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William D. Spaulding

University of Nebraska-Lincoln, wspaulding1@unl.edu

Ben C. Nolting

University of Nebraska-Lincoln, bcn13@case.edu

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Psychotherapy for Schizophrenia in the Year 2030: Prognosis and Prognostication

William Spaulding¹ and Jeffrey Nolting

University of Nebraska-Lincoln, 323 Burnett Hall,
Lincoln, NE 68588-0308

A number of psychotherapy techniques have been developed that, to varying degrees, have empirical support demonstrating favorable effects in the treatment of schizophrenia (or serious mental illness [SMI]). These techniques, and the research, vary with respect to theoretical origins, format, treatment targets, and expected outcome. A historical perspective informs understanding of this proliferation. One landmark in psychotherapy research was the recognition of common factors: different therapies embody common therapeutic factors not central to any one school. Importantly, insights about common factors reflected a better theoretical understanding of the psychotherapy process and led to the translation of learning and conditioning theories into the psychotherapy vocabulary. This resulted in the distinction between specific and nonspecific treatment effects, which pose present-day research questions such as how common and specific factors interact, and the differentiation of techniques for specific recipients. Because psychotherapy research progresses over the next 25 years, it will be important to develop a model that can answer such questions while incorporating the proliferation of specific modalities and the search for the “right recipe.” This “search” will coincide with more attention to individual differences, it will incorporate quantitative modeling, and it will spawn an array of “tools” for treating problems associated with SMI. Because self-knowledge and personhood again become recognized dimensions of recovery, traditional psychodynamic principles and techniques will be revisited. This article explicates a 4-factor model that may be a view to the future.

Key words: schizophrenia/common factors/vulnerability linked/episode linked/demand-access matching

“Prognosis” has strong connotations of survival, usually expressed as probability of death within a specified time period. It would make a short and unhelpful discussion

simply to conclude that psychotherapy for schizophrenia will or will not die in the next 25 years. “Prognostication” connotes a visionary account of the future, more in the style of Nostradamus. Unlike Nostradamus, this discussion begins with an analysis of current conditions that set the stage for the next 25 years of psychotherapy for serious mental illness (SMI). The analysis addresses 2 separate domains of influences: scientific and technological factors and policy and social values.

For the purposes of this discussion, psychotherapy is a systematic treatment which seeks to enhance personal and social functioning by addressing the “cognitive” domain, either exclusively or as part of a broader range of targets. The discussion will focus on psychotherapy for which there is some experimental validation of effects for people with SMI.

Scientific and Technological Factors

First, this discussion posits that SMI is a more meaningful rubric than schizophrenia, for present purposes. A more descriptive term would be “chronic, persistent episodic psychotic disorders with significant interepisode disabilities,” for which SMI is a rhetorically economical substitute. Schizophrenia, as implicitly understood by at least a large contingent of the contemporary psychopathology community, is a prototype (at best), not a specific illness. Some types of psychotherapy explicitly target specific features of a disorder (eg, delusions, hallucinations), but these targets typically are neither unique to nor universally associated with schizophrenia. Other important targets for psychotherapy (eg, deficits in interpersonal problem solving or social role functioning) are not even specific to SMI. There is no reason to believe that psychotherapy (or any other treatment) known to be effective for people diagnosed with schizophrenia is not effective for “people who almost but not quite meet the diagnostic criteria,” “people whose diagnosis lies within the schizophrenia spectrum,” or “people with SMI.”

The evidence-based psychotherapies for SMI sort themselves into some very different subtypes:

- cognitively oriented skill training,¹
- integrated psychological therapies,²
- schematic cognitive therapy,^{3,4}

¹To whom correspondence should be addressed; tel: 402-472-3811, fax: 402-472-1123, e-mail: Wspaulding@unl.edu.

- cognitive-behavioral therapy,⁵
- neuropsychologically oriented therapy,⁶⁻⁸ and
- sociocognitive techniques.⁹

As the subtypes suggest, there has been a proliferation of psychotherapy techniques, supported to varying degrees by experimental research. The list above is a rough approximation whose categories capture the approaches in the literature, roughly in order of their appearance on the scene.

The psychotherapy subtypes vary with respect to theoretical origins, format, treatment targets, expected treatment outcome, and explanatory accounts of observed treatment effects. Although the experimental results are complex, sometimes contradictory and difficult to compare from one study to the next,¹⁰ there is reasonable empirical support for the working conclusion that a variety of approaches under a broad rubric of psychotherapy produce beneficial effects in SMI. This is the state of affairs that most definitively sets the stage for progress over the next 25 years, at least in the scientific/technological domain.

The history of psychotherapy research¹¹ helpfully informs our current situation. This history shows a pattern which may be expected to repeat itself. The pattern began with the first empirical studies showing inconsistent (at best) outcomes. It became evident early on that inconsistent definitions of “outcome” could account for this, so methodological development focused on more standardized definitions. As research interest grew, models and approaches proliferated, partly in response to expanded concepts of outcome. However, results remained inconsistent across approaches, in large part because they were overly driven by the unsupportable expectations and assumptions of particular theoretical models.

While different therapies can achieve similar goals through different processes, and different outcomes might be dependent on the research strategy employed, different therapies embody common therapeutic factors that are not central to any one school.¹² Recognition of common factors was a major landmark in psychotherapy research.

