director of the Mater Kids in Mind had, since his arrival in Queensland in late 2001, taken responsibility for a considerable number of services south of the Brisbane River. My understanding is that this responsibility included Barrett Adolescent Centre, administered through West Moreton.*" Explain the basis for your understanding that Professor McDermott was responsible for the Barrett Adolescent Centre during this time.

26.   Since providing my affidavit signed on 18 January 2016, I have taken advice on this matter. I am informed Professor Brett McDermott was not involved in administration or management of Barrett or, in fact, West Moreton. I believe my previous statement at paragraph 19 was an error in my understanding, and I apologise unreservedly.

In paragraph 26 of your Statement, you state that "*I recall I was impressed by the model of care described to me by Dr Sadler.*"

   a. *Elaborate on the particular elements of the model of care described to you by Dr Sadler that impressed you at that time, and the basis for your opinion.*

27.   I cannot specifically identify the components of the BAC model of care that impressed me at that time as my understanding of the BAC model of care is limited to my recollection of my discussions with Dr Sadler, those discussion having taken place a number of years ago and also based on the description he provided to me during my visit to the BAC in 2004 or 2005.

Page 12

Deponent

A.J.P., C.Dec., Solicitor

EXHIBIT 306

CHS.900.006.0013

28. I do recall that during the visit to the BAC in 2004 or 2005, I was impressed with Dr Sadler's description of the BAC model of care that appeared to include the 'internal re-parenting' discussed earlier. What Dr Sadler described to me resonated with my psychoanalytic understanding on how we ought to be addressing mental health issues in young people.

> b. *Explain your current opinion of the model of care described to you by Dr Sadler at that time (ie. whether your opinion of the model of care described to you by Dr Sadler has changed in light of other models of care subsequently being developed or preferred in the field of child and adolescent psychiatry and, if so, the difference between those models and your understanding of the model of care described to you by Dr Sadler, and your opinion regarding which model should be preferred and why).*

29. I do not know enough about the BAC model of care to comment on any subsequent developments, or to comment on the difference between the BAC model of care and any subsequently developed models of care.

In paragraph 35 of your Statement, you state "I am unable to comment on the comparative adequacy of services." However, in paragraphs 44 and 46 of your statement, you state that "there was" and "there appeared to be" "no viable alternative to the Barrett Adolescent Centre" respectively, and in paragraph 47 you state that "[following the closure of the Barrett Adolescent Centre, as far as I can understand, no viable alternative to the Barrett Adolescent Centre has been created." In your opinion, is there a gap in the public services available to adolescents who would have previously accessed the BAC, and if so, what type of service/s do you believe are required to treat this particular cohort?

\Deponent/ ∠ ⌐⌐⌐⌐⌐ A.J.P., G.Dec., Solicitor

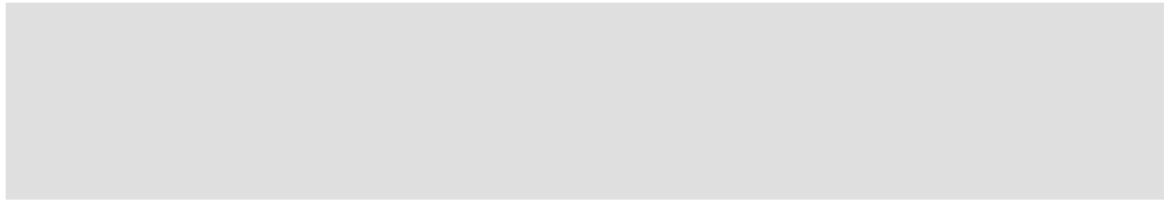EXHIBIT 306   CHS.900.006.0014

30.   My understanding was that Queensland had the BAC as a long term inpatient resource and it was providing a service to what I am told were young people who were very difficult to treat in other settings. That view is based on the information provided to me.

31.   There will always be damaged people and young people who need longer term care. Some of these will need inpatient care, protection from adverse family dynamics or abuse of one form or another, and the time necessary to get them to the point of reintegration to society. I believe we do need a facility or facilities that can provide longer-term inpatient care even if this is limited to the 6 months as I believe is recommended by the Faculty of Child and Adolescent Psychiatry of the Royal Australian and New Zealand college of Psychiatrists (RANZCP). I would say that, in line with my previous comments in this Affidavit, it is crucial for us to consider incorporating the new evidence-based therapies for which there is an emerging research base. It may be that we need also to consider a number of other emerging semi-residential community programs to take pressure off the available inpatient beds (if such pressure is a reality).

In paragraph 54 of your Statement, you state that "I had no concerns regarding transition arrangements in place for ▨ **as I do not recall any Barrett Adolescent Centre personnel becoming directly involved in** ▨ **clinical care." Explain your clinical opinion in relation to:**

     a. whether ▨ *required an admission to the BAC;*

32.

Deponent   A.J.P., C.Dec., Solicitor
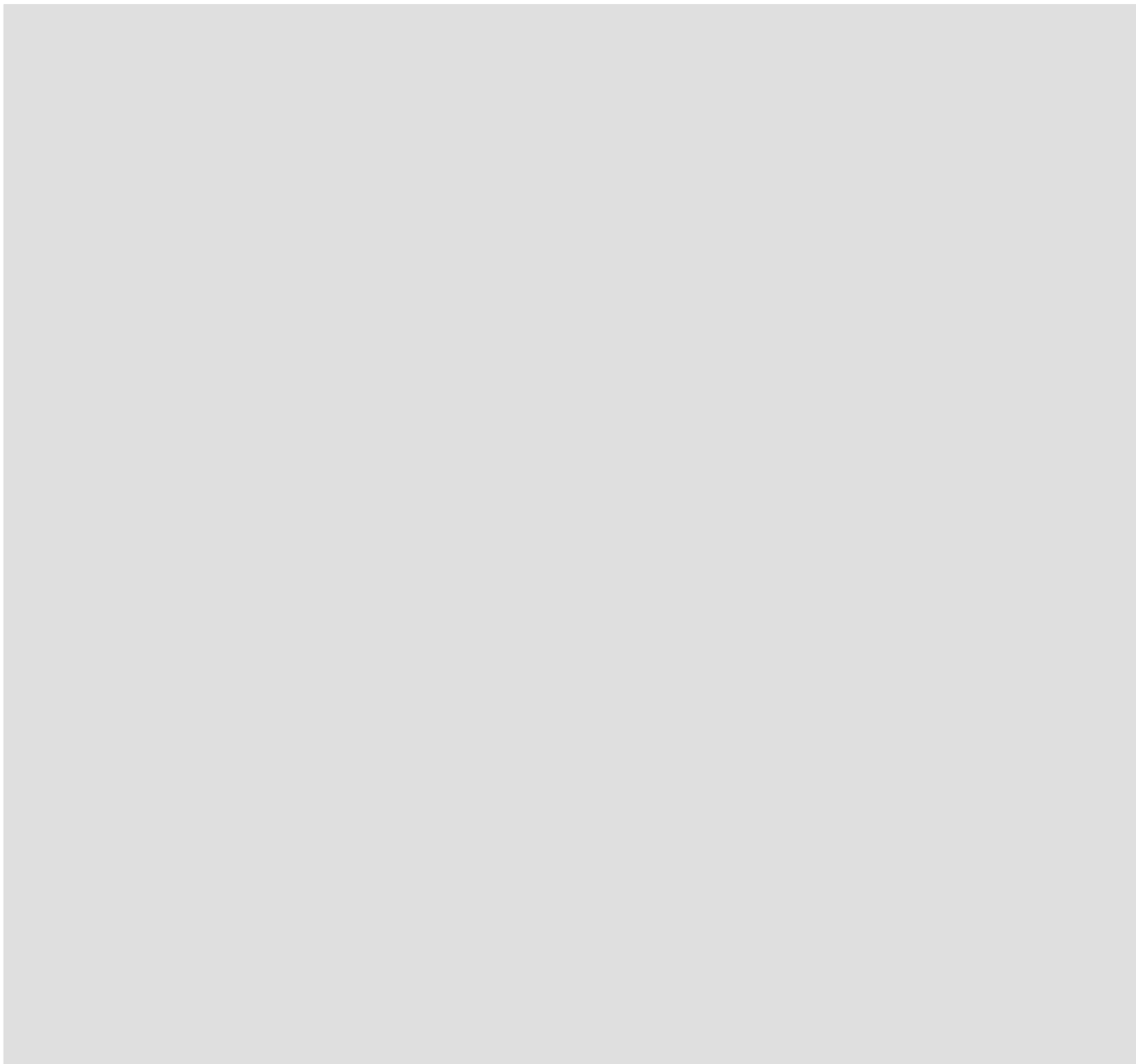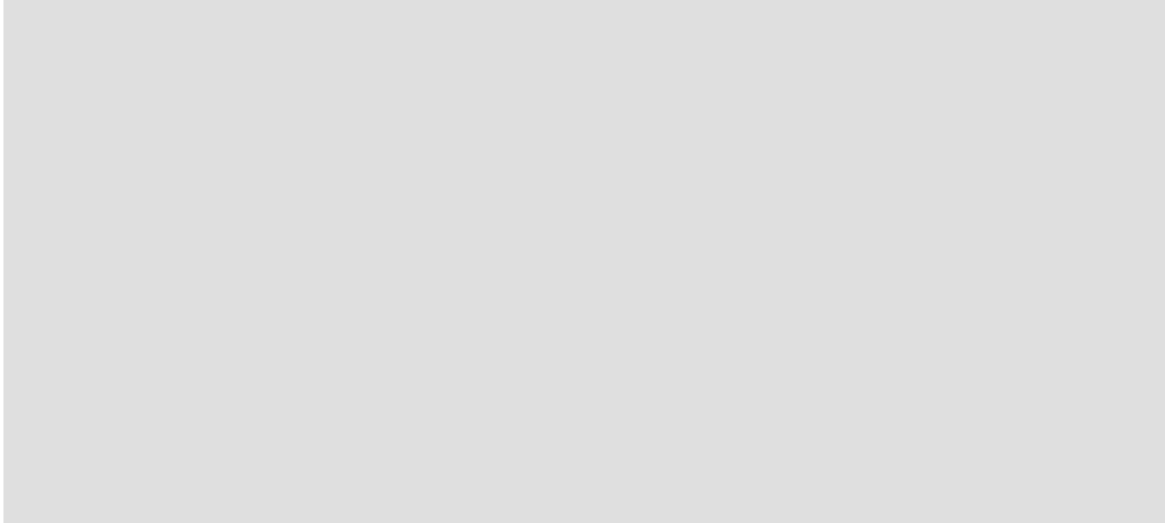
Document No: 6350835

EXHIBIT 306

CHS.900.006.0015

33.

34. From 1st July 2013 to 31st January 2014, I took a planned Sabbatical from the University of Queensland and from Queensland Health to complete a book called 'Essays on Prevention in Mental Health' (SEE BOOK: MARTIN 2014, cover provided at **exhibit V**) and to begin another book on Suicide in Rock Stars (only 9 chapters complete to date) and to complete a number of research papers.

35.

36.

Deponent

A.J.P., C.Dec., Solicitor

Document No: 6350835

EXHIBIT 306　　　　　　　　　　　　　　　　　　　　　　　　CHS.900.006.0016

37.

38.

Page 16

Deponent

A.J.P., C.Dec., Solicitor

EXHIBIT 306   CHS.900.006.0017

39.

40.

41.

b.   to the best of your knowledge, the adequacy of the alternative arrangements that you, or any other clinicians involved in the clinical care of   *made for*   *once you or those other clinicians had determined that*   *could not be admitted to the BAG; and*

42.

c.   whether   *clinical care was adversely affected by the closure of the BAC.*

Page 17

Deponent   A.J.P., C.Dee., Solicitor

EXHIBIT 306

CHS.900.006.0018

43.

On 7 November 2012, you emailed Dr Trevor Sadler and a group email called ⬚ copying in Dr Stephen Stathis about the "Impending closure of Barrett Adolescent Centre" [QHD.012.002.2516 attached]. In this email, you stated that "[t]he *rhetoric is that no front line workers will be sacked, but our own service has been 'asked' (behind closed doors) to reduce our budget by 5% 'across the board'.* Explain:

   a. *which service you are referring to in this email; and*

44.   The service I am referring to is the Brisbane North Child and Youth Mental Health Services.

   b. *to the best of your knowledge, the circumstances in which that service was 'asked' to reduce its budget, including who asked that service to reduce its budget, the content of that request, when that request was made and to whom, in what context that request was made (for example, in a formal meeting or otherwise), and how you became aware of that request.*
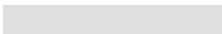
45.   I became aware of this request during a regular meeting of the Brisbane North Child and Youth Mental Health Services Executive (Ms Judi Krause, Dr Stephen Stathis and I). I cannot recall the date of the specific meeting when this issue was discussed and I made no notes of the conversation.

46.   I cannot recall specific detail. My memory suggests the request was that savings of 5% be made from the budget (it could have been more than that), but that 'front line staff were not to be reduced'. This latter phrase led to considerable discussion, given that

Page 18

Deponent   ⱴ   A.J.P., C.Dec., Solicitor

EXHIBIT 306

CHS.900.006.0019

our CYMHS service consisted almost entirely of front line staff, with a lean administrative staff. The main issue of serious concern for us was that, at the time of the request, we had more than 30 very seriously disturbed and suicidal young people who were causing concern to staff in our community teams.

47.   The information about reducing our budget was provided to me verbally by Judi Krause. I do not know the circumstances in which this information was provided to Judi Krause. My memory is that Ms. Krause had received a telephone call from Queensland Health. My understanding of the context of the request was that all of Queensland Health services were being asked to make savings in light of the financial implications of the Queensland Health Payroll costs.

48.   I do recall as a consequence of this request, a number of external training and educational programs were reduced, and that pressure was placed on some of our prevention programs including a program for 'children of parents with mental illness' (Known as 'Koping').

49.   Ultimately, as far as I know, no front line clinical services were cut. However, I do recall that a senior clinician who was about to retire was asked to consider an earlier retirement. To that clinician's credit, I believe they did in fact take an earlier than expected retirement from the service.

Deponent

A.J.P., C.Dec., Solicitor

Document No: 6350835

EXHIBIT 306   CHS.900.006.0020

All the facts affirmed in this affidavit are true to my knowledge and belief except as stated otherwise.

Affirmed by Professor Graham
Edward Douglas Martin OAM
on   19 February   2016
at
in the presence of:

Paul Michael Heales.
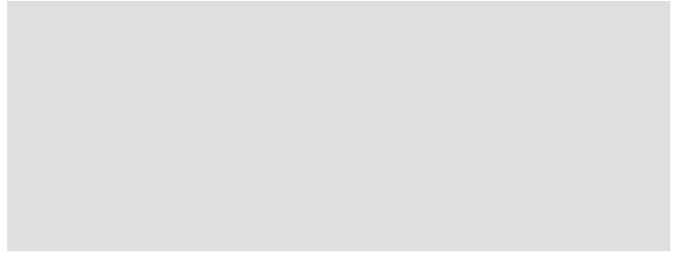
~~A Justice of the Peace, C.Dec.,~~ Solicitor

Deponent   A J.P., C.Dec., Solicitor

Document No: 6350835

EXHIBIT 306

CHS.900.006.0021

In the matter of the *Commissions of Inquiry Act 1950*

Commissions of Inquiry Order (No.4) 2015

Barrett Adolescent Centre Commission of Inquiry

CERTIFICATE OF EXHIBIT

Exhibit A to X of the Affidavit of Professor Graham Edward Douglas Martin OAM sworn on: 19 February 2016
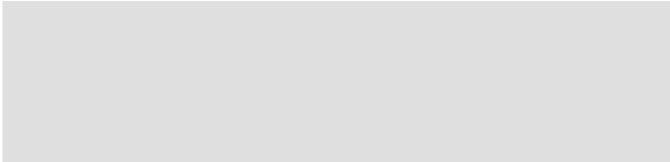
* Deponent
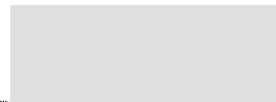
A.J.P., C.Dec., Solicitor

EXHIBIT 306

In the matter of the *Commissions of Inquiry Act 1950*

Commissions of Inquiry Order (No.4) 2015

Barrett Adolescent Centre Commission of Inquiry

INDEX TO EXHIBITS

Exhibit No	Exhibit description	Page numbers
A	Requirement to produce a supplementary written statement	1-5
B	Research paper: Bernstein et al., 2007; Farrell et al., 2009	6-33
C	Research paper: HILLIER AND THYER, 2015	34
D	Research paper: PRINSTEIN ET AL, 2008	35-44
E	Research paper: SAKINOFSKY, 2014	45-60
F	Research paper: RUBYS REUNIFICATION PROGRAM	61-62
G	Research paper: BABALOLA ET AL, 2014	63-64
H	Research paper: HAZELL ET AL., 2009. ABSTRACT	65-66
I	Research paper: LEICHSENNING 2008 ABSTRACT	67
J	Research paper: TAN AND MARTIN 2014	68-74
K	Research paper: A BRISBANE-BASED AUSTRALIAN STUDY: PASIECZNY AND CONNOR, 2011 ABSTRACT	75
L	Research paper: A REVIEW: GROVES ET AL, 2011	76-86
M	Research paper: MCDONELL ET AL., 2010	87-90
N	PROFESSIONAL PUBLICATIONS PROF G MARTIN	91-98
O	5 BOOKLETS MARTIN ET AL., – Extract and covers only	99-106

EXHIBIT 306

CHS.900.006.0023

P	Research paper: MARTIN ET AL., 2010	107-111
Q	Research paper: AFFRUNTI AND GINSBURG, 12	112-120
R	Research paper: MARTIN AND WAITE, 1994	121-129
S	Research paper: BAETENS ET AL, 2015	130-137
T	Research paper: WILHELM ET AL., 2004	138-144
U	Research paper: ROTOLONE AND MARTIN 2012	145-156
V	Book: MARTIN 2014 – cover only	157-158
W	LETTER FROM DR. PETER PARRY 27TH JUNE 2013	159
X	Email activity regarding ▇▇▇▇▇	160-312

EXHIBIT 306 　　　　　　　　　　 A "　　　　　　　　　　 CHS.900.006.0024

Barrett Adolescent Centre Commission of Inquiry

BARRETT ADOLESCENT CENTRE COMMISSION OF INQUIRY

Commissions of Inquiry Act 1950
Section 5(1)(d)

FURTHER REQUIREMENT TO GIVE INFORMATION IN A WRITTEN STATEMENT

To:　　　　Professor Graham Martin

Of:　　　　c/- Mr Paul Lack, Crown Law, by email to ▓▓▓▓▓▓

I, the Honourable MARGARET WILSON QC, Commissioner, appointed pursuant to *Commissions of Inquiry Order (No. 4) 2015* to inquire into certain matters pertaining to the Barrett Adolescent Centre ("the Commission") require you to give a written statement to the Commission pursuant to section 5(1)(d) of the *Commissions of Inquiry Act 1950* in regard to your knowledge of the matters set out in the Schedule annexed hereto.

YOU MUST COMPLY WITH THIS REQUIREMENT BY:

Giving a written statement prepared either in affidavit form or verified as a statutory declaration under the *Oaths Act 1867* to the Commission on or before **4:00pm, Friday, 19 February 2016**, by delivering it to the Commission at Level 10, 179 North Quay, Brisbane.

A copy of the written statement must also be provided electronically either by: email at mail@barrettinquiry.qld.gov.au (in the subject line please include "Requirement for Written Statement"); or via the Commission's website at www.barrettinquiry.qld.gov.au (confidential information should be provided via the Commission's secure website).

If you believe that you have a reasonable excuse for not complying with this notice, for the purposes of section 5(2)(b) of the *Commissions of Inquiry Act 1950* you will need to provide evidence to the Commission in that regard by the due date specified above.

DATED this　　*8th*　　day of　　*February*　　201*6* .

The Hon Margaret Wilson QC
Commissioner
Barrett Adolescent Centre Commission of Inquiry

EXHIBIT 306   CHS.900.006.0025

SCHEDULE

1. Explain:

    a. your clinical opinion of the desirability of an extended treatment and rehabilitation centre for adolescents with similar diagnostic profiles as the Barrett Adolescent Centre (**BAC**) cohort;

    b. any concerns held by you in relation to the clinical governance at the BAC, providing details of the specific incidents giving rise to your concerns; and

    c. any concerns held by you in relation to the currency of model of care at the BAC, providing details of evidence-based research supporting your concerns.

2. Provide your clinical opinion regarding whether there is a lack of alignment between adolescent and adult mental health services in that patients in the 18-25 year age group are not adequately dealt with by either adolescent or adult mental health services. If so:

    a. Does this lack of alignment mean that patients in that age group commonly experience problems in their transition from adolescent to adult mental health services?

    b. Is there a need for mental health services directed to the 18 to 25 year age group, or a similar age group and if so, explain generally what services are needed?

3. A number of documents produced to the Commission refer to "cutting" as a form of self-harm. The Commission understands that you have particular expertise in relation to this matter. Explain your clinical opinion, and provide details of any relevant research conducted by you or others (where appropriate), in relation to:

    a. what the term "cutting" means?

    b. the pathology or psychology behind adolescents engaging in "cutting" or self-harm; and

    c. any strategies or treatments to manage "cutting" or self-harm in adolescents.

2

4. In paragraph 19 of your Statement affirmed on 18 January 2016 (**Statement**), you state that "*Associate Professor Brett McDermott, Director of the Mater Kids in Mind had, since his arrival in Queensland in late 2001, taken responsibility for a considerable number of services south of the Brisbane River. My understanding is that this responsibility included Barrett Adolescent Centre, administered through West Moreton.*" Explain the basis for your understanding that Professor McDermott was responsible for the Barrett Adolescent Centre during this time.

5. In paragraph 26 of your Statement, you state that "*I recall I was impressed by the model of care described to me by Dr Sadler.*"

   a. Elaborate on the particular elements of the model of care described to you by Dr Sadler that impressed you at that time, and the basis for your opinion.

   b. Explain your current opinion of the model of care described to you by Dr Sadler at that time (ie. whether your opinion of the model of care described to you by Dr Sadler has changed in light of other models of care subsequently being developed or preferred in the field of child and adolescent psychiatry and, if so, the difference between those models and your understanding of the model of care described to you by Dr Sadler, and your opinion regarding which model should be preferred and why).

6. In paragraph 35 of your Statement, you state "*I am unable to comment on the comparative adequacy of services.*" However, in paragraphs 44 and 46 of your statement, you state that "*there was*" and "*there appeared to be*" "*no viable alternative to the Barrett Adolescent Centre*" respectively, and in paragraph 47 you state that "*[f]ollowing the closure of the Barrett Adolescent Centre, as far as I can understand, no viable alternative to the Barrett Adolescent Centre has been created.*" In your opinion, is there a gap in the public services available to adolescents who would have previously accessed the BAC, and if so, what type of service/s do you believe are required to treat this particular cohort?

7. In paragraph 54 of your Statement, you state that "*I had no concerns regarding transition arrangements in place for   as I do not recall any Barrett Adolescent Centre*

personnel becoming directly involved in [ ] *clinical care."* Explain your clinical opinion in relation to:

a. whether [ ] required an admission to the BAC;

b. to the best of your knowledge, the adequacy of the alternative arrangements that you, or any other clinicians involved in the clinical care of [ ] made for [ ] once you or those other clinicians had determined that [ ] could not be admitted to the BAC; and

c. whether [ ] clinical care was adversely affected by the closure of the BAC.

8. On 7 November 2012, you emailed Dr Trevor Sadler and a group email called [ ] copying in Dr Stephen Stathis about the "Impending closure of Barrett Adolescent Centre" [QHD.012.002.2516 **attached**]. In this email, you stated that *"[t]he rhetoric is that no front line workers will be sacked, but our own service has been 'asked' (behind closed doors) to reduce our budget by 5% 'across the board'.* Explain:

a. which service you are referring to in this email; and

b. to the best of your knowledge, the circumstances in which that service was 'asked' to reduce its budget, including who asked that service to reduce its budget, the content of that request, when that request was made and to whom, in what context that request was made (for example, in a formal meeting or otherwise), and how you became aware of that request.

9. Identify and exhibit all documents in your custody or control that are referred to in your witness statement.

4

EXHIBIT 306

CHS.900.006.0028

QHD.012.002.

[QFCAP] Impending closure of Barrett Adolescent Centre

From: Graham Martin

To: Trevor Sadler

Bcc: Stephen Stathis

Date: Wed, 07 Nov 2012 13:00:10 +1000

Trevor,

I apologise for not responding prior to this, but professional life has been frenetic. I have not yet had time to review what our other colleagues have said in response, but what you report is outrageous.

