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EFFICACY OF THE COOPERATIVE ASSESSMENT METHOD (COOPAS) TO IMPROVE THE PSYCHIATRIC CARE OF HELP-SEEKING ADOLESCENTS

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Abstract

Objective: Effective treatment of adolescents with psychopathological disorders is essential to reduce later morbidity and disability.

To evaluate the clinical value of a new adolescent Cooperative Assessment scheme (COOPAS) as indicated by establishing therapeutic alliance, improving symptoms, and particularly by reducing dropouts.

Method: Consecutive help-seeking adolescents (N=136) were recruited, evaluated with an 8-week COOPAS protocol and followed for 6 months to document dropouts during treatment. Clinical rating scales [Hamilton Depression and Anxiety scales (HAM-D, HAM-A), Global Functioning Role and Social Scales (GF-RS, GF-SS), Structured Interview for Prodromal Symptoms (SIPS), Clinical Global Impression (CGI), Working Alliance Inventory-Therapist version (WAI-T), Therapist Response Questionnaire (TRQ), Psychotherapy Relationship Questionnaire (PRQ)] were administered at intake, 4 weeks later, and at the end of COOPAS evaluation (8 weeks).

Results: Final HAM-A and HAM-D scores improved by 25%; CGI, GF-SS and GF-RS also improved significantly. Similarly, WAI-T showed significant improvements in all three subscales, and patient-clinician relationships (PRQ) showed decreases in Anxious/Preoccupied and Avoidant/Counterdependent dimensions with increases of the Secure/Engaged measure. After 6 months, dropout rate was 8.82%.

Conclusions: COOPAS assessment was followed by reduced depressive and anxiety symptoms, good therapeutic alliance, and low dropout in adolescents.

Key words: adolescents, anxiety, cooperative assessment, depression, dropout

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1. Introduction

Mental health problems are highly prevalent in adolescents and associated with psychiatric disorders in adulthood, impaired social and role functioning, and high disability levels [Chen et al. 2006; Sroufe 2013]. It is, therefore, crucial to improve early diagnosis and treatment of adolescents with psychopathological disorders. Proposed improvements in interventions for juveniles include an integrated multidisciplinary approach (McGorry, 2007) and combinations of pharmacotherapy with psychotherapy (Brent et al., 2008; March et al., 2007). Challenges to psychiatric treatment of adolescents include weak therapeutic alliance, high rates of poor cooperation and dropouts, and poor cooperation arising from age-related attitudes.

Dropout rates from psychiatric treatment among adolescents has been estimated between 28% and 75% (de Haan, Boon, de Jong, Hoeve, & Vermeiren, 2013). Dropout rates are especially high with younger patients, early months of treatment, diagnosis of personality or eating disorders, patients who did not receive a manualized form of psychotherapy, and a weak patients-clinician therapeutic alliance (Baekeland & Lundwall, 1975; Barrett et al., 2009; Swift, Callahan, & Levine, 2009).

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Specific psychosocial features of adolescence may complicate building a strong therapeutic alliance or working relationship and have been associated with treatment dropout (Baruch, Vrouva, & Fearon, 2009; Bronstein & Flanders, 1998; Karver et al., 2008; Norcross & Lambert, 2011; Swift & Greenberg, 2014). Particular features include impaired or undeveloped abstract thinking (Shirk & Saiz, 1992), a tendency to underestimate personal psychopathological problems (Dakof, Tejeda, & Liddle, 2001), family coercion into treatment (DiGiuseppe, Linscott, & Jilton, 1996; Prochaska & Norcross, 2001), need for autonomy (Church, 1994), opposition to authority (Hanna & Hunt, 1999; Rubenstein, 1996; Russell, Shirk, & Jungbluth, 2008), high resistance to accepting treatment (Norcross & Lambert, 2011), and impaired patient-parent relations (Weisz, Jensen-Doss, & Hawley, 2006).