Common factors can be divided into 4 broad areas: client factors and extratherapeutic events, relationship factors, expectancy and placebo effects, and technique/model factors.¹³ One of the most studied common factors is the role of the “therapeutic relationship,” first described by Freud,^{14,15} which empirical findings suggest account for approximately 30% of client improvement.¹⁶ A great deal of the research on relationship factors began with the client-centered tradition in which certain “necessary and sufficient” conditions for change were identified: accurate empathy, positive regard, nonpossessive warmth, and genuineness on the part of the therapist. Interestingly, but not surprisingly, most of the empirical work on relationship factors has been generated by psychodynamic

researchers,^{13,17-22} although the relevance of relationship factors to outcome has been demonstrated in cognitive therapy for people with SMI.^{23,24} Frank concluded that the unifying role of the therapeutic relationship and other common factors is to instill in the client a sense of hope and an expectation that things can and will change for the better.²⁵ More recently, this conclusion has been empirically corroborated by identification of “therapeutic realization,” reflecting hopes and expectations for change, as a potent outcome-related factor in meta-analytic analyses of psychotherapy outcome.²⁶ The role of common factors in psychotherapy is so strong that, at least in non-SMI populations, there is little evidence to indicate differential effectiveness between the classical schools of psychotherapy, and exceptions have generally been explained as methodological artifacts.²⁷

Discovery of common factors was a key to overcoming parochial theory-driven approaches. Theory development and integration became driven by findings requiring a unified understanding of “what works.” Competing models were reconciled and integrated in response to experimental findings. Therapy approaches became more differentiated in response to particular findings, rather than theoretical assumptions and expectations.

Insights about common factors reflect a better theoretical understanding of the psychotherapy process. Further research and theoretical work also led to reconsideration of the nature of the conditions being treated. Translation of learning and conditioning theories into the psychotherapy vocabulary was a particularly important development.²⁸

Older psychopathological concepts lacking construct validity (eg, neurosis) were replaced with more operational, measurable constructs (eg, social skill deficits, psychophysiological dysregulation). Understanding of common factors and nonspecific treatment effects led to better outcomes generally, and better understanding of the nature of the conditions being treated led to more powerful and more specific treatment effects. Finally, integration of psychotherapy process theory and psychopathology theory produced the broad, multimodal paradigm of “cognitive and cognitive-behavioral therapy” (CBT) that currently dominates psychotherapy of anxiety disorders, depression, trauma, and other disorders outside the schizophrenia spectrum.

The more specific effects on behavior of learning-based psychotherapy led to a distinction between specific and nonspecific treatment effects. Nonspecific effects are broadly focused and are associated with the influence of common factors. Specific effects are narrowly focused and are associated with specific components of specific psychotherapy techniques (eg, the effects of counterconditioning techniques on phobias). With the distinction between specific and nonspecific effects, psychotherapy research began moving definitively toward the

well-known specificity question posed by Kiesler²⁹ and Paul³⁰: what kinds of therapy, under what conditions, for what kinds of clients with what kinds of problems are likely to lead to what kinds of results? We are now in an era in which the major research questions are about the details of how common and specific factors interact and how closely psychotherapy approaches must be tailored to the conditions classically addressed by psychotherapy, eg, depression and the various kinds of anxiety, for specific individuals.³¹

In summary, there is a historical progression of psychotherapy research:

1. Early, inconsistent results
2. Better definitions and specifications of outcome
3. Proliferation of psychotherapy models and techniques
4. Inconsistent results across models and techniques
5. Discovery of common factors and distinction of specific vs nonspecific effects
6. Improved models of the conditions being treated
7. Distinction of specific vs nonspecific treatment effects
8. Integration of models of psychotherapy process and psychopathology
9. Differentiation of techniques for specific recipients and outcomes

If SMI psychotherapy research is in a historical progression similar to the preceding one, it appears to be no further than the third step. There is broad agreement that outcome must be measured and understood in multiple domains of personal and social functioning, and current research on psychotherapy for SMI generally takes into consideration the different degrees to which any outcome measure meaningfully reflects some important aspect of functioning in the real world. There is some understanding that inconsistent results in outcome trials are partly due to inconsistent selection of outcome measures.¹⁰ It is generally recognized that different types of psychotherapy should have benefits in different domains, potentially of comparable importance to overall functioning. There is less, in fact very little, agreement about how to account for observed treatment effects, or about what they mean within a broader understanding of SMI. We do not know why various techniques are effective, what psychotherapy factors are common, or what effects are specific vs nonspecific.

The main stumbling block for theory development is the question, "theory of what?" Schizophrenia? SMI? Therapy process? One might expect that a better understanding of outcome would bring some insight about this, but so far the measurable relationships between various outcome measures and various factors of known importance to the etiology of SMI (eg, psychotic symptoms, neurocognitive impairments, social competence) are surprisingly weak.³² There are clearly multiple pathways by which "impairments" and treatments exercise

their effects, and theoretical integration of these is a challenge.

