Different Roads Lead to Rome: Exploring Patterns of Change among Narrative Enhancement and Cognitive Therapy (NECT) Participants

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ABSTRACT

Background: Narrative enhancement and cognitive therapy (NECT) is aimed at decreasing self-stigma and promoting recovery. The current study used a mixed-methods approach to explore the process and mechanisms by which NECT affects self-stigma and recovery.

Method: Sixty-two participants with serious mental illness (SMI) and enrolled in NECT completed questionnaires assessing self-clarity, recovery, self-stigma, and hope before and after the intervention, and the two latter questionnaires also after completing two defined parts of the intervention. In addition, one group's transcriptions were qualitatively analyzed and compared with changes in quantitative measures.

Results: Quantitative analysis revealed a significant increase in self-clarity and a decrease in self-stigma, which occurred early in the intervention. Qualitative analysis identified factors contributing to such changes. Limitations include lack of a comparison group, bias selection in the qualitative analysis and case record diagnoses.

Conclusions: NECT was found to be effective in reducing self-stigma and improving self clarity and the mechanisms and process were identified.

Internalized stigma, or self-stigma, refers to the process by which negative stereotypes about mental illness are accepted and incorporated into the identity of those who have been diagnosed with a mental illness (1, 2). Research has shown that approximately one third of consumers with serious mental illness (SMI) report elevated levels of internalized stigma (3) and that self-stigma is a major barrier to recovery, as it is associated with several negative consequences, including emotional distress (1, 4-6), decreased hope (7, 8), self-esteem and self-efficacy (1, 9, 10), and meaning in life (9), and poorer quality of life (4, 5, 7).

Narrative enhancement and cognitive therapy (NECT) is a manual-based 20-session group intervention developed to reduce self-stigma among adults with SMI (11). It has a four-part structure. First, it seeks participants to become oriented to the intervention; second, to be able to recognize internalized stigma; and third, to see how stigmatizing beliefs have a negative cognitive and emotional effect on their personal identity. Finally, it focuses on the process of constructing and sharing a narrative that helps integrate and make sense of one's self and illness, such that the illness will no longer be one's main identity. NECT thus differs from other psychoeducational approaches in that it emphasizes the rejection of self-stigma as a complex task that calls for persons to take an active role in narrating their life story differently. For example, prototypical participants are helped not only to recognize that mental illness does not mean they are necessarily dangerous or

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incompetent, but rather to form a personally meaningful richer and more complex view of themselves, in place of their previous stigmatized view. A constructivist spirit which entails reflection and flexibly in defining their experience is encouraged throughout all components of the intervention.

To date, the acceptability and feasibility of NECT has been successfully demonstrated in the U.S., Israel, Sweden and Denmark and has been linked to meaningful clinical improvement. In a small (n=18) qualitative study conducted in Israel, NECT completers reported positive change in hope, ability to actively cope with psychosocial challenges and changes in self-experience such as the ability to notice and think about their thoughts and emotions (12). In the U.S., a small (n= 39) RCT revealed trends toward reduction in stereotype endorsement and improvement in insight (13). A medium size (n =119) quasi-experimental study of NECT in Israel (14) revealed significant reductions in self-stigma and improvements in self-esteem, hope, and subjective quality of life among NECT completers. A recent small (n=31) open-trial study conducted in Sweden showed that participation in NECT was significantly associated with reduced self-stigma and increased self-esteem and quality of life (15). Finally, in a recent randomized control trial conducted in Sweden (16) which included 87 study completers, participants revealed that NECT was more effective in reducing self-stigma and improving self-esteem than treatment as usual only. No differences were shown in subjective quality of life. Changes shown in the intervention group at termination of intervention were stable at the 6-month follow-up. The study also showed a distinct relationship between number of sessions attended and improvements in self-stigma and self-esteem.

Although these studies provide support for the benefits of NECT, little is known about the mechanisms and processes involved. Processes refer to often subtle and incremental changes in participants' subjective experience, and mechanisms refer to cognitive, emotional and behavioral patterns that occur during the intervention. Understanding these mechanisms and processes is important because it may help to both refine the intervention and to develop new ways to intervene. Exploring processes and mechanisms of change, however, requires important methodological considerations. First, combining quantitative and qualitative methods is needed to identify processes and unexpected findings within a framework of quantitative benchmarks (17). Second, the rapidly growing body of literature demonstrating that psychotherapy progresses in a non-linear manner (see review and meta-analysis of Aderka et al. [18] and Lutz et al.'s [19] study) justifies the use of multiple assessments during an intervention.