This is similar to other measures being taken to get Queensland back to a Triple A rating, and to rectify the stupidy of the losses through the Queensland Health payroll scandal - without consultation, and without care for human life.

The rhetoric is that no front line workers will be sacked, but our own service has been 'asked' (behind closed doors) to reduce our budget by 5% 'across the board'. Given that mental health is predominantly an endeavour dependent on staff and their training and skills, most services run very lean regarding ancillary staff, and we do not employ extremely expensive tests or huge costs attached to equipment, a reduction will mean loss of front line workers. Given the kind of clientele we have, and the ever-increasing severity and complexity, these measures will cost lives. Your own unit is well known to have saved the lives of many young people who were at extreme risk. Loss of the unit will cost lives.

I cannot think what government is trying to do in targeting mental health services, except that we are an 'easy target'. We do not have strong media coverage, and our clients do not have a voice.

I cannot think where they are getting their information from, or with whom they have consulted. It is certainly NOT with me.

We must find out who is seeing themselves as close to power at this time (and find out what they think they have to gain).

There are 75 or so Child Psychiatrists in Queensland. I believe we do have a voice, and should use it - either in collaboration with the College, or the AMA, or failing them then on our own.

I believe that the kind of secrecy in which all of this kind of stuff occurs is dangerous to the future of our services. I think we should go to the press (and I do not care what any bureaucrats or others think of that move). It is time we stood up for what we believe.

I believe we could use strike action. I am serious. We will not get the attention of these bean counters unless we do something radical. We should raise the issue, warn whoever, involve the press, and ALL child psychiatrists across the state should be involved in a 24 hour strike. I am sure our paediatric colleagues and our multidisciplinary staff will take up the slack for 24 hours, and no lives will be lost (which is what will be said to make us look bad).

Regards, Graham

EXHIBIT 306

CHS.900.006.0029

Schema Focused Therapy in Forensic Settings: Theoretical Model and Recommendations for Best Clinical Practice

David P. Bernstein, Arnoud Arntz, and Marije de Vos

Until recently few empirically supported treatments for patients with personality disorders were available. Schema Focused Therapy (SFT) has recently shown efficacy in (non-forensic) outpatients with Borderline Personality Disorder, raising the question if it may also be effective in forensic PD patients. For the past two years, we have been collaborating with Dutch forensic hospitals to adapt the SFT approach to meet the challenges posed by this population. In this article, we present our forensic modification of the SFT theoretical model, and make recommendations for the implementation of SFT in forensic clinical practice.

For the past two years, we have been working with treatment professionals in the Netherlands to adapt and integrate Schema Focused Therapy (also known as "Schema Focused Cognitive Therapy," or "Schema Therapy") (SFT; Young, 1999; Young, Klosko, & Weishaar, 2003) in their work with forensic patients. Our experiences in collaboration with Dutch forensic psychiatric hospitals (known as "TBS clinics")—including giving case conferences and workshops, consulting with treatment staff, supervising therapists, and most importantly, learning from the experiences and creative syntheses of the dedicated clinicians who work at these institutions—provides the knowledge base from which the ideas described in this article were developed.

SFT is an integrative form of psychotherapy combining cognitive, behavioral, psychodynamic object relations, and existential/humanistic approaches (Young et al., 2003), and was developed by Jeffrey Young as a treatment for patients with personality disorders and other difficult to treat problems, who often show poor outcomes in other forms of therapy (Young, 1999; Young et al., 2003). In a multi-center randomized clinical trial that was recently completed in The Netherlands, patients with Borderline Personality Disorder who were given SFT showed substantial improvements in their symptoms and functioning over a three year course of treatment, as well as over the one year follow-up interval (Giesen-Bloo et al., 2006). These results suggest that SFT is an effective treatment for Borderline Personality Disorder, raising the question if it also may be effective in treating severe personality disorders in *forensic patients*. It was in this spirit that we undertook the project of adapting and testing the efficacy of SFT methods in forensic patients with personality disorders.

Personality disorders are highly prevalent in forensic populations (de Ruiter, & Greeven, 2000; Hildebrand & de Ruiter, 2004; Leue, Borchard, & Hoyer, 2004; Rasmussen, Storsaeter, & Levander, 1999; Timmerman & Emmelkamp, 2001). In Dutch forensic hospitals, two thirds to 90% of the patient population has a DSM-IV personality disorder, as ascertained by structured diagnostic interview (de Ruiter, & Greeven, 2000; Hildebrand & de Ruiter, 2004; Timmerman & Emmelkamp, 2001). Anti-social, Narcissistic, Borderline, and Paranoid Personality Disorders are the most prevalent specific personality disorders in this population. Personality disorders pose an increased risk of criminal and violent recidivism (Hemphill, Hare, & Wong, 1998; Hiscoke, Langstrom, Ottosson, & Grann, 2003;

EXHIBIT 306　　　　　　　　　　　　　　　　　　　　　　　　　　　　CHS.900.006.0030

Jamieson & Taylor, 2004; Putkonen, Komulainen, Virkkunen, Eronen, & Lonnqvist, 2003; Rosenfeld, 2003; Salekin, Rogers, & Sewell, 1996). For example, in a recent study in Britain, forensic patients with personality disorders were seven times more likely to have a subsequent serious offense after release from a high security hospital, compared to patients with other psychiatric problems (e.g., Schizophrenia) (Jamieson & Taylor, 2004). The increased risk of recidivism in psychopathy – a severe variant of Antisocial Personality Disorder – has been well documented (Hemphill et al., 1998; Salekin et al., 1996). Thus, improving treatments for forensic patients with personality disorders should be a major priority.

SFT is being increasingly implemented in forensic settings around the world, including the United States, Canada, Britain, and The Netherlands (Rijkeboer, 2005; Tunnissen & Muste, 2002; Young et al., 2003). The adaptation and integration of SFT into forensic settings poses unique challenges. For one, SFT was not developed as a treatment for forensic populations. In the past, the "typical" patient undergoing SFT was someone with a personality disorder seen in a general psychiatry or psychology ambulatory treatment center or a private practice setting (Young et al., 2003). These ambulatory personality disorder cases overlap only partially with forensic personality disorder patients; clearly, in the latter group, issues such as violence, deception/ manipulation, remorselessness, and addiction are far more salient. Moreover, in forensic psychiatric settings, individual therapy is usually delivered in a context in which multiple treatment modalities (e.g., art, music, or drama therapy) and other rehabilitation methods (e.g., vocational and educational training) are employed (de Ruiter, 2000). Finally, in forensic settings, patients are either incarcerated or, if treated in ambulatory settings, under strict supervision (e.g., parole or probation).

Thus, the theoretical model and treatment methods on which SFT was originally based require adaptation to meet the specific requirements of forensic populations. In this article, we present our adaptation of the SFT theoretical model for forensic patients, along with our recommendations for best practice in the implementation of SFT in forensic settings (Table 1). Because SFT is a relatively new form of psychotherapy, and is only now beginning

to be used in forensic institutions, there are as yet no established standards for how SFT should be implemented in the complex organizational environment of a forensic psychiatric hospital. We offer our recommendations as proposals to stimulate discussion among treatment professionals about the various obstacles and issues that arise in transferring SFT from the outpatient psychiatric clinic environment to the world of forensic mental health practice.

THE ORIGINAL SFT MODEL: EARLY MALADAPTIVE SCHEMAS AND MALADAPTIVE COPING RESPONSES

In Young's original SFT model (Young, 1999; Young et al., 2003), Early Maladaptive Schemas (EMS's) were the basic units of analysis. EMS's are chronic, maladaptive themes or patterns that originate in adverse childhood experiences and early temperament; Young has identified 18 such patterns, such as Abandonment, Abuse/Mistrust, and Defectiveness (see Table 2). For example, an Abandonment Schema involves the expectation that one will inevitably be abandoned in close relationships. These EMS's are deeply held convictions. They are like absolute truths that guide people's perceptions and behavior. For example, someone with an Abandonment Schema is certain that he will be abandoned. It is not a matter of "if" one will be abandoned; it is a matter of "when" one will be abandoned.

When EMS's are triggered, they evoke powerful emotions, such as sadness, fear, and anger. Young hypothesized that people cope with schematic activation in 3 broad ways: Schema Surrender, Schema Avoidance, and Schema Over-Compensation (Young, 1999; Young et al., 2003). Schema Surrender means giving into a schema. For example, someone with an Abandonment Schema may unconsciously be attracted to the very kinds of people who are likely to abandon him or her. When the patient is rejected, it reinforces the belief that abandonment is inevitable. Schema Avoidance means avoiding people or situations that trigger a schema. For example, someone with an Abandonment Schema may avoid close relationships altogether, because he is certain that he will suffer yet another painful abandonment. Finally, Schema Over-Compensation means doing the opposite of the

Table 1

Recommendations for Best Clinical Practice in the Implementation Schema Focused Therapy in Forensic Settings

1. Schema Mode Work is the preferred form of SFT practice with more severe personality disorders.
2. A high PCL-R score is not an exclusion criterion for treatment with SFT.
3. It is advisable to educate professional staff about SFT – its goals, principles, and methods — and to give them a chance to ask questions and raise concerns about SFT.
4. The successful implementation of SFT depends on an institutional environment that is sufficiently safe and supportive of the patient's recovery.
5. SFT ascribes to the forensic treatment principles of risk, need, and responsivity, namely that treatment should be provided for the patients who need it most, including those patients considered the most resistant to treatment, and should focus on ameliorating the underlying psychological risk factors for violence and recidivism in these patients.
6. As a general rule, psychiatric comorbidity (i.e., with Axis I disorders) is not a contraindication for SFT.
7. There are some comorbid conditions that may be contraindications for SFT, such as low intelligence, neurological impairment, autistic spectrum disorders, and certain psychotic disorders.
8. The use of psychotropic medications is also not a contradiction for SFT.
9. SFT must be combined with the established principles and practices of addiction treatment, if it is to be effective in the treatment of patients dually diagnosed with addictions and personality disorders.
10. Careful diagnosis and assessment of patients is an essential precondition for SFT.
11. The rigors of working with forensic patients make the need for thorough training of SFT therapists imperative.
12. Regular supervision or peer supervision sessions are necessary to insure the effective delivery of SFT in forensic settings.
13. Therapists should have at least 3 years of prior psychotherapy experience before they attempt to master SFT.
14. Competency ratings for therapists should become standard practice, particularly in forensic settings in which the therapists' competency may affect patients' recidivism risk.

schema. For example, someone with an Abandonment schema may over-compensate by leaving a relationship before he can be left himself.

Schema Modes in Severe Personality Disorder

Over time, Young found that standard SFT techniques emphasizing EMS's and coping responses were of limited effectiveness in treating severe personality disorders (Young et al., 2003). One reason for this is that patients with severe personality disorders often have so many EMS's that discussing them all becomes unwieldy. Second, people with severe personality disorders have relatively un-integrated personalities. As a result, they often switch rapidly between emotional states, making it difficult for therapists to know how to target their interventions. Young developed Schema Mode Work as a

more manageable and effective alternative for treating these shifting emotional states (Young et al., 2003).

Schema Mode Work is the preferred form of SFT practice with more severe personality disorders (Guideline 1), such as Antisocial, Borderline, Narcissistic, and Paranoid Personality Disorders, which are the most prevalent personality disorders in forensic settings (e.g., Hildebrand & de Ruiter, 2005). Schema Mode Work comprises a set of techniques that enables the therapist to work with the rapidly fluctuating emotional states and coping responses that are so characteristic of severe personality disorders. Schema Modes are defined as the emotional state or "part of the person" that dominates a person's thoughts, feelings, and behavior at a given moment in time (Young et al., 2003). Young has identified 11 Schema Modes, which he

EXHIBIT 306   CHS.900.006.0032

Table 2

Early Maladaptive Schemas and Schema Domains

Disconnection and Rejection

1. Abandonment/Instability	The expectation that one will inevitably be abandoned
2. Mistrust/Abuse	The expectation that others will hurt, abuse, humiliate, cheat, lie, manipulate, or take advantage
3. Emotional Deprivation	The expectation that others won't meet one's need for a normal degree of emotional nurturance, empathy, and protection
4. Defectiveness/Shame	The feeling that one is defective, bad, unwanted, inferior, or invalid in important respects
5. Social Isolation/Alienation	The feeling that one is always an outsider, different and alienated from other people

Impaired Autonomy and Performance

6. Dependence/Incompetence	Expectation that one can't handle everyday responsibilities without considerable help from others.
7. Vulnerability to Harm or Illness	Exaggerated fear that imminent catastrophe will strike at any time and that one cannot prevent it.
8. Enmeshment/Undeveloped Self	Excessive emotional involvement and closeness with others at the expense of full individuation or normal social development.
9. Failure	The belief that one has failed, or will inevitably fail, or is fundamentally inadequate in areas of achievement

Impaired Limits

10. Entitlement/Grandiosity	The belief that one is superior to others, entitled to special rights and privileges, or bound by normal rules of social reciprocity
11. Insufficient Self-Control/ Self-Discipline	Pervasive difficulty or refusal to exercise self-control and frustration tolerance to achieve goals.

Other-Directedness

12. Subjugation	Excessive surrendering of control to others because one feels coerced, to avoid anger, retaliation, or abandonment
13. Self-Sacrifice	Excessive focus on voluntarily meeting the needs of others at the expense of one's own gratification.
14. Approval-Seeking/ Recognition-Seeking	Excessive emphasis on gaining approval, recognition, or attention from other people

Over-vigilance and Inhibition

15. Negativity/Pessimism	A pervasive, lifelong focus on the negative aspects of life (e.g., pain, death, loss) while minimizing the positive or optimistic aspects
16. Emotional Inhibition	The excessive inhibition of spontaneous action, feeling, or communication
17. Unrelenting Standards/ Hyper criticalness	The belief that one must strive to meet very high internalized standards of behavior and performance
18. Punitiveness	The belief that people should be harshly punished for making mistakes

---

Note: Adapted from Young, Klosko, & Weishaar, 2003

groups into 4 categories: Child Modes, Dysfunctional Coping Modes, Maladaptive Parent Modes, and Compensatory Modes (Young et al., 2003). Definitions are provided in Table 3.

In severe personality disorders, Schema Modes are relatively dissociated from each other; the patient lacks a strong Healthy Adult Mode that is aware of the patient's various emotional states and can moderate and integrate them, bringing them under deliberate control (Young et al., 2003). For that reason, patients with severe personality disorders often "flip" between modes, both within therapy sessions and outside of them. This mode flipping occurs automatically and often without conscious awareness, either of the emotional state itself or of its consequences for the patient's well-being. For example, a patient with Antisocial Personality Disorder may fluctuate between emotionless detachment ("Detached Protector Mode"), compulsive efforts at self-soothing through drug or alcohol use or other addictive behavior ("Detached Self-Soother Mode"), primitive rage reactions in response to narcissistic injuries or abandonment ("Angry Child Mode"), grandiose devaluation ("Self-Aggrandizer Mode"), cunning attempts to con and manipulate ("Conning Mode"), attempts to intimidate or bully ("Bully and Attack Mode"), and ruthless acts of violence aimed at eliminating a threat, rival, or obstacle ("Predator Mode"). The goal of Schema Mode Work is to help the patient moderate or eliminate his various maladaptive Schema Modes, and to develop a stronger Healthy Adult Mode that can help the patient meet his basic emotional needs in a more adaptive and successful manner.

ADAPTING THE SCHEMA MODE THEORETICAL MODEL FOR FORENSIC PATIENTS

We propose that the Schema Mode model be expanded to include 4 new Schema Modes that appear to be common in forensic patients, beyond the 11 original modes that were proposed by Young and colleagues (Young et al., 2003). The 4 new modes are Angry Protector Mode, Predator Mode, Conning and Manipulative Mode, and Over-Controller Mode (Obsessive and Paranoid subtypes) (see also Table 3).

Angry Protector Mode is a state in which a patient uses anger to protect himself from perceived threat or danger. In Angry Child mode, from which Angry Protector Mode must be distinguished, the patient vents his rage in an uncontrolled display of emotion, usually in response to a perceived injustice. In contrast, Angry Protector mode has the goal of creating a "wall of anger" that keeps the threat at a safe distance.

Predator Mode is a state in which a patient focuses on eliminating a threat, rival, obstacle, or enemy in a cold, ruthless, and calculating manner. Predator Mode must be distinguished from Angry Child Mode and Angry Protector Mode, both of which involves displays of anger, and Bully and Attack Mode, which involves attempts to bully or intimidate others to achieve a position of superiority.

Conning and Manipulative Mode is a state in which a patient cons, lies, or manipulates in a manner designed to achieve a specific goal, which either involves victimizing others or escaping punishment.

Table 3
Schema Modes (Including 11 Original Schema Modes and 4 New Forensic Modes)

Child Modes
Involve feeling, thinking, and acting in a "child-like" manner

1. Vulnerable Child (Abandoned, Abused, or Humiliated Child)	Feels vulnerable, overwhelmed with painful feelings, such as anxiety, depression, grief, or shame/humiliation.
2. Angry Child	Feels and expresses uncontrolled anger or rage in response to perceived or real mistreatment, abandonment, humiliation, or frustration; often feels a sense of being treated unjustly; acts like a child throwing a temper tantrum.

EXHIBIT 306   CHS.900.006.0034

174   Bernstein, Arntz, & de Vos

Table 3 (continued)

3. Impulsive, Undisciplined Child	Acts like a spoiled child who "wants what he wants when he wants it," and can't tolerate the frustration of limits.
4. Lonely Child	Feels lonely and empty, as if no one can understand him, sooth or comfort him, or make contact with him.

Dysfunctional Coping Modes
Involve attempts to protect the self from pain through maladaptive forms of coping

5. Detached Protector	Uses emotional detachment to protect one from painful feelings; is unaware of his feelings, feels "nothing," appears emotional distant, flat, or robotic; avoids getting close to other people
6. Detached Self-Soother/Self-Stimulator	Uses repetitive, "addictive," or compulsive behaviors, or self-stimulating behaviors to calm and sooth oneself; uses pleasurable or exciting sensations to distance oneself from painful feelings.
7. Compliant Surrenderer	Gives in the to real or perceived demands or expectations of other people in a anxious attempt to avoid pain or to get one's needs met; anxiously surrenders to the demands of others who are perceived as more powerful than oneself.
8. Angry Protector	Uses a "wall of anger" to protect oneself from others who are perceived as threatening; keeps others at a safe distance through displays of anger; anger is more controlled than in Angry Child Mode

Maladaptive Parent Modes
Involve internalized dysfunctional parent "voices"

9. Punitive, Critical Parent	Internalized, critical or punishing parent voice; directs harsh criticism towards the self; induces feelings of shame or guilt
10. Demanding Parent	Directs impossibly high demands toward the self; pushes the self to do more, achieve more, never be satisfied with oneself.

Over-Compensatory Modes
Involve extreme attempts to compensate for feelings of shame, loneliness, or vulnerability

11. Self-Aggrandizer Mode	Feels superior, special, or powerful; looks down on others; sees the world in terms of "top dog" and "bottom dog;" shows off or acts in a self-important, self-aggrandizing manner; concerned about appearances rather than feelings or real contact with others
12. Bully and Attack Mode	Uses threats, intimidation, aggression, or coercion to get what he wants, including retaliating against others, or asserting ones dominant position; feels a sense of sadistic pleasure in attacking others
13. Conning and Manipulative Mode	Cons, lies, or manipulates in a manner designed to achieve a specific goal, which either involves victimizing others or escaping punishment
14. Predator Mode	Focuses on eliminating a threat, rival, obstacle, or enemy in a cold, ruthless, and calculating manner.
15. Over-Controller Mode (paranoid and obsessive compulsive types)	Attempts to protect oneself from a perceived or real threat by focusing attention, ruminating, and exercising extreme control. The Obsessive type uses order, repetition, or ritual. The Paranoid type attempts to locate and uncover a hidden (perceived) threat.

Note: Modes 1-7, and 9-12, are adapted from Young, Klosko, & Weishaar, 2003

EXHIBIT 306   CHS.900.006.0035

The patient may assume a false identity, give misleading information, or behave in a seductive, manipulative, or theatrical manner, to achieve his ends.

In Over-Controller Mode, the patient's emotional state involves a narrowing of attention along with obsessive rumination in an attempt to protect oneself from a perceived threat. In the Obsessive subtype, the patient attempts to control a source of danger through the use of order, repetition, or ritual. In the Paranoid subtype, the patient attempts to seek out and therefore control a source of danger or humiliation, usually by locating and uncovering a hidden (perceived) threat.

These additions to the SFT conceptual model may help both therapists and patients to recognize and work with the most common Schema Modes seen in forensic patients with personality disorders. In our experience, Schema Modes often play themselves out in a predictable pattern. In some instances, these temporal sequences of unfolding Schema Modes may help to explicate the events leading up to and culminating in the commission of crimes.

Case Example #1

Omar, a man with Narcissistic and Paranoid Personality Disorder, was convicted of murder and given treatment in a TBS clinic. His crime grew out of his obsession with a female co-worker, someone he hardly knew but on whom he had developed a pathological fixation. He was a very intelligent man of Middle Eastern background, who grew up in a lower-income neighborhood in the Netherlands. His parents were very religious, strict, and conservative. They insisted that he improve his future prospects through hard work and education. He became a diligent student, earning high marks in his courses. At the same time, he felt like a social outcast in Dutch society, because of his family's poverty and foreign background, and his own social awkwardness. Yet, he also felt secretly superior to those around him. He dreamed of marrying a beautiful, white (non-Middle Eastern) Dutch girl who would inspire envy in others, and show everyone that he had "made it" in the mainstream Dutch world.

As a teenager, Omar had become obsessed with a blond haired, blue eyed classmate. When she rejected his advances towards her, he stalked her for several months. Some years later, when he was in his early 20's, the same pattern recurred with his co-worker, another blond Dutch woman. When his co-worker refused to go out with him, he felt deeply humiliated (Humiliated Child Mode). He ruminated about his rejection, feeling that it wasn't fair. "If she would just get to know me, she would eventually agree to become my girlfriend." At such moments, he believed that he would always feel like an outsider and loser. Eventually, he resolved to pursue the woman of his dreams even more diligently. After making this decision, his mood shifted from shameful and dejected to powerful and superior. He fantasized about the sense of triumph he would feel when he proudly showed off the beautiful, blond Dutch girl on his arm. Thus, his shift in mood represented a "flip" from Humiliated Child Mode to Self-Aggrandizer Mode, a mode in which feelings of being special and superior compensate for underlying feelings of inferiority.

In this grandiose state, he pursued his love-interest even more doggedly. He called her frequently at home, asking her to go out with him, sent her small gifts, and even spoke to her friends, trying to persuade them to help him in his quest to woo her. At first, the woman rebuffed him politely. He ignored these signs and continued his pursuit. Eventually, however, as her anxiety and irritation grew, she told him in no uncertain terms that she was not interested in him. He became enraged. He angrily ruminated over the humiliating injustice she had perpetrated on him. Rather than respecting the woman's wishes, he began aggressively stalking her. When she angrily told him to leave her alone, he became verbally abusive towards her. This shift in mood from grandiose euphoria to hostility represented another switch in schema modes from Self-Aggrandizer to Bully and Attack Mode. He would use threats and aggression to get what he wanted. Not surprisingly, his aggressive behavior only prompted further rejections, leading to further escalations of the patient's aggressive behavior.

At this point, the patient's thinking took a paranoid turn. He became convinced that the woman was deliberately trying to humiliate him, and that her friends knew about this and were laughing at him behind his back. He began looking for the person or persons who were behind the "conspiracy." This turn towards paranoia represented another mode

EXHIBIT 306   CHS.900.006.0036

switch, this time to Paranoid Over-Controller Mode – a mode in which attention becomes focused in an attempt to find the source of a perceived threat or humiliation. Eventually, the patient believed that he had located the source of the problem. He was certain that it was the woman's best friend who had turned her against him. His feelings of anger and shame were replaced by cold calculation as he formulated a plan for "getting rid of" the person who was standing in his way. He was sure that the woman he desired would fall in love with him, if only he was given the chance he deserved. He was certain that her best friend could influence her in this direction. If she refused to help him, he would kill her.

This turn towards cold anger and calculation represented a final mode shift — to Predator Mode. In Predator Mode, a perpetrator focuses in a cold, ruthless manner on eliminating a threat or obstacle to getting what he wants. The patient carried out his plan. When the friend refused to help him, he stabbed her to death. When asked about his motives for this gruesome crime, he said that the murder of her best friend was the only way to make the woman he desired feel the pain that he himself had been feeling. In effect, it was an act of revenge for the humiliating rejection he had suffered. Thus, to his mind, his crime had righted the scales of justice, restoring his lost sense of pride and dignity. It was not an act he regretted.