We do have elaborate, empirically based theoretical models of the etiology of schizophrenia.³³ Such models suggest that the "what" in a theory of psychotherapy of SMI must be the neuropsychological, sociocognitive, behavioral, and socioenvironmental factors whose interactions produce reversible functional impairments (or "symptoms" of the disorder, which in some cases are also functionally significant). These models should be expected to guide development of psychotherapy for SMI, but translation from an etiological model to a psychotherapy model is not a straightforward process (eg, in the previous historical progression of psychotherapy research, early attempts to explain the effects of counter-conditioning therapy on phobias, through conditioning theories of the etiology of phobias, failed). A formulation first proposed by Spaulding et al³⁴ is an example of the kind of "bridging" model that will help translate etiological theory into clinical practice. In that model, the cognitive targets of psychotherapy sort themselves into 4 types. The types are factors in the sense that they represent dimensions of individual variability within the population of people with SMI. An individual person with SMI may have impairments or other problems of some severity on each factor. Thus, an individual profile is unique and has key implications for sequencing and combining treatments.

Factor I in the Spaulding et al³⁴ formulation is "baseline neuropsychological impairment." Factor I is "vulnerability linked" and distributed across the entire range of cognitive functioning, from molecular processes such as visual feature analysis to integrated processes such as social problem solving.^{35,36} Some factor I impairment is congenital and some may be acquired, though this remains controversial.³⁷ Currently, we have no technology for reversing this impairment. However, research on neurogenesis and related brain processes may lead to combined pharmacological/dietary technology for reducing these deficits.³⁸⁻⁴¹ It is unlikely that factor I impairment responds to psychotherapy, although this does not dismiss the possibility that nonspecific interventions such as enriched activity schedules and related psychosocial interventions could enhance neurogenesis and related brain processes, imparting a long-term benefit in the cognitive and behavioral domains of functioning.

Factor II is "episode-linked" cognitive impairment, in the terminology of the psychopathology of vulnerability.^{32,33} Factor II impairment is less pervasive, with more focus on executive and memory impairment, than factor I. These impairments abate when the episode is resolved, so the imperative is to treat the episode rather than the impairment, usually pharmacologically. However, there is some evidence that psychotherapeutic intervention speeds or enhances recovery from acute psychosis,^{42,43} suggesting that the causal path between

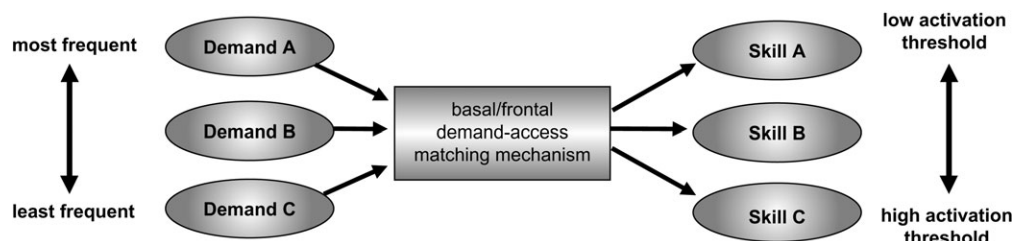


Fig. 1. The Normally Opening Skill Access-Demand Matching Mechanism.

cognitive and neurophysiological functioning in acute psychosis is not unidirectional.

Factor III is impairment that persists after acute psychosis but that responds to psychotherapeutic or other interventions. The existence of factor III impairment is hypothetical and intimately linked to the outcome of psychotherapy. Outcome studies that show cognitive recovery associated with psychotherapy over a period of several months¹⁰ are the strongest evidence for factor III impairment. In addition, some studies of cognitive recovery in SMI^{44–46} suggest that there are non-specific therapeutic effects in enriched rehabilitation environments.

Factor IV is another “baseline” factor but in the domain of social cognition. These are not necessarily impairments in the neuropsychological sense. They include attributional characteristics, specific beliefs, schemata, scripts, and repertoires. These are the conventional targets of schematic cognitive therapy and CBT. As D. Penn (unpublished data) discusses, specialized techniques are beginning to appear for addressing specific aspects of social cognition implicated in SMI (eg, facial feature processing, theory of mind). Factor IV impairments are assumed to be acquired through the same mechanisms by which “normal” social cognition is acquired, albeit through the distorting lens of episodic psychotic disorders with neurodevelopmental etiologies. The mechanisms of psychotherapy effects are therefore expected to be similar.

For the purposes of psychotherapy, the 4-factor model directs our attention to 2 types of cognitive treatment target. One type is the cognitive structure and content of factor IV, the conventional targets of psychotherapy. We may need to tweak the standard social learning theories by which we understand the origin and modification of cognitive structure and content, to incorporate the neuropsychological aspects of SMI, but our basic theoretical understanding of how psychotherapy works at this level is probably already sufficient. The greater difficulty lies with factor III. What kind of etiological mechanism could explain treatment-driven recovery of relatively molecular cognitive impairment, at the level of memory and executive processing, which is affected by neither pharmacological treatment nor content- and schema-oriented psychotherapy?

Figures 1–3 show a possible model for the origin and treatment of factor III impairment. The central construct in the model is a molecular executive mechanism that moderates accessibility of an expansive skill repertoire. Such a mechanism is essential to the mammalian brain, which is capable of acquiring a much larger repertoire than it is able to access at one time. The mechanism operates to order the accessibility of elements in the repertoire according to ongoing environmental demands (figure 1). This creates the familiar experience of needing to practice daily to optimally perform skills not ordinarily used in the everyday world, such as musical, athletic, or analytic (eg, mathematical) skills.