Conversely, factors associated with a relatively strong therapeutic alliance and fewer dropouts include promotion of active and independent involvement of adolescents in their treatment (Cardol, De Jong, & Ward, 2002; Deci & Ryan, 1987)explicit planning of goals and tasks, with honest and engaging feedback of assessment results (DiGiuseppe et al., 1996; Finn & Tonsager, 1997; Hoffart, Borge, Sexton, Clark, & Wampold, 2012; Ougrin, Boege, Stahl, Banarsee, & Taylor, 2013)

Given the challenges of engaging and retaining adolescent psychiatric patients in treatment, we developed a multidisciplinary assessment and treatment method for adolescents aimed at establishing a working therapeutic alliance rapidly, and reducing symptoms as soon as possible, in order to reduce treatment dropouts. We considered developmental psychopathology (D Cicchetti, 1984; Dante. Cicchetti & Cohen, 2006) and affective neurosciences (Panksepp & Biven, 2012) as theoretical frameworks, with consideration of motivational-emotive mechanisms involved in developing therapeutic alliance, aiming at individualized, effective treatment plans (Dante Cicchetti, 1993; Rutter & Sroufe, 2000; Sameroff, 2000). Also Collaborative and Therapeutic Assessment models, which call for cooperative use of test results with patients aiming at a collaborative diagnosis, were considered as theoretical frameworks. We call this procedure "Cooperative Assessment" (COOPAS) to underline the central role of cooperative activation of motivational-emotive systems in relationships between adolescents and their clinicians (Norcross, 2011; Panksepp, 1998; Tomasello & Vaish, 2013).

In the present study, we aimed to evaluate the effectiveness of the COOPAS methods, and in particular to assess dropout risk. Specific hypotheses tested were that application of COOPAS methods would yield: [a] low 8-week and 6-month dropout rates, [b] significantly reduced severity of symptoms of anxiety and depression and [c] high rates of effective treatment alliances at the end of the assessment (8 weeks).

2. Materials and Methods

2.1 Participants

In the 3 years between January 2014 and January 2017, consecutive help-seeking adolescents referred to the Sant'Andrea Hospital Outpatient Clinic for Anxiety and Depression in Adolescence in Rome were invited to participate in the study. All were evaluated with the COOPAS methods. The only inclusion criterion was age between 14 and 19 years; exclusion criteria were: (i) presence of general medical diseases associated with psychiatric symptoms; (ii) intellectual disability (measured IQ<70), and (iii) poor Italian language skills. Participants and their parents or legal guardians provided competent, written, voluntary, informed consent or assent to participate in the study and for anonymous and aggregate analysis and reporting of their clinical findings, with no effect on treatment in cases of refusal.

2.2 Measures

All patients were evaluated before (T0), after 1 month (T1) and at the end of the intake COOPAS assessment (8 weeks, T2). The following standard clinical rating scales were employed: [i] Hamilton Scale for Depression (HAM-D) (Hamilton, 1960); [ii] Hamilton Scale for Anxiety (HAM-A) [Hamilton 1959; Maier et al. 1988]; [iii] Young Mania Rating Scale (YMRS) (Young, Biggs, Ziegler, & Meyer, 1978); [iv] Clinical Global Impression-Severity (CGI) (Busner & Targum, 2007); and [v] Global Assessment of Functioning (GAF) (Luborsky, 1962) to assess symptom severity.

The HAM-D (Hamilton, 1960) is an interviewer-administered instrument, composed of 21 items. Ten items are evaluated on a 5-point scale, two on a 4-point scale and the others on a 3-point scale. The total score classifies depression severity as follows: ≥ 25 severe depression; 18-24 moderate depression; 8-17 mild depression; ≤7 absence of depression. The scale has excellent psychometric skills (Edwards et al., 1984).

The HAM-A (Hamilton 1959) is an interviewer-administered instrument, composed of 14 items, rated from 0 to 4. A total score of 17 or less indicates mild anxiety, a score from 18 to 24 a mild to moderate severity and a score of 25 to 30 a moderate to severe anxiety. The HAM-A has been demonstrated valid and reliable in assessing anxiety symptoms severity (Maier, Buller, Philipp, & Heuser, 1988). The YMRS (Young et al., 1978) is a reliable an valid interviewer-administered instrument, composed of 11 items that explore symptoms of elevated mood. 7 items are evaluated on a 5-point scale while the remaining 4 items on a double-score scale (0-2-4-6-8).

The GAF scale (Luborsky, 1962) includes the scoring of the global functioning level on a scale ranging from 0 to 100 (with 100 indicating highest functioning and 0 representing extreme dysfunction)

The GAF captures both functional and symptomatic illness aspects, with the more severe impairment driving the total score.