Thus, the patient's otherwise "senseless" crime can be re-constructed and made intelligible by tracking the fluctuations in his Schema Modes – shifts in psychological state that led the patient from humiliation (Humiliated Child Mode), to a failed attempt at grandiose over-compensation (Self-Aggrandizer Mode), to anger and aggression (Bully and Attack Mode), to a desperate attempt to locate the sources of his humiliation (Paranoid Over-controller Mode), and finally, to a cold and ruthless plan to eliminate the source of the problem, or, barring that, to take revenge (Predator Mode). In people with severe personality disorders and a propensity to violence, these schema modes often play themselves out in a predictable pattern with tragic consequences. Thus, the schema modes are closely connected to the patient's risk for violence and recidivism. By targeting and ameliorating the patient's schema modes, SFT may achieve a reduction in the patient's risk for future crime and violence.

Psychopathy: Schema Mode Conceptualization

From a Schema Mode perspective, we would hypothesize that highly psychopathic patients make prominent use of some of the most maladaptive and destructive Schema Modes, particularly Predator Mode, Conning Mode, Self-Aggrandizer Mode, and Bully and Attack Mode. When in Predator Mode, the psychopathic patient engages in a cold, ruthless, remorseless, and calculated attempt to eliminate whoever or whatever stands in the way of his getting what he wants – the type of behavior we often think of as indicating a "true" psychopath.

Predator Mode can be thought of as a type of survival mode – an extreme compensatory mode that reflects a view of the world as a contest for "survival of the fittest," divided into victims and victimizers, prey and predators. Our working hypothesis is that Predator Mode typically arises in childhood under conditions of extreme threat and/or humiliation to the child, often in combination with an environment where others model predatory behavior, and in which predatory attitudes and behaviors are explicitly or implicitly valued and communicated (Jaffee, Caspi, Moffitt, & Taylor, 2004; Lang, af Klinteberg, & Alm, 2002; Marshall & Cooke, 1999; Poythress, Skeem, & Lilienfeld, 2006; Weiler, & Widom, 1996). The child learns that he can command respect from others and overcome his feelings of fear and shame by becoming a predator: blocking out his feelings, including feelings of compassion and remorse; learning to recognize weaknesses in others, while showing no signs of weakness himself; asserting his power and authority whenever possible, especially through the use of force, to get others to fear him; and learning to use deception, charm, and manipulation to ingratiate himself with potential victims. This process is facilitated by an escalating series of violent acts in which he demonstrates his power and fearlessness to himself and others, and progressively desensitizes himself to any feelings of empathy or remorse. We hypothesize that this mode is more likely to develop in individuals with a genetic propensity towards emotional callousness (Taylor, Loney, Bobadilla, Iacono, & McGue, 2003; Viding, Blair, Moffitt, & Plomin, 2005) – thus, an interaction between genetic vulnerability and adverse life experiences (e.g., Caspi et al., 2002).

Case Example #2

As a boy, Carlos, a psychopathic patient, was repeatedly abused and bullied by his psychopathic father. His father insisted that he must always prove that he was "a man" – tough, strong, able to withstand any amount of pain without flinching, never backing down from a fight, never allowing others to show any sign of disrespect toward him. Any sign of weakness or vulnerability would make him a "pussy." His father modeled these values by terrorizing his family. He demanded total obedience. His word was law. Any transgression would be punished by terrifying and humiliating beatings.

As a boy, Carlos was an outcast among his peers. He had no close friends, and never fit in with any social group. He had school problems, and was probably learning disabled, hyperactive, and conduct disordered. He was labeled a "bad" kid – a label that formed the basis of his own self-image. He felt lonely and deeply ashamed of himself (Humiliated Child Mode). By the time he was a teenager, the patient had learned that the surest way to survive in his father's world was to imitate him. He regularly used physical force to bully and intimidate his girlfriends (Bully and Attack Mode). He made friends with other delinquent young men who shared and reinforced his predatory world-view and with whom he would regularly victimize others. He began to engage in a variety of crimes, including burglary and drug dealing. His own drug and alcohol use escalated to the point where he was almost always in a substance-induced state of emotional numbness (Detached Protector Mode), enabling him to further detach from feelings such as empathy and compassion that might have inhibited his violent and predatory behavior. Eventually he became an "enforcer" for a local drug lord, carrying out orders that included using threats or force to intimidate others, and sometimes committing cold-blooded killings (Predator Mode). While in Predator Mode, he described himself as, "robotic," "feeling nothing," and focusing completely on his task. It was "just business." Many years later, after a long prison term and, following his release from prison, the patient contracted HIV. He entered a drug treatment program, where he experienced his first extended period of sobriety. Eventually, he became clinically depressed and expressed feelings of remorse for his crimes.

In Hare's popular model, which reflects the predominant view of psychopathy over the past 200 years, psychopathic traits are assumed to be genetically based propensities that are unchangeable (Hare, 1993). The widely used Psychopathy Checklist -Revised ([PCL-R] Hare, 1991), which is based on Hare's trait approach, is based on a static conception of psychopathy as an unchangeable lifetime diagnosis. It is generally assumed that psychopathic patients are untreatable. Surprisingly, there is little solid empirical evidence from well-designed research studies to support this contention (D'Silva, Duggan, & McCarthy, 2004). Emerging evidence suggests that psychopathy is probably a multi-faceted concept, with multiple subtypes and multiple etiological pathways (Edens, Marcus, Lilienfeld, & Poythress, 2006; Taylor, et al., 2004; Viding, et al., 2005). Some of these patients may prove amenable to treatment, and others not. The above considerations suggest that the PCL-R score, while being a good predictor of criminal recidivism (Hemphill et al., 1998; Salekin et al., 1996), should not be considered a predictor of patients' treatability until empirical evidence can determine whether or not some psychopathic patients can be treated. Thus, *a high PCL-R score is not an exclusion criterion for treatment with SFT (Guideline 2).*

Adapting the SFT Treatment Approach for Forensic Patients

SFT incorporates treatment techniques drawn from cognitive, behavioral, psychodynamic object relations, and existential/humanistic therapies (Young, 1999; Young et al., 2003). For example, it uses cognitive techniques to modify patients' maladaptive thoughts about self and others (i.e., Early Maladaptive Schemas); experiential techniques to help patients vent feelings and process the emotions connected with schemas; the therapeutic relationship to provide "corrective emotional experiences" in the context of a close relationship; and behavioral techniques to teach coping skills and break maladaptive behavioral patterns (Young, 1999; Young et al., 2003).

The central treatment concepts in SFT are "limited re-parenting" and "empathic confrontation" (Young, 1999; Young et al., 2003). In limited re-

EXHIBIT 306   CHS.900.006.0038

178   Bernstein, Arntz, & de Vos

parenting, the therapist attempts to provide some of the warmth, available, guidance, and support that the patient lacked in childhood. In the SFT model, the guiding premise is that the patient's self-defeating life patterns (e.g. Early Maladaptive Schemas, Schema Modes) grow out of an interaction between his innate temperament and the failure of caregivers to meet his early developmental needs (e.g., for love, understanding, guidance, and protection). With limited re-parenting, the therapist attempts to meet these frustrated or neglected developmental needs within appropriate limits.

In empathic confrontation, the therapist confronts the patient regarding his maladaptive behavior patterns, but in a manner that is empathic and non-threatening (Young, 1999; Young et al., 2003). The SFT conceptual model (i.e., Early Maladaptive Schemas, Coping Mechanisms, and Schema Modes) provides an objective and non-pejorative "language" for accomplishing this. In the first stage of SFT treatment, the therapist introduces the SFT conceptual model and, in collaboration with the patient, spends several sessions assessing the patient's self-defeating life patterns and translating them into SFT terms. Thus, over time, the patient learns to recognize and understand his repeating maladaptive patterns using the SFT concepts. Subsequently, when the patient engages in self-defeating behavior, the therapist is able to confront these patterns using concepts that are emotionally and morally neutral and are easy for the patient to understand.

As noted above, patients with severe personality disorders, such as those often seen in forensic settings, present special challenges because of their fluctuating emotional states. In the SFT model, these states are conceptualized as "Schema Modes" (Young et al., 2003). In addition to developing the Schema Mode conceptual model, which we have already discussed, Young has developed interventions that the therapist uses to target the various Schema Modes when they occur. For example, different types of interventions are required when patients "flip" into Vulnerable Child Mode, Angry Child Mode, or Bully and Attack Mode. Thus, the therapist's awareness of the patient's fluctuating emotional states guides his interventions, which are designed to "flip" the patient out of his maladaptive Schema Modes, and into

Schema Modes that are more therapeutically productive (i.e., Vulnerable Child Mode and Healthy Adult Mode). Young et al. (2003) contains a more thorough discussion of Schema Mode treatment techniques for working with severe personality disorders.

Recent research suggests that standard cognitive and behavioral approaches are only of limited effectiveness in forensic patients with personality disorders (Timmerman & Emmelkamp, 2005). SFT may provide a more effective alternative for forensic patients with personality disorders for several reasons. First, its theoretical model provides a conceptual rubric within which the patient and therapist can better understand the meaning behind triggering events. For example, a patient may come to recognize that he is most prone to act out violently when he has experienced perceived abuse, abandonment, or humiliation (e.g., Abused, Abandoned, and Humiliated Child Modes). Thus, the SFT approach may enhance the effectiveness of standard cognitive and behavioral techniques by linking them to the patient's problematic Early Maladaptive Schemas and Schema Modes. Second, SFT incorporates experiential techniques for emotionally re-working schemas that are not found among standard cognitive and behavioral approaches. Third, SFT posits that the therapeutic relationship is a critical agent of change in patients with severe personality disorders whose childhood experiences with caregivers were often inadequate or toxic. This "limited re-parenting" approach is not a feature of usual cognitive or behavior approaches. Finally, Schema Mode Work provides a conceptual framework and set of interventions for managing the fluctuating emotional states of personality disorder patients.

In our own work with therapists in forensic settings, we have found that the SFT treatment approach can be adapted for forensic patients without major adjustments. The main difference is that therapists must be aware of, and become adept at working with, the kinds of Schema Modes that are prevalent among forensic patients (e.g., Bully and Attack Mode), but are less often seen in general psychiatric populations. Thus, the basic SFT approach remains the same, but can be tailored to the therapeutic needs of this challenging population.

IMPLEMENTING SFT IN FORENSIC SETTINGS

A forensic psychiatric institution is a complicated organization in which treatment professionals with varying backgrounds and approaches collaborate towards a specific end: reducing patients' risk of recidivism (de Ruiter, 2000). Whenever a new approach, such as SFT, is introduced into this "mix," it can have ramifications throughout the entire organization. While some treatment professionals may welcome or even embrace new therapeutic developments, others may be confused by, or feel threatened by them. For this reason, *it is advisable to educate professional staff about SFT – its goals, principles, and methods — and to give them a chance to ask questions and raise concerns about SFT (Guideline 3).* It is important to affirm the value of a multi-disciplinary team approach to forensic treatment in which various therapeutic disciplines play important roles. Moreover, it should be emphasized that SFT is not a panacea.

Delivering SFT as part of a Multi-Disciplinary Treatment Team

One of the most frequent complaints of SFT therapists working in forensic settings is that their "re-parenting" stance puts them at odds with other members of the multi-disciplinary treatment team, who are more punitive and less sympathetic towards patients. One therapist described herself as feeling like a protective "mother lion" who felt frustrated and helpless when her patient was given what she saw as an excessively severe punishment for an infraction. In contrast, the treatment team viewed the therapist as being "duped" by a manipulative patient who had used his charm to form an alliance with her against the rest of the staff. From a SFT perspective, we can understand this kind of situation as a complex group dynamic in which the patient's Schema Modes evoked corresponding Schema Modes in various staff members, including the therapist.

Case Example #3

Jan, a patient with Antisocial Personality Disorder, became caught up in an escalating cycle of defiance and punishment, when his angry refusal to end a session in the gymnasium triggered increasingly severe sanctions by staff. The patient had been physically abused as a child, and had learned to respond to punishment with a smug show of indifference (Angry Protector Mode). Rather than showing contrition, he smirked and turned his back when given a punishment, as if to say, "You may think that you are more powerful than I, but nothing you do can affect me." Not surprisingly, the staff found his defiance enraging, and applied even more stringent punishments in an attempt to set limits on his "uncooperative" behavior. This only provoked further defiance in the patient. This escalating cycle eventually led to the patient's having to spend several weeks in isolation – a punishment that seems disproportionate to the patient's original infraction (i.e., refusing to leave the gymnasium when he was told to do so). Thus, the patient's hostile defiance (Angry Protector Mode) brought out a punitive side in the treatment team (Punitive Parent Mode), initiating a destructive and mutually reinforcing pattern.

In contrast to his defiant behavior towards the treatment team, the patient was able to show his vulnerable side to his therapist, with whom he continued to meet during his period of seclusion. He confided experiencing painful feelings of loneliness and powerlessness (Vulnerable Child Mode). He said that he was desperate to make amends with the treatment team and be allowed to rejoin the clinic community. His attempts to make contact with members of the treatment team had been consistently rebuffed. He felt that he was being mistreated, but couldn't understand the connection between his own behavior and the over-reactions of clinic staff. The therapist felt that the patient's vulnerable emotions were genuine, and tried to intervene on his behalf. However, the rest of the team was unsympathetic.

In her re-parenting role, the SFT therapist must support the patient but at the same time help him to learn to take responsibility for his own behavior. A Schema Mode conceptualization provides an emotionally and morally neutral manner in which these self-defeating patterns can be pointed out to patients. Such punitive situations, though painful to the patient, provide him with an opportunity to recognize his own role in provoking and maintaining these escalating conflicts, and ultimately, to learn to break these patterns. If the therapist attempts to "rescue" the patient by siding with him against the

EXHIBIT 306   CHS.900.006.0040

rest of the treatment team, she may inadvertently deprive the patient of the opportunity to learn from the consequences of his own actions.

At the same time, the treatment team also bears some of the responsibility for ameliorating these difficult interactions. Educating treatment staff in SFT concepts can facilitate the resolution of these conflicts. The Schema Mode model provides team members with an objective and non-threatening means of understanding patients' provocations, as well as their own possible over-reactions to them. Once such situations have been re-framed in SFT terms, they can usually be resolved more easily.

Needless to say, the *successful implementation of SFT depends on an institutional environment that is sufficiently safe and supportive of the patient's recovery (Guideline 4)*. No form of psychotherapy, no matter how skillfully delivered, can be expected to succeed if the institutional milieu is dangerous or cruel. In the SFT model, we would expect that a threatening or harsh institutional environment would reinforce precisely the kinds of maladaptive Schema Modes in forensic patients that SFT is attempting to ameliorate, such as Angry Protector Mode, Bully and Attack Mode, Conning and Manipulative Mode, and Predator Mode. We hypothesize that these modes usually develop as extreme forms of adaptation under conditions, such as severe abuse or neglect, which threaten children's survival. It would not be surprising that these same modes would be evoked later in life in conditions that mimicked their childhood origins. In contrast, an institutional environment that is sufficiently safe, and is perceived by patients as firm but fair, rather than punitive, provides conditions that are favorable to the implementation of SFT. The institution itself is an important aspect of the patient's re-parenting experience. By providing safety, support, and validation, it creates the conditions under which patients can modify their maladaptive behaviors and learn healthier forms of adaptation (i.e., develop a stronger, more adaptive Healthy Adult Mode).

Selecting Patients for SFT

In principle, any personality disorder patient can be treated using SFT. Unlike some other forms of psychotherapy that actively exclude patients who are unable to agree to a treatment contract or are deemed too fragile for a confrontational form of therapy (e.g.,

Clarkin, Yeomans, & Kernberg, 1999), SFT has no formal exclusion criteria, nor does it seek to treat only "healthier," "higher functioning," "insightful," or "motivated" patients. In fact, *SFT ascribes to the forensic treatment principles of risk, need, and responsivity* (Gendreau, Goggin, French, & Smith, 2006; Wong & Gordon, 2004), *namely that treatment should be provided for the patients who need it most, including those patients considered the most resistant to treatment, and should focus on ameliorating the underlying psychological risk factors for violence and recidivism in these patients (Guideline 5)*.

Psychiatric Comorbidity

As a general rule, psychiatric comorbidity (i.e., with Axis I disorders) is not a contraindication for SFT (Guideline 6). Many, if not most, patients with personality disorders have current or past comorbid Axis I disorders, such as mood and anxiety disorders, addictive disorders, eating disorders, dissociative disorders, or somatoform disorders (Kreuger, 2005). Excluding such patients from treatment would leave a very limited number of patients amenable to treatment with SFT. In the case of patients whose presenting problem is an Axis I disorder, the standard procedure is to first treat the Axis I symptoms (e.g., through psychotherapy or medication) before initiating SFT to treat the underlying personality disorder.

Contraindications for SFT. In practice, however, it is important to acknowledge that *there are some comorbid conditions that may be contraindications for SFT, such as low intelligence, neurological impairment, autistic spectrum disorders, and certain psychotic disorders (Guideline 7)*. Similarly, severe attentional problems (e.g., Attention Deficit Disorder) or severely impulsive behavior (e.g., Intermittent Explosive Disorder) may limit the patient's ability to participate in SFT. Psychiatric medication may help to ameliorate some patients' difficulties in these areas to the point where they are able to benefit from SFT. Patients with a propensity for psychosis may be vulnerable to decompensation during SFT, because of the more exploratory (e.g., imagery exercises) and confrontational aspects of the treatment. Certainly, patients who are actively psychotic should not undergo SFT until after their psychotic symptoms have remitted. *The use of psychotropic medications is also not a contradiction*

for SFT (Guideline 8). In fact, the prompt use of medication to treat Axis I symptoms may help to stabilize patients in the acute phase of illness and make them more amenable to treatment with SFT.

SFT in dually diagnosed patients

There is a complex interplay between personality disorders and addiction (Verheul, van den Bosch, & Ball, 2005). This inter-relationship is of potentially critical importance for SFT treatment of forensic patients, given the high comorbidity between personality disorders and addictive disorders in forensic populations (Verheul, et al., 2005). For serious addictions (i.e., dependence on "hard drugs" or alcohol), *SFT must be combined with the established principles and practices of addiction treatment, if it is to be effective in the treatment of patients dually diagnosed with addictions and personality disorders (Guideline 9)*. It would be naïve to presume that SFT alone would be sufficient to combat the powerfully reinforcing effects of addictive substances on behavior, when addicts are in the active phase of their addiction. For active addicts with severe drug or alcohol dependence, cessation or at least substantial reduction of drug or alcohol use must precede any attempt to initiate SFT.

In the SFT model, addictive disorders are usually conceptualized as a form of self-soothing behavior, which patients use to manage their otherwise too painful emotions (Ball, 2004; Young et al., 2003). In Schema Mode terms, addictive behavior usually corresponds to the Detached Self-Soother Mode, wherein patients use addictive or compulsive behavior to enter a state of emotional numbing in which they feel not "nothing," but rather a pleasant state of excitement, high, buzz, bliss, or similar sensations – all of which serve as a self-soothing form of detachment from real feelings. This model obviously bears similarity to the self-medication model of addiction (Khantzian, 1997), in which addictive behavior is hypothesized to act as a self-regulatory mechanism for managing painful emotional states, such as anger, sadness, or anxiety.

When patients spend much of their waking hours under the influence of addictive substances, the emotionally numbing effects can be profound, making it virtually impossible for the patient to experience any real feelings at all (Detached Protector Mode). In effect, these patients remain in

a Detached Protector Mode nearly all of the time, except during states of withdrawal. Not only does this emotional numbing serve a self-regulatory function, it may enable patients to more effectively detach themselves from "moral" feelings such as empathy, guilt, and shame that under normal circumstances inhibit antisocial behavior. Thus, the emotional detachment that is often so evident in psychopathic patients may also be a consequence of prolonged substance abuse itself. When such patients cease using addictive substances, and have prolonged periods of sobriety, they may begin to experience emotions that are raw, painful, and quite unfamiliar to them.

Diagnosis and Assessment

Careful assessment of patients is an essential precondition for SFT (Guideline 10). SFT is a flexible approach in which the therapist adapts his methods to the patient's problems. The therapist's treatment approach flows directly from his case conceptualization, including DSM-IV Axis I and Axis II diagnoses. If the therapist "misses the boat" by misdiagnosing the patient, the treatment will flounder. Unfortunately, many personality disorder patients are misdiagnosed because of a less than rigorous assessment of Axis II disorders. The clinical impressions of a psychiatrist or psychologist, no matter how experienced, is no substitute for careful evaluation of the DSM-IV criteria using semi-structured diagnostic interviews, which enhance the quality (i.e., reliability and validity) of psychiatric diagnoses (Segal & Coolidge, 2003).

Therapist Training, Supervision, and Selection

SFT is a complex form of psychotherapy, which requires extensive training to master. *The rigors of working with forensic patients make the need for thorough training of SFT therapists imperative (Guideline 11)*. There are as yet no agreed upon international standards for training in SFT. However, at the First International Conference of the International Society for Schema Therapy, Jeffrey Young proposed that Schema Therapists receive a minimum of 5 days of training, followed by 50 hours of supervision (J. Young, personal communication, April 23, 2006). Training for therapists working in

EXHIBIT 306   CHS.900.006.0042

forensic settings should emphasis Schema Mode case conceptualization and treatment methods.

Supervision is essential for therapists in the early stages of their SFT training. Many therapists working in forensic settings have difficulty getting started with SFT, even after they have attended SFT workshops, unless they have the support and guidance of regular supervision sessions. This is not surprising, given the challenges of learning SFT and working with forensic patients with severe personality disorders. In our experience, *regular supervision or peer supervision sessions are necessary to insure the effective delivery of SFT in forensic settings (Guideline 12)*. Because SFT is a complex form of therapy, it is best learned after therapists have already acquired some basic psychotherapy skills. *We recommend that therapists have at least 3 years of prior psychotherapy experience before they attempt to master SFT (Guideline 13)*. Moreover, *we recommended that competency ratings for therapists become standard practice, particularly in forensic settings in which the therapists' competency may affect patients' recidivism risk (Guideline 14)*. Rating therapists' competency can be conceptualized as a "quality control" procedure that assures that SFT is delivered to an acceptably high standard.

Alternative Forms of SFT

SFT was developed as an individual form of verbal psychotherapy. However, alternative forms of SFT have recently been created that hold considerable promise for the forensic field, such as drama, art, movement, music, and group therapy versions of SFT. In some cases, other forms of SFT may be useful as supplements or alternatives to SFT in its original individual, verbal form, especially for patients whose verbal skills are limited. In another promising development, one forensic hospital in The Netherlands, the Rooyse Wissel, has incorporated SFT principles on a system-wide basis. SFT principles and methods have been integrated into each phase of treatment from intake to discharge. Thus, SFT concepts are used as a unifying principle that provides a coherent rationale for the treatment efforts of the entire institution.

CONCLUSION

Our adaptation of SFT for forensic patients and recommendations for clinical practice represent a work in progress. No doubt they will be modified and refined as we gain greater experience in working with this population. A multi-center, randomized clinical trial of SFT with forensic personality disorder patients that we have recently begun in the Netherlands with 7 collaborating institutions should help us further refine these ideas in light of empirical evidence. We hope that the ideas contained in this article will prove helpful to those attempting to improve the effectiveness of treatment for this challenging population.

REFERENCES

Ball, S. (2004). Treatment of Personality Disorders with co-occurring substance dependence: Dual Focus Schema Therapy. In J.J. Magnavita (Ed.), *Handbook of personality disorders: Theory and practice* (pp. 398-425). Hoboken, NJ: Wiley.

Caspi, A., McClay, J., Moffitt, T.E., Mill, J., Martin, J., Craig, I.W., Taylor, A., Poulton, R. (2002). Role of genotype in the cycle of violence in maltreated children. *Science, 297*, 851-854.

Clarkin, J.F., Yeomans, F.E., & Kernberg, O.F. (1999). *Psychotherapy for borderline personality disorder*. New York, NY (USA): John Wiley & Sons.

De Ruiter, C. (2000). De klinische psychotherapie van persoonlijkheidsstoornissen en delinquent gedrag. [Clinical psychotherapy for personality disorders and offending behavior]. In A. van den Berg, C. Janzing, & F. Kruisdijk (Eds.), *Handboek voor milieutherapie: Theorie en praktijk van de klinische psychotherapie*, (pp. 56-71). Assen (the Netherlands): Van Gorcum.