Operation of such a mechanism has been demonstrated in experimental animals^{47–50} and is logically implicated in SMI.⁵¹ It is thought to be primarily dopaminergic, anatomically associated with a basal-cortical circuit.

The model conceptualizes psychosis as a severe dysregulation of dopaminergic activity. The effect within the basal-frontal access-demand matching system is disruption and “randomization” of established access hierarchies, making high-demand abilities no more accessible than low-demand abilities (figure 2). This would produce performance problems analogous to trying to play a violin concerto with attention and cognitive skills optimized for playing football.

Thus, in the postacute phase, the individual is attempting to negotiate ordinary but fairly complex tasks, such as following a daily schedule and resolving interpersonal conflicts, with impaired access to the molecular cognitive skills required for those tasks.

Once the dopamine dysregulation crisis is resolved, reconstruction of an adaptive skill access hierarchy requires interaction with environmental demands and contingencies (figure 3). Residual physiological dysregulation or baseline neurocognitive impairments may protract this process. Some environments, eg, institutions, the streets, or a problematic household, may encourage construction of maladaptive hierarchies, better suited to short-term stress management than to longer term adaptive functioning.

As expected from the historical progression of psychotherapy research, theoretical formulation leads to recognition of the distinction between specific and nonspecific treatment effects. In the demand-access matching model,

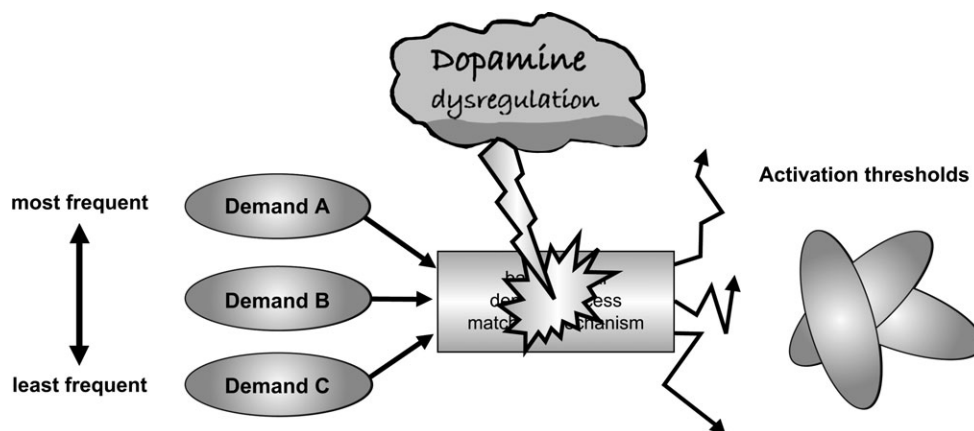


Fig. 2. Skill Access-Demand Matching Mechanism in Acute Dopamine Crisis.

nonspecific treatment factors that enhance reorganization of a collapsed skill access hierarchy are highly consistent daily routines, consistent and immediate reinforcement of adaptive behavior, and a focus on interpersonal interactions in goal setting, conflict resolution, and problem solving. These are of course key characteristics of a psychiatric rehabilitation milieu. The specific treatment factors are the explicit focus on and rehearsal of molecular cognitive skills most essential to specific aspects of personal and social functioning, as found in the various treatment approaches that produce factor III improvement.^{6,8,10,52-54} Perhaps most importantly, this model suggests that there will be a diversity of specific effects, corresponding to specific repertoires of molar and molecular skills that support performance in key outcome domains. The cognitive skill repertoire that supports vocational/occupational functioning does not overlap completely with the repertoire that supports interpersonal functioning. This means that future development of psychotherapy directed at factor III impairments should distinguish between nonspecific enhancement of postacute recovery (eg, with enriched environment and activity schedules) and specific reorganization of specific repertoires associated with specific performance domains. The latter will require a range of specialized

psychotherapy methods tailored to those domains (interpersonal, occupational, etc).

One major implication of the demand-access matching model is that psychotherapy for postacute cognitive impairment should be broad spectrum, should include milieu-based as well as group-format approaches, and should be focused on basic personal and interpersonal functioning. The expected outcomes should include global improvement in neuropsychological functioning, perhaps most significantly in the executive domain, improved performance of routine activities, and improvement in basic interpersonal abilities (social perception, basic interpersonal competence). The more global outcomes should be expected from nonspecific, milieu-based interventions, and outcomes in specific performance domains should be expected from psychotherapy modalities specifically tailored to those domains.