To address these issues, the present study explored the processes and active mechanisms of NECT via the use of mixed-method methodology that included four assessment points of quantitative scales (in accordance with the four phases of NECT) and narrative analysis of detailed group-session summaries. The study had three aims. First, we sought to identify quantitative gain linked with completion of NECT. To address this, we tested whether there were changes over time in participants' assessments of personally meaningful outcomes, which we hypothesized would be subject to change based on self-stigma theory (6, 11), NECT practice (13), and research (14, 16). These included self-stigma, recovery, and self-clarity. Self-clarity refers to the level of clarity, consistency, and confidence one has about his or her beliefs about oneself and as such was found to be related to stigma (20) and self-stigma (21) and therefore chosen to be studied as an outcome.

The second aim of the study was to assess at multiple time points self-stigma and hope and to determine whether, if there was change, at what stage of NECT these changes occurred. Third, in case we identified changes in quantitative assessments, we sought to explore phase-specific processes and mechanisms underlying these using findings from qualitative analyses and whether and how the quantitative and qualitative data were related. Finally, we tested whether NECT completers differed from non-completers for the demographic or research variables.

METHODS

RESEARCH SETTING

The study was conducted at 15 agencies in southern Israel offering a range of psychiatric rehabilitation services in the community. Data were collected between 2014 and 2015. Ethical approval for the study was obtained from the local ethics committee of the Department of Psychology at Bar-Ilan University. After receiving a detailed explanation of the study, all research participants provided written informed consent. Data were collected by an experienced mental health practitioner who was trained to administer the study measures.

PARTICIPANTS

Participants were 107 persons with a case record diagnosis of an SMI for which they had at least a 40% psychiatric disability determined by a committee composed of a psychiatrist and recognized by the National Insurance

regulations. Previous research has estimated most (86%) of those who have met these criteria had a diagnosis of schizophrenia-related disorder (22).

Inclusion criteria were fluency in Hebrew and providing informed consent. Participants' age ranged from 20 to 66 years (M=42.49, SD=11.73), and most participants were men (56%), who have never been married (56%) and had completed high school (76%). Mean age during first hospitalization was 26.67 (*SD*=10.15), and mean number of previous hospitalizations was 3.72 (*SD*=5.27).

MEASURES AND DATA CODING

The *Internalized Stigma of Mental Illness Scale (ISMI)* (1) in its short version of 10 items (23) was used to assess an individual's personal experience of stigma related to mental illness, rated on a 4-point Likert scale. The Hebrew translation of the original, 29-item scale (24) showed high internal consistency. Higher total scores for this scale indicate higher levels of self- stigma. The short version is used as one total score and is not divided into subscales, showing good psychometric properties (23). In the present study, internal consistency (Cronbach's alpha) was .73.

The *Adult Dispositional Hope Scale* (25) is a 12-item self-report scale designed to measure an individual's dispositional hope. The scale range is an 8-point scale. Higher scores indicate a higher hope level. It consists of two subscales: the pathways subscale score and the agency subscale. In our sample, we observed high levels of internal consistency for the total scale (α=.86) and for the two subscales; α=.75 for pathways and α=0.79 for agency items.

The *Self-Concept Clarity scale (SCC)* (26) was used to examine the extent of clarity, consistency, and stability in one's self-beliefs. The SCC has 12 items, rated on a 5-point Likert scale ranging from 1 (highly disagree) to 5 (highly agree). High scores indicate high clarity. The authors of the SCC reported a Cronbach's alpha of 0.86, indicating high internal consistency reliability, and re-test reliability of 0.79 and 0.7 over a period of 4 and 5 months, respectively (26). In the present study, item 6 was negatively related to the other items, and item 11 had a zero correlation with the other items; therefore, they were not calculated in the total score. Internal consistency (Cronbach's alpha) of the total score was .87.

The Recovery Assessment Scale (RAS) (27) was used to assess recovery from severe mental illness. The original RAS includes 41 items assessing one's perception of recovering from a mental illness. Participants are asked to rate statements on a 5-point Likert scale ranging from 1 (highly disagree) to 5 (highly agree). The RAS is correlated with measures of self-esteem, empowerment, and quality of life (28). The current study used the abbreviated 12-item Hebrew version (29). It includes four of the original five factors: self-confidence and hope (Cronbach's alpha=0.72), readiness to ask for help (Cronbach's alpha=0.91), relying on others (Cronbach's alpha=0.66), and lesser symptom dominance (Cronbach's alpha=0.70). In the present study, Cronbach's alphas were .77, .66, .75, .79 and .62 for total scale, hope, readiness to ask for help, relying on others, and lesser symptom dominance, respectively.

