Assessment system of narrative change validation studies

Sistema de avaliação da mudança narrativa, estudos de validação

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RESUMO

Objetivos: O Sistema de Avaliação da Mudança Narrativa (SAMN) caracteriza e avalia as narrativas e as suas mudanças na terapia em sete dimensões: singularidades (A), natureza da história (B) conotação narrativa (C), relato da história (D), reflexividade narrativa (E), temas da sessão (F) e comportamentos alternativos (G).

Método: O SAMN foi aplicado em 83 sessões para testar a sua fidelidade e validade: 22 sessões em terapia familiar sistémica devido a abuso de substâncias (estudo 1); 15 sessões de terapia familiar e de casal devido a vários problemas (estudo 2) e 46 sessões de terapia familiar devido a negligência parental, com 18 famílias consideradas clientes involuntários.

Resultados: A fidelidade estimada do SAMN (Kappa de Cohen) variou entre excelente e satisfatória. A validade do SAMN ficou estabelecida pela deteção e avaliação da narrativa em problemas distintos e modalidades de terapia sistémica (familiar e de casal).

Conclusões: As singularidades, reflexividade narrativa e a mudança nos temas da sessão (para temas que não o problema) foram as dimensões que mais sofreram alterações na maioria dos casos de sucesso comparativamente com os insucessos.

ABSTRACT

Aims: The Assessment System of Narrative Change (ASNC) characterizes and evaluates narratives and their changes in therapy, across seven dimensions: singularities (A), nature of the story (B), narrative connotation (C), telling of the story (D), narrative reflexivity (E), session themes (F) and alternative behaviors (G).

Method: The ASNC was applied in 83 sessions to evaluate its reliability and validity: 22 sessions of systemic family therapy related to substance abuse problems (study 1), 15 sessions of couple and family therapy related to several different problems (study 2) and 46 sessions of family therapy related to parental neglect, with 18 non-voluntary families (study 3).

Results: The estimated reliability of the ASNC (Cohen's Kappa) varies between excellent and satisfactory. The validity of the ASNC was established through its accuracy in the narrative evaluation of different problems and therapeutic modalities (family and couple therapy).

Conclusions: Singularities, narrative reflexivity and the change in session themes (to nonproblematic themes) were the dimensions that changed the most in cases with good outcomes compared to those with poor outcomes.

INTRODUCTION

The Assessment System of Narrative Change (ASNC) is a narrative evaluation system that assesses the content and structure of narratives. The structure, content, and meaning of the stories change during the course of therapy and the ASNC aims to monitor those changes. Three studies were developed to test ASNC, establish and test its reliability and validity of the (the codification and applicability criteria).

Narrative change is a central element in narrative-oriented therapies. Narratives are composed of stories that frame dimensions of the systems functioning (emotional, discursive, cognitive and behavioral). "Stories are discourse formats with a sequential order that connects events in a significant way and that favors visions about the world and about intervenient experiences" (Hinchman & Hinchman, 1997, as cited in Elliott, 2005, p. 3). Through language and negotiation between subjects, the narrative allows individual and social constructions of a coherent sense and meaning of experiences. Life narratives can also be condensations and abstractions that contain portions of events and circumstances that individuals experience. Many daily events occur, but only some events are stored and a given meaning (Freedman & Combs, 2008). These choices determine the narratives that we construct and shape our remembered experiences and the preferred manner in which we provide events with significance.

In this sense, "therapeutic dialog" (Anderson & Goolishian, 1989; Boscolo, Cecchin, Hoffman, & Penn, 1987) evolves in the course of a transforming process to promote new meanings and stories concerning problems. One or several dimensions of the narrative, including the time, causality, specific events of a story, contents, or themes, communication process, narrative positions and roles of the participants may change (Sluzki, 1992). Narrative perturbation also implies a reflection about narrative construction (Botella, 2001; Sequeira, 2004; Sequeira & Alarcão, 2013), which requires meta-communication regarding cognitions, relations, and behaviors that contribute to problematic and non-problematic narratives. Change occurs through impairment of dominant problem stories, emergence of marginal versions that counter the dysfunctional circuit of problem maintenance (Gonçalves et al., 2010; White & Epston, 1990).

Transformations result not only from the amplification of singularities, but also from changes in the narrative format across several dimensions. Sluzki (1992) suggests that changes can occur across six aspects of a narrative, creating new stories and relational formats.