A related issue that sets the stage for future developments concerns the relationships between neuropsychological, sociocognitive, and behavioral abilities, all of which are potential targets for psychotherapy at one point or another. Are more molecular deficits always the better target as they are in pharmacological treatment? It seems a modest assumption that molecular cognitive impairments disrupt more molar abilities, but

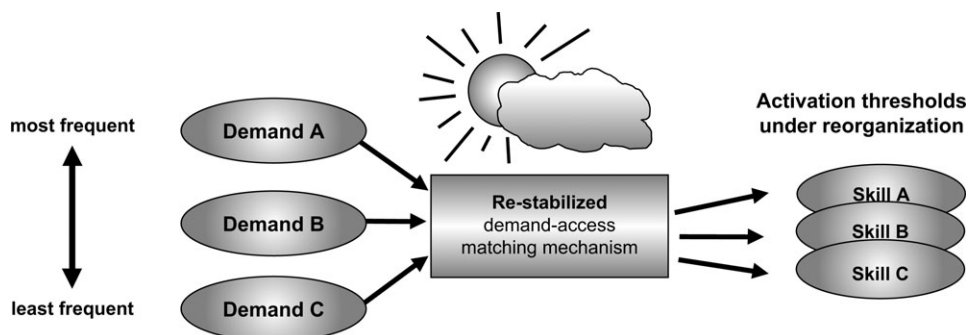


Fig. 3. Skill Access-Demand Matching System Requires Environmental Input to Reorganize Skill Access Hierarchy.

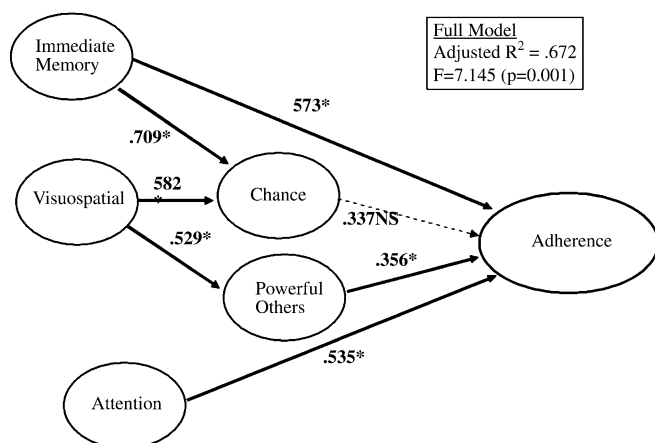


Fig. 4. Pathways Between Neurocognitive, Sociocognitive, and Behavioral Factors in Adherence to Treatment.

this has been surprisingly difficult to demonstrate. This inspires the concern in the literature on psychotherapy of SMI about ecological validity, ie, whether changes in neurocognitive and sociocognitive functioning measured in the laboratory reflect meaningful changes in “real world” behavioral functioning.

Figure 4 shows a path model of relationships between some neuropsychological impairments, some attributional factors at the sociocognitive level, and behavioral adherence to daily routines and rehabilitation activities. The model was constructed with psychotherapy outcome data in the authors’ clinical laboratory.⁵⁵ The relationships between impairments are not simple or linear. Some of the impact of neuropsychological impairment on adherence is direct and some is mediated through a tendency to attribute events to others rather than personal agency. Optimally effective psychotherapy may have to separately target these different impairments or do so differently for different individuals.

Figures 5 and 6 illustrate another issue regarding the sequencing of treatment. This is from an analysis of recovery across 6 months of rehabilitation, tracking paranoia as measured by the Brief Psychiatric Rating Scale (BPRS), neuropsychological performance measured by perseverative errors on the Wisconsin Card Sorting Task (WCST) and a social perception/attribution measure, the tendency to overattribute the emotion of disgust to ambiguous facial expressions.⁵⁶ Before beginning rehabilitation, paranoia is strongly associated with both neurocognitive and sociocognitive impairments. Over the course of 6 months of intensive psychiatric rehabilitation, but without specific treatment explicitly addressing social cognition associated with paranoia, WCST performance improved and paranoia as measured by the BPRS diminished but the attributional measure did not change. After rehabilitation, the association between the neurocognitive impairment and paranoia disappeared but the remaining paranoia was still associated

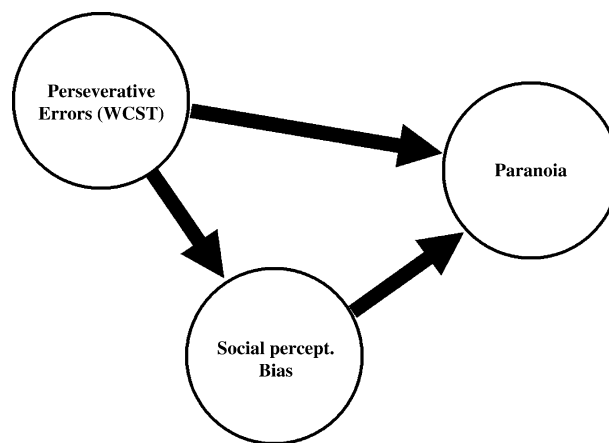


Fig. 5. Interrelationships of Neurocognitive, Sociocognitive, and Behavioral Components of Paranoia Before Beginning Intensive Psychiatric Rehabilitation Based on Peer et al.⁵⁶

with the sociocognitive impairment. In the 4-factor formulation, these data suggest that the neuropsychological impairment is postacute (factor III) and it responded to specific and nonspecific treatment directed at the neuropsychological level, producing in turn an effect on paranoia. However, the perception/attribution bias, a factor IV impairment, did not respond nonspecifically to the intensive rehabilitation. Further reduction of paranoia associated with factor IV presumably requires treatment specifically directed at attributional processes.