De Ruiter, C., & Greeven, P.G. (2000). Personality disorders in a Dutch forensic sample: Convergence of interview and self-report measures. *Journal of Personality Disorders, 14*, 160-172.

D'Silva, K., Duggan, C., & McCarthy, L. (2004). Does treatment really make psychopaths worse? A review of the evidence. *Journal of Personality Disorders, 18*, 163-177.

Edens, J.F., Marcus, D.K., Lilienfeld, S.O., & Poythress, N.G. (2006). Psychopathic, non-psychopathic: Taxometric evidence for the dimensional structure of psychopathy. *Journal of Abnormal Psychology, 115*, 131-144.

Gendreau, P., Goggin, C., French, S., & Smith, P. (2006). Practicing psychology in forensic settings. In I.B. Weiner, A.K. Hess (Eds.), *The Handbook of forensic psychology*, (3rd ed.). (pp. 722-750). Hoboken, NJ (USA): John Wiley & Sons.

Giesen-Bloo, J., van Dyck, R., Spinhoven, P., van Tilburg, W., Dirksen, C., van Asselt, T., et al. (2006). Outpatient psychotherapy for borderline personality disorder: A randomized clinical trial of schema focused therapy versus transference focused psychotherapy. *Archives of General Psychiatry, 63*, 649-658.

Hare, R. (1991). *Manual for the hare psychopathy checklist-revised.* Toronto, Canada: Multi-health Systems.

Hare, R. (1993). *Without conscience.* New York (USA): Pocket Books.

Hemphill, J., Hare, R., & Wong, S. (1998). Psychopathy and recidivism: A review. *Legal Criminology Psychology, 3*, 141-172

Hildebrand, M. & De Ruiter, C. (2004). PCL-R psychopathy and its relation to DSM-IV Axis I and II disorders in a sample of male forensic psychiatric patients in the Netherlands. *International Journal of Law and Psychiatry, 27*, 233-248

Hiscoke, U., Langstrom, N., Ottosson, H., & Grann, M. (2003). Self-reported personality traits and disorders (DSM-IV) and risk of criminal recidivism: a Prospective Study. *Journal of Personality Disorders, 17*, 293-305

Jaffee, S.R., Caspi, A., Moffitt, T.E., & Taylor, A. (2004). Physical maltreatment victim to antisocial child: Evidence of an environmentally mediated process. *Journal of Abnormal Psychology, 113*, 44-55.

Jamieson, L. & Taylor, P. (2004). A re-conviction study of special (high security) hospital patients. *British Journal of Criminology, 44*, 783-802

Khantzian, E.J. (1997). The self-medication hypothesis of substance use disorders: A reconsideration and recent applications. *Harvard Review of Psychiatry, 4*, 231-244.

Krueger, R.F. (2005). Continuity of Axis I and Axis II: Towards a unified model of personality, personality disorders, and clinical disorders. *Journal of Personality Disorders, 19*, 233-261.

Lang, S., af Klinteberg, B., & Alm, P.O. (2002). Adult psychopathy and violent behavior in males with early neglect and abuse. *Acta Psychiatrica Scandiavica, 106* (Supp. 412), 93-100.

Leue, A., Borchard, B., & Hoyer, J. (2004). Mental disorders in a forensic sample of sexual offenders. *European Psychiatry, 19*, 123-130.

Marshall, L.A., & Cooke, D.J. (1999). The childhood experiences of psychopaths: A retrospective study of familial and societal factors. *Journal of Personality Disorders, 13*, 211-225.

Putkonen, H., Komulainen, E., Virkkunen, M., Eronen, M., & Lonnqvist, J. (2003). Risk of repeat offending among violent female offenders with psychotic and personality disorders. *American Journal of Psychiatry, 160*, 947-951

Poythress, N.G., Skeem, J.L., & Lilienfeld, S.O. (2006). Associations among early abuse, dissociation, and psychopathy in an offender sample. *Journal of Abnormal Psychology, 115*, 288-297.

Rasmussen, K., Storsaeter, O, Levander, S. (1999). Personality disorders, psychopathy and crime in a Norwegian prison population. *International Journal of Law and Psychiatry, 22*, 91-97.

Rijkeboer, M.M. (2005). *Assessment of early maladaptive schemas: on the validity of the Dutch young schema questionnaire.* Enschede/Amsterdam (the Netherlands): Print Partners Ipskamp.

Rosenfeld, B. (2003). Recidivism in stalking and obsessional harassment. *Law and Human Behavior, 27*, 251-265.

Salekin, R., Rogers, R., & Sewell, K. (1996). A review and meta-analysis of the Psychopathy checklist and Psychopathy checklist-revised: Predictive validity of dangerousness. *Clinical Psychology, 3*, 203-215.

Segal, D., & Coolidge, F.L. (2003). Structured interviewing and DSM classification. In M. Hersen & S. Turner (Eds.), *Adult psychopathology and diagnosis (4th ed., pp. 72-103)*. Hoboken, NJ: Wiley & Sons.

Taylor, J., Loney, B.R., Bobadilla, L., Iacono, W.G., & McGue, M. (2003). Genetic and environmental influences in psychopathy trait dimensions in a community sample of male twins. *Journal of Abnormal Child Psychology, 31*, 633-645.

Timmerman, I.G., & Emmelkamp, P.M. (2001). The prevalence and comorbidity of Axis I and Axis II pathology in a group of forensic patients. *International Journal of Offender Therapy and Comparative Criminology, 42*, 198-213.

Timmerman, I.G., & Emmelkamp, P.M. (2005). The effects of cognitive-behavioral treatment for forensic inpatients. *International Journal of Offender Therapy and Comparative Criminology, 49*, 590-606.

Tunnissen, M.M. & Muste, E.H. (2002). Schematherapie in de klinisch-psychotherapeutische behandeling van persoonlijkheidsstoornissen. *Tijdschrift voor Psychiatrie, 28*, 385-401.

Verheul, R., van den Bosch, L.M.C., & Ball, S.A. (2005). Substance abuse. In J. Oldham, A. Skodol, & D. Bender (Eds.), *The American Psychiatric Publishing Textbook of Personality Disorders* (pp. 463-475). Washington, DC: American Psychiatric Publishing.

Viding, E., Blair, J.R., Moffitt, T.E., & Plomin, R. (2005). Evidence for substantial genetic risk for psychopathy in 7 year olds. *Journal of Child Psychology and Psychiatry, 46*, 592-597.

Weiler, B., & Widom, C.S. (1996). Psychopathy and violent behavior in abused and neglected young adults. *Criminal Behavior and Mental Health, 6*, 253-271.

Wong, S., & Gordon, A. (2004). A risk-readiness model of post-treatment risk management. *Issues in Forensic Psychology, 5*, 152-163.

Young, J. E. (1999). *Cognitive therapy for personality disorders: A schema-focused approach.* Sarasota, FL: Professional Resource Press.

Young, J. E., Klosko, J., & Weishaar, M. (2003). *Schema Therapy: A Practitioner's Guide.* New York: Guilford.

EXHIBIT 306

CHS.900.006.0044
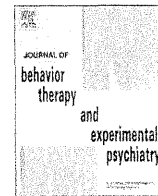
A schema-focused approach to group psychotherapy for outpatients with borderline personality disorder: A randomized controlled trial

Joan M. Farrell [a,*], Ida A. Shaw [b], Michael A. Webber [a]

[a] Indiana University School of Medicine, Department of Psychiatry, Center for Borderline Personality Disorder Treatment & Research, Larue D. Carter Memorial Hospital, 2601 Cold Spring Road, Indianapolis, IN 46222, USA
[b] BASE Consulting Group, LLC, 6551 Carrollton Avenue, Indianapolis, IN 46220, USA

ARTICLE INFO

ABSTRACT

This study tests the effectiveness of adding an eight-month, thirty-session schema-focused therapy (SFT) group to treatment-as-usual (TAU) individual psychotherapy for borderline personality disorder (BPD). Patients ($N = 32$) were randomly assigned to SFT-TAU and TAU alone. Dropout was 0% SFT, 25% TAU. Significant reductions in BPD symptoms and global severity of psychiatric symptoms, and improved global functioning with large treatment effect sizes were found in the SFT-TAU group. At the end of treatment, 94% of SFT-TAU compared to 16% of TAU no longer met BPD diagnosis criteria ($p < .001$). This study supports group SFT as an effective treatment for BPD that leads to recovery and improved overall functioning.

© 2009 Elsevier Ltd. All rights reserved.

1. Introduction

Borderline personality disorder (BPD) is a disabling and prevalent psychiatric disorder, which is characterized by substantial distress and disruptions in functioning. Patients with BPD experience a chronic pervasive pattern of instability in areas of affect, behavior, interpersonal relationships, identity, and cognition. It is a disorder with high prevalence – 1–2% in the general population and up to 25% or more in clinical populations, depending upon the study (Lieb, Zanarini, Schmahl, Linehan, & Bohus, 2004). Prevalence appears to be increasing, as recently the Wave 2 National Epidemiologic Survey on Alcohol and Related Conditions found a prevalence rate of 5.9% for BPD in the general population (Grant, Chou, Goldstein, Huang, Stinson, Saha, et al., 2008). Although several medications

* Corresponding author. Tel.: +1 317 941 4331.
    E-mail address: joan.farrell@fssa.in.gov (J.M. Farrell).

EXHIBIT 306

CHS.900.006.0045

have shown efficacy for various symptoms in controlled trials, the Cochrane review indicates that there is no convincing evidence that any medication is a treatment for BPD as a whole (Stoffers, Lieb, Voellm, et al., in preparation). Thus, psychotherapy continues to be the necessary and primary treatment modality for BPD (Webber & Farrell, 2008).

Specific structured psychotherapies have demonstrated efficacy for some BPD symptoms in randomized controlled clinical trials. These include Dialectical Behavioral Therapy (Linehan, Comtois, Murray, Brown, Gallop, Heard, et al., 2006), Schema-Focused Therapy (Schema Therapy; Giesen-Bloo, van Dyck, Spinhoven, van Tilburg, Dirksen,van Asselt, et al., 2006), Cognitive Therapy (Davidson et al., 2006); Transference-Focused Psychotherapy (Clarkin, Levy, Lenzenweger, & Kernberg, 2007; although differences with comparison groups were N.S.), Mentalization-Based Therapy (Chiesa, Fonagy, & Holmes, 2006), and Systems Training for Emotional Predictability and Problem Solving (Blum et al., 2008). Two recent pilot studies targeted specifically toward reducing self-injury also look promising (Gratz & Gunderson, 2006; Weinberg, Gunderson, Hennen, & Cutter, 2006). Comparability across treatments, however, is limited by the use of different measures of BPD symptoms, their severity and global adjustment (McMain & Pos, 2007; Moher, Schulz, & Altman, 2001).

Despite the positive findings of these treatments for *some* patients and *some* symptoms of the disorder, comprehensive BPD treatment continues to be a challenge. The BPD symptoms least impacted by psychotherapeutic treatment are those more related to temperament and the ability to function effectively in occupational and social roles (Binks et al., 2006). Consumers of BPD treatment express dissatisfaction with psychotherapy that eliminates life-threatening symptoms, but leaves them underemployed and still feeling dysphoric and empty (Alexander, 2006a, 2006b). Schema-Focused Therapy (SFT) has shown particular promise as a comprehensive treatment for BPD with the goal of complete recovery in a large, well-designed clinical trial of individual psychotherapy twice weekly for three years or less in the Netherlands (Giesen-Bloo et al., 2006). In addition, cost-effectiveness for SFT was demonstrated (Van Asselt et al., 2008). An independent small-scale Norwegian case series study reported similar effectiveness of individual SFT (Nordahl & Nysaeter, 2005).

The consistency and duration of psychotherapy that may be needed for more comprehensive BPD treatment, however, is difficult to obtain, particularly for individuals with severe symptoms who are treated in public healthcare settings. There are compelling economic and service delivery reasons to use a group psychotherapy modality. In addition, groups uniquely possess important curative factors stemming from supported peer-to-peer interactions, such as universality, a sense of belonging, vicarious learning, and opportunities for in vivo practice, among others. In light of the clinical and cost-effectiveness of SFT and the potential advantages of the group format, we developed a schema therapy group for outpatients with BPD and conducted a randomized controlled clinical trial of this group treatment added to ongoing individual psychotherapy "as usual". This study tests the hypotheses that the active treatment group participating in a thirty session, eight-month schema therapy group program in addition to weekly individual psychotherapy will experience significant reductions in BPD symptoms and global severity of psychiatric symptoms and improvement in global functioning compared to the control group participating in individual treatment-as-usual (TAU) alone.

2. Method

2.1. Participants

Thirty-two women with a diagnosis of BPD, ages 22–52, were located by referral from individual psychotherapists in the community. The study was advertised by flyers sent to all psychologists and psychiatrists who were affiliated in any way with the local medical school and posted in local community mental health and university outpatient clinics. Potential subjects could inquire about the study themselves but needed to be referred by their individual psychotherapist to participate in the study.

Patients who agreed to participate were told that they would be randomly selected as to whether they were assigned to the group treatment added to their individual psychotherapy, or would remain in their individual psychotherapy. The informed consent suggested that the time and effort involved for those in the control group would contribute to our understanding of effective BPD treatment. In addition, participants were informed that they would be offered the treatment found to be most effective after the

3

study's completion. If this were the group treatment, they would receive it free of charge as a kind of compensation for their involvement. The likelihood that the treatment of patients continuing in TAU alone would be negatively affected by not being assigned to the adjunctive, experimental SFT-group treatment is thought to be low. At the time of the study SFT was not a known treatment in the community.

For inclusion, subjects had to be females between the ages of 18 and 65, who met criteria for a BPD diagnosis confirmed by the Diagnostic Interview for Personality Disorders-Revised (Gunderson, Frankenburg & Chauncey, 1990) and the Borderline Syndrome Index (Conte, Plutchik, Karasu, & Jerrett, 1980) and were in individual psychotherapy of at least six-months duration and would agree to continue that treatment for the course of the study. Weekly individual psychotherapy, eclectic in orientation and primarily supportive was "treatment as usual" in the community. Attendance at weekly individual psychotherapy sessions was a condition of remaining in the study. Therapists were MD psychiatrists, senior psychiatry residents with supervision, experienced master's level Clinical Social Workers and Ph.D. psychologists. Patients were followed in private practice, university outpatient and community mental health center settings. Exclusion criteria were: an Axis I diagnosis of a psychotic disorder or a below average IQ (89), as measured by the Shipley Institute of Living Scale. IQ was made an exclusion criterion because of the cognitive and reading demands of the program. An open clinical interview conducted by an experienced clinical psychologist was used to confirm the absence of psychosis. Patients were randomly assigned using a random number table to the treatment or control group after qualifying for the study. Control of psychopharmacological treatment was beyond the scope of the study. Patients were stable on their psychotropic medications before randomization, limiting the likelihood of a confounding effect from drug treatment. Pharmacotherapy was limited to first generation antipsychotics, selective serotonin reuptake inhibitors, tricyclic anti-depressants and/or benzodiazepines. All patients had a history of suicide attempts and self-injury in the two-year period before the study began.

Fig. 1 shows the patient flow. There was no drop out from the SFT-group arm at any point, but 25% of the TAU group were lost before first follow-up, leaving $N = 12$ in the control group. Table 1 presents the main demographic characteristics of both groups. For the control group, only completers' characteristics are given.

2.2. Outcome measures

1. Borderline Syndrome Index (BSI) (Conte et al, 1980) a 52 item true or false self-report measure of BPD symptoms that allows measurement of change by specifying a time period for the subject to base answers on. The BSI asks for presence of 52 BPD symptoms during the last 2 weeks. The total score has an internal consistency KR-20 $= .92$ $(p < .001)$.

2. Symptom Check List-90 (SCL-90) (Derogatis, 1994) the global severity score (sum of all items divided by the number answered) was used as a measure of subjective experience of general symptoms. Internal consistency of this score is very high, Cronbach alpha $= .79$–$.90$.

3. Diagnostic Interview for Borderline Personality Disorders-Revised (DIB-R) (Zanarini et al., 1990) a structured interview that assesses four putative aspects of BPD psychopathology (affect, cognition, impulse, interpersonal) and assigns scaled severity scores. This measure was used to confirm diagnosis at baseline and to assess change by using a shorter time frame (Zanarini, Vujanovic et al., 2003). The DIB-R structured interviews were conducted by two Ph.D. Clinical Psychologists not involved in treatment delivery. Efforts were made to keep them blind to treatment group membership, but for 10% of the subjects the blind was broken due to patient report. Both raters were trained by the principal investigator and achieved an ICC $\geq .98$.

4. Global Assessment of Function Scale (GAFS) ratings by patients' individual therapists was used as a measure of global functioning since it includes symptom, social and occupational functioning. Therapists were given a GAFS checklist to use so that the anchors for assigning scores were in front of them when they recorded their ratings. They were chosen as raters since they were removed from the hypotheses of the study, although not blind to their patient's group membership and no inter-rater reliability was possible.

23

EXHIBIT 306

CHS.900.006.0047

4   *J.M. Farrell et al. / J. Behav. Ther. & Exp. Psychiat. xxx (2009) 1–12*
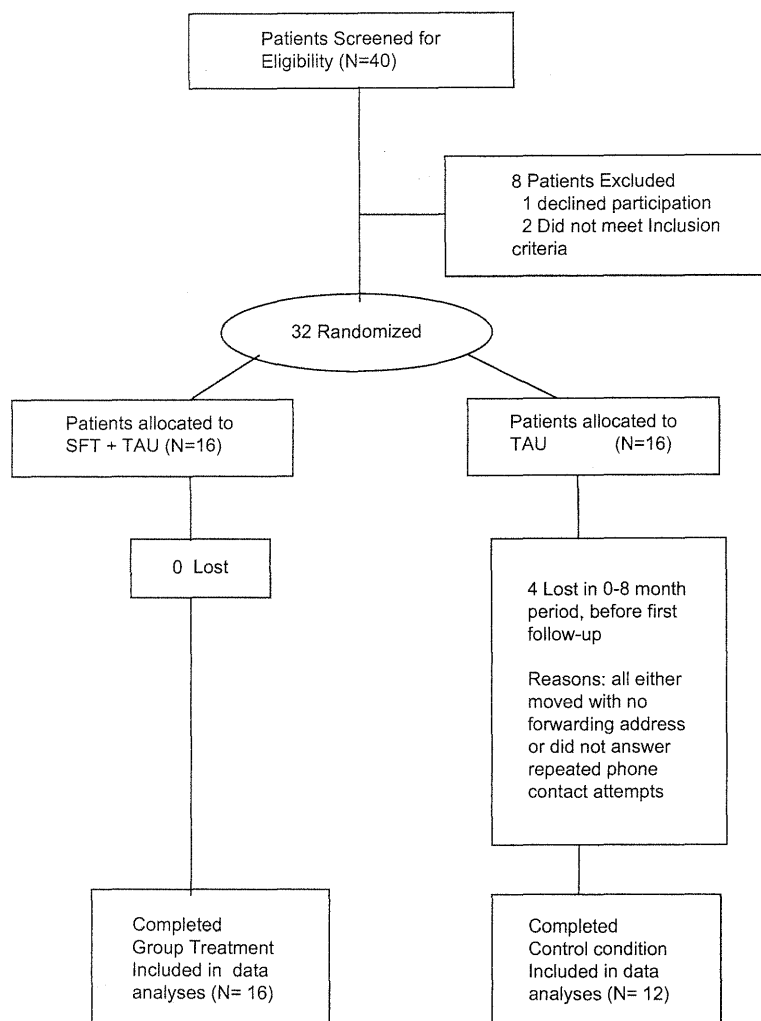
Fig. 1. Consort diagram of patient flow in the randomized controlled trial.

Outcome measures were repeated at baseline, post-treatment and at six-month follow-up.

2.3. Treatment

The group-SFT program consists of thirty weekly sessions, each lasting 90 min, over an eight-month period. Group size was six members and two active therapists, which we based upon two years of piloting BPD groups of different sizes to determine our sense of the optimal ratio of therapists to patient. This manual-based treatment (Farrell & Shaw, 1990) combines four content components that we view as central to psychotherapy for patients with BPD: emotional awareness training (described in Farrell & Shaw, 1994), BPD psychoeducation, distress management training (Farrell, Shaw, Foreman, & Fuller, 2005) and schema change work (Young, 1990; Young, Klosko, & Weishaar, 2003). This treatment combination has four goals: 1) establishing a positive therapeutic alliance through therapist validation and education that establishes the usefulness of the treatment 2) increasing emotional awareness, so that patients can notice pre-crisis distress and have some understanding of their emotional experience,

EXHIBIT 306

CHS.900.006.0048

J.M. Farrell et al. / J. Behav. Ther. & Exp. Psychiat. xxx (2009) 1–12

5

Table 1
Patient demographics by group.

	Treatment group	Control group[a]
Age, mean (SD)	35.3 (9.30)	35.9 (8.08)
Education		
College graduate	5 (31%)	5 (42%)
Some college	9 (56%)	3 (25%)
High school graduate	2 (13%)	4 (33%)
Employment status		
Housewife	2 (12.5%)	2 (17%)
Student	1 (6%)	2 (17%)
Employed	11 (69%)	6 (50%)
Disability	2 (12.5%)	1 (8%)
SSI[b]	0	1 (8%)
Psychotropic medication at baseline	16 (100%)	12 (100%)
Recent suicide planning, steps, or attempts	16 (100%)	12 (100%)
Recent non-suicidal self-injury	16 (100%)	12 (100%)

[a] Completers only (N = 12).
[b] SSI, Supplemental security income for people with disabilities that prevent employment.

3) developing an effective individualized distress management plan and 4) helping patients become free enough of maladaptive schemas to be able to use their healthy adult coping skills. Accomplishing these goals is hypothesized to lead to decreases in the severity and frequency of BPD symptoms, a decrease in the severity of global psychiatric symptoms and improved global function. The inclusion of treatment components that provide education and target the behavioral skill deficits like distress management and emotional awareness of people with BPD is compatible with the theoretical model of SFT (Young et al., 2003). Adapting SFT to a group modality provides additional learning potential, including opportunities for the emotional experiences that are critical for schema change.

2.3.1. Schema change component

The integral schema change component adapts the techniques of schema therapy for people with BPD developed by Young (Young, 1990; Young et al., 2003) to a group modality and adds structured homework assignments, group exercises and kinesthetic and experiential awareness exercises (Farrell & Shaw, 1994). Schemas are psychological constructs that include beliefs that we have about ourselves, the world and other people, which are the product of how our basic childhood needs were dealt with. They are comprised of memories, bodily sensations, emotions and cognitions that develop during childhood and are elaborated through a person's lifetime. Schemas may be extremely inaccurate, dysfunctional and limiting, but they are strongly held and frequently not in the person's conscious awareness. Schema therapy draws from learning theory principles, developmental psychology and a variety of experiential therapies. The focus is on identifying and changing maladaptive schemas and their associated ineffective coping strategies. The schema change component employed in this group treatment program focuses on decreasing the hold of negative schemas at least enough to allow patients to use the skills they learn in treatment to keep them alive and improve their functioning in the world. The major schemas focused on include: defectiveness/shame, social isolation and unde-sirability, mistrust/abuse, dependence/incompetence, unrelenting standards and subjugation.

Schema change requires both cognitive and experiential work. Cognitive schema change work employs basic cognitive behavioral techniques to identify and change automatic thoughts, identify cognitive distortions, and conduct empirical tests of the person's maladaptive rules about how to survive in the world that have developed from schemas. Experiential work includes work with visual imagery, gestalt techniques like the "empty chair", creative work to symbolize positive experiences, limited re-parenting and the healing experiences of a validating psychotherapist. Behavioral pattern breaking work is employed as well, to ensure that therapeutic changes generalize to behavior outside of the therapy setting.

2.3.2. Therapist style

Therapist style models that of individual schema therapy by establishing an active, supportive and genuine relationship that provides a safe environment for the patient to be vulnerable and express

25

EXHIBIT 306   CHS.900.006.0049

emotions. The theory is that patients did not have core emotional needs met by caregivers, and this led to the development of coping strategies that continue in adulthood and limit healthy adult functioning. The therapist's provision of limited, or adaptive, re-parenting allows the patient with BPD to fill in critical early gaps in emotional learning like attachment and autonomy and to feel valued and worthy. Initially, the therapist tries to compensate for these deficits within the limits of appropriate professional boundaries and ultimately fosters the patient learning to care for her or his own needs in an effective manner and attain autonomy and healthy interpersonal functioning. Limited re-parenting is accomplished in part by the experience of acceptance, validation, and support from psychotherapists. This experience is healing to a patient's damaged sense of self, self-hatred and hopelessness. Some adaptations of individual therapist style are necessary when conducting group treatment. These include: the need to focus on and balance the collective need of the group as a parent would for a group of siblings. Group re-parenting may be a closer approximation to patients' developmental experience unless they were only children. This closer match with the early environment has the potential to provide additional schema healing experiences.