Narrative flexibility (form, content, and process) appears to be related to the functioning of healthy systems, and, therefore, therapy should promote it (Avdi & Georgaca, 2007; Botella, 2001; Josselson & Lieblich, 2001; Parry & Doan, 1994). Considering that different discursive constructions reflect different social realities that punctuate and trigger problems, specific changes should be predictable in the clients' formulations of problems, during successful therapies; particularly, these changes should be translated in the new narrative formats and contents (Friedlander & Heatherington, 1998).

In this paper, we describe three studies that were conducted to test the ASNC reliability and validity.

THE ASSESSMENT SYSTEM OF NARRATIVE CHANGE (ASNC)

The ASNC General Conception and Dimensions

The ASNC is an observational evaluation system that analyzes narratives and their changes across several dimensions (Sequeira & Alarcão, 2014). ASNC is supported by theoretical and empirical contributions that point out the importance of the occurrence of changes in clients' narratives to achieve therapy success (Botella, 2001; Elkaïm, 1985, 1990; Sequeira, 2004; Sluzki, 1992).

A panel of five experts in systemic therapy was consulted to evaluate the "content validity" of the ASNC dimensions, definitions, and operationalization. Total consistency between the experts was achieved regarding the relevance of the dimensions, options and codification rules (Sequeira & Alarcão, 2013). The ASNC includes seven dimensions inextricably connected; with some divided into subdimensions. The dimensions that relate to narrative plot include (B) the nature of the story, (C) the connotation of the narrative, (D) the telling of the story, and (F) the themes of the stories. These dimensions are the structure of the narratives. The dimensions (A) singularities, and (E) narrative reflexivity correspond to the narrative processes that are promoted in therapy to introduce changes in the stories and to create new narratives (Sequeira & Alarcão, 2012).

Changes in one dimension will be reflected in the others and shifts in a story will affect the role of this story in the narrative network of the individual and family.

Dimension A – Singularities. This concept was originally developed by Elkaïm (1990) and was broadly studied, expanded and revised (Sequeira, 2004). Singularities are viewed as creative and effective strategies promoted by the system in response to a problematic situation. Singularities may be *discursive* (A1:

new and effective discourses regarding relations, events, situations, or experiences; e.g., *"Last week, I told him that he was ok. It never happened before."*), behavioral (A2: successful new interactions or practical strategies; e.g., *"We completed the homework together for the first time."*), or cognitive (A3: alternative versions or cognitive processes that introduce new perspectives and distinct comprehensions concerning important questions, such as difficulties, problems/symptoms or other family relevant questions; e.g., *"I have never seen things that way and they really make sense. Now I understand him."*). Cognitive singularities are accessible through the clients' discourse. Similar to discursive singularities, cognitive singularities are translated into alternative discourses; however, they contain a different vision and comprehension. This perspective is completely new, more useful and different from other previously available perspectives, regarding family problems or difficulties. Associations of singularities occur when are developed, simultaneously, innovative strategies on several of these levels.

Dimension B – Nature of the story. According to Sluzki (1992), the nature of the story is organized around the characters, attributes, relations and events in the story that are translated in the discourses and narratives.

B1. Time dimension. Time discourses can be a) *static*, centered in a specific time (e.g., *"It was always like that. Nothing changed."*), or *floating*, oscillating between moments (e.g., *"A few years ago we were different. Problems began two years ago."*); b) focused in the *past*, *present* or *future*; or c) *historical*, when the stories have a starting point, a scenario and an evolution (e.g., *"The first time we perceived something different was when he went to school."*), or *ahistorical*, when the stories create the illusion of occupying an undefined and substantial place in the subjects' lives (e.g., *"I don't know when the problems began. I can't identify a specific time or event."*).

B2. Space dimension. Stories that contain references to events in a context, space or scenario are considered *contextual* and are *non-contextual* if they do not have these references (e.g., *"This only happens when we are at home."* or *"This happens everywhere!"*).

B3. Causality dimension. Causality can be typified as *linear* when the narrative is centered in causes and their effects (e.g., *"He is like that because of the drugs he uses."*), or as *circular* when there is an association of multiple causes, factors or variables that interact and sustain relations and problems (e.g., *"Really there are several aspects of the problem. First, the way we relate to him is not the best, and the lack of trust we feel amplifies his*

fears and makes him more insecure. Clearly we reacted to that and became nervous."*).