The CGI-Severity scale was developed to provide a brief, overall clinical assessment of a patient's psychopathology severity on a scale from 1 to 7 (with 1 representing the normal state) (Busner & Targum, 2007). Over the past 30 years, CGI has been shown to correlate with other research scales across a wide range of psychiatric disorders (Lo Cascio et al., 2017).

In addition, we employed: [vi] the Working Alliance Inventory-Therapist Version (WAI-T), [vii] Therapist Response Questionnaire (TRQ), and [viii] the Psychotherapy Relationship Questionnaire (PRQ) to evaluate therapeutic alliance and the relationship of each patient-clinicians pair. Patients were followed-up at 6 months after intake to detect late dropouts from an ongoing treatment program.

The WAI–T (Horvath & Greenberg, 1989) assesses the therapeutic alliance from the clinician's perspective.

WAI is a measure based on Bordin's model, which describes the alliance as an agreement on objectives (goals) and the changes (tasks) necessary to achieve them, based on establishing a bond that maintains collaboration among participants in the therapeutic work (Bordin, 1979). It consists of 36-item, assessed on a 8-point Linkert scale ranging from 0 (never) to 7 (always), divided in three subscales: [i] a goal subscale rates agreement on the aims of the treatment, [ii] a task subscale assesses agreement regarding tasks considered necessary to achieve treatment goals, and [iii] a bond subscale rates the mutual relationship between patient and clinician. The three dimensions of the WAI (i.e., goal, task, and bond) are strongly correlated, with scores ranging from 0.60 to 0.80.

TRQ (Betan, Heim, Zittel Conklin, & Westen, 2005) is a clinician rating of 79 items pertaining to a spectrum of thoughts, feelings, and behaviours expressed by therapists toward their patients. Items are derived from the clinical, theoretical, and empirical literature on countertransference and related variables, written in a straightforward manner, without jargon and near to clinical experience, so that its results are comparable for psychotherapists of any orientation. Clinicians assess each item on a 5-point Likert scale, ranging from 1 (not true) to 5 (very true). The TRQ has eight dimensions: [a] overwhelmed/disorganized (9 items) indicating strong negative feelings; [b] helpless/inadequate (9 items) describing feelings of inadequacy, hopelessness, and anxiety; [c] positive (8 items) indicating close connection with the patient; [d] special/overinvolved (5 items) describing a sense of the patient as special and suggestions of problems in maintaining boundaries; [e] sexualized (5 items) describing sexual feelings toward the patient; [f] disengaged (4 items) describing feeling distracted, withdrawn, or bored; [g] parental/protective (6 items) marked by a wish to protect the patient in a parental way; and [h] criticized/mistreated (18 items) describing feelings of being unappreciated or devalued by the patient. Scores are based on the average score of the items of each factor.

The PRQ (Bradley, Heim, & Westen, 2005) is a clinician rating of 90 items addressing a wide spectrum of thoughts, feelings, motives, conflicts, and behaviours expressed by patients toward their therapists. Items were derived by reviewing the clinical, theoretical, and empirical literature on transference, therapeutic or working alliance, and related constructs, and written in everyday language for clinicians of any theoretical orientation (Tanzilli, Colli, Del Corno, & Lingiardi, 2016). Clinicians assess each item on a 5-point Likert scale, ranging from 1 (not true) to 5 (very true). The factor structure includes five patterns: [a] angry/entitled (25 items) indicating a patient's tendency to make excessive demands of the therapist while being aggressive and dismissive; [b] anxious/preoccupied (13 items) indicating fear of the therapist's disapproval and rejection, as well as an overly compliant and dependent attitude; [c] secure/engaged (12 items) indicating the patient's contribution to a positive working alliance and a comfortable and secure experience of the therapeutic relationship; [d] avoidant/counterdependent (9 items) indicating efforts to avoid meaningful and intimate connection with the therapist; and [e] sexualized (5 items) indicating possible sexual feelings toward the therapist, including a tendency to act in a seductive manner.