The manual for the treatment provides structure in a format for sessions that consists of: discussion of homework from the previous session, presentation of new information, discussion with opportunity for questions and answers, experiential or cognitive work, and assignment of homework. The format also allows for individualization based upon the composition and schema issues of each unique group. A treatment manual aids adherence and facilitates replication at other sites. To insure treatment integrity, co-therapist teams were used. Two of the three groups had the two program developers as therapists and the third had one developer and one clinical psychologist trained by observing a full group cycle. Weekly supervision meetings took place during the course of the study and random videotapes of sessions were reviewed for fidelity by the program developers. The manual developed for the study acted as an additional fidelity check.

3. Results

Of the 32 patients who began treatment, four subjects in the control group completed pre-test assessments but were lost to follow-up (Fig. 1). This left 16 treatment group members and 12 control group members. There was a 100% retention rate over 14 months in the treatment group, and there was a 75% retention rate for the control group. The difference failed to reach significance, $p = .10$, Fisher-exact test, two-tailed. Overall, the retention rate for the study was 88%.

Fig. 2 shows the means of the four outcome measures for the two groups at the three assessment points. At baseline, differences between the groups were N.S. (Table 2). As hypothesized, at the end of the SFT-group treatment, ANCOVA with baseline as covariate demonstrated that there was a significant difference between the groups in favor of the SFT-group condition (Table 2). Specifically, the treatment group had significantly lower scores at the end of thirty sessions of SFT-group psychotherapy on both measures of BPD symptoms (BSI and DIB-R) and on global severity of psychiatric symptoms (SCL-90); and had higher scores on global functioning (GAFS from individual psychotherapists). On all measures, this positive treatment effect was maintained or even increased at the six-month follow-up (Table 2).

An additional ANCOVA was conducted to examine the subscale scores of the DIB-R. Table 3 presents the subscale results at baseline, posttest and six-month follow-up. There were no significant differences between the SFT and TAU groups on any subscale at baseline. At both posttest and follow-up points, the SFT-group had significant improvement on all subscales compared to the TAU group.

When baseline scores were compared to post-treatment scores, the improvement on all measures was significant for the SFT-group, but not for the TAU control group (Table 4). This improvement was maintained or strengthened from post to six-month follow-up for the treatment group. The lack of significant improvement in the control group was also maintained at six-month follow-up. The TAU group showed little improvement, or even some deterioration, over the fourteen months of the study. Table 5 presents the within-group effect sizes, which are very large for SFT, and virtually zero for TAU.

The improvements in the treatment group were clinically significant as well. The mean score post-treatment on the BSI was below the threshold on that measure for the presence of BPD, indicating remission, while the control group mean remained well above the threshold. After treatment, 15 of the 16 (94%) active arm subjects no longer met BSI criteria for BPD while 11 out of 12 (92%) of control group

EXHIBIT 306

CHS.900.006.0050
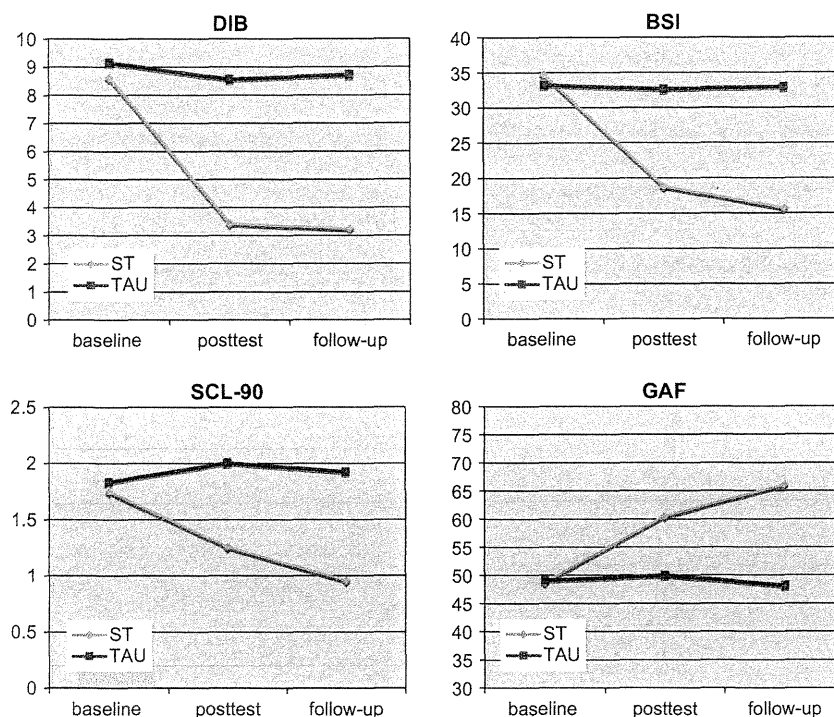
Fig. 2. Means of the outcome measures by group and time.

subjects <u>still met criteria</u> for a BPD diagnosis, a highly significant difference, χ^2 (1, $N = 28$) = 20.43, $p < .001$, OR = 165 (95%CI = 9.27, 2936). Furthermore, on the DIB-R, the treatment group mean was below the threshold for being given a BPD diagnosis, and the same 15 (94%) subjects would no longer be diagnosed with BPD, while the control group mean remained above threshold, and 75% of the control subjects would still be diagnosed with BPD, χ^2 (1, $N = 28$) = 14.12, $p < .001$, OR = 45 (95%CI = 4.04, 501). At six-month follow-up, no treatment group patient met criteria for a BPD

Table 2
Means and SDs of the outcome measures by group and time, and analysis of (co)variance results.

Measure	Baseline	Posttest	6-m follow-up	Baseline			Posttest[a]			6-m follow-up[a]		
	Mean SD	Mean SD	Mean SD	$F(1, 26)$	p	d^b	$F(1, 25)$	p	d^b	$F(1, 25)$	p	d^b
BSI												
SFT&TAU	34.75 (7.67)	18.81 (9.47)	15.75 (9.10)	.32	.58	.22	23.78	<.001	1.97	48.20	<.000	2.81
TAU	33.33 (4.77)	32.75 (5.90)	33.08 (4.56)									
DIB-R												
SFT&TAU	8.63 (1.41)	3.44 (2.76)	3.25 (2.79)	1.33	.26	.46	30.18	<.001	2.22	35.86	<.000	2.42
TAU	9.17 (.94)	8.58 (1.51)	8.75 (1.29)									
SCL-90												
SFT&TAU	1.75 (.54)	1.26 (.60)	.96 (.47)	.11	.75	.13	11.21	.001	1.35	29.71	<.000	2.20
TAU	1.84 (.86)	2.01 (.79)	1.93 (.72)									
GAF												
SFT&TAU	48.81 (7.04)	60.50 (10.17)	66.19 (7.51)	.02	.89	.06	11.85	.002	1.39	60.00	<.000	3.13
TAU	49.17 (5.78)	50.08 (5.07)	48.25 (5.29)									

[a] Analysis of covariance with baseline as covariate. All group by covariate interactions were N.S. (F's < 1.0; p's > .39) and were therefore left out of the model.
[b] Cohen's d (between-group effect size of the F-test), with positive d indicating superior effects of SFT&TAU compared to TAU.

27

EXHIBIT 306

CHS.900.006.0051

8   *J.M. Farrell et al. / J. Behav. Ther. & Exp. Psychiat. xxx (2009) 1–12*

Table 3
Means and SDs of the DIB-R subscales by group and time, and between-group analysis of (co)variance results.

DIB-R Subscale	Baseline		Posttest		6-m follow-up		Baseline		Posttest[a]		6-m follow-up[a]	
	Mean	SD	Mean	SD	Mean	SD	$F_{(1, 26)}$	p	$F_{(1, 25)}$	p	$F_{(1, 25)}$	p
Affect												
SFT&TAU	9.88	.34	5.88	3.44	5.75	3.55	.06	.81	15.22	.001	11.70	.002
TAU	9.83	.58	9.83	1.12	9.25	.87						
Cognition												
SFT&TAU	3.19	1.94	1.69	2.02	1.50	1.97	2.27	.14	11.73	.002	14.47	.001
TAU	4.25	1.71	4.25	1.49	4.33	1.61						
Impulses												
SFT&TAU	5.94	1.48	1.56	1.37	1.56	2.07	1.65	.21	24.69	<.001	22.36	<.001
TAU	6.75	1.87	5.58	2.68	6.00	2.52						
Interpersonal												
SFT&TAU	11.38	3.01	4.88	4.02	5.13	3.48	.56	.46	28.59	<.001	23.95	<.001
TAU	12.17	2.44	12.00	2.80	11.33	2.87						

[a] Analysis of covariance with baseline as covariate.

diagnosis on the DIB-R, while the number in the control group meeting BPD criteria increased to 83%, χ^2 (1, N = 28) = 17.08, p < .001, OR = 75 (95%CI = 5.97, 941).

The mean improvement in global functioning for the treatment group was 12 points post-treatment and 16 points at six-month follow-up. Increases in GAF scores of this magnitude reflect a clinically meaningful enhancement of global functioning. The mean score for the treatment group changed from *serious symptoms* to *mild symptoms* while the control group moved only one point up at post and one point down at six-month follow-up, thus remaining in the *serious symptoms range*.

4. Discussion

Thirty sessions of group-SFT added to weekly individual psychotherapy produced statistically and clinically significant improvements on all outcome measures in female outpatient with BPD. No significant differences were present initially between the treatment and control groups on any symptom measure. Meaningful reductions in impulsive and self-injurious behavior and decreased self-hatred, loneliness and emptiness were reported by many treatment group subjects 2–3 months into the eight months of treatment. Significant decreases in symptoms and improved function were apparent at the end of treatment and a trend toward further improvement from post-treatment to six-month follow-up was present.

Whereas the improvements in the SFT condition were impressive and clinically meaningful, no significant changes were observed in the TAU control group receiving only continuing weekly individual psychotherapy "as usual" in the community. This lack of positive effect may be the result, in part, of the absence of BPD specialization in the individual psychotherapy available at the time in the community. It also indicates that our sample was severely and chronically disturbed, with no evidence

Table 4
Within-group *t*-tests of changes with respect to baseline (positive signs indicate improvement).

Measure		Posttest		6-m follow-up	
		t(15 or 11)	p	*t*(15 or 11)	p
BSI	SFT	6.11	<.001	8.13	<.001
	TAU	.44	.67	.31	.76
DIB-R	SFT	7.58	<.001	6.76	<.001
	TAU	1.40	.19	1.24	.24
SCL-90	SFT	3.36	.004	6.41	<.001
	TAU	−.97	.35	−.56	.59
GAF	SFT	4.71	<.001	8.49	<.001
	TAU	.48	.64	−.64	.54

EXHIBIT 306

CHS.900.006.0052

Table 5
Effect sizes using pooled SDs at baseline and mean change scores per condition (a positive sign indicates improvement).

Treatment group	BSI		DIB-R		SCL-90		GAF	
	SFT	TAU	SFT	TAU	SFT	TAU	SFT	TAU
Posttest	2.48	.09	4.29	.49	.72	−.25	1.80	.14
Follow-up	2.96	.04	4.45	.35	1.17	−.13	2.67	−.14

of spontaneous recovery or recovery by nonspecific attention, in contrast to other findings (Zanarini, Frankenburg, Hennen, & Silk, 2003). We only analyzed the data of patients that completed the posttest. However, a last observation carried forward procedure to estimate the missing values of the four patients in the control group that dropped out would not lead to different conclusions given the lack of meaningful change in the control group.

Although much progress has been made in the development and availability of treatments for BPD in the last fifteen years, available approaches have demonstrated differential effectiveness for various symptoms. Self-injurious behavior, suicidal behavior, and impulsivity are the symptoms treated most effectively and by the largest number of treatments. However, mood, quality of life issues, and global functioning are treated less successfully by most treatments. The DIB-R yields subscale score in the four areas of BPD psychopathology – affect features, cognitive features, impulsive features and interpersonal features. The specific symptoms assessed for each subscale are as follows:

1. Affect: the chronic experience of – major depression, hopelessness/helplessness/worthlessness /guilt, anger/frequent angry acts, anxiety, loneliness/emptiness.
2. Cognition: odd thoughts/unusual perceptual experiences, nondelusional paranoia, quasi-psychotic experiences.
3. Impulse: substance abuse/dependence, sexual deviance, self-mutilation, manipulative suicide attempts, other impulsive patterns.
4. Interpersonal: intolerance of aloneness, abandonment/engulfment/annihilation concerns, counter-dependency/serious conflict over help/care, stormy relationships, dependency /masochism, devaluation/manipulation/sadism, demandingness/entitlement, serious treatment regression.

The finding that significant improvement took place in all four of the subscale/symptom areas provides support for the assertion that group-SFT impacts all areas of BPD psychopathology. We chose the DIB-R because our treatment targets included affective experience and interpersonal function as well as injurious and potentially injurious impulsivity and suicidal behavior.

The clinical trial evidence presented here provides strong preliminary support for the contention that SFT-group treatment, in addition to decreasing all of the major areas of BPD symptoms and global severity of psychiatric symptoms, improves global functioning. The lack of change in the TAU control group receiving individual psychotherapy supports the assumption that the group treatment accounts for most positive changes in the treatment group.

The remarkable 100% retention rate in the SFT-group in this trial is quite notable for this clinical population and may be attributable to a number of factors. First, the treatment was designed specifically to meet the needs of BPD patients, aiming to be very validating. Second, the therapists had considerable experience with patients with BPD and likely conveyed a broad sense of hope and optimism about the treatment program. Third, the effectiveness of the treatment reinforced patients' continuing participation. Indeed, it was apparent from anonymous post-treatment evaluations that patients did experience the group therapy approach as validating and supportive. The sense of belonging derived from a homogeneous diagnostic group was felt to be rewarding. The 75% retention rate for the control group is also quite high, given that they were not compensated financially for completing assessments. The medical school setting is highly rated by the community, which added motivation to participate. It has been our experience that patients with BPD are motivated to participate in research to add to knowledge about BPD in order to help others like them.

EXHIBIT 306

CHS.900.006.0053

The SFT-group program evaluated here attempts to supply needed foundation skills in emotional awareness and distress management, combined with the essential schema change work that allows application of these skills. The schema change component of this treatment and the adaptive re-parenting therapist interventions that run through all components of the treatment are what distinguish this approach to BPD psychotherapy from other cognitive behavioral approaches, such as dialectical behavioral therapy. We see schema change as an essential part of treatment for people with BPD that will allow them to be free from the internal barriers that prevent them from using their improved coping or interpersonal skills to improve their quality of life. An individual must have some belief in her own basic worth and agency to take action that is in her best interest. We think that teaching skills to this group of patients without addressing these barriers to application will prove to be of limited effectiveness in producing improved function. Lack of improved function is something that has plagued the outcome studies of many current skills-based treatments.

Currently, there is a largely consumer-driven movement to find treatment that can move patients with BPD beyond symptomatic remission to the next phase of recovery – a meaningful life, with a positive sense of identity, healthy relationships, and employment that matches ability level. Freedom from life-threatening behavior is a necessary, but not sufficient, goal of successful psychotherapeutic treatment. These goals are consistent with those of SFT, which goes beyond teaching coping skills to address the emotional learning deficits of BPD patients at the experiential, affective level as well as the cognitive level. This comprehensive approach helps patients build autonomous, healthy adult functioning and can lead to remission from BPD. While the DIB-R does measure all areas of BPD psychopathology, admittedly, we did not assess healthy adult functioning with validated instruments. However, this effect of SFT was assessed and confirmed in other studies (Giesen-Bloo et al., 2006; Van Asselt et al., 2008). Future studies of group-SFT should include explicit assessment of healthy functioning.

We found that using a group modality presented some advantages with regards to the SFT mechanism of action and the particular schema issues of BPD patients. The limited re-parenting of SFT is accomplished, in large part, by the experience of acceptance, validation, and support from psychotherapists. This experience is healing to a patient's damaged sense of self, self-hatred, and hopelessness. A psychotherapy group that provides acceptance and validation can amplify the schema healing process. Patients sometimes accept peer responses as "more genuine" than the responses of professionals who they may believe "have to respond positively". Another benefit of the group format for SFT is the addition of "siblings" to the re-parenting work, creating a whole family unit dynamic. In addition, the group curative factors of universality, belonging, and acceptance are harnessed. These aspects of group are all of particular significance for the schema issues of patients with BPD, including defectiveness/shame, abandonment, and mistrust/abuse. At the end of this treatment, when asked "What was most helpful about the group therapy program?", the most frequent answer was "being in a group of people like me". They reported that this was the "first time (they) felt a sense of belonging or acceptance", that they were "not alone" and "not crazy" (i.e. defective). The group itself can play an important curative role in the treatment of patients with BPD if it is structured to avoid the invalidating, schema perpetuating experiences of the family of origin and offers opportunities for bonding, learning, healing, developing autonomy and practicing healthy adult skills. This time-limited group can give BPD patients literally a base, or foundation, for the additional treatment they need to have a good quality of life.

A recent development in SFT is the use of schema modes in the therapy (Kellogg & Young, 2006; Arntz, 2004; Young et al., 2003). Whereas this concept has already been tested outside treatment (e.g., Arntz, Klokman, & Sieswerda, 2005; Lobbestael, Arntz, & Sieswerda, 2005; Lobbestael, van Vreeswijk, & Arntz, 2008) and as part of individual therapy (Giesen-Bloo et al., 2006), a formal test of mode-based group-SFT is needed. Our clinical impression is that schema-mode based SFT for BPD can be successfully applied in a group format.

The results of this study suggest that SFT can be effectively adapted to the group modality. SFT in groups is still in an early stage of demonstrating efficacy, but the large and significant treatment effects demonstrated in this trial suggest that this could be a cost effective treatment option that can be made available for those suffering from BPD across public health and private settings. The results of this study add to the growing evidence base supporting SFT as an effective treatment for BPD that can lead to both

30

EXHIBIT 306

CHS.900.006.0054

symptom reduction and improved global functioning and quality of life. The favorable cost-effectiveness evaluation of SFT adds another dimension to its value (Van Asselt et al., 2008). Further evaluation of this group model with a larger sample size at various sites and with strict monitoring of medication usage is warranted.

Acknowledgements

References

Alexander, K. (2006a). Peer support for borderline personality disorder: meeting the challenge through partnership and collaboration. Presentation at Yale University School of Medicine & the National Education Alliance for Borderline Personality Disorder, Borderline Personality Disorder Conference, New Haven, CT.

Alexander, K. (2006b). BPD recovery and peer support. Presentation at National Alliance on Mental Illness, Expert BPD Focus Group, Arlington, VA.

Arntz, A. (2004). Borderline personality disorder. In A. T. Beck., A. Freeman., & D. D. Davis., & Associates (Eds.), *Cognitive therapy of personality disorders* (2nd ed.). (pp. 187–215) New York: Guilford.

Arntz, A., Klokman, J., & Sieswerda, S. (2005). An experimental test of the schema mode model of borderline personality disorder. *Journal of Behavior Therapy and Experimental Psychiatry, 36*, 226–239.

Binks, C. A., Fenton, M., McCarthy, L., Lee, T., Adams, C. E., & Duggan, C. (2006). Psychological therapies for people with borderline personality disorder. *Cochrane Database Syst Rev, 2006 Jan 25*(1), CD005652.

Blum, N., St John, D., Pfohl, B., Stuart, S., McCormick, B., Allen, J., et al. (2008). Systems Training for Emotional Predictability and Problem Solving (STEPPS) for outpatients with borderline personality disorder: a randomized controlled trial and 1-year follow-up. *American Journal of Psychiatry, 165*(4), 468–478.

Chiesa, M., Fonagy, P., & Holmes, J. (2006). Six-year follow-up of three treatment programs for personality disorder. *Journal of Personality Disorders, 20*, 493–509.

Clarkin, J. F., Levy, K. N., Lenzenweger, M. F., & Kernberg, O. F. (2007). Evaluating three treatments for borderline personality: a multiwave study. *American Journal of Psychiatry, 164*(6), 922–928.

Conte, H. R., Plutchik, R., Karasu, T. B., & Jerrett, I. (1980). A self-report borderline scale. Discriminative validity and preliminary norms. *Journal of Nervous and Mental Disease, 100*, 428–435.

Davidson K, Norrie J, Tyrer P, Gumley A, Tata P, Murray H, et al. J Personal Disord. 2006 Oct;20(5):450–65.

Derogatis, L. R. (1994). *The SCL-90-R: Administration, scoring and procedures manual* (3rd ed.). Minneapolis, MN: National Computer Systems.

Farrell, J.M., & Shaw, I.A. (1990). Emotional awareness training for borderline personality disorder patients: a treatment manual. Unpublished manuscript for NIH RO3, Indiana University School of Medicine, Indianapolis.

Farrell, J. M., & Shaw, I. A. (1994). Emotional awareness training: a prerequisite to effective cognitive-behavioral treatment of borderline personality disorder. *Cognitive and Behavioral Practice, 1*, 71–91.

Farrell, J.M., Shaw, I.A., Foreman, T., & Fuller, K.E. (2005). Psychotherapy in the eye of the storm: a treatment program for borderline personality disorder. Symposium presented at American Psychological Association Annual Convention, Washington, D.C.

Giesen-Bloo, J., van Dyck, R., Spinhoven, P., van Tilburg, W., Dirksen, C., van Asselt, T., et al. (2006). Outpatient psychotherapy for borderline personality disorder: randomized trial of schema-focused therapy vs. transference-focused psychotherapy. *Archives of General Psychiatry, 63*, 649–658.

Grant, B. F., Chou, S. P., Goldstein, R. B., Huang, B., Stinson, F. S., Saha, T. D., et al. (2008). Prevalence, correlates, disability, and comorbidity of DSM-IV borderline personality disorder: results from the wave 2 national epidemiologic survey on alcohol and related conditions. *Journal of Clinical Psychiatry, 69*(4), 533–545.

Gratz, K. L., & Gunderson, J. G. (2006). Preliminary data on an acceptance-based emotion regulation group intervention for deliberate self-harm among women with borderline personality disorder. *Behavior Therapy, 37*, 25–35.

Kellogg, S. H., & Young, J. E. (2006). Schema therapy for borderline personality disorder. *Journal of Clinical Psychology, 62*, 445–458.

Lieb, K., Zanarini, M. C., Schmahl, C., Linehan, M. M., & Bohus, M. (2004). Borderline personality disorder. *Lancet, 364*, 453–461.

Linehan, M. M., Comtois, K. A., Murray, A. M., Brown, M. Z., Gallop, R. J., Heard, H. L., et al. (2006). Two-year randomized controlled trial and follow-up of dialectical behavior therapy vs. therapy by experts for suicidal behaviors and borderline personality disorder. *Archives of General Psychiatry, 63*, 757–766.

Lobbestael, J., Arntz, A., & Sieswerda, S. (2005). Schema modes and childhood abuse in borderline and antisocial personality disorder. *Journal of Behavior Therapy and Experimental Psychiatry, 36*, 240–253.

Lobbestael, J., van Vreeswijk, M., & Arntz, A. (2008). An empirical test of schema mode conceptualisations in personality disorders. *Behaviour Research and Therapy, 46*, 854–860.

McMain, S., & Pos, A. B. (2007). Advances in psychotherapy of personality disorders: a research update. *Current Psychiatry Reports, 9*, 46–52.

Moher, D., Schulz, K. F., & Altman, D. G. (2001). The CONSORT statement: revised recommendations for improving the quality of reports of parallel-group randomized trials. *The Lancet, 357*, 1191–1194.

EXHIBIT 306　　　　　　　　　　　　　　　　　　　　　　　　　　　CHS.900.006.0055

ARTICLE IN PRESS

12　　　　　　　　*J.M. Farrell et al. / J. Behav. Ther. & Exp. Psychiat. xxx (2009) 1–12*

Nordahl, H. M., & Nysaeter, T. F. P. E. (2005). Schema therapy for patients with borderline personality disorder: a single case series. *Journal of Behavior Therapy and Experimental Psychiatry, 36,* 254–264.

Stoffers, J., Lieb, K., Voellm, B. et al. Pharmacotherapy of borderline personality disorder. Cochrane Database Syst Rev., 2009, in preparation.

van Asselt, A. D., Dirksen, C. D., Arntz, A., Giesen-Bloo, J. H., van Dyck, R., Spinhoven, P., et al. (2008). Outpatient psychotherapy for borderline personality disorder: cost-effectiveness of schema-focused therapy vs. transference-focused psychotherapy. *British Journal of Psychiatry, 192*(6), 450–457.