If future research confirms the mediating relationships suggested by these correlational data, the implications for psychotherapy are clear. Earlier in the course of rehabilitation, when postacute (factor III) impairments are still elevated, improvement in the particular social-behavioral domain we measure as “paranoia” is produced primarily by improvements at the neuropsychological level associated with the specific and nonspecific effects of postacute treatment. The type of psychotherapy most likely to

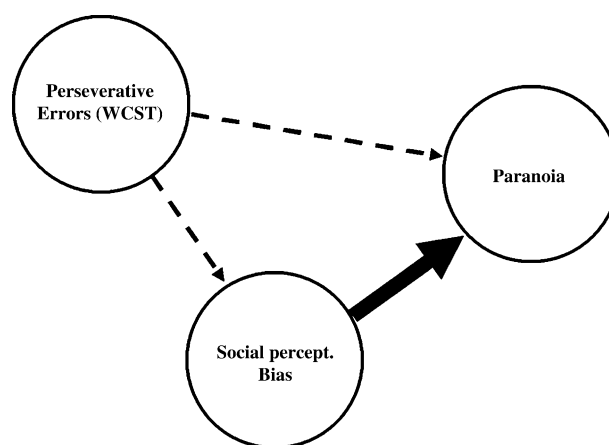


Fig. 6. Interrelationships of Neurocognitive, Sociocognitive, and Behavioral Components of Paranoia After 6 Months of Intensive Psychiatric Rehabilitation Based on Peer et al.⁵⁶

produce this type of neuropsychological improvement is that which targets set shifting and related executive processes, eg, integrated psychological therapy (IPT).² Later, as postacute issues are resolved, persistent paranoia is more effectively addressed by psychotherapeutic targeting of key sociocognitive processes. Attribution-oriented CBT⁵⁷ is more likely to be effective at this stage.

Taken together, these conditions and trends lead toward some straightforward prognostications. Over the next 25 years, development of psychotherapy for schizophrenia will increasingly be influenced by our understanding of cognitive recovery over the course of episodic psychotic disorders. Quantitative modeling, which accounts for behavioral changes in terms of specific pathways of cognitive recovery, will play a significant role in gaining that understanding. Animal models will also be instrumental in articulating the nature of postacute impairment and subsequent recovery, eg, in validating models like the demand-access matching mechanism (this will recapitulate the role of animal models in developing the learned helplessness model of depression). These basic science developments will lead to advanced clinical assessment technology that informs us more precisely about the roles of baseline, episode-linked, and postacute impairments in individually unique trajectories of recovery. This will in turn enable a more precise and prescriptive approach to applying the increased diversity of psychotherapies in our clinical toolkit.

Modalities will be specific to acute, postacute, and baseline phases and sensitive to individual differences in postacute recovery (which is sometimes quite protracted). For the acute and postacute phase, modalities will be quite similar in form and purpose, emphasizing nonspecific milieu-based formats as well as more specific group and individual formats. Differences will be more the result of tailoring to specific environments (eg, inpatient vs outpatient, high security vs low security) than differences in purpose or expected outcome. They will address a broad range of cognitive targets for the purpose of enhancing reorganization of adaptive skill hierarchies. Outcome will be reflected mostly in global improvement across levels of cognition and in performance of basic routines, activities of daily living, and simple interpersonal interactions.

Modalities for the baseline phase will target more specific cognitive and behavioral domains and will have domain-specific outcomes. Some will remain in a dyadic format, and others will segue to skill training and psychoeducation. The segue means that the boundary between skill training and related rehabilitation approaches, and psychotherapy, will be obscure in some modalities. For economic and contextual reasons to be addressed later in this discussion, we can expect integrated modalities that optimally deliver both skill training and psychotherapy, within a single package of techniques, supporting materials and therapist competencies. However, the

type of baseline-phase therapy that segues to skill training and psychoeducation is quite distinct, in purpose and in therapeutic conditions, from the type that approximates conventional dyadic psychotherapy. Integrated modalities such as IPT² and cognitive enhancement therapy^{58,59} already provide prototypes for the segue from more psychotherapy-like to more skill-training-like activities within a single modality. These prototypes begin with psychotherapy directed at more molecular levels of neurocognition and sociocognition, especially those thought to support more molar interpersonal functioning, and progresses to social skills training. Progressions that lead to enhanced functioning in other domains, eg, occupational/vocational, may optimally begin with psychotherapy that targets quite a different set of molecular supporting processes. This is becoming evident in research on psychotherapy designed to enhance occupational/vocational functioning.^{6,8,10,52} The near future will probably see integration of neuropsychologically oriented therapy with more molar approaches to vocational functioning, such as supported employment programs.⁶⁰ Psychotherapy that targets intermediate levels, eg, social cognition, will also probably find its way into such integrated modules because interpersonal functioning is well known to be an important factor in maintaining employment.