B4. Interaction dimension. This dimension reflects the actors' participation and narrative focus and is subdivided into three main aspects: a) *intrapersonal* or *interpersonal* descriptions (e.g., *"First I went to him and talked about what was going on. Then he said that he didn't want to talk and I approved."* or *"I perceived that he was sad."*); b) the *intentions* or *effects* of the event (e.g., *"They tried to make me feel bad!"* c) *personal roles* and *labels* or *rules* (e.g., *"I'm the one that protects him, and he is the one that is protected"*).

Dimension C – Narrative connotation. This dimension refers to the meanings and moral values that are evoked when reporting a story. Stories can evoke a) *good* or *bad intentions* (e.g., *"I do my best! Everything I do is to help"* b) *legitimate* or *illegitimate behaviors* (e.g., *"They don't have the right to treat me like that!"*).

Dimension D – The telling of the story. Stories can reflect actors' different participations and interventions. Actors of the stories can be a) *passive* or *active* (e.g., *"I have made several efforts to help my family."* b) *competent* or *incompetent* (e.g., *"I don't know what to do and I can't help"* or c) report *descriptions* or *interpretations* (e.g., *"He was in his room; I went there and talked to him"*).

Dimension E – Narrative reflexivity. The process of reflection regarding stories and narratives is related to the way that individuals and families build problematic and non-problematic narratives (E1, e.g., *"I am aware that we are also responsible for the way things are at the moment"*), the identification of discursive factors (E2, e.g., *"The way we say things is very aggressive, and that contributes to the problem."*), the identification of relational and interactive factors (E3, e.g., *"I do several things that I shouldn't do, like wake him up, and other things..."*) and the behavioral factors that originate and maintain the narrative (E4, e.g., *"As long as I continue to abuse, nothing will be better for us..."*).

Dimension F – Themes of the session. In therapeutic processes, the themes typically are aggregated in: a) therapy motive (*symptoms*); b) other family and individual concerns (*other problematic themes*); d) and non-problematic aspects of routine family life (*non-problematic themes*).

Dimension G – Alternative behaviors. Alternative behaviors correspond to the explicit attempts of acting or being different, but these attempts do not generate the expected effects, so they may not be considered successful (e.g., *"In the meantime, I proposed not arguing; we just didn't mention the subject that was disturbing us, but it didn't work out well."*).

The ASNC Application and Codification

The ASNC can be applied in naturalistic or "quasi-naturalistic" clinical settings were the researcher observes and monitors how story telling naturally unfolds (Hill, 1992) and is applied in systemic therapies through the observation and transcription of therapeutic sessions. First, sessions are video-recorded; next, integrally transcribed, and then sequences that constitute "narrative episodes" are identified and analyzed. The narrative episode is a segment of the discourse that may contain statements or testimonials organized around a question or theme. It may result from the therapist's questions or from the client discourses and contains perspectives concerning themes, actors, results, lessons, and the "moral of the story". Narrative episodes have a beginning, middle and end (real or presupposed) even if they are not structured in an explicit and coherent manner. Depending on the session, narrative episodes may be numerous, occur in one or two sequences of speech or correspond to entire sessions.

After the identification of the narrative episodes, judgments and evaluations are produced regarding the ASNC dimensions that are expressed or contained in the discourses of the family. The dimension is coded, when it is present, and the occurrences are counted (e.g. 1, 2, 3…); the dimension is coded with a zero when it is missing.

VALIDATION STUDIES

Three studies were conducted to establish the validity and reliability of the ASNC. These three studies test: i) the definition and adequacy of the ASNC dimensions in narrative evaluation (content validity); ii) the applicability of the ASNC (face validity); and iii) the accuracy and applicability of the codification options and rules related to the ASNC (reliability).

Study 1 is the construction and standardization of ASNC. Studies 2 and 3 test the accuracy of the ASNC in evaluating the narratives during therapy, in different therapeutic contexts.

We computed the reliability and validity measurements of the assessment and codification system, the total percentage of inter-rater-reliability and Cohen's Kappa. A notable limitation of Cohen's Kappa is the strong effect of unequal codification distributions (Pestana & Gageiro, 2008).