Webber, M. A., & Farrell, J. M. (2008). Pharmacotherapy of borderline personality disorder. *Psychopharm Review, 43*(11), 83–90.

Weinberg, I., Gunderson, J. G., Hennen, J., & Cutter, C. J. (2006). Manual assisted cognitive treatment for deliberate self-harm in borderline personality disorder patients. *Journal of Personality Disorders, 20,* 482–492.

Young, J. E. (1990). *Cognitive therapy for personality disorder: a schema focused approach.* Sarasota, FL: Professional Resource Exchange Inc.

Young, J. E., Klosko, J. S., & Weishaar, M. E. (2003). *Schema therapy: a practitioner's guide.* NY: Guilford Press.

Zanarini, M. C., Frankenburg, F. R., Hennen, J., & Silk, K. R. (2003). The longitudinal course of borderline psychopathology: 6-year prospective follow-up of the phenomenology of borderline personality disorder. *American Journal of Psychiatry, 160,* 274–283.

Zanarini, M. C., Gunderson, J. G., Frankenburg, F. R., & Chauncey, D. L. (1990). Discriminating borderline personality disorder from other axis II disorders. *American Journal of Psychiatry, 147*(2), 161–167.

Zanarini, M. C., Vujanovic, A. A., Parachini, E. A., Boulanger, J. L., Frankenberg, F. R., & Hennen, J. (2003). Zanarini rating scale for borderline personality disorder (ZAN-BPD): a continuous measure of DSM-IV borderline psychopathology. *Journal of Personality Disorders, 17,* 233–242.

EXHIBIT 306

BACK TO TABLE OF
CONTENTS

Citation only

SHARE

More information
about this publication

What's happening at home?: Providing family assessment and reunification for young people seeking emergency accommodation

Parity
Volume 28 Issue 9 (Nov 2015)

Hillier, Cheryl[1]; Thyer, Shantel[2]

Abstract: Young Australians experiencing family conflict are in danger of becoming homeless and getting 'stuck' in the homelessness sector. Unresolved conflict and a breakdown of relationships between the young person and their parent or parents are major reasons for young people leaving home prematurely. This is a nationwide issue. Statistics show that 12 to 25 year olds are approximately 25 per cent of the homeless population.

FULL TEXT PDF (BUY NOW - AU$4.00 + GST (54KB))

Personal Author:	**Hillier, Cheryl; Thyer, Shantel;**
Source:	Parity, Vol. 28, No. 9, Nov 2015: 80-81
Document Type:	Journal Article
ISSN:	1032-6170
Subject:	**Homeless youth--Health and hygiene; Homeless youth--Services for; Emergency housing; Family assessment; Family reunification;**
Affiliation:	(1) Therapeutic Youth Services Uniting Communities
	(2) Central Support Uniting Communities

Database: **FAMILIES & SOCIETY COLLECTION**

EXHIBIT 306
CHS.900.006.0058

Longitudinal Trajectories and Predictors of Adolescent Suicidal Ideation and Attempts Following Inpatient Hospitalization

Mitchell J. Prinstein, Matthew K. Nock, Valerie Simon, Julie Wargo Aikins, Charissa S. L. Cheah, and Anthony Spirito

Mitchell J. Prinstein, Department of Psychology, University of North Carolina at Chapel Hill;

Contributor Information.

Correspondence concerning this article should be addressed to: Mitchell J. Prinstein, University of North Carolina at Chapel Hill, Department of Psychology, Davie Hall, Campus Box 3270, Chapel Hill, NC 27599-3270. Email: mitch.prinstein@unc.edu

Abstract

Remarkably little is known regarding the temporal course of adolescent suicidal ideation and behavior, the prediction of suicidal attempts from changes in suicidal ideation, or the prediction of suicidal attempts after accounting for suicidal ideation as a predictor. A sample of 143 adolescents 12–15 years old was assessed during psychiatric inpatient hospitalization and again at 3, 6, 9, 15, and 18 months postdischarge through a series of structured interviews and parent- and adolescent-reported instruments. Symptoms of depression, posttraumatic stress disorder, externalizing psychopathology, hopelessness, and engagement in several forms of self-injurious/suicidal behaviors (i.e., suicide threats/gestures, plans, nonsuicidal self-injury [NSSI]) were assessed. Latent growth curve analyses revealed a period of suicidal ideation remission between baseline and 6 months following discharge, as well as a subtle period of suicidal ideation reemergence between 9 and 18 months postdischarge. Changes in suicidal ideation predicted suicide attempts. After accounting for the effects of suicidal ideation, baseline suicide threats/gestures also predicted future suicide attempts. Higher adolescent-reported depressive symptoms, lower parent-reported externalizing symptoms, and higher frequencies of NSSI predicted weaker suicidal ideation remission slopes. Findings underscore the need for more longitudinal research on the course of adolescent suicidality.

Keywords: suicidal ideation, suicidal attempts, nonsuicidal self injury, adolescence, longitudinal methods

Recent data indicate that suicidal ideation, attempts, and completed suicide continue to occur at alarming rates, especially among youth (Kessler, Berglund, Borges, Nock, & Wang, 2005; World Health Organization [WHO], 2005). In addition, epidemiological data suggest that the transition to adolescence represents a critical developmental vulnerability period for increased suicidal behavior. For instance, in the United States, suicide currently is the third leading cause of adolescent death, and the rate increases sixfold during the transition from childhood to adolescence (from 1.3 to 8.6 per 100,000; Centers for Disease Control and Prevention [CDC], 2006). This developmental period also brings a dramatic increase in the occurrence of the immediate precursors to suicide death, including suicidal ideation, plans, and attempts (e.g., Kessler, Borges, & Walters, 1999). National data from community-based samples of high school students indicate high rates of 12-month suicidal ideation (16.9%), suicide plans (13.0%), suicide attempts (8.4%), and suicide attempts requiring medical treatment (2.3%; CDC, 2006) by adolescence. For these reasons, the study of suicidal behaviors at the transition stage to adolescence is of especially high priority (U.S. Department of Health and Human Services [HHS], 2000, 2001; U.S. Public Health Service, 1999; WHO, 2005).

Yet data bearing on some fundamental aspects of adolescent suicidal behavior are surprisingly unavailable. This is due in large part to the existence of only a small number of longitudinal investigations examining suicidal ideation or attempts over multiple time points. For instance, although previously cited data provide information about the lifetime and 12-month prevalence of suicidal behaviors, little is known about the temporal course of adolescent suicidal ideation or suicidal behavior. Prior longitudinal studies have offered some insight on the long-term course of suicidal ideation and attempts; however, the few studies that have done so often have assessed these outcomes by means of single-item indices or data collected at only two time points or at time points spaced quite far apart (e.g., 1–15 years between assessments; McKeown et al., 1998; Reinherz, Tanner, Berger, Beardslee, & Fitzmaurice, 2006). Clinical experience suggests that fluctuations in suicidal behaviors occur much more rapidly. Thus, of particular scientific and clinical interest is the short-term course of suicidal ideation and behavior. For instance, it would useful to know whether suicidal ideation increases steadily over time among some adolescents, or whether ideation, like depressive episodes, may be cyclical in nature. Information such as this about the temporal course of suicidal ideation and attempts, while basic, would make a significant contribution to scientific and clinical efforts aimed at understanding and predicting these outcomes.

It is especially important to understand the course of suicidal ideation among high risk samples of youth with severe psychopathology, such as adolescent psychiatric inpatients. Suicidal ideation and attempts are a primary reason for referral for psychiatric hospitalization (Peterson, Zhang, Santa Lucia, King, & Lewis, 1996), and although such thoughts and behaviors presumably decrease during hospitalization, they often reappear

EXHIBIT 306

soon after discharge. The few studies that have focused on adolescents recently discharged from psychiatric hospitals have revealed that the greatest risk for suicide attempts occurs within 6 months to 1 year following hospital discharge; during this period, approximately 9% of youth attempt suicide (Brent et al., 1993; Goldston et al., 1999; King et al., 1995; Spirito et al., 1992). Thus, although rates of suicidal ideation and attempts are elevated among youth, and prior data suggest risk of such outcomes are especially high among those recently discharged from psychiatric hospitalization, data are not currently available on the short-term course of suicidal ideation and attempts immediately following release from adolescent psychiatric hospitalization. Such information could significantly enhance our understanding of the nature of suicidal behaviors and also would offer essential information for clinical assessment and treatment planning.

In addition to understanding the course of suicidal ideation and attempts, it also would be instructive to better understand the factors that predict changes in this course. Here, too, data are available from studies examining potential risk factors retrospectively at one time point (e.g., Kessler et al., 1999) or prospectively over extended periods of time (e.g., McKeown et al., 1998; Reinherz et al., 2006); however, studies of more proximal predictors of the presence of suicidal ideation and attempts are rare (Foley, Goldston, Costello, & Angold, 2006). Moreover, few prior studies have been able to identify factors that are associated with suicide attempts after controlling for the effects of suicidal ideation. That is, most predictors of suicide attempts actually predict suicidal ideation but not which ideators will go on to make a suicide attempt (see Borges et al., 2006; Kessler et al., 1999). The identification of factors that can prospectively predict suicide attempts above and beyond prediction of suicidal ideation is important not only for clinical theory, but also for the clinical assessment and prevention of suicidality among youth.

Several different classes of predictors were considered on the basis of prior theoretical and empirical work in this area. First, we examined aspects of self-injury and suicidality that may portend a higher likelihood of future attempts. For instance, increases in suicidal ideation over time may prove useful in predicting short-term risk of suicide attempt. Clinicians often monitor the presence of suicidal ideation as a predictor of attempts, but the extent to which changes in ideation are associated with later attempts remains unclear. Additional indices of self-injury/suicidality—such as suicide plans, threats, or engagement in other self-injurious behaviors, even without suicidal intent (i.e., nonsuicidal self-injury [NSSI]; e.g., Nock, Joiner, Gordon, Lloyd-Richardson, & Prinstein, 2006; Nock & Prinstein, 2005)—also have been suspected as predictors of suicide attempts. This is consistent with recent theory suggesting that engagement in self-injurious behaviors or suicidality may produce habituation toward self-harm that contributes to one's capacity for engagement in more serious subsequent suicide attempts (Joiner, 2005). However, the extent to which these predictors are associated with subsequent suicide attempts after controlling for changes in suicidal ideation or past attempts has been surprisingly understudied.

Second, prior work has suggested that the presence of one or more psychiatric disorders is among the strongest predictors of suicidal ideation, attempts, and death (Brent et al., 1993; Foley et al., 2006; Nock & Kessler, 2006; Shaffer et al., 1996). Most notably, affective and externalizing disorder symptoms are frequently noted as predictors of suicide attempts in past cross-sectional or retrospective studies, or as distal predictors of suicidal ideation and behavior (Brent et al., 1993; Kessler et al., 1999; Nock & Kazdin, 2002; Nock & Kessler, 2006; Shaffer et al., 1996). Evidence from long-term follow-up studies of hospitalized adolescents suggests that depressive symptoms, trait levels of hopelessness and anxiety, and symptoms of externalizing disorders may be associated with future attempts, even after controlling for past attempts (Goldston et al., 1999; Goldston, Reboussin, & Daniel, 2006). The identification of psychological factors (both mental disorders and related psychological constructs) that are associated with short-term increases in suicidal ideation, and with increased risk of suicide attempt above and beyond the presence of suicidal ideation, would represent a significant clinical advance in this area.

The first goal of the current study was to prospectively examine the short-term trajectories of suicidal ideation and attempts among clinically referred adolescents in greater detail within this critical time period. Six repeated assessments were conducted within an 18-month period following inpatient psychiatric hospitalization. It was hypothesized, on the basis of past work, that approximately 10% of adolescents would attempt suicide within 6 months of hospital discharge and 20% within 18 months postdischarge (e.g., Goldston et al., 1999). It was expected that rates of suicidal ideation and attempts would be higher for girls than for boys at each time point, consistent with prior work on gender differences in the occurrence of these behaviors (Lewinsohn, Rohde, & Seeley, 1996; Moscicki, 1999). It also was hypothesized that trajectories of suicidal ideation following inpatient hospitalization would not follow a simple linear trend, but instead would be characterized by periods of remission after hospital discharge, followed by a reemergence of ideation several months later, similar to the cyclical patterns that characterize depressive episodes. Some prior work provides a basis for this prediction by showing that declines in depressive symptoms predict subsequent declines in suicidal ideation among adults with major depressive disorder (Sokero et al., 2006). The current study represents an extension of this earlier finding and provides a more direct examination of the temporal pattern of adolescent suicidal ideation and attempts over time.

The second goal of the current study was to examine factors that might predict the occurrence of suicidal ideation and attempts among adolescents during the critical 18-month period following hospital discharge. First, it was hypothesized, on the basis of prior work in this area, that higher baseline levels of suicidal ideation, suicide attempts, and nonsuicidal self-injury would predict the subsequent occurrence of suicidal ideation and attempts. Second, it was hypothesized that if suicidal ideation and attempts do indeed fluctuate over the 18-month period following hospitalization (as proposed in the first study goal stated above), then changes in suicidal ideation over the 18-month period would predict subsequent changes in the risk of suicide attempts. That is, increases in suicidal ideation during one time period (i.e., slope of suicidal ideation) would predict an increased likelihood of suicide attempt during the next time period above and beyond earlier predictors. Third and finally, it was hypothesized that baseline psychological factors including internalizing disorders (e.g., depression, posttraumatic stress disorder), externalizing disorders (e.g., conduct and oppositional defiant disorders), and hopelessness would significantly predict the occurrence and trajectories of subsequent suicidal ideation and attempts.

Method

Participants

Participants included 143 adolescents (72% girls) between the ages of 12 and 15 years ($M = 13.51$, $SD = 0.75$) and in Grades 7 (20%), 8 (40%), or 9 (40%) at baseline. This age range was chosen because of the significantly increased risk of suicidal thoughts and behaviors during this developmental period (Kessler et al., 1999). Approximately 75% of participants were White/Caucasian, 3% African American, 4% Latino

36

American, and 17% mixed ethnicity. Approximately 27% of adolescents lived with both biological parents, 29% with their biological mother only, and 15% with their biological mother and a stepparent; the remaining adolescents lived either with their biological father or extended family or in foster or temporary care. Based on maternal report, 19% of mothers had not obtained a high school diploma, 40% had a high school degree, 14% had earned a trade degree, 11% had some undergraduate college, and 16% had obtained a college degree or higher.

All participants were recruited from a psychiatric inpatient facility in the northeastern United States. During the period of recruitment, a total of 246 adolescents matching study inclusion (12–15 years old, no history of prior psychosis or mental retardation) were admitted to the inpatient unit. Both suicidal and non-suicidal adolescents were recruited to ensure variability in the constructs of interest for this investigation. At the time of this data collection, approximately 40% of all admissions onto this unit were discharged or transferred within 1 or 2 days of admission. This length of stay was associated with a variety of factors (e.g., insurance carrier, vacancies at local facilities) and did not serve as a marker for the severity of adolescents' psychological symptoms or socioeconomic status. Consistent with human subjects regulations, adolescents and their parents were approached for study participation after clinical personnel had met with adolescents' parent/guardian and gained permission for them to be approached about this investigation (i.e., typically on the second day following admission). Consent for study participation therefore was requested from 183 of these eligible adolescents. A total of 162 (88.5%) provided consent, and 143 (88.3%) of these were available to be assessed on study measures (i.e., 19 participants were discharged after consent was given but before data collection).

Adolescents and their parents initially were assessed during hospitalization (baseline) immediately following consent, typically within 2 to 4 days of admission. Adolescents and parents completed additional assessments at 3, 6, 9, 15, and 18 months post-baseline.

Data were missing for two potential reasons common to research of this type: First, logistical challenges with inpatient data collection (e.g., competing demands for patients' time, unexpected discharge or transfer) yielded missing data on some items or measures within participants. Second, data sometimes were missing because of attrition over the longitudinal interval (e.g., adolescents' relocation, study dropout, etc.). Many retention strategies were utilized, including frequent phone and mail contact with participants and their immediate and extended family members and friends, searches within public access databases for current contact information, and participant incentives for completion of follow-up assessments (i.e., $30 at each follow-up time point for both a parent and the adolescent). Of the 143 adolescents who completed baseline assessments, a total of 133 (93%) adolescents participated in at least one of the follow-up time points; 115 (80%) participated in at least two follow-up time points, 106 (74%) participated in at least three time follow-up points, 96 (67%) in four follow-up time points, and 76 (53%) completed every follow-up assessment. A total of 102 adolescents (71%) participated at the final assessment. This retention rate is comparable to prior research. Boergers and Spirito (2003) reviewed 31 longitudinal follow-up studies of adolescent suicide ideators and attempters; only four conducted in the United States collected follow-up data for over a year. Retention rates for these four studies ranged from 52% to 83% (weighted $M = 71\%$).

Analyses were conducted to compare adolescents with or without complete longitudinal data on all baseline study variables. Analyses also were conducted to examine adolescents who did or did not participate in the final time point. In both cases, no significant effects were revealed on any study variables, suggesting no evidence for attrition biases. Missing data analyses indicated that data were missing at random, Little's MCAR $\chi^2(1840) = 1,839.57$, ns. Because listwise deletion would unnecessarily omit valuable data, all analyses were conducted with all available data (see Data Analyses below). Analyses conducted on the basis of only available data revealed an identical pattern of results.

Measures

All adolescent questionnaire-based measures were read aloud by a trained research assistant during individual meetings while adolescents privately recorded their responses. This procedure allowed for adequate probing and explanation of study items when necessary, monitoring of adolescents' attention and conscientiousness while completing measures, and immediate checking for response inconsistencies.

Suicidality Adolescents' suicidal ideation, suicide plans, suicide threats/gestures, and suicide attempts were assessed. The Suicidal Ideation Questionnaire (SIQ; W. M. Reynolds, 1985) was used to assess suicidal ideation. The SIQ includes 30 items designed to assess thoughts about suicide in adolescents. Items are scored on a 7-point scale ranging from 0 to 6, with greater scores reflecting greater frequencies of suicidal ideation severity. The scales were developed through field testing with over 2,400 respondents. Construct validity of the SIQ has been demonstrated by correlations with highly related constructs such as depression ($r = .59$) and hopelessness ($r = .48$), as well as strong convergence with scores from a structured clinical interview regarding suicidal behavior (W. M. Reynolds, 1990). The SIQ was administered at all six time points; internal consistency was .92 or above at each time point. At baseline, suicidal ideation over the past 12 months was assessed; at each follow-up time point, ideation over the prior 3 months was assessed.

Items used to assess suicide plans, suicide threats/gestures, and suicide attempts were adapted from existing instruments designed to assess suicidal behavior, including the Kiddie-Schedule for Affective Disorders and Schizophrenia (Kaufman et al., 1997), the National Institute of Mental Health Diagnostic Interview Schedule for Children (NIMH-DISC; Shaffer et al., 1993; 2000), and the Youth Risk Behavioral Surveillance System (Kann, Kolbe, & Collins, 1993). Suicide plans were assessed by asking adolescents to indicate whether they had "made a plan about how you would attempt suicide?" Suicide threats/gestures were assessed by asking adolescents to report if they "tried to make someone believe that you might end your life, but didn't do it?" Suicide attempts were assessed by asking adolescents whether they "actually attempted suicide." At baseline, each construct was assessed to determine behavior over the past year. The lifetime history of suicide attempts also was assessed at baseline. At each subsequent time point, each construct was assessed to determine behavior within the 3 months from the prior assessment. The examination in this study of both suicidal ideation and attempts over multiple time points following hospitalization provided a novel opportunity to examine factors that might predict the individual baseline levels and temporal growth of suicidal ideation, and that predict suicide attempts over time, after accounting for initial suicidal ideation, growth in suicidal ideation, and past attempts.

Nonsuicidal self-injury NSSI was assessed at baseline through two sets of items. An initial item examined the frequency within the past year that adolescents "harmed or hurt your body on purpose (for example, cutting or burning your skin, hitting yourself, or pulling out your hair) without wanting to die"; a 6-point scale (0 = *Never*; 5 = *Once a day*) was used for this test. A second set of five items reported the frequency with which adolescents engaged in several types of nonsuicidal self-injurious behavior (i.e., cut/carved skin, hit self, pulled hair out, burned skin), without

suicide intent, in the past year. The frequency of engagement in each item was reported on a 5-point scale ($1 = Never$; $5 = Almost\ every\ day$). A mean score across all five items was computed ($a = .70$). The correlation between both sets of NSSI items was .69, $p < .001$.

Psychological symptoms Several clinician-interview, self-report, and parent-report measures of psychological symptoms were administered at Time 1 to allow for the examination of latent variables within each construct assessed. The NIMH-DISC-IV (Shaffer et al., 2000) was used to obtain information regarding psychiatric diagnosis and psychological symptoms. Both adolescent (DISC-C) and parent (DISC-P) report versions were administered when possible; each is a structured interview developed for use concerning children and adolescents ages 6–17. Items assess symptoms, behaviors, and emotions corresponding to diagnostic criteria of the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.; *DSM-IV*; American Psychiatric Association, 1994). The NIMH-DISC has demonstrated good to excellent diagnostic sensitivity (Fisher et al., 1993), interrater reliability (Shaffer et al., 1993, 2000), test–retest reliability (Jensen et al., 1995; Shaffer et al., 2000), and construct validity (Costello, Edelbrock, & Costello, 1985; Weinstein, Noam, Grimes, Stone, & Schwab-Stone, 1990). Symptoms of unipolar mood disorder (i.e., major depression module), posttraumatic stress disorder (PTSD), and externalizing behavior (oppositional defiant disorder and conduct disorder modules) were assessed. For each type of disorder, the number of adolescents' clinically significant symptoms was summed to produce a continuous measure reported by adolescents (internal consistency: major depression = .90, PTSD = .89, conduct disorder = .69) and their parents (internal consistency: major depression = .92, PTSD = .88, conduct disorder = .48) at baseline.

Adolescents additionally completed the Children's Depression Inventory (CDI; Kovacs, 1992) as a measure of depressive symptoms at Time 1. The CDI includes 27 items that assess cognitive and behavioral depressive symptoms, including all but one (psychomotor agitation) of the *DSM-IV* (American Psychiatric Association, 1994) criteria for a major depressive episode. A three-item response format, scored 0 through 2, is used in which children endorse statements that best describe their level of depressive symptoms in the previous 2 weeks. A mean score was computed across all items with one exception (i.e., suicidal ideation) to minimize overlap between constructs; higher scores indicated higher levels of depressive symptoms. Good psychometric properties have been reported for the CDI as a reliable and valid index of depressive symptoms (Saylor, Finch, Spirito, & Bennett, 1984); it can be used with youths between the ages of 7 and 18 years (Kazdin, 1990). Internal consistency in the present sample was .88.

A self-reported measure of externalizing symptoms, the Delinquency Behavior Questionnaire, was adapted from the Self-Reported Delinquency Interview (Elliot, Huizinga, & Ageton, 1985). Items assessed the frequency of adolescents' engagement in several illegal and aggressive behaviors frequently included in inventories of deviance and externalizing symptoms (e.g., engaging in a physical fight, vandalism, obscene phone calls, theft of personal property, arson, vehicular theft, weapon carrying, shoplifting, truancy). Adolescents reported their frequency of engaging in each behavior by means of a 5-point scale. Internal consistency for this measure was .88. A mean score across all items was correlated significantly with conduct disorder symptoms as reported on the NIMH-DISC-IV (Shaffer et al., 2000) by adolescents ($r = .78$, $p < .001$) and by parents ($r = .29$, $p < .01$).

Parents completed the Behavioral Assessment System for Children (BASC; C. R. Reynolds & Kamphaus, 1992). The Parent Report form, relating to adolescents ages 12–18 years, includes 126 items, each measured on a 4-point scale (i.e., *Never, Sometimes, Often, Almost Always*) to assess a variety of symptoms. *T* scores for adolescents' parent-reported externalizing problems (i.e., including hyperactivity, aggression, conduct problems) and depression symptoms were used in analyses. Adequate internal consistency ($\alpha s > .74$) and 2- to 8-week test–retest reliability (median $r = .70$) has been reported for each subscale of the BASC in community-based and clinically referred samples.

Hopelessness Adolescents completed the Hopelessness Scale for Children (Kazdin, Rodgers, & Colbus, 1986). This measure includes 17 true–false items designed to assess negative expectancies toward oneself and regarding the future. A total sum is computed (with reverse coding where appropriate) to generate an overall score of hopelessness symptoms ($\alpha = .90$ in this sample). Adequate internal consistency and validity have been demonstrated with adolescents (Spirito, Williams, Stark, & Hart, 1988).