2.3 Procedure: COOPAS schedule

Cooperative Assessment (COOPAS) is a diagnostic and integrated intervention method inspired by the theoretical principles of developmental psychopathology and affective neurosciences and by Collaborative and Therapeutic Assessment models, which call for cooperative use of test results with patients aiming at a collaborative diagnosis (Finn & Tonsager, 1997; Fischer & Finn, 2008; Poston & Hanson, 2010). A male-female pair of clinicians, respectively trained in psychiatry or clinical psychology, manage all clinical meetings. The use of a therapeutic pair is borrowed from a systemic-relational model (Whitaker, 1989) and aims to provide a parental model of identification. COOPAS includes eight weekly visits after a first brief intake meeting. Clinical interviews (steps 1, 2, 4, 6–9) last 50 minutes, whereas test administration meetings (steps 3, 5, 7) require about one hour. All clinicians involved in the assessment received 8 weeks of training as well as weekly supervision-training session by the coordinators of the study (MB and CS).

Initial interview with patient and family. While welcoming patients and families, clinicians explore reasons of the requested intervention, giving priority to the presence of severe symptoms. Then, they explain in details COOPAS method in terms of targets, theoretical rationale, expected outcomes and schedule, giving emphasis to the limited duration and the explorative nature of this experience focused on the patient's emotional state, vulnerability and resilience [Panksepp 1998]. A schedule of meetings is planned and a summary with brief description of the future activities is prepared.

Step 1 Clinical interviews of patient and parents. After a brief summary of the first meeting, clinicians explain the targets of this session and briefly review the remaining steps. Then, clinical history is collected, starting with a non-structured interview about the patient's current emotional state, followed by structured questions aimed at identifying emotionally significant episodes and potential risk and protective factors.

Step 2 Rorschach administration. A Rorschach test is administered according to Exner's Comprehensive System but not scored or interpreted.

Step 3 Individual clinical interview of patient. After a brief summary of the preceding meeting, the clinicians explain the targets of this session together and again briefly review the remaining steps. Clinicians remind patients that the objective of this session is to explore Rorschach test findings together in order to develop hypotheses concerning the patient's current emotional state. Clinicians suggest associations between the patient attitudes toward the Rorschach test and their responses to new, unstructured and insecure life situations. Then, patients are asked to recall their most emotionally meaningful response to the test. Successively, they are invited to describe their main emotions associated with the recalled answer and to talk about biographic episodes associated to such emotions. A central relational theme, implicit in the narration, is extracted based on the patient's motivational needs and responses and those of significant others (Luborsky, 1984). Possible targets for change are considered.

Step 4 Self-report tests (Temperament Character Inventory [TCI-R] and Minnesota Multiphasic Personality Inventory [MMPI-A]; Affective Neuroscience Personality Scales [ANPS]) are administered and scored.

Step 5 Individual clinical interview based on self-report tests. As in the Step 3, clinicians comment on

the exploratory nature of this session and suggest associations between the patient's attitude toward the tests and their approaches to new, unstructured and insecure life situations. They also ask patients if they recall particular test items and why they may be memorable. Tests scores are shown and explained using graphs and asking frequently if patients identify themselves in those results and associated biographic episodes. A central relational theme is extracted and possible targets for change are considered.

Step 6 Structured Interview for Prodromal Psychosis (SIPS/SOPS). The goal of this session, according to the Clinical High Risk (CHR) approach (Fusar-Poli et al., 2013), is to identify adolescents with potential prodromal symptoms in a pre-psychotic phase, in order to prevent their transition to psychosis by specific early interventions (Fusar-Poli et al., 2012). Moreover, given the association of prepsychotic states with impaired functioning (Fusar-Poli et al., 2015), social and role functioning are assessed using specific scales for adolescents (Global Functioning: Social and Role scales) (Lo Cascio et al., 2017).

Step 7 Final individual meeting with the patient. Previous evaluations are summarized and specific treatment targets are clarified. Clinicians agree with the patient about topics that will be discussed in the next visit with all the family, and they elicit expectations toward treatment.

Step 8 Final family meeting. Clinicians provide an overview of the main results of the assessment and propose a specific treatment program. Moreover, they provide a report to the parents and an informal letter to the patient with a summary of the assessment findings. Finally, patient and family agree or disagree on to participating in the proposed treatment to be started within the next few weeks.

2.4 Data analyses

Continuous variables are reported as mean±SD; rates or categorical values are reported as subject counts and percentages. Whether continuous variables conformed to a normal distribution was tested with Kolmogorov–Smirnov tests, and non-normally distributed data are analyzed with the nonparametric Wilcoxon signed-rank test to test for changes between baseline (T0), middle (T1) and final (T2) values of various scales, and with the Mann-Whitney test (U) to address potential sex-differences in scale scores. A two-tailed probability (p) of ≤0.05 was considered statistically significant. Commercial statistical software was used for all computations (SPSS.20; IBM SPSS Inc., Chicago, Illinois, USA).