In table 1 are presented the values of Kappa achieved in each study and also the mean for each dimension of ASNC.

Table 2 presents a summary of the three studies. Equal procedures that were taken in all of the studies are generally described and afterwards specific aspects of each study are presented.

Table 1
Cohen's Kappa for ASNC Dimensions in Studies 1, 2, 3 and 4

ASNC Dimension	Study 1		Study 2		Study 3		Study 4	
	Kappa	%	Kappa	%	Kappa	%	Kappa	%
A1	0.56	56%	0.81	81%	0.49	49%	0.87	87%
A2	0.69	69%	0.91	91%	0.63	63%	0.88	88%
A3	0.83	83%	0.90	90%	0.62	62%	0.81	81%
B1	0.50	50%	0.85	85%	1.00	100%	1.00	100%
B2	1.00	100%	1.00	100%	1.00	100%	1.00	100%
B3	1.00	100%	1.00	100%	0.61	61%	0.44	44%
B4	0.37	37%	0.14	14%	0.65	65%	0.92	92%
C	0.40	40%	0.62	62%	0.73	73%	0.82	82%
D	0.58	58%	1.00	100%	0.65	65%	0.80	80%
E1	0.64	64%	0.85	85%	0.70	70%	0.95	95%
E2	0.67	67%	0.59	59%	0.60	60%	0.53	53%
E3	0.03	0,3%	.83	83%	0.58	58%	0.64	64%
E4	0.47	47%	.83	83%	0.84	84%	0.38	38%
F	1.00	100%	1.00	100%	1.00	100%	0.83	83%
G	0.73	73%	—	—	1.00	100%	0.92	92%

Table 2.
Studies Summary: type of therapy, problems, participants, n° sessions and type of analysis

Study	Therapy	Problems	Participants			N° of Sessions (N = 83)	Type of analysis
			Clients	Judges	Therapists		
1	FT	Drug addiction	4 Families	3	3	22	Complete therapies
2	FT e CT	Several Problems	7 Families 8 Couples	5	5	15	Single sessions
3	FT	Child Neglect	18 Nonvoluntary Families	3	4	46	Complete therapies

Therapy: FT – Family Therapy; CT – Couple Therapy

Therapies

All therapies were developed on a systemic approach. Therapies were conducted according to postmodern orientations, focused in narrative transformation and were adjusted to each family/couple specific problem. Systemic therapy is a form of psychotherapy that conceives behavior and, particularly, mental symptoms, within the context of social systems were individuals live in and focus on the interpersonal relations and interactions, social constructions of realities, and recursive causality between the symptoms and interactions. The partners/family members and other important individuals, such as friends or professional helpers, can be included in therapy either directly or virtually through system-oriented questions concerning their behaviors and perceptions (Sydow, Beher, Schweitze, & Retzlaff, 2010). Systemic therapies conceive narrative as an organizing dimension of global system functioning. Postmodern approaches are integrative and can include techniques from other models, such as structural, strategic, and symbolic therapies, among others.

General procedures

All participants gave their informed consent before the video-record of the therapy sessions and about participation in this study. After the participants receive the informed consent, the video recorded sessions were transcribed and analyzed. All the institutions, and ethics committees, where the studies were developed gave their formal agreements and permissions to the development of this work.

All sessions were coded with the ASNC. The recording sessions were viewed, analyzed and coded by the judges. The codifications were initially performed separately, and afterward, the disagreements between the judges were discussed.

Study 1

Aims. Construction and applicability of the ASNC.

Participants. Four families that voluntarily requested family therapy in a drug addiction treatment center participated in this study. Each process evolved through a different number of sessions ranging from 2 to 9. The sessions occurred monthly.

Three therapists participated in this study (a mental health specialist nurse, a social worker and a clinical psychologist who is the main investigator). All three therapists had a post-graduate degree in systemic family and couple therapy and had more than five years of clinical experience. The main investigator was also a judge and was involved in the transcription and codification of all sessions. Two other judges participated in the codifications: an observing therapist and a consulting supervisor, who was a senior therapist with vast clinical experience, that participated in the discussion panels of disagreements or doubts.

Procedures. All sessions were coded with the ASNC: 10 (45.5%) of 22 sessions were viewed, analyzed and coded by two judges. One judge, the main investigator, analyzed the remaining 12 sessions, after obtaining high agreement between the judges, in the previous codifications.