Data Analysis

Three sets of analyses were conducted to examine study hypotheses. Descriptive statistics first were conducted to examine the frequency of suicidal ideation and attempts over the 18-month follow-up period. Because data were missing for some variables and time points, it is important to interpret the percentages rather than frequency counts in Table 1.

Table 1
Descriptive Statistics for Primary Study Variables and Tests of Gender Differences

Second, it was of interest to better understand the course of suicidal ideation over the 18-month longitudinal period. This was examined by constructing an unconditional growth curve model on the basis of latent curve analysis. The use of latent curves allowed for an estimation of the slope and pattern of growth within the entire sample, as well as predictors of individual temporal growth trajectories (Bollen & Curran, 2006). An additional benefit of this approach is the ability to model individual intercepts and slopes when data are missing at random. All latent curve analyses were conducted with Amos 7.0 (Arbuckle, 1999). Means and intercepts were estimated on the basis of full information direct maximum likelihood when data were missing.

It was anticipated that suicidal ideation slopes might be nonlinear, given that for some adolescents ideation may be high at baseline (i.e., during hospitalization), lower following discharge, and possibly increasing again over the extended longitudinal period. An initial model examined a single latent slope factor. The six measures of suicidal ideation (SIQ scores at baseline, 3, 6, 9, 15, and 18 months postbaseline) were included as observed indicators, with intercepts set to 0. A latent intercept factor with paths to all observed indicators set to 1 was modeled. Path weights between the latent slope factor and each observed indicator of suicidal ideation were allowed to vary freely with the exception of ideation at baseline (0) and 18 months (1), to allow for nonlinearity.

The single-slope model was compared with models examining (a) a piecewise approach (i.e., linear spline) or (b) a curvilinear-slope function. The

9, 15, and 18 months postbaseline (i.e., an "ideation reemergence" curve). Growth curve modeling requires at least three time points to compute a slope. Each linear spline was modeled with two paths fixed (to 0 and 1, respectively) and the third path allowed to freely vary. The curvilinear model required the inclusion of an initial slope function (with paths to observed indicators set to indicate 3-month intervals: 0, 1, 2, 3, 5, 6, respectively), and a second slope function with each corresponding path weight squared (Bollen & Curran, 2006).

The best fitting model from analyses above was built upon to examine the third set of hypotheses related to the prospective prediction of suicidal ideation and attempts. In addition to the prediction of suicidal ideation intercept and slope(s), three additional outcome variables were added reflecting (a) the presence/absence of a suicide attempt at baseline, (b) attempts between baseline and 9 months postbaseline, and (c) attempts between 9 and 18 months postbaseline. Paths initially were included to examine associations between each of these three indices of suicide attempts and to examine suicidal ideation intercepts and slopes as predictors of suicide attempts. Additional predictors then were entered into the model to predict suicidal ideation intercepts, suicidal ideation slopes, and suicide attempts above and beyond the effects of suicidal ideation on suicide attempts.

Results

Descriptive Statistics

Table 1 presents the means and standard deviations for all study variables, as well as the results of t tests examining gender differences. Results indicated that just under half of the sample had attempted suicide prior to hospital admission. A total of 19 adolescents (13% of the sample) reported suicide attempts within 6 months of hospital discharge. A total of 38 suicide attempts were reported by 33 adolescents (approximately 23% of the full sample) between hospital discharge and 18 months postbaseline (5 adolescents reported attempts at more than one follow-up time point). Chi-square analyses indicated that adolescents who reported a suicide attempt at baseline were significantly more likely than baseline nonattempters to report a suicide attempt at least once within 6 months of hospital discharge (24.4% of prior attempters vs. 3.9% of prior nonattempters), $\chi^2(1) = 11.53$, $p < .01$, and at least once during the 18-month follow-up interval (36.4% of prior attempters vs. 12.7% of prior nonattempters), $\chi^2(1) = 10.50$, $p < .01$. Of the 33 adolescents who attempted suicide within 18 months postbaseline, 24 (72.7%) were reattempters and 9 (27.3%) were first time attempters.

Differences between these reattempters ($n = 24$) and first time attempters ($n = 9$) on the primary baseline variables included in this study were examined by means of t tests. As would be expected from prior research, results indicated that reattempters reported higher levels of psychological symptoms than did adolescents who would later attempt suicide for the first time. On the NIMH-DISC-IV (Shaffer et al., 2000), this was evident for youth-reported symptoms of depression: reattempters ($M = 4.78$, $SD = 3.49$), first time attempters ($M = .63$, $SD = 1.77$), $t(31) = 4.33$, $p < .01$; generalized anxiety: reattempters ($M = 2.83$, $SD = 2.71$), first time attempters ($M = .62$, $SD = 1.41$), $t(31) = 2.92$, $p < .05$; PTSD: reattempters ($M = 6.57$, $SD = 6.57$), first time attempters ($M = .50$, $SD = 1.41$), $t(31) = 4.16$, $p < .01$; and oppositional defiant disorder: reattempters ($M = 3.09$, $SD = 2.50$), first time attempters ($M = 1.38$, $SD = 1.30$), $t(31) = 2.46$, $p < .05$. Significant differences also were revealed for baseline levels of NSSI: reattempters ($M = 2.04$, $SD = 0.78$), first time attempters ($M = 1.42$, $SD = 0.47$), $t(31) = 2.21$, $p < .05$; and depressive symptoms on the CDI: reattempters ($M = 0.96$, $SD = 0.30$), first time attempters ($M = 0.75$, $SD = 0.15$), $t(31) = 2.70$, $p < .05$.

Analysis of gender differences indicated that girls reported higher levels of suicidal ideation at 6, 9, 15, and 18 months postbaseline than did boys. Girls also were overrepresented in the proportion of adolescents who reported suicide attempts at baseline, but underrepresented in the proportion of adolescents who reported a suicide plan at baseline, as compared with boys. Girls reported significantly more episodes of NSSI at baseline, as well as greater severity of depression and anxiety symptoms, as compared with boys, on self-reported and youth-interview measures only (see Table 1).

Course of Suicidal Ideation Over Time

Analysis of unconditional growth curve models began with an examination of a one-slope model including baseline, 3-, 6-, 9-, 15-, and 18-month measures of suicidal ideation. The model was an adequate fit, $\chi^2(16) = 22.66$, $p < .03$; χ^2/df = 1.89; comparative fit index (CFI) = .95; root-mean-square error of approximation (RMSEA) = .08; Akaike information criterion (AIC) = 52.66. This model was compared with a piecewise model with a first latent slope factor representing the slope between baseline (path weight = 0), 3- (freely varying), and 6-month (1) time points (additional time point paths set to 1) and a second slope factor representing changes between 9- (freely varying), 15- (freely varying), and 18-month (1) time points (additional time point paths set to 0). This model also yielded a good fit, $\chi^2(5) = 13.96$, ns; χ^2/df = 1.55; CFI = .98; RMSEA = .06; AIC = 49.69. By setting all parameters, errors, and path weights for the second slope factor to zero and allowing estimation of paths between the first slope function and the latter three observed suicidal ideation indicators (i.e., to replicate the initial one-slope factor model above), it was possible to consider these two alternate models nested and reveal that the piecewise model was a statistically better fit to the data, $\Delta\chi^2(3) = 8.7$, $p < .01$. In addition, a comparison of the AIC between the two models suggested that the piecewise model was better fit to the data than the one-slope factor model. A third model, with a quadratic slope factor, also was modeled. The fit for the quadratic model, $\chi^2(12) = 31.35$, $p < 01$; χ^2/df = 2.61; CFI = .91; RMSEA = .10; AIC = 61.35, was not statistically better than the initial one-slope model and fit significantly worse than the piecewise model, $\Delta\chi^2(3) = 8.7$, $p < .0001$.

Thus, the piecewise model was used as a starting point for all analyses listed below. Constraining error variances across all six observed indicators of suicidal ideation did not significantly change model fit, $\chi^2(14) = 15.97$, ns; χ^2/df = 1.55; CFI = .98; RMSEA = .06; AIC = 41.69; $\Delta\chi^2(5) = 2.01$, ns, and thus constraints were retained for parsimony. The estimated unstandardized path weights for suicidal ideation at 3 months postbaseline on the first slope factor were .82, $p < .001$, and for suicidal ideation at 9 and 15 months postbaseline on the second slope factor were .00, ns, each. Estimated intercept parameters indicated that suicidal ideation was significantly greater than 0 at baseline ($M = 2.99$, $p < .0001$) with significant variability around this mean (2.11, $p < .05$). Estimated parameters for the first slope factor ($M = -1.34$, $p < .001$; variance = 1.30, ns) indicate declining levels of suicidal ideation between baseline, 3, and 6 months postbaseline (i.e., an ideation remission slope). Estimated parameters for the second slope factor indicate a marginally significant increasing slope in suicidal ideation between 9, 15, and 18 months postbaseline ($M = 0.18$, $p =$

.06; variance = 68.00, *ns*; i.e., an ideation reemergence slope).

EXHIBIT 306.

Gender differences were anticipated in the trajectories of suicidal ideation over time. A multiple group analysis was not possible, however, given a relatively small number of boys. Gender therefore was included as an exogenous predictor in analyses below.

Suicidal Ideation Trajectories Predicting Suicide Attempts

Three dichotomous outcome variables were added to the piecewise model described above to examine the prediction of suicide attempts. An exogenous indicator reflecting the presence or absence of suicide attempts at baseline was added, as well as two outcome variables reflecting (a) presence/absence of suicide attempts between baseline and 9 months postbaseline, and (b) presence/absence of suicide attempts between 9 and 18 months post-baseline (time points were combined to examine attempts by the halfway point and end point of follow-up, corresponding to the time points for the two slopes of suicidal ideation, and to increase cell sizes). Paths were estimated (a) between the suicidal ideation intercept and the three suicide attempt outcomes (i.e., suicide attempts at baseline, between baseline and 9 months, and between 9 and 18 months); (b) between the initial (i.e., ideation remission) slope factor with all three suicide attempt outcomes; and (c) between the second slope factor (i.e., ideation reemergence) and suicide attempts between 9 and 18 months postbaseline. Paths also were estimated between all three measures of suicide attempts. Model fit decreased notably, $\chi^2(26) = 51.64$, $p < .01$; $\chi^2/df = 1.99$; CFI = .92; RMSEA = .08; AIC = 107.64. A nonsignificant path between suicide attempts by 9 and by 18 months postbaseline was trimmed, yielding a better model fit, $\chi^2(27) = 28.30$, *ns*; $\chi^2/df = 1.05$; CFI = 1.00; RMSEA = .02; AIC = 82.30.

In this model, the initial suicidal ideation intercept was associated significantly with a suicide attempt at baseline, $B = 0.20$, $p < .001$, by 9 months postbaseline, $B = .22$, $p < .001$, and between 9 and 18 months postbaseline, $B = 0.29$, $p < .001$, suggesting that higher baseline levels of suicidal ideation were associated with future attempts above and beyond the effects of initial attempts. The ideation remission slope was associated significantly with suicide attempts by 9 months postbaseline, $B = 0.21$, $p < .05$, and between 9 and 18 months postbaseline, $B = 0.31$, $p < .001$. The positive value of these regression weights coupled with the negative average slope value indicates weaker ideation remission slopes (i.e., approaching zero) were associated with a greater likelihood of future suicide attempts. Last, a significant association was revealed between the ideation reemergence slope and suicide attempts between 9 and 18 months postbaseline, $B = 0.23$, $p < .05$, indicating that steeper increasing slopes of ideation reemergence were associated with a greater likelihood of future attempts. An additional significant path was revealed between suicide attempts by 9 months, and between 9 and 18 months postbaseline, $B = -0.18$, $p < .05$, reflecting that attempters at 9 months were unlikely to attempt again before 18 months, and attempters at 18 months were unlikely to have attempted at 9 months. Interestingly, once the association between suicidal ideation trajectories and suicide attempts was accounted for, a significant association between initial suicide attempts and future attempts no longer remained significant, $B = 0.14$, *ns*.

Baseline Self-Injury and Suicidality as Predictors of Suicidal Ideation Trajectories and Suicide Attempts

The next goal of analyses was to examine predictors of suicidal ideation trajectories and predictors of suicide attempts above and beyond suicidal ideation intercepts and slopes as predictors. An initial model examined self-injury predictors at baseline, as well as gender. Specifically, four predictors were added to the model listed above: a suicide plan at baseline; a suicide threat/gesture at baseline; the frequency of NSSI at baseline (modeled as a latent factor, with both observed measures of NSSI as indicators); and gender. Paths between each of these predictors and (a) the suicidal ideation intercept, (b) both suicidal ideation slopes, and (c) all three measures of suicide attempts were estimated; all predictors were allowed to covary. The fit of this model was adequate, $\chi^2(50) = 94.36$, $p < .001$; $\chi^2/df = 1.89$; CFI = .92; RMSEA = .08; AIC = 232.36. All regression weights are listed in Table 2. As might be expected, several associations among baseline measures were revealed. The presence of a suicide plan and more episodes of NSSI each were associated with higher levels of baseline suicidal ideation (i.e., intercept). Above and beyond the association between suicidal ideation intercepts and baseline attempts (which remained significant), and correlations with other self-injury predictors, the presence of a suicide plan also was associated with a greater likelihood of baseline suicide attempts.

Table 2
Prediction of Suicidal Ideation and Suicide Attempts From Self-Injury Predictors; Unstandardized Regression Weights (SE)

Results also revealed several interesting longitudinal associations between baseline suicidality and self-injury with later suicidal ideation and attempts. After all other estimated associations were accounted for, higher frequencies of NSSI were associated with lower suicidal ideation remission slopes (i.e., slopes approaching zero). The presence of a suicide threat/gesture also was associated with a greater likelihood of suicide attempts between 9 and 18 months postbaseline.

Psychological Symptoms as Predictors of Suicidal Ideation Trajectories and Suicide Attempts

A final goal was to examine the association between baseline psychological symptoms, measured by clinician interview, adolescent and parent reports, and trajectories of suicidal ideation and future suicide attempts. Initial analyses revealed that latent factors of psychological symptom domains including both adolescent- and parent-reported data did not fit the data well. Thus, separate analyses were conducted for adolescent- and for parent-reported data.

Analysis of adolescent-reported data included two latent factors and three observed indicators as predictors of (a) suicidal ideation intercept and slopes, and (b) all three measures of suicide attempts, as in the model above. The two latent factors included depression (two indicators: adolescent-reported NIMH-DISC-IV depression symptoms and CDI scores) and externalizing symptoms (three indicators: adolescent-reported NIMH-DISC-IV oppositional defiant disorder and conduct disorder symptoms and well as Delinquent Behavior Questionnaire scores). Observed indicators included NIMH-DISC-IV PTSD symptoms, adolescents' scores on the Hopelessness Scale for Children, and adolescents' gender. The model fit the data well, $\chi^2(82) = 116.46$, $p < .01$; $\chi^2/df = 1.42$; CFI = .95; RMSEA = .05; AIC = 292.46. Results are presented in Table 3. Results suggested that only adolescent-reported depressive symptoms were associated with higher initial levels of suicidal ideation (i.e., intercept) and lower declining slopes of suicidal ideation in the first 9 months postdischarge (i.e., remission slopes approaching zero).

40

Table 3

EXHIBIT 306f Suicidal Ideation and Suicide Attempts From Adolescent-Reported Psychological
Symptoms; Unstandardized Regression Weights (SE)

CHS.900.006.0064

An identical model was conducted to examine adolescents' parent-reported symptoms as predictors of suicidal ideation trajectories and suicide attempt outcomes. Latent depression and externalizing factors were constructed on the basis of results from the NIMH-DISC-IV's parent interview (depression symptoms, and oppositional defiant disorder and conduct disorder symptoms, respectively) and scores on the BASC Depression and Externalizing Problems subscales. PTSD scores on the parent-reported NIMH-DISC-IV also were included. The model fit the data adequately, $\chi^2(76) = 122.32$, $p < .01$; $\chi^2/df = 1.61$; CFI = .91; RMSEA = .06; AIC = 274.32. Results are presented in Table 4. Significant effects were revealed only for externalizing symptoms; higher levels of externalizing symptoms were associated with lower levels of initial suicidal ideation and greater remission slopes (i.e., quicker recovery).

Table 4
Prediction of Suicidal Ideation and Suicide Attempts From Parent-Reported Psychological Symptoms;
Unstandardized Regression Weights (SE)

Discussion

Although decades of excellent research have been dedicated toward understanding the phenomenology and predictors of suicidality, remarkably little is known regarding some basic questions about suicide. Among these understudied issues are the course of suicidal ideation and behavior over time, the short-term prediction of suicide attempts from recent changes in suicidal ideation, and the predictors (i.e., both self-injurious behaviors and psychological symptoms) that are associated with suicide attempts above and beyond suicidal ideation. This study addressed each of these issues within a population of youth that is at greatest risk for suicide (i.e., psychiatrically hospitalized inpatients) at the critical developmental period that is associated with unique vulnerabilities to suicide attempts and completions.

An initial goal of this study was to better understand the course of suicidal ideation and behavior. A few prior studies have examined the prevalence of attempts among adolescents following discharge from inpatient psychiatric facilities (e.g., Brent et al., 1993; Goldston et al., 1999; King et al., 1995; Spirito et al., 1992). Our data offered an important replication of these findings: Between one fifth and one quarter of adolescent inpatients attempted suicide within 18 months after discharge, and the vast majority of these attempters had attempted suicide prior to their hospital admission. Girls also were more likely than boys to attempt suicide following hospital discharge. The 13.9% reattempt rate in the 3 months following discharge appears slightly higher than the 10% rate found at the same hospital almost 15 years earlier (Spirito et al., 1992). Our findings offer an important corroboration of past work and highlight the importance of focusing intervention and prevention efforts on adolescents with a previous suicide attempt who are recently discharged from a psychiatric hospital. Adolescents must be closely monitored following hospitalization, given the extremely high risk during this short period. Perhaps the greatest obstacle to suicide prevention efforts is the low rate at which suicidal behaviors occur and the associated difficulties that this introduces to prediction (Cohen, 1986; Goldstein, Black, Nasrallah, & Winokur, 1991). This problem would be partially addressed if prevention efforts focused more intensively on high risk individuals during this critical period for suicide attempts.

This study also closely studied trajectories of suicidal ideation following inpatient hospitalization. Most prior studies of suicidal ideation and attempts have examined the presence versus absence of these phenomena and have revealed less about the parameters of suicidal experiences, such as their duration or reoccurrence. Notably, studies in which parameters of suicidal phenomena have been examined have provided useful information about how suicidal thoughts and attempts differ over time (e.g., Joiner & Rudd, 2000; Joiner, Rudd, Rouleau & Wagner, 2000). Adding to this literature, our findings suggested that the average course of ideation in this sample included both a period of substantial decline in suicidal ideation during the first 6 months following hospitalization, followed by a subtle reemergence of ideation in the year that followed. Findings suggest that suicidal ideation, like depressive symptoms, may follow a cyclical course. Although practitioners may regard the passing of time after an acute crisis or attempt as suggesting a gradually decreasing risk of future ideation, these results suggest that the reemergence of suicidal thoughts may be a relatively common phenomenon within this population. Moreover, over time and across repeated suicide attempts, it may require less stress to precipitate a suicidal crisis (e.g., Joiner & Rudd, 2000). Ongoing monitoring of suicidal ideation is critical for many months following psychiatric hospitalization, and perhaps particularly following a latency period of initial declines and apparent ideation remission. Unfortunately, many of these adolescents are no longer in treatment a year after hospital discharge and therefore are not able to be routinely monitored by a trained professional (Spirito, Boergers, Donaldson, Bishop, & Lewander, 2002). Effective prevention of suicide will likely require monitoring of at risk adolescents more broadly and may be enhanced by consideration of warning signs for suicide (e.g., Rudd et al., 2006).

Although in this sample a reemergence of suicidal ideation was revealed between 6 and 18 months following hospital discharge, it should not be concluded that this specific time period will be consistent among adolescents or across samples. Our analytic strategy influenced the number of time points included in estimation of each slope factor. Examination of means suggested that elevations may have occurred most notably between 15 and 18 months following discharge. It also is important to note that even at the lowest time point (i.e., 15 months), ideation remained present to some degree, with a mean of 1.53 on a 0–6 scale. This suggests that although variation in mean level of ideation was observed, the results also suggest some chronicity of ideation among adolescents following discharge from the hospital. Moreover, although variability around the mean slope coefficients was not statistically significant, individual differences nevertheless will be present in the timing of suicidal ideation reemergence. Nevertheless, this study offers novel and important data on the short-term course of suicidal ideation following hospitalization and suggests the presence of ongoing risk for later ideation and attempts.

It will be especially important to understand factors other than time since hospital discharge that might be significantly associated with later increases in suicidal ideation or behavior. Thus, a second set of study goals involved the examination of baseline factors that would predict later suicidal ideation trajectories and suicide attempts. Consistent with past research, results suggested that initial levels of suicidal ideation were

associated with greater risks of future suicide attempts. However, and particularly important, results also suggested that changes in suicidal ideation over time also were significantly associated with future attempts, even after accounting for the role of baseline ideation as one of the predictors. In other words, not only is the identification of past suicidal thoughts or behavior important for predicting future suicidal behavior, but the rate at which adolescents' suicidal ideation abates following discharge, and the rate at which ideation reemerges, uniquely contribute toward understanding future risks. In fact, once these trajectories of suicidal ideation were accounted for, a past suicide attempt was no longer a significant predictor of later attempts. An important direction for future work on suicide is the development of more complex models that use temporal changes in suicidal ideation and other risk factors in the prediction of suicide attempts. Most prior work has tested potential risk factors measured at one point in time in the prediction of suicide attempts at some point in the future. This is a fairly blunt approach to risk assessment, and the current findings suggest that consideration of short-term changes in factors such as suicidal ideation may lead to better predictive models than what is possible by means of even the strongest static predictors.

Results also suggested longitudinal associations between specific self-injurious/suicidal behaviors and later suicide attempts that were statistically significant even after accounting for (a) initial levels of ideation and (b) trajectories of suicidal ideation as predictors. Higher frequencies of NSSI episodes also were associated with weaker ideation remission following hospital discharge. Broadly, results are consistent with Joiner's (2005) recent theory regarding the habituation effects of self-injurious nonattempts escalating toward engagement in a suicide attempt. It is possible that engagement in NSSI lowers the threshold of stress required to precipitate a self-injurious or suicidal episode (cf. Pettit, Joiner & Rudd, 2004). Moreover, consistent with Nock and Prinstein (2005), the association between NSSI and persisting suicidal ideation may be due to functional similarities between these behaviors; both may be manifestations of a general desire to stop aversive stimuli, such as social pressures. The exploration of functional similarities between various self-injurious behaviors is another high priority for future research.

Beyond the associations among suicidal ideation, self-injurious behaviors, and suicide attempts, surprisingly few unique effects were revealed for adolescent- or parent-reported symptoms as predictors of suicidality. Higher levels of adolescent-reported depressive symptoms were associated with weaker ideation remission, while higher levels of parent-reported externalizing symptoms were associated with less baseline ideation and stronger remission slopes. Perhaps most notable about these results is the absence of more significant effects. For the prediction of suicidal ideation, results suggest that, beyond the initial effect of suicidal ideation on later ideation trajectories, baseline externalizing, PTSD, and hopelessness symptoms do not offer a unique contribution toward understanding ideation. Gender also was not significantly associated with trajectories after accounting for initial ideation. For the prediction of suicide attempts, results suggest that some psychological symptoms may exert only an indirect influence on suicidal behavior via the trajectories of suicidal ideation. Adolescent-reported symptoms of baseline depression and parent-reported externalizing symptoms at baseline are associated with the course of recovery following hospitalization; however, these factors do not help to identify the occurrence of suicide attempts following hospital discharge.

Overall, results demonstrated that trajectories of suicidal ideation over time are an important and potent factor to consider in understanding the risk for suicide attempts following hospital discharge. A history of suicidal gestures/threats before hospitalization also may suggest a unique risk for posthospitalization attempts. Beyond these factors, however, little is known regarding baseline factors that predict later attempts, after accounting for suicidal ideation trajectories. Clearly, this is an extremely high priority for future research. Moreover, it will be critical also to examine time-varying factors that are associated with both suicidal ideation trajectories and suicide attempts posthospitalization.