INTERVENTION

NECT is composed of four distinct phases. It begins with an orientation, during which participants are invited to describe themselves, their experience of what a mental health professional would describe as a mental illness, and the way these two (experience of self and "illness") have interacted and influenced one another over time. The second phase is psychoeducation, during which common myths or false generalized ideas about mental illness (for example that "people with mental illness cannot work") are discussed and challenged by research evidence. During this stage, participants are encouraged to ponder and share some of their personal experiences of public stigma and the risk and consequences of internalizing such stigmatizing attitudes and directing them towards oneself. The third component focuses on learning and practicing cognitive restructuring techniques to identify and combat self-stigmatizing beliefs. This proceeds from the perspective that acquiring effective tools to cope with and reduce the impact of self-stigma enhances one's sense of self-efficacy, control, and hope. The fourth component is the heart of the intervention and focuses on narrative enhancement. In this segment, participants are encouraged to tell personal stories and to reflect on them, construct meaning, and develop narratives which are personally meaningful, communicative, and less influenced by self-stigma. Constructive feedback from other participants and the group facilitators, who serve as 'outsider witnesses' to the evolving narrative, provide a context to develop new perspectives on their experiences.

The process of constructing and sharing a narrative that helps integrate and make sense of complicated and often emotionally charged events can play an important role in liberating one's self from being experienced as engulfed by the illness. The NECT format ends the same way it begins, asking the person to describe himself, "illness"

(or how the person refers to his or her experience), and their interplay. Comparing responses at the start and end of NECT offers further opportunity for exploration and reflection about his journey to define himself and to overcome self-stigma.

PROCEDURE

The measures of self-stigma and hope were administered at four points to capture patterns of change: before the intervention and upon completing each of its phases (psychoeducation, cognitive restructuring, and narrative enhancement). The measures of recovery and self-clarity were administered pre and post intervention to add more information about possible general changes in self-experience.

In addition to the quantitative measures, group leaders were instructed to write a detailed protocol after each session that included a verbatim record of the session. The group with the most detailed and rich data was chosen for content analysis. Thus, to better understand and possibly identify the process of change, we focused a group of five participants who had completed the intervention and the assessments, and we reviewed detailed descriptions and verbatim written by the group facilitator after each session.

QUALITATIVE ANALYSIS

The detailed notes for the group were analyzed by the two first authors. The analysis included three stages. First, central themes and processes for each participant were noted. Next, the themes were discussed to differentiate between mechanisms of change and outcome. Last, a systematic comparison of the qualitative and quantitative data was performed to identify the degree to which the two sources of data were in accord or not.

STATISTICAL ANALYSIS

Analyses were conducted using IBM SPSS Statistics 21.0. Group comparisons were performed using the t-test for continuous variables and the χ^2 test for categorical variables. To examine improvement in the outcomes (internalized stigma, hope, self-clarity, and recovery), repeated-measures MANOVAs and ANOVAs were used. Effect sizes (*ηp2*) for the time effect were computed. According to Cohen (30), *ηp2*=.0099 is considered a small effect, *ηp2*=.0588 is considered a medium effect, and *ηp2*=.1379 is considered a large effect (pp. 285–287). Significance was set at the .05 level, and all tests of significance were two-tailed.

RESULTS

Research aim 1: Did NECT completers demonstrate gains on quantitative assessments of self-stigma and increased self-clarity, hope and recovery?

To examine whether there was improvement in the research variables between the assessments, a repeated measures ANOVAs were conducted. As shown in Table 1, a significant time effect was found for internalized stigma ($F(2,136)=5.35$, $p<.01$). The effect size was medium ($\eta_p^2=.09$). In addition, a significant time effect was found for self-clarity ($F(1,58)=6.83$, $p<.05$). The effect size was medium ($\eta_p^2=.11$). There were no significant differences in hope and recovery.

Research aim 2: At what stage of NECT did quantitative changes occur?