Results. A total of 726 codifications (from narrative episodes) were made, 429 (50.9%) were performed by the panel of judges. Agreement was reached in 339 (79%) codifications and 90 (21%) were disagreements. Cohen's Kappa for the ASNC dimensions varied from very weak in dimensions B4 and E3 to excellent agreement in dimensions A3, B2, B3, and F. Table 1 shows that the remaining dimensions (C, E4, B1, A1, D, E1, E2, A2 and G) had sufficient to good agreement (see Table 1).

Through the evaluation performed by the therapists, 3 of the four family therapies were considered to be good outcome cases, based on the occurrence of positive changes and the accomplishment of the therapy objectives, which were discussed with the families in the last therapy session. One case was considered a poor

outcome because of a non-accomplishment of the defined objectives of therapy. The qualitative differences between the narratives of the good and poor outcome cases were identified through the information produced by the ASNC. In good outcome cases, more singularities were identified (A1, A2 and A3), changes in causality occurred (B3) (from linear to circular) and the narratives were progressively less centered on symptoms (F), as the therapy progressed. By contrast, few singularities were identified, narrative causality remained linear and the symptoms were the dominant theme in all sessions of the poor outcome cases.

Discussion. The scores of estimated reliability led to adjustments in the ASNC coding manual toward an clear distinction of the dimensions, an extended and detailed explanation of the codification norms and additional examples of some dimensions [sub-dimension interaction dimension (B4), value of the story (C) and narrative reflexivity (E)] that presented more problems in the codification process and lower Kappa values.

Considering the limited number of cases and qualitative treatment of the data, the conclusions of this study are limited to the therapies analyzed and only represent the reality of the specific participants (families and therapists). The participation of the main investigator as a therapist amplifies the risk of biases in the analysis of the sessions, although the codifications were discussed with the other judges. These concerns were considered in the following studies.

Study 2

Aims. Evaluation of i) the ASNC codification rules and dimension definitions and ii) the ASNC applicability in couple therapy sessions, in therapies with diverse symptoms (other than drug addiction) and therapies developed by different therapists (other than the ASNC author).

Participants. The ASNC was applied to 15 sessions of family and couple therapy. Only one session of each case was analyzed. The therapies of the analyzed sessions were developed in three different institutions where systemic therapy (family and couple) is developed: a service of domestic violence in a public mental health hospital, a family and couple therapy university center and a parental and familiar support and counseling center. We selected the sessions that were held under good viewing and hearing conditions, that were concluded cases and whose participants allowed investigative uses (provided informed and voluntary consent). Six different therapists (5 psychologists and 1 psychiatrist) developed the therapies; their clinical experience varied from 5 to more than 15

years, and all had post-graduate education in systemic therapy (family, couples and networks).

Procedures. All selected sessions were viewed, analyzed and coded by two judges. Three judges participated in this study after being trained and familiarized with the ASNC. Although the judges were three of the therapists that participated in the therapies (3 psychologists), they only analyzed sessions in which they were not involved. The third judge corresponded to the supervisor who participated in study 1.

Results. The results indicate that the ASNC was appropriated to analyze narratives (in the dimensions previewed) in systemic therapy sessions, regardless of the modality (family or couple therapy). Table 1 presents the estimated reliability, as indicated by Cohen's Kappa, showing excellent agreement for dimensions A1, A2, A3, B1, B2, B3, D, E1, E3, E4 and F, sufficient to good agreement for dimensions C and E2 and weak agreement for dimension B4. Dimension G was coded as zero in all sessions, because the judges observed no alternative behaviors. This variable was a constant; therefore, Kappa cannot be computed.

Discussion. Better agreement scores in the ASNC dimensions were obtained in comparison to study 1, except for dimensions E2 and B4. The B4 dimension refers to the interactions and relations between family or couple elements. This codification might be explained by the multiplicity of narrative formats that can occur during the session. In response to therapist interventions, transformations in this dimension are frequently observed. However, the transformations do not reflect effective and autonomous narrative changes. For instance, if the therapist proposes a roleplaying exercise involving a change of roles an alternative and new interaction might emerge during the exercise (e.g., changing to an interpersonal interaction that is rule and conflict focused instead of the previous format that is intrapersonal and organized around symptoms and roles). Contextual oscillations occur but do not necessarily reflect a narrative change in the interaction dimension. Because of the Kappa scores obtained in studies 1 and 2, dimension B4 maintains the interpretation and codification problems, which emphasizes the necessity for additional validation studies. Analysis of single therapy sessions (and not complete therapeutic processes) committed the acquisition of a diachronic perspective of the system during therapy, which explains the absence of the codifications of alternative behaviors in the narratives of the sessions.