Future research also should address the limitations of this study. First, the generality of these findings is limited by the adolescent psychiatric inpatient sample used. It will be important not only to replicate these findings, but to test these effects with older adolescents and more diverse samples. Second, although the sample size was adequate to test our primary hypotheses, we lacked the statistical power to conduct tests that were more fine-grained, such as different predictive models for different genders and ethnic groups. As mentioned above, the accurate prediction of suicide attempts will require increasingly complex predictive models, and these will necessitate increasingly larger sample sizes. Third, while the time frame we examined was shorter than in prior large-scale studies, it is likely that many of the constructs examined (e.g., suicidal ideation, affective disorder symptoms) change much more rapidly than in 3-month segments. Therefore, it will be important in future research to examine even shorter windows of time in the prediction of suicidal outcomes. Fourth, the range of predictors included in this study was necessarily limited. Suicidal thought and behaviors are multidetermined outcomes, and while it was important to remain focused in the current study, given our sample size, it will be important to begin to integrate findings across studies to develop more inclusive models in order to better predict and prevent these dangerous behaviors.

Overall, this study of suicidal ideation trajectories reveals what may be a common course of symptoms occurring within the 18 months following discharge from a psychiatric inpatient facility among youth at the critical developmental period associated with suicidal behavior and completions. Results offered specific directions for a new generation of research that specifically examines short-term fluctuations in suicidal ideation that may be predictive of attempts only a few months later. The longitudinal examination of adolescent suicidality remains an extremely high research priority.

Acknowledgments

Contributor Information

Mitchell J. Prinstein, Department of Psychology, University of North Carolina at Chapel Hill.

Matthew K. Nock, Department of Psychology, Harvard University.

Valerie Simon, Department of Psychology, Merrill Palmer Institute/Wayne State University.

Julie Wargo Aikins, Department of Psychology, University of Connecticut.

Charissa S. L. Cheah, Department of Psychology, University of Maryland, Baltimore County.

Anthony Spirito, Department of Psychiatry and Human Behavior, Warren Alpert Medical School of Brown University.
EXHIBIT 306   CHS.900.006.0066
                                                                                                                        Go to: Go to:
References

1. American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 4. Washington, DC: Author; 1994.

2. Arbuckle JL. Amos (Version 7.0) [Computer software] Chicago: Smallwaters; 1999.

3. Boergers J, Spirito A. Follow-up studies of child and adolescent suicide attempters. In: King RA, Apter A, editors. Suicide in children and adolescents. New York: Cambridge University Press; 2003. pp. 271–293.

4. Bollen KA, Curran PJ. Latent curve models: A structural equation perspective. Hoboken, NJ: Wiley; 2006.

5. Borges G, Angst J, Nock MK, Ruscio AM, Walters EE, Kessler RC. A risk index for 12-month suicide attempts in the National Comorbidity Survey Replication (NCS-R) Psychological Medicine. 2006;36(12):1747–1757. [PMC free article] [PubMed]

6. Brent DA, Perper JA, Moritz G, Allman C, Friend A, Roth C, et al. Psychiatric risk factors for adolescent suicide: A case-control study. Journal of the American Academy of Child and Adolescent Psychiatry. 1993;32(3):521–529. [PubMed]

7. Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance—United States, 2005. Morbidity and Mortality Weekly Report: Surveillance Summary. 2006;55(SS-5):1–108.

8. Cohen J. Statistical approaches to suicidal risk factor analysis. Annals of the New York Academy of Sciences. 1986;487(1):34–41. [PubMed]

9. Costello EJ, Edelbrock CS, Costello AJ. Validity of the NIMH Diagnostic Interview Schedule for Children: A comparison between psychiatric and pediatric referrals. Journal of Abnormal Child Psychology. 1985;13(4):579–595. [PubMed]

10. Elliot DZ, Huizinga D, Ageton SS. Explaining delinquency and drug use. Beverly Hills, CA: Sage; 1985.

11. Fisher PW, Shaffer D, Piacentini JC, Lapkin J, Kafantaris V, Leonard H, et al. Sensitivity of the Diagnostic Interview Schedule for Children, 2nd edition (DISC-2.1) for specific diagnoses of children and adolescents. Journal of the American Academy of Child and Adolescent Psychiatry. 1993;32(3):666–673. [PubMed]

12. Foley DL, Goldston DB, Costello EJ, Angold A. Proximal psychiatric risk factors for suicidality in youth: The Great Smoky Mountains Study. Archives of General Psychiatry. 2006;63(9):1017–1024. [PubMed]

13. Goldstein RB, Black DW, Nasrallah A, Winokur G. The prediction of suicide: Sensitivity, specificity, and predictive value of a multivariate model applied to suicide among 1,906 patients with affective disorders. Archives of General Psychiatry. 1991;48(5):418–422. [PubMed]

14. Goldston DB, Daniel SS, Reboussin DM, Reboussin BA, Frazier PH, Kelley AE. Suicide attempts among formerly hospitalized adolescents: A prospective naturalistic study of risk during the first 5 years after discharge. Journal of the American Academy of Child and Adolescent Psychiatry. 1999;38:660–671. [PubMed]

15. Goldston DB, Reboussin BA, Daniel SS. Predictors of suicide attempts: State and trait components. Journal of Abnormal Psychology. 2006;115:842–849. [PubMed]

16. Jensen P, Roper M, Fisher P, Piacentini J, Canino G, Richters J, et al. Test-retest reliability of the Diagnostic Interview Schedule for Children (DISC 2.1): Parent, child, and combined algorithms. Archives of General Psychiatry. 1995;52(1):61–71. [PubMed]

17. Joiner TE. Why people die by suicide. Cambridge, MA: Harvard University Press; 2005.

18. Joiner TE, Rudd MD. Intensity and duration of suicidal crises vary as a function of previous suicide attempts and negative life events. Journal of Consulting and Clinical Psychology. 2000;68(5):909–916. [PubMed]

19. Joiner TE, Jr, Rudd MD, Rouleau MR, Wagner KD. Parameters of suicidal crises vary as a function of previous suicide attempts in youth inpatients. Journal of the American Academy of Child and Adolescent Psychiatry. 2000;39(7):876–880. [PubMed]

20. Kann L, Kolbe L, Collins J. Measuring the health behavior of adolescents: The Youth Risk Behavior Surveillance System and recent reports on high-risk adolescents. Public Health Reports. 1993;108(Suppl 1):1–67. [PMC free article] [PubMed]

21. Kaufman J, Birmaher B, Brent D, Ran U, Flynn C, Moreci P, et al. Schedule for affective disorders and schizophrenia for school-age children—present and lifetime version (KSADS-PL): Reliability and validity. Journal of the American Academy of Child & Adolescent Psychiatry. 1997;36:980–988. [PubMed]

22. Kazdin AE. Assessment of childhood depression. In: La Greca AM, editor. Through the eyes of the child: Obtaining self-reports from children and adolescents. Needham Heights, MA: Allyn & Bacon; 1990. pp. 189–233.

23. Kazdin AE, Rodgers A, Colbus D. The Hopelessness Scale for Children: Psychometric characteristics and concurrent validity. Journal of Consulting and Clinical Psychology. 1986;54:241–245. [PubMed]

24. Kessler RC, Berglund P, Borges G, Nock MK, Wang PS. Trends in suicide ideation, plans, gestures, and attempts in the United States, 1990–1992 to 2001–2003. Journal of the American Medical Association. 2005;293(20):2487–2495. [PubMed]

25. Kessler RC, Borges G, Walters EE. Prevalence of and risk factors for lifetime suicide attempts in the National Comorbidity Survey. Archives of General Psychiatry. 1999;56(7):617–626. [PubMed]

26. King C, Segal H, Kaminski K, Naylor M, Ghaziuddin N, Radpour L. A prospective study of adolescent suicidal behavior following hospitalization. Suicide and Life Threatening Behavior. 1995;25:327–338. [PubMed]

27. Kovacs M. Children's Depression Inventory Manual. New York: Multi-Health Systems; 1992.

28. Lewinsohn PM, Rohde P, Seeley JR. Adolescent suicide ideation and attempts: Prevalence, risk factors, and clinical implications. Clinical Psychology: Science and Practice. 1996;3:25–46.

29. McKeown RE, Garrison CZ, Cuffe SP, Waller JL, Jackson KL, Addy CL. Incidence and predictors of suicidal behaviors in a longitudinal sample of young adolescents. Journal of the American Academy of Child and Adolescent Psychiatry. 1998;37(6):612–619. [PubMed]

30. Moscicki EK. Epidemiology of suicide. In: Jacobs DG, editor. The Harvard Medical School guide to suicide assessment and intervention. San Francisco: Jossey–Bass; 1999. pp. 40–51.

31. Nock MK, Joiner TE, Jr, Gordon KH, Lloyd-Richardson E, Prinstein MJ. Non-suicidal self-injury among adolescents: Diagnostic correlates and relation to suicide attempts. Psychiatry Research. 2006;144(1):65–72. [PubMed]

32. Nock MK, Kazdin AE. Examination of affective, cognitive, and behavioral factors and suicide-related outcomes in children and young adolescents. Journal of Clinical Child and Adolescent Psychology. 2002;31(1):48–58. [PubMed]

33. Nock MK, Kessler RC. Prevalence of and risk factors for suicide attempts versus suicide gestures: Analysis of the National Comorbidity Survey. Journal of Abnormal Psychology. 2006;115(3):616–623. [PubMed]

34. Nock MK, Prinstein MJ. Clinical features and behavioral functions of adolescent self-mutilation. Journal of Abnormal Psychology. 2005;114(1):140–146. [PubMed]

35. Peterson BS, Zhang H, Santa Lucia R, King RA, Lewis M. Risk factors for presenting problems in child psychiatric emergencies. Journal of the American Academy of Child and Adolescent Psychiatry. 1996;35(9):1162–1173. [PubMed]

36. Pettit JW, Joiner TE, Jr, Rudd MD. Kindling and behavioral sensitization: Are they relevant to recurrent suicide attempts? Journal of Affective Disorders. 2004;83(2–3):249–252. [PubMed]

37. Reinherz HZ, Tanner JL, Berger SR, Beardslee WR, Fitzmaurice GM. Adolescent suicidal ideation as predictive of psychopathology, suicidal behavior, and compromised functioning at age 30. American Journal of Psychiatry. 2006;163(7):1226–1232. [PubMed]

38. Reynolds CR, Kamphaus RW. Behavior assessment system for children. Circle Pines, MN: American Guidance Service; 1992.

39. Reynolds WM. Suicidal Ideation Questionnaire. Odessa, FL: Psychological Assessment Resources; 1985.

40. Reynolds WM. Development of a semistructured clinical interview for suicidal behaviors in adolescents. Psychological Assessment. 1990;2:382–390.

41. Rudd MD, Berman AL, Joiner TE, Jr, Nock MK, Silverman MM, Mandrusiak M, et al. Warning signs for suicide: Theory, research, and clinical applications. Suicide and Life Threatening Behavior. 2006;36(3):255–262. [PubMed]

42. Saylor C, Finch AJ, Spirito A, Bennett B. The Children's Depression Inventory: A systematic evaluation of psychometric properties. Journal of Consulting and Clinical Psychology. 1984;52:955–967. [PubMed]

43. Shaffer D, Fisher P, Lucas CP, Dulcan MK, Schwab-Stone ME. NIMH Diagnostic Interview Schedule for Children Version IV (NIMH DISC–IV): Description, differences from previous versions, and reliability of some common diagnoses. Journal of the American Academy of Child & Adolescent Psychiatry. 2000;39(1):28–38. [PubMed]

44. Shaffer D, Gould MS, Fisher P, Trautman P, Moreau D, Kleinman M, et al. Psychiatric diagnosis in child and adolescent suicide. Archives of General Psychiatry. 1996;53(4):339–348. [PubMed]

45. Shaffer D, Schwab-Stone M, Fisher P, Cohen P, Piacentini J, Davies M, et al. The Diagnostic Interview Schedule for Children—Revised Version (DISC–R): I. Preparation, field testing, interrater reliability, and acceptability. Journal of the American Academy of Child & Adolescent Psychiatry. 1993;32(3):643–650. [PubMed]

46. Sokero P, Eerola M, Rytsälä H, Melartin T, Leskelä U, Lestelä-Mielonen P, et al. Decline in suicidal ideation among patients with MDD is preceded by decline in depression and hopelessness. Journal of Affective Disorders. 2006;95(1–3):95–102. [PubMed]

47. Spirito A, Boergers J, Donaldson D, Bishop D, Lewander W. An intervention trial to improve adherence to community treatment by adolescents after a suicide attempt. Journal of the American Academy of Child and Adolescent Psychiatry. 2002;41:435–442. [PubMed]

48. Spirito A, Plummer B, Gispert M, Levy S, Kurkjian J, Lewander W, et al. Follow-up outcome of adolescent suicide attempters. American Journal of Orthopsychiatry. 1992;62:464–468. [PubMed]

49. Spirito A, Williams C, Stark L, Hart K. The Hopelessness Scale for Children: Psychometric properties with normal and emotionally disturbed adolescents. Journal of Abnormal Child Psychology. 1988;16:445–458. [PubMed]

50. U.S. Department of Health and Human Services. Healthy People 2010. Washington, DC: U.S. Government Printing Office; 2000.

51. U.S. Department of Health and Human Services. National strategy for suicide prevention: Goals and objectives for action. Rockville, MD: Author; 2001.

52. U.S. Public Health Service. The surgeon general's call to action to prevent suicide. Washington, DC: U.S. Government Printing Office; 1999.

53. Weinstein SR, Noam GG, Grimes K, Stone K, Schwab-Stone M. Convergence of DSM–III diagnoses and self-reported symptoms in child and adolescent inpatients. Journal of the American Academy of Child & Adolescent Psychiatry. 1990;29(4):627–634. [PubMed]

54. World Health Organization. Suicide prevention. 2005 Retrieved October 26, 2005, from http://www.who.int/mental_health/prevention/suicide/suicideprevent/en/

EXHIBIT 306

CHS.900.006.0068

Preventing Suicide Among Inpatients

Isaac Sakinofsky, MBChB, MD, DPM(Lond), FRCPC, FRCPsych[1]

[1] Emeritus Professor of Psychiatry and Public Health Sciences, University of Toronto, Toronto, Ontario; Head, High Risk Consultation Clinic, Centre for Addiction and Mental Health (CAMH), Toronto, Ontario.
Correspondence: CAMH, 250 College Street, Toronto, ON M5T 1R8; Email:

Abstract

Go to: Go to:

Objective

Inpatient suicide comprises a proportionately small but clinically important fraction of suicide. This study is intended as a qualitative analysis of the comprehensive English literature, highlighting what is known and what can be done to prevent inpatient suicide.

Method:

A systematic search was conducted on the Cochrane Library, PubMed, Embase, Web of Knowledge, and a personal database for articles on cohort series, preferably controlled, of inpatient suicide (not deliberate self-harm or attempted suicide, unless they also dealt specifically with suicide data).

Results:

A qualitative discussion is presented, based on the findings of the literature searched.

Conclusions:

The bulk of inpatient suicides actually occur not on the ward but off premises, when the patient was on leave or had absconded. Peaks occur shortly after admission and discharge. It is possible to reduce suicide risk on the ward by having a safe environment, optimizing patient visibility, supervising patients appropriately, careful assessment, awareness of and respect for suicide risk, good teamwork and communication, and adequate clinical treatment.

Keywords: suicide, inpatients, suicide prevention

The clinical decision to admit a psychiatric patient to hospital is primarily based on judgment about acuity, severity, and danger to self or others.[1–10] Patient safety is a prerequisite *sine qua non* for admission to a psychiatric inpatient unit, whether in a general or psychiatric hospital. Clearly, in supporting such an admission, the patient's family and friends expressly assume that the patient will be protected from harm, including harm to the self, and that this protection will extend for some reasonable time into the future, postdischarge. Hospital accreditation committees regard suicide, while an inpatient, as an SE, that is, "an unexpected occurrence involving death or serious physical or psychological injury, or the risk thereof."[11, p 2] Further,

> Such events are called 'sentinel' because they signal the need for immediate investigation and response. The term 'sentinel event' and 'medical error' are not synonymous; not all sentinel events occur because of an error, and not all errors result in sentinel events.[11, p 2]

Reporting incidents to the US TJC (formerly known as the Joint Commission for Hospital Accreditation [JCAHO;

EXHIBIT 306   CHS-000-006-0069

renamed in 2007]) and in the United Kingdom is voluntary[12] and acknowledged as a small proportion of actual events. Nonetheless, suicide is regularly the first or second commonest SE reported in US hospitals after surgery to the wrong person or body part.[13–15] About 1500 suicides occur in inpatient units in the United States, annually (one-third of them on 15-minute watch[16]), and 200 in the United Kingdom. I am unaware of similar published data for Canada but Martin[17] analyzed suicide data for 3 decades at the Clarke Institute of Psychiatry, a precursor of the Centre for Addiction and Mental Health (commonly referred to as CAMH). The estimated rate was 1.24/1000 inpatient discharges, at the low end of the range of between 1.0 and 4.5/1000 reported for other North American, European, Australian, and Chinese hospitals[18–22] (excluding an outlier of 5.7 from a 1971 paper cited by Bowers et al[21]). These numbers constitute a small but important subgroup of suicides overall. The annual report of the NCI in the United Kingdom[23] covering 2001–2011 reports a mean of 6384 suicides per annum, of which suicides by psychiatric patients (defined as having had contact with mental health services during the past year) numbered 1605 (25%). Inpatient suicides ($n = 161$) were 10% of psychiatric patient suicides and constituted 2.5% of all suicides in the general population. In England, 32 inpatients (20% of inpatient suicides) died while absconding from the ward,[24] and a slightly smaller number, 23 (17%), while involuntarily detained. The gradient of suicide rates in each category declined modestly across the decade, but the slope was even steeper for inpatient suicides, a 58% fall, with the proportion of inpatient suicides projected to drop to 5% of patient suicides by 2011. The ratio of male-to-female suicide rates, overall, for the United Kingdom was 3:1, similar to that reported in Canada,[25] but was nearly equal specifically for inpatient suicide. The fall in UK inpatient suicide, likely an artifact of bed downsizing, is tempered by a corresponding rise in suicides in patients cared for by crisis resolution and (or) home treatment teams; that is, the risk has been transferred to the community,[26] but did not happen in Finland following deinstitutionalization.[27]

The NCI did not analyze psychiatric and general hospitals separately, the latter with shorter stays and environmental differences. Long-stay psychiatric hospitals usually report higher mortality than the general public for both natural and unnatural causes. In France, Casadebaig and Quemada[28] found 3 times higher mortality in inpatients with mental illness than in the general population, particularly in younger age groups and women. Suicide prevalence is highest in psychiatric hospitals, followed by psychiatric units in general hospitals, medical–surgical units, and residential care facilities, such as nursing homes.[13] In Asia, suicide rates in general hospitals may be even higher. Tseng and colleagues (see Tseng et al[29] and Cheng et al[30]), from a teaching hospital in Taiwan, reported an 8.25 times higher risk of suicide mortality than in the general population, with highest risk in the 25 to 29 age-band.

Clinical Implications

- Clinicians should recognize their extremely inaccurate record in judging who will die by suicide and compensate for this by thorough assessments on different occasions and by exercising great care to not grant leave or discharge a patient prematurely.
- In preventing suicide, it is important for all disciplines on the team to keep one another properly informed about anything that could affect a patient's suicide risk.
- Hospitals should review their existing design and operating policies periodically for their suitability in dealing with suicidal patients.

Limitations

- Comparatively few prospectively controlled studies exist, and these are heterogenous, with relatively small samples and only one meta-analysis.
- This is a qualitative though systematic review and makes no attempt at quantitative pooled estimates.

Method

This qualitative review draws on a systematic search of the English-language literature covering hospital patients aged more than 17 years and suicide. The databases were the Cochrane Library, PubMed (National Library of Medicine), Web of Knowledge, Embase, and the suicide-related reference database of the author, holding 57 160 citations and abstracts. The terms used were "(hospital or inpatient) and suicide." An Endnote X7 (Thomson Reuters, New York, NY) library of 2595 references was thus assembled, which was, in turn, hand-searched. Papers relating to attempted suicide or DSH were not included unless they also had a section on hospital or postdischarge suicides. Based on the titles and abstracts, references that included data on suicide while an inpatient or within a year of discharge were obtained in PDF and read in full text.

EXHIBIT 306

The Hospital ED

In 1998, TJC issued an SE Alert on preventing inpatient suicides,[14] and, in 2010, followed it with an update focusing on medical–surgical units and ED.[31] The alert acknowledged that nonpsychiatric units were not designed for suicidal patients and staff usually not trained for them. Patients with a psychiatric history or attempt were "known at risk for suicide" but 14% of general hospital suicides were "unknown at risk."[31], p 1 Previous attempted suicide, especially if recent, being on antidepressants, having physical health problems (such as chronic pain), poor health prognosis, social stressors, hopelessness, and substance abuse constituted risks. Methods were by hanging, jumping, cutting with a sharp object, intentional drug overdose, and strangulation. Careful watch was needed on such potentially dangerous items as bell cords, bandages, sheets, restraint belts, plastic bags, elastic tubing, and oxygen tubing. Patients required adequate screening and assessment, care planning, and observation; staff to be adequately manned, orientated, and trained about suicide prevention and communication.

I well recall reviewing the case of a male waiting in a busy ED to be assessed for an overdose combined with alcohol. Nurses were "keeping an eye on him" while he sat on a chair with an intravenous going while they continued with other duties. Later, a nurse going off duty observed that he had pulled the curtains around his cubicle and was no longer visible. On opening the curtains she found he had strangulated himself with his hospital gown wrapped around his neck and anchored by the intravenous pole. The case highlights the importance of keeping a psychiatric patient in the ED in full view at all times, particularly if they are known to be at risk. An on-site, 24/7 psychiatric clinic in the ED in medium- to large-size general hospitals is advisable, such as in place at St Joseph's Hospital, Hamilton, functioning as the intake centre for psychiatry at McMaster University.

Nonpsychiatric ED staff working under pressure may be unempathic, antagonistic, and stigmatizing to patients, who are often discharged without a psychiatric assessment.[32] Surprisingly, in EDs where psychiatric consultation was not available, nonpsychiatric staff, particularly older female staff, regarded patients who attempted suicide supportively, compared with staff in a hospital ED where psychiatric consultation was routinely available.[33]

Cooper et al[34] systematically studied ED doctors' assessment of suicide risk in over 3000 cases in 4 inner-city hospitals by having them use structured questionnaires, with each patient addressing suicidal intent, details of the episode, social and demographic factors, precipitants, clinical history of self-harm, and symptoms of mental illness.[34] The physicians were swayed toward an assessment of high suicide risk by sex (male), suicidal plans, looking depressed, appetite disturbance, high lethality of the method, attempting to avoid discovery, degree of premeditation, and wanting to die; 90% of those assessed as high risk were appropriately referred to psychiatric services or medical–surgical care. The authors[34] speculate that referrals to psychiatry might have been higher if an out-of-hours psychiatric liaison service had existed, such as mentioned above. Previous research showed that ED risk assessments after DSH were poor and variable, but in this study[34] the questionnaires clearly influenced the ED physicians' assessments and they acted appropriately. The instrument introduced an element of teaching that led to improved psychosocial assessment and interdisciplinary communication.[35]

Olfson et al[36] analyzed a nationally representative sample of hospital ED visits in the United States for DSH by patients younger than 24 years and estimated the annual rate as 225/100 000; a mental disorder was diagnosed in over one-half of the visits, with depressive disorders in 15% and substance disorders in 7%. One-half of the patients were admitted, significantly more likely if the youth was diagnosed with a mental disorder and receiving psychotropics, intravenous fluids, gastric lavage, or a poison antidote. Medicaid claims data for ED DSH contacts by youths between 10 and 19 years old showed three-quarters of them discharged back into the community. Only 1 in 4 of these youth received an ED mental health assessment, and a similar proportion were assigned to outpatient care. In this Medicaid population, after-care was more likely arranged if the young person was female and a recent contact (that is, if the person was previously known as a patient at the same hospital they received preferential admission) with a diagnosis of depression; after-care was less likely with Hispanic ethnicity and residing in a poor county.[37] The authors suggest their results are consistent with international research showing only 40% of suicidal people receiving any kind of mental health treatment. Clearly, social factors can play a role in how suicidal patients get treated. Preferential ED practices regarding admission to hospital vary greatly, regionally, and even within the same region; further, preferences extend beyond psychiatric patients.[38] Suspicion of imminent suicidality, particularly with history of a previous attempt, severely depressed mood, or acute psychosis are regarded everywhere as overriding indications for admission,[8,39–41] but, after that, the criteria seem to vary. In the Borders region of Scotland, self-referrals are less likely than general practitioner referrals to be admitted.[7] In Finland,

47