

PRELIMINARY DEVELOPMENT AND VALIDATION OF THE INVENTORY OF GOALS AND ANTI-GOALS

Giuseppe Femia, Isabella Federico, Guyonne Rogier, Francesca D'Olimpio, Francesco Mancini, Andrea Gragnani

Abstract

OPEN ACCESS

Objective: The clinical and empirical investigation of the role of investment in goals and anti-goals is limited by the lack of an easy-to-use tool. This is critical, as psychopathology, and specifically pathological personality, is characterized by an overinvestment in goals and anti-goals, rigidity in these investments and, consequently, by a poor existential plan that generates suffering and resistance to change. To develop a preliminary version of a self-report questionnaire measuring investment levels in goals and anti-goals, described as core features of the most common psychopathological conditions. To test the factorial structure of the tool and examine preliminary data on its construct validity.

Method: The Inventory of Goals and Anti-Goals (IGAG) was developed. A total of 572 participants (Mage= 33.05 years; SD= 10.01; 61.62 % females), including community participants (n =424) and patients (n =148), was asked to complete a battery of questionnaires including the IGAG, the Personality Inventory for DSM-5 and the Symptom-Checklist-90-Revised. Exploratory factor analysis, Mann-Whitney U tests and correlations were computed.

Results: Analyses identified an eight-factor structure and significant differences between groups on several factors. IGAG scores were largely significantly and positively correlated with the PID-5 and SCL-90-R in the expected directions.

Conclusions: The IGAG appears to be a promising instrument for both research and clinical practice. Results suggest a strong relationship between overinvestment in goals and anti-goals and psychopathology. Several limitations necessitate future modifications of its content and additional efforts for validation.

Key words: goals, anti-goals, self-report, validation, assessment, personality

Citation: Femia, G., Federico, I., Rogier, G., D'Olimpio, F., Mancini, F., Gragnani, A. (2025). Preliminary development and validation of the Inventory of Goals and Anti-Goals. *Clinical Neuropsychiatry*, 22(1), 99-108.

doi.org/10.36131/cnfioritieditore20250108

CC BY-NC-SA This article is published under a Creative Commons license. For more information: <https://creativecommons.org/licenses/by-nc-sa/4.0/>

Funding: None.

Competing interests: None.

Acknowledgments: With gratitude and appreciation to Roberto Lorenzini, a mentor and colleague.

Corresponding author

Giuseppe Femia
School of Cognitive Psychotherapy,
Viale Castro Pretorio, 116, 00185,
Rome, Italy.
E-mail: femia@apc.it

Giuseppe Femia^a, Isabella Federico^a, Guyonne Rogier^{bc}, Francesca D'Olimpio^d,
Francesco Mancini^a, Andrea Gragnani^a

^a School of Cognitive Psychotherapy, Rome, Italy

^b Department of Educational Sciences, University of Genoa, Genoa, Italy

^c UniCamillus - Saint Camillus International University of Health and Medical Sciences, Rome, Italy

^d Department of Psychology, University of Campania Luigi Vanvitelli, Caserta, Italy

^d Department of Human Sciences, Guglielmo Marconi University, Rome, Italy

Introduction

Goals and anti-goals in cognitive psychology

As with most influential perspectives on psychological functioning, the framework of cognitive psychology assigns a central role to the concepts of goals and anti-goals in the understanding of mental functioning and, consequently, in treating psychopathology (Heckhausen & Heckhausen, 2018; Mancini & Perdighe, 2012; McClelland, 1987; Rheinberg & Vollmeyer, 2018; Sheldon & Elliot, 1999). According to this perspective, cognitive processes, as well as emotions and behaviours, are goal-oriented. The construct of a goal refers to a "regulatory state of a system" and includes subcomponents such as needs, desires, aspirations and intentions, each with specific

properties (Castelfranchi & Miceli, 2004; Dweck, 2017).

Intentions are a conscious manifestation of goals that are coherent with both the person's beliefs about the feasibility of the goal and other intentions. Moreover, intentions are characterized by the fact that the individual makes a choice—that is, the decision to pursue a specific goal and plan for its realization (Castelfranchi & Miceli, 2004). An intention can be abandoned following a revision of beliefs regarding its feasibility or convenience (Gollwitzer & Wicklund, 1985). However, withdrawing from an intention may not automatically correspond to deleting the related goal (Castelfranchi & Miceli, 2004). For instance, an individual suffering from depression may react to failure by giving up the active pursuit of success (e.g., perseverating in concrete attempts to overcome

the failure) but still suffer because the goal of being a valuable person has not been abandoned (Nesse, 2000; Pyszczynski & Greenberg, 1987).

Broadly speaking, goals are desired states that individuals try to reach through actions upon the world (Austin & Vancouver, 1996). In some cases, individuals may perceive certain goals as irrevocable, even when they are considered irreplaceable and unattainable. Of note, such rigid fixation is likely associated with negative consequences (Kappes & Schattke, 2022; Miceli & Castelfranchi, 2017). According to this perspective, goals are organized hierarchically (Anderson, 1993; Carver & Scheier, 1981; Martin & Tesser, 1989; Vallacher & Wegner, 1987). Indeed, the activation of a goal is connected to the activation of intermediate goals (i.e., instrumental) that must be reached to attain the overreaching goal (i.e., terminal). Cognitive beliefs are central to determining the nature of the relationships between instrumental and terminal goals. Of note, while instrumental goals may be replaced according to variations in external conditions that determine their utility, terminal goals are usually not, meaning rigid fixation is most likely to occur with terminal rather than with instrumental goals (Castelfranchi & Parisi, 1980).