Study 3

Aims. Test the validity of the ASNC in non-voluntary family therapy in families that were signaled for parental neglect.

Participants. Sixteen families in non-voluntary family therapy signaled for parental neglect toward their children participated in this study. Six families were "intact nuclear families", six were "extended families", and four were "single parent families".

Three judges participated in this study and coded the family therapy sessions. The judges were the same involved in study 3. None of the judges were involved in the therapies performed. Four different therapists conducted the therapies (in co-therapy).

Procedures. All recorded sessions were viewed, transcribed and coded with the ASNC, but only three sessions of each case were considered for this study: the initial, intermediate and last sessions. A total of 46 sessions were coded.

The success of therapy was defined by the achievement of the intervention objectives: according to the therapist evaluation (the therapy questionnaire evaluation for therapists) and based on the accomplishment of the defined goals that were established at the beginning of therapy. Two contrasting groups were established, good and poor outcome cases, and each group had eight family therapy processes and a total of 23 sessions.

Data produced with the ASNC were analyzed using a combined qualitative and quantitative methodology. Based on the nature of the data and the characteristics of the variables studied (nominal variables with non-normal distribution, a reduced number of sessions and cases in each group), content qualitative analyses of the narratives were performed. For quantitative analysis, statistics of the group comparisons were calculated only for the dimensions of singularities (A1, A2 and A3), narrative reflexivity (E1, E2, E3 and E4) and alternative behaviors (G).

Results. A total of 2742 codifications were performed, with 2630 (95.95%) agreements and 111 (4.05%) disagreements. Table 1 shows the Kappa values, which indicated excellent agreement for dimensions A1, A2, A3, B1, B2, B4, C, D, E1, F and G, good to sufficient agreement for E3, E2 and B3, and weak agreement for E4.

The results indicated qualitative differences between time (B1) and space (B2). Significant statistical differences were observed between the groups for discursive and cognitive singularities ($U_{A1} = 188.5$, $p = 0.023$; $U_{A2} = 271.0$, $p = 0.701$; $U_{A3} = 190.5$, $p = 0.023$) and narrative reflexivity moments ($U_{E1} = 106.5$, $p = 0.000$, $U_{E2} = 188.0$, $p = 0.004$, $U_{E3} = 172.5$, $p = 0.008$, $U_{E4} = 191.0$, $p = 0.017$). However,

significant statistical differences were not observed in the alternative behavior dimension ($U_G = 214.0$, $p = 0.474$).

Regarding the time dimension (B1), the narratives of the good outcome group after the initial session were always historical and floating. The narratives of the poor outcome group tended to be historical/static in the initial session, historical/static and historical/floating in the intermediate session and ahistorical/static and historical/floating in the last session.

For the space dimension (B2), narratives of the sessions of the good outcome group were contextual from the initial session onward. In the poor outcome group, although the narratives were mostly contextual, they were non-contextual in the intermediate and last sessions for some families.

Singularities were more frequent in good outcome cases compared to poor outcomes (table 3). In the good outcomes, the means of singularities increased from the initial ($M_{A1} = 1.0$, $M_{A2} = 0.62$ and $M_{A3} = 0.63$) to the intermediate session ($M_{A1} = 1.75$, $M_{A2} = 1.13$ and $M_{A3} = 1.13$) and slightly decreased in the last session ($M_{A1} = 1.25$, $M_{A2} = 0,87$ and $M_{A3} = 1.0$). In the poor outcomes, there were fewer singularities in the intermediate ($M_{A1} = 0.5$, $M_{A2} = 0.88$ and $M_{A3} = 0.75$) and in the last session ($M_{A1} = 0.13$, $M_{A2} = 0.38$ and $M_{A3} = 0.00$) compared to the initial session ($M_{A1} = 0.63$, $M_{A2} = 0,75$ and $M_{A3} = 0.38$).