3. Results

3.1 Patient characteristics and dropout rate

The study protocol was completed by 136/139 entered subjects; three were excluded due to the intellectual disability or poor language facility. Mean age was 16.4 years, education averaged 10.4 years, and 55.9% were females (Table 1). DSM-5 diagnosis belonging to the mood disorders spectrum were the most prevalent diagnostic category (60.2% of the total sample), including depressive disorders (21.3%), bipolar disorder (8.8%), and other mood disorders (30.1%). Anxiety disorders were the second most prevalent diagnoses (25.7%), followed by miscellaneous other disorders (4.4%) or non-affective psychoses (2.90%). Of the 136 subjects, 9 (6.6%) did not meet criteria for any psychiatric diagnosis. Five patients reported a comorbid substance abuse. Significant sex differences in rating scale scores were found only for PRQ-Anxious/Preoccupied (males > females) and WAI-T task (females > males; not shown).

Within 6 months of treatment started after the 8-weeks COOPAS assessment, 12/136 subjects (8.82%) dropped out of the program: 7 left during the COOPAS assessment, and 5 within 6 months after beginning treatment (**Table 1**).

Table 1. *Characteristics of 136 adolescent outpatients*

Measure	% or Mean±SD
Sex (% female, n)	55.9 (76)
Age (mean±SD)	16.4 ± 1.3
Education (years, mean±SD)	10.4±1.3
Diagnosis (%, n)	
Other mood disorders*	30.1 (41)
Anxiety disorders	25.7 (35)
Depressive disorders	21.3 (29)
Bipolar disorder	8.82 (12)
None	6.60 (9)
Miscellaneous disorders	4.40 (6)
Non-affective psychosis	2.90 (4)
Comorbid Substance Abuse (%, n)	3.7 (5)
Dropout (%, n)	
During assessment (8-weeks)	5.15 (7)
By six months of treatment	3.68 (5)
Total	8.82 (12)

* Mood disorder NOS, Depressive Disorder NOS, Cyclothymic Disorder, Dysthymic Disorder.

3.2 Symptomatic assessments

At intake (T0), depressive (HAMD-D) and anxiety (HAM-A) symptoms were rated as moderately severe at (mean = 16.1 and 16.7, respectively; Table 2), and manic symptoms were low (mean YMRS score = 6.60). Global functioning was rated as moderately impaired (mean GAF score = 60.3) and the overall clinical severity of symptomatic illness was rated as mild to moderate (mean CGI score = 3.60; Table 2).

At the end of COOPAS assessment (8 weeks) (T2) all symptom scale scores (except CGI) showed significant improvement. HAM-D and HAM-A scores were approximately 25% less than at intake, with and somewhat lesser improvements in GAF and CGI ratings. Moreover all final (T2) scale scores showed a significant improvement over ratings at T1 (**Table 2**).

3.3 Therapeutic alliance, Transference and Countertransference

Therapeutic alliance evaluated with the WAI-T scale showed significant gains over baseline ratings in all three subscales, both at T1 and T2 (Table 3). In addition, at T2, therapist counter-transference evaluated with the TRQ showed significant decreases of the Hostile/Mistreated, Helpless/Inadequate, and Disengaged patterns, with increases of Positive/Satisfying and Parental/Protective ratings. Patient transference patterns (PRQ scores) showed significant decreases of Anxious/

Preoccupied and Avoidant/Counterdependent patterns, with increases of the Secure/Engaged dimension at both T1 and T2 (**Table 3**).

4. Discussion

This study aimed to test for evidence of effectiveness of the COOPAS assessment and treatment program in reducing symptoms and improving therapeutic alliance, but primarily to obtain low rates of dropouts in a sample of 136 adolescents diagnosed with anxiety or mood disorders in 86.0% of cases. The COOPAS program was structured specifically to address important challenges of initiating a therapeutic relationship with adolescents, including low self-motivation, conflicts with authority, resistance to change, underestimation of problems, and need for independence. The program aims specifically to improve engagement in both psychotherapy and adherence to prescribed medicinal treatments. A critical component of the COOPAS program is that psychological tests are evaluated and discussed by patients and their clinicians in a collaborative way, aiming to reach a shared understanding of patients' problems and to develop a secure, genuine, and benevolent relationship. COOPAS procedures focus explicitly on seeking to understand emotive-motivational functioning behind symptoms, on individual beliefs and dysfunctional interpersonal schemes, and emphasize expectations and strategies aimed at improving mental wellness. This initial collaborative, preparatory work is undertaken before treatment is started, so as to minimize resistance and refusal.