Comparisons among the assessments showed that internalized stigma significantly decreased between time 1 and time 2 ($F(1,57)=13.81$, $p<.001$). The effect size was large

Table 1. *Repeated measures ANOVAs in variables compared among the assessments*

	Time 1 M (SD)	Time 2 M (SD)	Time 3 M (SD)	Time 4 M (SD)	n	F	df	P	ηp2
ISMI-Total Scale (0–3)	1.24 (0.53)	1.07 (0.52)	1.04 (0.53)	1.11 (0.56)	58	5.37	(2,136)	.003	0.09
Hope-Total Scale (1–8)	6.02 (1.28)	6.14 (1.17)	6.16 (1.28)	6.02 (1.25)	58	0.60	(3,171)	.616	0.01
Hope-Agency (1–8)	5.94 (1.52)	6.12 (1.25)	6.19 (1.39)	6.03 (1.30)	58	1.13	(3,171)	.340	0.02
Hope-Pathways (1–8)	6.09 (1.35)	6.16 (1.26)	6.12 (1.41)	6.01 (1.41)	58	0.26	(3,171)	.855	0.01
SCC-Total Scale (1–5)	2.97 (1.05)	--	--	3.33 (1.09)	59	6.83	(1,58)	.011	0.11
RAS-Total Scale (1–5)	3.87 (0.58)	--	--	3.97 (0.53)	61	1.70	(1,60)	.198	0.03
RAS-Hope (1–5)	3.92 (0.83)	--	--	4.04 (0.86)	59	1.14	(1,58)	.290	0.02
RAS-Help (1–5)	4.15 (0.70)	--	--	4.25 (0.60)	59	0.81	(1,58)	.373	0.01
RAS-Others (1–5)	4.06 (0.87)	--	--	4.10 (0.64)	59	0.14	(1,58)	.707	0.00
RAS-Symptoms (1–5)	3.40 (0.87)	--	--	3.49 (0.80)	59	0.50	(1,58)	.482	0.01

Note: ISMI: Internalized Stigma of Mental Illness; SCC: Self-Concept Clarity; RAS: Recovery Assessment Scale.

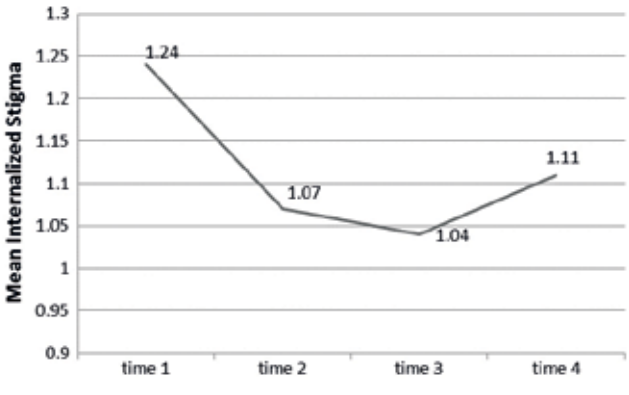
(η_p^2=.20). There was no significant difference between time 2 and time 3 or between time 3 and time 4. These findings are findings illustrated in Figure 1.

Research aim 3: What phase specific processes and mechanisms may have contributed to changes in quantitative measures and whether and how the quantitative and qualitative data were related?

The group with the most detailed and rich transcriptions was chosen to identify processes and mechanisms of change over time. Processes refer to often subtle and incremental changes in participants' subjective experience, and mechanisms refer to cognitive, emotional, and behavioral patterns that occur during the intervention. We focus here on the three parts of the NECT – psychoeducation, cognitive restructuring, and narrative enhancement – that follow the introduction.

During the second part of NECT, psychoeducation, a process of increasing a positive sense of self, was evident, and the contributing mechanisms identified were learning information and feedback from other group members. In addition, review of the group transcriptions during this stage revealed the importance of personal characteristics. For example, those with a more positive sense of self and an external attribution of stigma were better able to use the information learned during the psychoeducation phase to challenge public stigma. Some participants quickly recognized the stigma and resisted it, as described by one: "I went in for a small operation and when the doctor looked at my medical record and noticed my psychiatric history he said 'how can I know that you won't suddenly jump out of the bed?' Doctors have the most stigma about us." Others, in contrast, had difficulty using the information to challenge negative stereotypes, as evident in the response of one of the participants to the discussion about whether recovery is possible: "There is no such thing as recovery. I have great dependence on medication."