Narrative reflexivity moments were more frequent in the good outcome cases (Table 3). In the good outcomes, reflexivity moments increased from the initial ($M_{E1} = 1.38$, $M_{E2} = 0.6$, $M_{E3} = 0.88$ and $M_{E4} = 0.87$) to the intermediate session ($M_{E1} = 1.88$, $M_{E2} = 0.88$, $M_{E3} = 1.5$ and $M_{E4} = 2.13$) and maintained or slightly decreased in the last session ($M_{E2} = 0.88$, $M_{E3} = 1.25$ and $M_{A4} = 1.63$). Dimension E1 was an exception ($M_{E1} = 2.13$). In the poor outcomes, narrative reflexivity moments decreased from the initial session ($M_{E1} = 0.25$, $M_{E2} = 0.13$, $M_{E3} = 0.55$ and $M_{E4} = 0.25$) to the intermediate session ($M_{E1} = 0.25$, $M_{E2} = 0.0$, $M_{E3} = 0.25$ and $M_{E4} = 0.38$) and the last session ($M_{E1} = 0.00$, $M_{E2} = 0.13$, $M_{E3} = 0.00$ and $M_{E4} = 0.00$). The dimension E1 was an exception ($M_{E1} = 2.13$).

More differences were observed between the good and poor outcome cases in discursive and cognitive singularities (A1 and A3) and in the several types of narrative reflexivity moments (E1, E2, E3 and E4).

Discussion. In general, good agreement scores were obtained between the judges, which strengthen the ASNC codification system and adequacy of the judges/coders training process. Nevertheless, the agreement scores for the E2 and E4 narrative reflexivity dimensions were lower compared to those of study 2. E2 was considered sufficient to good (the discursive factors), and E4 was

Table 3

Study 4 Mean and Standard Deviation of Singularities and Reflexivity Moments by Case

		Poor outcome cases *n* = 23 sessions								Good outcome cases *n* = 23 sessions							
		A	B	C	D	E	F	G	H	I	J	L	M	N	O	P	Q
Singularities	**A1**																
	M	3.00	0.00	2.33	2.00	1.00	0.67	0.67	1.00	0.33	0.00	0.33	0.00	0.67	0.00	2.00	0.00
	SD	1.00	0.00	2.33	3.46	1.00	1.15	0.58	1.00	0.58	0.00	0.58	0.00	0.58	0.00	1.00	0.00
	A2																
	M	3.00	0.33	0.67	0.33	1.67	0.00	0.67	0.33	1.33	0.33	0.33	0.00	1.00	0.33	1.33	0.67
	SD	1.00	0.58	0.58	0.58	1.15	0.00	1.15	0.58	1.15	0.58	0.58	0.00	1.00	0.58	0.58	1.15
	A3																
	M	1.33	0.00	1.33	1.33	1.67	0.00	0.33	1.33	0.33	0.00	0.67	0.00	0.33	0.00	1.33	0.33
	SD	0.58	0.00	0.58	1.53	0.58	0.00	0.58	1.55	0.58	0.00	1.15	0.00	0.58	0.00	1.15	0.58
Reflexivity Moments	**E1**																
	M	1.33	0.00	4.00	0.67	3.00	1.00	2.00	2.33	0.67	0.33	0.33	0.00	0.00	0.00	0.00	0.00
	SD	0.58	0.00	1.00	0.58	0.58	1.00	2.00	2.08	1.15	0.58	0.58	0.00	0.00	0.00	0.00	0.00
	E2																
	M	0.00	0.00	2.00	0.00	2.00	0.00	0.67	1.67	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.00
	SD	0.00	0.00	1.00	0.00	0.00	0.00	1.15	1.53	0.00	0.00	0.00	0.00	0.00	0.00	0.58	0.00
	E3																
	M	0.00	0.00	1.67	0.67	2.00	1.33	2.67	1.33	0.33	0.33	0.00	0.33	0.33	0.00	1.00	0.00
	SD	0.00	0.00	1.52	0.57	1.00	1.53	1.52	1.55	0.58	0.58	0.00	0.58	.58	0.00	0.00	0.00
	E4																
	M	1.00	0.00	4.33	0.00	3.00	0.00	1.00	3.33	0.33	0.00	0.00	0.33	0.33	0.00	0.67	0.00
	SD	1.00	0.00	3.20	0.00	1.00	0.00	1.73	3.05	0.58	0.00	0.00	0.58	0.58	0.00	0.58	0.00

weak (the behavioral factors), which raises a concern regarding the codification system in the narrative reflexivity dimension (E). The variations in the agreement scores in this dimension justify additional studies to identify whether the agreement problems are due to the coders' subjective interpretation or a less obvious distinction between narrative reflexivity events and singularities.