Having envisioned the future, it is important to reflect on what steps will be required to get there. The previous historical progression provides one more sobering lesson in this regard. In the proliferation of psychotherapy model that follows improvements in definition and measurement of outcome, it becomes increasingly important to identify the true “active ingredients” that produce the benefits. Some of these ingredients have been common factors that span a range of therapeutic goals (eg, the familiar therapeutic conditions of nondirective therapy: accurate empathy, nonjudgmental attitude, etc) and others are quite specific to circumstances and outcomes (eg, the element of “exposure” in treatment of anxiety). The various psychotherapy and skill-training modalities in current use for SMI have substantial and complex overlaps, in theoretical grounding and in specific procedures. Even though we have a diverse and growing clinical toolkit, we are strikingly ignorant about what factors, common and unique, are really the active ingredients. Controlled trials that systematically compare modalities in ways that permit identification of true active ingredients will be arduous and expensive. Hopefully, advanced quantitative modeling will emerge as a more economical alternative to determining what ingredients are necessary for what benefits among what recipients.⁶¹ Finally, the possibility of combined dietary/pharmacological/psychotherapeutic approaches to treating factor I impairments in the baseline phase of SMI is futuristic but not science fiction. The groundwork for this is already being done. However, instead of the broad-spectrum

neuropsychological and sociocognitive techniques applied generally as in acute and postacute treatment, the psychotherapeutic component of these approaches will probably have to be highly individualized, targeting specific domains of cognition as identified in advanced clinical assessments. This is presaged by the diversity of distinct neurodevelopmental factors that appear to be associated with the etiology of SMI. Even the particular factor of fetal neural dysplasia can produce many structural consequences, depending on the wanderings of lost protoneurons. This converges with the general understanding of SMI as a “final common pathway” of multiple contributory factors. The identity of particular contributory pathways may be obscured over the course of development, but if we gain the ability to reconstruct features of brain infrastructure, it will be important to know the precise neurocognitive processes these features support. As new structures come on line, we will probably need to train them to perform these processes.

Social Values and Policy Factors

In recent years, the single most significant development in social values and policy, pertinent to SMI, is clearly the recovery movement. The movement's origins can be traced to the 1970s (at least) and are closely associated with both family and consumer activism and the psychiatric rehabilitation paradigm.^{62,63} Most recently, the key principles of recovery have been canonized as national policy by a Presidential Commission.⁶⁴ Recovery means different things to different groups,⁶⁵ but its common elements include rejection of medical model biological reductionism and the connotations of having an “incurable disease,” the idea that SMI consists of vulnerabilities and disabilities that can be neutralized and overcome, and nurturing hope for a better life. The implications of the recovery concept for research and practice are just beginning to be articulated,⁶⁶ although it is already clear that it will engender a revolution in mental health practice as well as policy.

The single most important aspect of the recovery concept for psychotherapy is the centrality of the recovering person in all treatment and rehabilitation activities. The most straightforward implication of this is that attracting and then pleasing the customer will be a prerequisite to efficacy. This will lead psychotherapy designers to match techniques with expected outcomes that are highly desired before therapy begins. This will in turn require packaging and marketing more advanced than what is now the rule. Similarly, therapy techniques that enhance the person's engagement will be especially important. This will produce a convergence with “rehabilitation counseling,” a psychotherapy-like technique for engaging the recovering person in goal setting and rehabilitation planning.⁶⁷ However, engagement in rehabilitation is rapidly becoming more complex for everybody, pro-

viders as well as recipients. This is the inevitable result of an increasingly differentiated clinical technology, a large toolkit capable of addressing a multitude of specific problems in combinations unique to individuals. Systematic approaches to coordinating and integrating multimodal psychiatric rehabilitation are just now beginning to appear.^{68,69} If special preparation is required for professionals to be effective in the rehabilitation planning process, special attention to the recovering person's ability to participate as an effective team member should have important benefits as well. As a domain of skills and abilities, rehabilitation team membership should be subject to enhancement through psychotherapy and skill training, probably in a manner comparable with acquiring skills and abilities in managing one's own illness.⁷⁰ Development of psychotherapy/skill modalities expressly for enhancing the recovering person's performance as a rehabilitation team member will be a direct result of the recovery movement.

A related aspect of the recovery movement is greater use of “natural” instead of “professional” or “mental health” resources, especially “consumer-provided services.”⁷¹ This of course raises some intriguing issues for psychotherapy. It is generally presumed in the advocacy community that sharing of personal experiences and perspectives among people recovering from SMI is a unique and invaluable contribution to recovery. Is it sufficient to simply provide opportunities for such sharing to happen spontaneously or should there be some systematic effort to not only ensure that it happens but also maximize the therapeutic benefit when it does? Should consumer/therapists be prepared to reach beyond their personal experiences in order to most help their consumer/clients? At what point would formalized interpersonal activities among consumers become “like psychotherapy”? The parallel to similar issues in substance-abuse treatment suggests that natural interactions and relationships between consumers would be even more helpful if consumers were “trained” or otherwise specially prepared in some way. However, despite the current popularity of the idea of consumer-provided services, very little is appearing in the literature that moves toward a larger understanding of how to optimize such services.

Reflection on the history of psychotherapy, and especially on peer models such as those that have evolved in substance abuse, suggests that ideology will determine the shape of the future as much as science. The safe prediction is therefore that whether or not scientific research demonstrates a special advantage or benefit of psychotherapy-like relationships between people with SMI, there will be a formalized role for such relationships in the future. The challenge for the professional psychotherapy community will be to relate helpfully to that inevitable development. Again, the history of psychotherapy for substance abuse provides a provocative precedent.