Figure 1. *Mean internalized stigma (ISMI) at the four assessments (N=58)*



During the third part of NECT, cognitive restructuring, an increased flexible sense of self and higher ability for reflection was identified among a number of the participants. The mechanisms which appeared to influence these processes were challenging self-stigma beliefs and learning from similar efforts of other group members. In addition, as with the psychoeducation phase, a more positive sense of self at baseline seemed crucial to benefiting from this phase. For example, a participant who had worked in the past as a car dealer and was gradually returning to work shared his growing fear that he would have a relapse, which when he had in the past he attributed to his work. He learned to identify the automatic thought ("*I will get sick*") behind the fear (of relapse) and shared his newly acquired effort to challenge this with the group: "Today I feel differently! I think I can succeed." Thus, through challenging the dysfunctional automatic thought and through group discussion, he was able to reflect upon his fears as well as his growing faith in himself and hope for the future and try to modify them. Another example of incremental shifts that occurred during this stage was a participant who reported "I use to be angry and think 'why did this happen to me?' Today I understand that I can succeed despite the illness." This example reflects the process of modifying one's attitude towards the illness and the implications attributed to it.

These mechanisms and processes are in sharp contrast to a those of a different participant, who shared with the group that "I waited for a bus with a friend and saw my neighbor who whispered to her friend that I am 'nuts' . . . I was very hurt and thought 'she is right, I am nuts.'" The group member's efforts to propose broader, richer, and more integrative ways to describe herself, reflecting her independent functioning, work, and full life, were all dismissed by her. These examples suggest that a basic foundation of self-worth is crucial to benefiting from the early stages of the intervention, which entail psychoeducation and cognitive restructuring. It also poses the challenge of how to better help those who seem to lack such a foundation.

An interesting expression at this stage of the intervention was with regard to feelings about "coming out." While this is clearly a complex issue and a very personal decision with possible tangible consequences (31), it also signifies at least some degree of ease and comfort with a part of one's identity (having experience with mental illness), as well

as a potential springboard to prevent the internalization of the stigma associated with it. Danny, for example, took great pride in having completed a course which made him a certified consumer-provider, whereas Marilyn described a very different attitude about coming out: "When I disclose I get hurt. I prefer to keep my privacy and not reveal the illness. I will not try to find work outside (the sheltered work) cause here everyone is like me and understand me and I do not need to hide anything." These examples reveal the complexity of the interaction between perception of self and illness and how it influences decisions (to come out or not) and employment choices (working as a provider versus in a sheltered workshop).

During the final part of NECT, narrative enhancement, the group leaders facilitate participants' efforts to process their past experiences into a more complex and rich account of their life stories and a coherent self-narrative. The process identified was narrating, and the mechanisms facilitating it were reflection and group discussion. This was poignantly illustrated by Sally, who shared with the group a broader narrative of her life story towards the end of this part: "In my life I have been through a major crisis. I gave up raising my children out of choice. They stayed in their dad's custody out of my understanding that it will be better for my kids and for me. As a result I was in seriously bad shape. I did not know how to get up. So hard. In the end I went to study art and completed my BA successfully. My art is my way to tell my story and express my frustration and difficulties. The studies really strengthened me and helped me loosen up." In response to the question of what title she would give her life story, she answered "growth after separation."

The individualized patterns of change in the quantitative measures of the five group members whose group summaries were analyzed are presented in Figures 2 through 5. Efforts to explore the relation of these patterns to the qualitative data revealed a complex picture.

Among the five participants, the patterns of change of two differed from others, one for the worse and one

Figure 2. *The individualized patterns of change in the internalized stigma (ISMI) of the five group members*

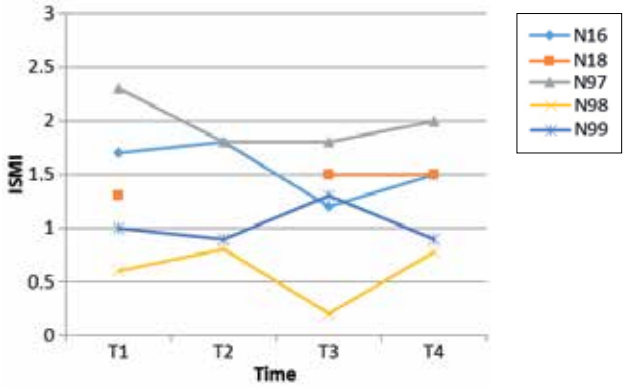


Figure 3. *The individualized patterns of change in hope of the five group members*