Results showed that singularities and narrative reflexivity are related to positive change. In the initial sessions, new discourses regarding problems arise (narrative singularities), alternative behaviors emerge (behavioral singularities) and, finally, new perspectives occur in the last sessions (cognitive singularities). Reflexivity moments are more frequent in the good outcome cases and tend to increase from the initial sessions onward. It can be concluded that reflection concerning narrative processes and family functioning collaborates in family change, thus easing the development of singularities. Clinical experience with neglectful families has shown that change begins from the recognition of family difficulties; this conclusion is strengthened by the results of this study.

GENERAL DISCUSSION AND CONCLUSIONS

The three studies confirm that the ASNC i) evaluates and describes narratives and portrays its transformations during therapy (content validity); ii) is appropriate for narrative evaluation in systemic therapies (family and couple) and with several problems (face validity); and iii) is a reliable, operationalized and rigorous codification system in terms of its rules and codification options (reliability).

The satisfactory agreement percentages and Kappa scores in nearly all dimensions demonstrate the ASNC reliability. However, the variations in some Kappa scores (e.g. B4 the nature of the story – interaction dimension) and E (narrative reflexivity) demand accuracy for the definition/codification procedures and require more specific validation studies. The results on these dimensions should be carefully interpreted.

The results might confirm the postmodern therapy assumptions regarding change, and support therapy as a process of story breaking, language transformation and deconstruction, and narrative reflection (Anderson & Goolishian, 1989; Avid & Georgaca, 2007; Botella, 2001). Therapy also seems to replace dysfunctional stories and

redundant behaviors/interactions with alternative flexible stories (Sluzki, 1992) and functional interaction patterns (Elkaïm, 1985, 1990; White & Epston, 1990).

The evaluative and discriminatory attributes of the ASNC are strengthened by the correspondence between the ASNC information, regarding the transformations that occurred in specific narrative dimensions (in the good outcome cases compared to the poor outcome cases) with clinical judgments performed by therapists (regarding change occurrence and therapy outcome).

The ASNC properties are also supported by the ecological validity of the studies developed (Moran & Diamond, 2006). Specifically, i) the entire sessions, and not only excerpts, were analyzed and coded; ii) 2 studies include longitudinal evaluations, containing complete and concluded therapies from "real" therapeutic contexts (non-experimental); iii) with the exception of study 1, the clinical protocols were not inspired in the changing dimensions of the ASNC; iv) the interventions were performed by several therapists; and v) the judges that performed the codifications (with the exception of the main investigator) had no previous contact with the analyzed sessions or the final therapeutic evaluations performed by the therapists.

The ASNC applications and conclusions indicate that some precautions should be considered in future works. The codification of the subjects' narratives involves a considerable degree of inference and subjectivity, which requires the participation of a greater number of judges (three, if possible) in the codification process to diminish the risk of error. The closeness between the dimensions difficult the accurate codification process and contribute to the explanation for the agreement variations in some of the dimensions (e.g., dimension E). To address this problem, constant improvement and specification of the criteria and codification options is required.

This work only reflects the investigation applications of the ASNC, but it was also tested in clinical and educational applications. Presently, the clinical relevance of the ASNC is suggested by the detailed mapping of the relevant changes during therapy and in each session (Sequeira & Alarcão, 2013, 2014). The results from this study have considerable implications for the identification of the most relevant dimensions in narrative change, in clinical settings, such as singularities, and the dimensions that appear to precipitate change in other dimensions, such as narrative reflexivity. The implications for clinical practice are that therapy must be oriented, in the early stages, to specific narrative transformations and therapists must have knowledge of how to introduce perturbation in these dimensions.

There is a need to continue the investigation of narrative change in different therapeutic contexts and problems and in regard to the convergence of these changes that were observed in the narrative dimensions of the good outcome cases in the several studies presented.

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