Table 2. *Symptom ratings for 136 adolescent outpatients vs. time of assessment*

Measure	Rating ±SD		
	Baseline (T_0)	One month (T_1)	Two months (T_2)
CGI	3.60 ± 1.30	3.50 ± 1.30	3.20 ± 1.30 [b]
GAF	60.3 ± 11.6	62.5 ± 11.2 [a]	66.4 ± 11.5 [b]
HAM-A	16.7 ± 8.00	15.3 ± 7.70 [a]	12.1 ± 6.90 [b]
HAM-D	16.1 ± 8.30	15.1 ± 8.20 [a]	11.9 ± 7.20 [b]
YMRS	6.00 ± 6.40	5.20 ± 5.70 [a]	4.30 ± 4.80 [b]

By Wilcoxon signed-rank test: $p<0.05$ for **a**. T_1 vs. T_0, **b**. T_2 vs. T_1.

Abbreviations: *CGI* = Clinical Global Impression; *GAF* = Global Assessment of Functioning; *HAM-A* = Hamilton Scale for Anxiety; *HAM-D* = Hamilton Scale for Depression; *YMRS* = Young Mania Rating Scale.

Table 3. *Clinician-patient relationships among 136 adolescent outpatients vs. time of assessment*

Measures	Mean Scores ± SD		
	Baseline (T_0)	One month (T_1)	Two months (T_2)
WAI-T Scores			
Task	52.1 ± 12.4	59.1 ± 9.40 [a]	62.0 ± 11.5 [b]
Goal	47.9 ± 13.2	57.4 ± 11.5 [a]	60.6 ± 13.2 [b]
Bond	53.4 ± 10.3	61.1 ± 10.1 [a]	64.1 ± 10.7 [b]
TRQ Scores			
Hostile/Mistreated	1.80 ± 0.60	1.60 ± 0.60 [a]	1.60 ± 0.60 [b]
Helpless/Inadequate	2.30 ± 0.90	2.00 ± 0.80 [a]	1.90 ± 0.80 [b]
Positive/Satisfying	2.10 ± 0.80	2.60 ± 0.80 [a]	2.80 ± 0.80 [b]
Parental/Protective	2.10 ± 0.90	2.50 ± 0.90 [a]	2.60 ± 0.90 [b]
Overwhelmed/Disorganized	1.50 ± 0.50	1.50 ± 0.50	1.50 ± 0.50
Special/Overinvolved	1.60 ±0.60	1.70 ± 0.70 [a]	1.80 ± 0.70 [b]
Sexualized	1.20 ± 0.50	1.20 ± 0.40	1.20 ± 0.50 [b]
Disengaged	2.20 ± 1.00	1.90 ± 0.90 [a]	1.80 ± 0.80 [b]
PRQ Scores			
Angry/Entitled	2.00 ± 0.50	1.90 ± 0.50 [a]	1.90 ± 0.60 [b]
Anxious/Preoccupied	2.10 ± 0.60	1.90 ± 0.60 [a]	1.80 ± 0.50 [b]
Secure/Engaged	2.20 ± 0.40	2.50 ± 0.40 [a]	2.70 ± 0.50 [b]
Avoidant/Counterdependent	2.70 ± 1.00	2.30 ± 0.80 [a]	2.10 ± 1.00 [b]
Sexualized	1.30 ± 0.40	1.30 ± 0.40	1.30 ± 0.60

By Wilcoxon signed rank test: $p<0.05$ for **a**. T1 vs. T0, **b**. T2 vs. T1.

Abbreviations: *WAI-T* = Working Alliance Inventory-Therapist Version; *TRQ* = Therapist Response Questionnaire; *PRQ* = Psychotherapy Relationship Questionnaire.