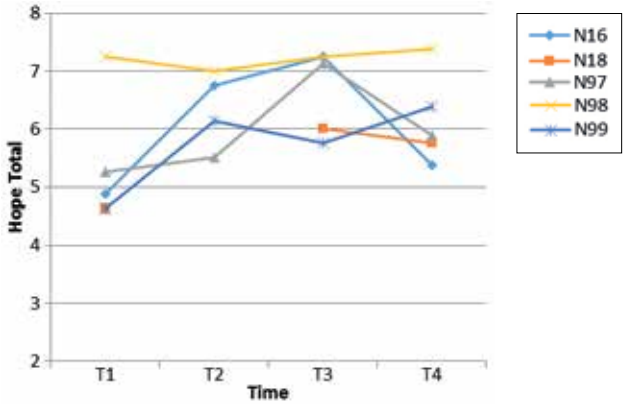


Figure 4. *The individualized patterns of change in self-clarity (SCC) of the five group members*

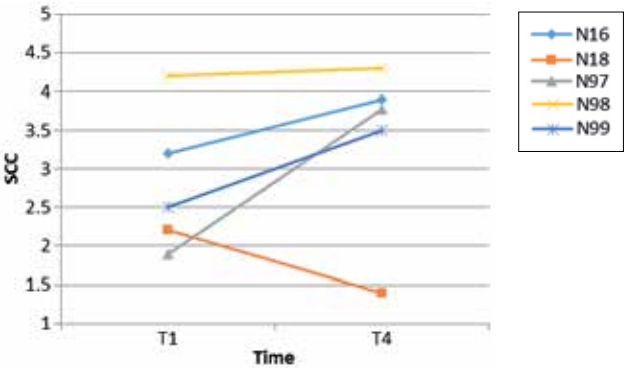
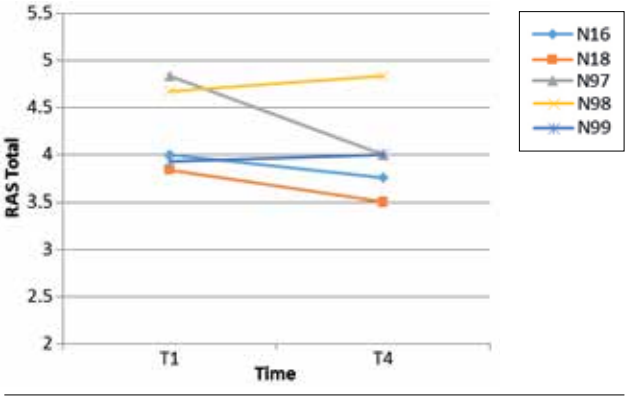


Figure 5. *The individualized patterns of change in recovery (RAS) of the five group members*



for the better. Sally's (#98) measures indicate that she was doing notably better than the others. She had at baseline higher hope, recovery, and self-clarity scores and lower self-stigma, all of which remained quite stable. The measures are consistent with the qualitative material which portrayed a person who had struggled with much, including as described above, giving up custody of her kids. At the same time, she demonstrated considerable resilience, faith in herself, and a positive attitude dealing with the loss of her kids, which she described as a "major trauma." She completed a degree, expressed herself in art, and enjoyed taking care of her cat, which she experienced as an important corrective experience, in light of her feeling that she was unable to give that kind of warmth to her boys. Sharing her story contributed much to the group, who also gave her feedback she could benefit from.

Maggie (#18), in contrast, had lower scores than the others at baseline and was the only one whose self-clarity declined following participating NECT. Her quantitative scores were also consistent with the qualitative data, which revealed her ongoing struggle to move ahead in her recovery process. Like Maggie, Lisa seemed also to struggle in her recovery process. While this was reflected in her having the strongest decline in her recovery score, it is interesting that she simultaneously demonstrated the largest improvement in self-clarity. This suggests that for her, self-reflection during the intervention may have contributed to her sense of self coherence yet hindered her recovery. It is possible that the potential positive impact of self-cohesiveness on recovery is mediated by other factors, such as one's self-stigma, which in her case showed no change.

Shifting focus from individual trajectories as presented in the figures, towards efforts to identify trends of change within measures, revealed that all but one participant experienced improved self-clarity, indicating that NECT, possibly through increased self-reflection and narration, helps people create a clearer sense of who they are. As described earlier, self-clarity was one of the measures in which there was a significant improvement from pre- to post-intervention in the complete sample, supporting the idea that this intervention's greatest impact is on the experience of self.