The values of the recovery concept in SMI also bring to mind a relatively recent conceptual development in CBT. Some years after the principles of behaviorism were married to the cognitive constructs of social learning theory in the formulation of modern CBT, there was another distinct theoretical development. The traditional, functional orientation of CBT goals, focused on acquiring effective instrumental skills, broadened to include more internalized abilities for the purpose of managing and “coping” with circumstances, rather than changing them. This new dimension is understood as a dialectic between change and acceptance.⁷² The change brought a new realization of the importance of carefully analyzing alternative and sometimes incompatible goals before proceeding with behavior change. This is arguably a return to traditional ideas about psychotherapy, but in the context of CBT, the result has been development of a new toolbox for making personal choices and for developing the cognitive and behavioral skills needed to effectively identify immutable circumstances and manage them effectively. If development of psychotherapy for SMI is recapitulating historical progressions, it has not yet reached the dialectical stage of evolution. One might expect that on these grounds alone a comparable development is overdue. The centrality of the recovering person in making choices and determining the course of his or her rehabilitation further suggests that techniques for making highly personal choices, weighing change against acceptance, and acquiring relevant management skills will soon become a new focus in psychotherapy for SMI.

Finally, the recovery concept renews a familiar but ephemeral idea in psychotherapy, that a person is more than the condition, illness, impairment, or problem that he or she brings to therapy. Concretely, there is growing realization that people with SMI are as vulnerable to other types of psychological difficulties as anyone else. There is a strong tendency among professionals to attribute depression, social anxiety, and other problems to “the schizophrenia,” implicitly but unrealistically expecting that the treatment for “schizophrenia” will therefore resolve the other problems. It is well known that such problems often co-occur with SMI, yet are rarely treated. The recovery concept will stimulate use of highly structured psychotherapy procedures, such as CBT for depression or social phobia, when these problems appear within the larger clinical picture of SMI. But psychotherapy is not only about resolution of specific problems or impairments. People have always engaged in therapy for broader purposes, including “becoming a better person,” “understanding myself better,” and “appreciating life more.” These purposes must be understood to be as important to people with SMI as to anyone else.

Use of psychotherapy for such purposes may be seen by some as incompatible with the imperative for evidence-based practice, a much discussed value in contemporary health care.^{73–75} However, people sometimes seek

out psychotherapy for purposes not easily characterized in an evidence-based context. In the same sense that people with SMI may benefit from simply sharing each other’s personal experiences and perceptions, the self-exploration associated with traditional, even psychodynamic, psychotherapy may be for some an important aspect of personal recovery. A few years ago, predicting a resurgence of interest in traditional psychodynamic psychotherapy would have seemed counterintuitive or even heretical. Today, in the context of the recovery movement, a total dismissal seems premature. This is not to say that traditional psychotherapy should in any way supplant evidence-based treatments for specific problems. It is to say that today we are rediscovering the importance and centrality of the “person” in SMI, and this rediscovery will influence research on treatment, rehabilitation, and recovery in the foreseeable future.⁷⁵ Psychotherapy is undergoing rapid evolution, as demonstrated by the recent incorporation of dialectical principles. It would not be so surprising if, in the course of making psychotherapy more effective for people with SMI, concepts and principles from traditional approaches would also prove resonant and helpful.

In fact, the primacy of hope and expectation for positive change at the center of the recovery concept produces a striking *déjà vu* for those familiar with the history of psychotherapy. Frank’s²⁵ formulation of common factors, based on extensive contributions from psychodynamic therapy, would even suggest that there is already a strong evidence base concerning what is effective for instilling hope and expectation for positive change. One recent policy document,⁷⁷ attempting to infuse evidence-based principles into a state’s mental health policies, may be tracking an early trend in its comment on psychodynamic psychotherapy:

... psychodynamic principles may usefully inform assessment, rehabilitation counseling and psychotherapy for people with SMI. Psychodynamic therapy, strictly defined as interpretation of unconscious material, e.g. transference and regression, should not be used to treat psychotic disorders. However, a psychodynamic perspective may be useful in helping the recovering person engage, resolve conflicts and identify recovery goals.^(p17)

Conclusion

In conclusion, over the next 25 years psychotherapy for SMI will progress through the stages we have seen before in psychotherapy research. The current proliferation of specific modalities will be followed by an intensive search for the active ingredients. This will coincide with more systematic attention to individual differences and individual uniqueness among people with SMI. Advanced quantitative modeling techniques will be especially useful in identifying pathways of recovery, and psychotherapy

modalities will be increasingly tuned to these pathways. Psychotherapy techniques will increasingly inhabit the “front end” of skill training and related rehabilitation modalities, often specialized to address the molecular cognitive processes that support specific domains of behavioral functioning. Other psychotherapy techniques, addressing the behavioral and sociocognitive levels now addressed in CBT, will comprise an array of tools that can be assembled into an integrated, individually tailored modality for treating problems peculiar to SMI, such as paranoia, in a format comparable with contemporary treatment of anxiety, depression, and trauma. CBT for problems not traditionally associated with SMI, eg, anxiety, depression, and trauma, will see greater use for people who also happen to have SMI. The recovery concept will accelerate development of dialectical psychotherapy and other techniques that enhance engagement in the rehabilitation process and strengthen personal decision making and goal setting. Even traditional psychodynamic principles and techniques will be revisited as self-knowledge and personhood become recognized as dimensions of recovery and goals for rehabilitation.

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