In comparison with our recent experience in the same clinic prior to initiating the COOPAS program, the present findings support the impression that the dropout rate is greatly reduced by the application of COOPAS schedule. In fact, our finding of a dropout rate of only 8.82% over six months was low in comparison to our previous experiences (with about 28% dropout rate in the first two months of treatment) and far lower than in published reports of dropout rates for adolescent psychiatric outpatients averaging 52% (de Haan et al., 2013).

We suspect that the relational environment provided by the COOPAS approach may activate patients' positive emotive-motivational systems believed to serve as protective factors against anxiety and depression (Panksepp, 2010). In particular, suspension of judgment in favour of compassionate behaviour towards patients, activation of curiosity, exploration and planning behaviours, irony, play and sublimation of aggression may be involved and are linked to psychological wellness (Montag & Davis, 2018). Ability of patients to suspend self-judgment and feel compassion towards their own suffering is correlated with reduction of worry and rumination, which are central psychopathological mechanisms in anxiety and depression (Wells & Fisher, 2015). Moreover, adaptive exploration and planning behaviours are diminished in depression (Panksepp, 2010), whereas promotion of social exchange can usefully limit auto-aggressiveness and competition (Panksepp & Biven, 2012).

The present findings include notable improvements in all three of the major components of working alliance (bond, goal, and task) as evaluated with the WAI-T scale (Bordin, 1979). Specifically, therapists observed positive changes in their affective relationships with patients, with a progressive reduction of perceived interpersonal distance. Building a good therapeutic alliance, especially in the initial phase of a clinical relationship, predicts better treatment outcomes (Horvath, Del Re, Flückiger, & Symonds, 2011). WAI-T subscale scores improved by 13%–20% in the first month of the COOPAS program, and by 19%–27% by six months (Table 3). We propose that such change may in part be related to administration of the Rorschach test and discussing it with each patient early in the COOPAS assessment process. Such discussion of Rorschach findings appeared to stimulate curiosity and playfulness, even before the test results were formulated, by emphasis on collaborating with patients in exploring their emotions, motivation and interpersonal schemes arising from the testing and possibly involved in their symptoms (Tomasello & Gonzalez-Cabrera, 2017). It may also be that the COOPAS approach improves working alliance by avoiding asymmetric interpersonal schemes of dominance, competition, antagonism and resistance that prevent the building of a good therapeutic relationship (Norcross, 2011). In particular, based on PRQ and TRQ assessments, Anxious/Preoccupied and Avoidant/Counterdependent transference patterns of study subjects decreased as did therapists' Hostile/Mistreated, Helpless/Inadequate and Disengaged countertransference patterns (Table 3). Although relationships between working alliance and symptomatic improvement has not been investigated adequately, some research suggests that they are independent. In fact, therapeutic alliance has been found to improve quality-of-life and global wellness, but not symptoms (Bickman et al., 2004).

The present findings support the hypothesis to be tested further that improvement of symptoms and of working alliance early in the COOPAS process can increase sustained adherence to treatment and substantially reduce dropout rates. Moreover, it is likely that successful treatment of adolescents with psychiatric disorders will positively affect later clinical outcomes in adulthood. Importantly, this study supports the impression that collaborative initial assessment, including shared use of psychometric test results, may contribute in an essential way to improved acceptance and adherence to treatment programs.

Limitations

The main limitation of this study is the lack of control groups assigned to alternative assessment and treatment methods. In addition, assessments of therapeutic alliance were clinician-centered, without parallel patient measures or independent assessments. Too, development of personal relationships between subjects and clinicians might have influenced development of a good therapeutic alliance, and had an impact on treatment outcome. Nevertheless, previous research suggests that clinicians are more reliable and conservative than patients when assessing working alliance (Horvath et al., 2011). We did not consider treatment methods, patient temperament, or personality variables, such as traits or coping styles, which may also contribute to the observed outcomes, and such variables should be considered in future studies of this kind.

Conclusions

The COOPAS assessment and treatment method appeared to be effective in reducing depressive and anxiety symptoms rapidly, improving therapeutic alliance and reducing treatment dropout rates in adolescent outpatients affected by anxiety and mood disorders. The study findings highlight the importance of clinical assessment methods and use of psychometric test findings as a critical resource for building a cooperative relationship with adolescents and keeping them in treatment for at least several months. We propose that mental health services for adolescents may benefit from the employment of COOPAS methods in seeking to achieve fewer dropouts and improved early alliance with psychiatric patients.

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