Self-stigma, which also improved significantly in the complete sample, showed a dynamic nonlinear pattern among the five group members, with similar pre- and post- scores. This suggests that the intervention might stir up changes during the process. Similarly, the hope measure showed a non-linear pattern, with a general trend of improvement early on followed by a slight decline towards the end. Thus, the process is far from linear, easy, or pain-free. Recognizing and acknowledging progress can also evoke painful feelings generated, for example, by the comparison between current achievements and what had been hoped for and/or achieved in the past. This might also explain the slight increase in self-stigma shown in figure 1 between time 3 and time 4. Jonathan described this as follows: "Since I got sick I am not the same person, I am lacking the abilities I had as a worker . . . when I got sick I thought it was the end of the world and that I will never be able to work again. I do not think I will ever be able to work in regular settings." As evident in this short excerpt, the mechanisms of reflection and narration might be helpful to integrate and consolidate a more coherent life story, which can also be painful.

Additional analysis: Do NECT completers and non-completers differ in demographic or research variables ? Of the 107 participants who completed baseline assessment (time 1), 77 (72%) completed the assessment at time 2, 71 (66%) completed the assessment at time 3, and 61 (57%) completed the assessment at time 4. Comparing the demographic variables (gender, age, education, age of first hospitalization, and number of hospitalizations) between the participants who completed all of the assessments and those who did not revealed no significant differences for any of the demographic variables. Comparing the research variables (internalized stigma, hope, self-clarity, and recovery) between the participants who completed all of the assessments and those who did not revealed no significant differences for most of the variables. As shown in table 1, differences in the baseline recovery-symptoms subscale, hope total, and hope-pathway subscale were found between those who did and did not complete all the assessments. Those who completed NECT and all of the assessments had higher recovery-symptoms, hope total, and hope-pathway scores at time 1.

DISCUSSION

The current study used multiple assessments and mixed methods to measure quantitative changes associated with NECT, to determine at what point in treatment they occurred and to explore the processes and mechanisms involved during the stages of the intervention based on qualitative data. Consistent with previous research (12-16), NECT completers showed improvements in self-stigma. The change in self-stigma was found to

occur early in the intervention, upon completion of the psychoeducation section. This pattern of improvement occurring early in treatment is in accord with psychotherapy research (19); and given that it occurred upon completion of the psychoeducation component of NECT, it stresses its importance as a powerful mechanism of change. In addition to self-stigma there was also a significant improvement among NECT completers over time in self-clarity. In contrast to previous research (14), there were no improvements in hope or recovery scores.

The qualitative analyses revealed processes and mechanisms of change at different stages of the intervention. During the psychoeducation part, a process of increasing a positive sense of self was evident, and the contributing mechanisms identified were learning information and feedback from other group members. During the cognitive restructuring part, a process of an increased flexible sense of self and higher ability for reflection was identified among a number of the participants. The mechanisms which appeared to influence these processes were challenging self-stigma beliefs and feedback from group members.

Processes and mechanisms of the NECT that were found in this study can be discussed within the context of the broader field of psychotherapy. Accordingly, recent advances in psychotherapy (e.g., 32-34) and specifically with SMI (35-37) (e.g., 38-40) have shown the benefits of integrative approaches that focus on the shared conceptual framework of recovery and emphasize interpersonal aspects, narration, and reflection which are in the core of NECT. This advance in the field of SMI, as well as the results of the current study, are in line with ideas expressed in the third wave of CBT interventions, especially in acceptance commitment therapy, which highlight self-reflection and values of choice (41), and with Barlow et al.'s unified protocol (42), which include self-acceptance and cognitive restructuring. Notably, the particular uniqueness of NECT is that it targets self-stigma specifically, which is, as evident from the brief review in the introduction, a major barrier to recovery.

Taken together, our findings show that NECT contributes to the experience of a more positive, clear, and less stigmatized self and highlights the importance of the mechanisms of self-reflection and group discussion in producing this change. Self-reflection, as part of the broader concept of metacognition (43), is an important asset for persons to cope with challenges, as it was shown to moderate the associations between positive self-appraisal and social outcome (44). It may also serve as a buffer against some of the negative implications of insight (43) and improve the outcome of interventions (17). In the current study, the process of reflection seem to lead to a positive and clear sense of self (expressed by self-clarity increase and self-stigma reduction).

Table 2. *Comparison of baseline scores on the variables between the participants who completed all the assessments and those who did not*

	Completers (N=61)		Non-completers (N=46)					
	M	SD	M	SD	t	df	p	d
ISMI–Total Scale (0–3)	1.24	0.51	1.34	0.45	-1.07	104	.287	-0.21
Hope–Total Scale (1–8)	5.98	1.28	5.39	1.60	2.11	104	.038	0.41
Hope–Agency (1–8)	5.90	1.50	5.32	1.85	1.80	104	.075	0.34
Hope–Pathways (1–8)	6.05	1.36	5.45	1.62	2.05	104	.043	0.40
SCC–Total Scale (1–5)	2.97	1.5	2.97	1.00	0.01	103	.992	0.00
RAS–Total Scale (1–5)	3.87	0.58	3.74	0.56	1.15	105	.253	0.23
RAS–Hope (1–5)	3.92	0.84	3.82	0.81	0.63	105	.529	0.12
RAS–Help (1–5)	4.11	0.76	4.13	0.74	-0.16	104	.876	-0.03
RAS–Others (1–5)	4.07	0.86	3.97	0.97	0.57	104	.568	0.11
RAS–Symptoms (1–5)	3.41	0.85	3.04	1.05	2.01	105	.047	0.39

Note: ISMI: Internalized Stigma of Mental Illness; SCC: Self-Concept Clarity; RAS: Recovery Assessment Scale.

As mentioned above, another important identified mechanism was group discussion. The group as facilitator of change can be understood via different perspectives. It might be that receiving feedback from other group members helped participants reconsider self-stigmatizing beliefs and perceptions. It may also be that the group turned into a kind of "small human laboratory" in which thoughts and behaviors were explored and examined by group members in a secure environment. The ongoing dynamic interactions between an inner process and group process, taking place simultaneously, seem to have important mutual influences. In this process, group members became "outsider witnesses" (45) to one another's evolving narratives.

While considering these positive outcomes, of is note the lack of change in recovery and hope scores. This raises the question of how changes in self-experience can be translated into movement along the recovery process. It might be that changes in recovery require more time and are not evident immediately after the intervention. With regard to hope, it is possible that there was no change because NECT generates a form of realistic hope that combines acknowledgment of losses which can be painful and even discouraging. This hypothesis is consistent with the observed decrease in hope at the final stage of NECT among the group for which the quantitative and qualita-

tive analysis were compared. The increased hope at the first stage of NECT, which is elicited by the empowering experience of learning facts that contradict devastating myths which feed in to self-stigma, and strategies to challenge self-stigmatizing thinking, might actually decrease at this last stage, as people connect to the pain as result of losses along the way. While this may explain the lack of improvement on the hope and recovery measures, and thus be understood as undesirable, it may actually be an important part of the recovery process (46), reflecting a new balanced sense of hope rather than the loss of it. Acknowledging pain and loss and incorporating it into one's life story enables one to construct a multi-dimensional and broader narrative, rather than compromising for a restricted and partial story, which emphasizes only positive aspects of one's experience.

An alternative explanation for the lack of improvement in recovery and hope scores may be related to pre-treatment characteristics of participants. Analysis revealed that NECT completers in the current study had higher recovery and hope scores at baseline than those who did not complete the intervention. It is possible that the high baseline scores generated a regression towards the mean which made it less likely to demonstrate post-completion improvement. It is also possible that these baseline high scores fueled the participants to continue to attend and eventually benefit from the intervention by means of reduction in self-stigma and increased self-clarity. This hypothesis is in accord with a recent study on psychotherapy showing that pretreatment levels of hope were related to therapeutic gains among persons with anxiety disorders (47). Thus, baseline levels of hope and recovery may moderate the effects of NECT. Further research is needed to better identify the quality of subtle subjective changes and to pose the challenge as to whether and how quantitative methodology can validly assess these.

A number of limitations of this study should be noted. First, while all study participants had a case record diagnosis of a SMI for which they had at least a 40% psychiatric disability, we lacked more specific diagnostic information, which limited the ability to be more specific as to who benefits from NECT. Second, although the study focused on process and not on comparison between groups, the exclusion of a control group limits the generalizability of the findings. Third, only self-stigma and hope were measured during the four time assessments, which limited the ability to study additional important processes of change. Fourth, efforts to explore phase-specific processes and how the quantitative and qualitative data were related were based on a selection of one of the groups which had rich verbatim, and thus did not represent the entire sample, which limits the conclusions which can be drawn. Finally, nearly a third of those who began NECT did not complete it, which limits the findings. Further research will hopefully shed more light and continue the effort to understand the process of change in self-experience of people with SMI and the mechanisms of NECT.

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