Another central component of this framework is the construct of anti-goals. Anti-goals refer to feared states an individual tries to avoid at any cost. These consist of representations of what should be avoided but do not include specifications regarding what should be reached (F. Mancini et al., 2021). As individuals pursue goals, they actively avoid anti-goals. Of note, Goals are defined by specific conditions that must be met and intermediate steps that must be completed to achieve them. By contrast, no exit conditions are established for anti-goals. In other words, avoiding an anti-goal can never be considered fully achieved, as anti-goals do not specify which conditions must be met to ensure complete safety from the feared scenario (Lorenzini & Coratti, 2008; Lorenzini & Sassaroli, 2000). Therefore, orienting behaviour towards the pursuit of anti-goals rather than goals is likely associated with negative psychological consequences, such as psychological distress.

Goals and anti-goals in clinical practice and empirical studies

The constructs of goals and anti-goals are central in cognitive clinical practice due to their utility for understanding psychological functioning and developing patient-tailored treatment plans. These constructs account for the complexity of the relationships between goals, between goals and beliefs, and between goals and emotions (F. Mancini et al., 2007). For instance, the extent to which the patient rigidly invests in anti-goals may influence mechanisms of reasoning that contribute to the maintenance and worsening of psychopathology, particularly personality disorders (A. Mancini & Mancini, 2021).

The understanding of the mind's finalistic model has been central to cognitive-behavioral psychology and psychotherapy, from its founding fathers Beck (1976) and Ellis (1962), to the third-wave therapies, which represent the most recent developments of clinical cognitivism (Semerari, 2000). Within this theoretical-clinical framework, a shared component of the various cognitive therapies is the emphasis on understanding the role of overinvested goals and anti-goals in patients.

This understanding is crucial for analysing their psychological or psychopathological functioning and tailoring their treatment (Perdighe & Gragnani, 2021; Saliani et al., 2022).

The clinical relevance of the concepts of goals and anti-goals is rooted in empirical evidence. Conway et al. (2004) examined mental images that represent information about goals and influence information processing. For example, in individuals suffering from social anxiety, images of negative effects from social and interpersonal interactions are highly available, increasing anxiety levels and consequently affecting those interactions (Day et al., 2004; Hirsch et al., 2004). Specifically, Conway et al. (2004) argue that in psychopathological conditions, images both reflect and result from the functioning of maladaptive goals. Conversely, generating new images could lead to the development of new goals and promote change.

Also, within the scientific panorama, some studies examined the link between hyper-investment of goals and/or anti-goals and psychopathology (Barlow et al., 2020; Conway et al., 2004; Wrosch et al., 2003, 2007). Wrosch et al. (2003) point out that disengagement from goals is an essential aspect of effective self-regulation and can have beneficial effects on psychological well-being. They argue that the patient should withdraw not only effort but also commitment from unattainable goals and pursue new, meaningful goals. Subsequently, Wrosch et al. (2007) examined the associations between the tendency to disengage from goals and various psychophysical health indicators. They observed that disengaging from unattainable goals correlated with lower cortisol levels, improved sleep quality and enhanced physical health. In another study, Haase et al. (2021) found that individuals who are able to re-invest in new goals demonstrate more adaptive and flexible functioning, lower psychopathological symptoms and greater psychophysical well-being compared to those who do not. Lastly, a meta-analysis conducted by Barlow et al. (2020) concluded that disengagement from unattainable goals and the ability to invest in attainable goals are associated with a better quality of life.

Despite the promising data emerging from empirical research, past studies have limited their investigations to rigidity in goal and anti-goal engagement. However, in clinical practice, assessment procedures also examine the content of goals and anti-goals excessively invested in by patients (Curtis & Silberschatz, 1986). Indeed, the type of goal is likely closely related to specific dysfunctional beliefs that, in turn, shed light on the psychopathological functioning underlying the symptoms. In addition, it has been suggested that investment in certain goals is associated with the frustration of basic needs during early life experiences (Dweck, 2017). Accordingly, the overinvestment in certain goals is likely to co-occur with the overinvestment in specific other goals, potentially explaining comorbidity between psychiatric conditions. This may be particularly relevant in the study of personality and personality disorders (Dweck, 2017; López-Pérez & McCagh, 2020). The lack of empirical contributions on the topic may be due to the lack of easy-to-use instruments that allow for the collection of data on this issue. Clinicians typically do not use self-report questionnaires to assess active goals and anti-goals in patients, even though this aspect is pivotal in clinical formulations.

The current study

To address the gap described above, we developed a preliminary version of a self-report inventory, the Inventory of Goals and Anti-Goals (IGAG), to assess the extent to which individuals engage in the pursuit or avoidance of goals and anti-goals, respectively. This preliminary study aims to provide an initial version of the instrument to stimulate renewed debate and advancements in the field of goal taxonomy (Austin & Vancouver, 1996). Additionally, we aimed to explore whether some goals and anti-goals are likely to aggregate, delineating latent factors underlying psychological functioning. We also tested whether the rigidity of investment in these goals and anti-goals could differentiate between groups of individuals with varying levels of psychological functioning.

Regarding the associations between the content of goals and anti-goals, our study was primarily exploratory, although some general expectations were formulated. On the one hand, we expected that intensity of investment in goals and anti-goals would show positive and significant associations with psychopathological symptoms and pathological personality traits. Similarly, we expected that patients would demonstrate higher levels of investment in goals and anti-goals across all IGAG factors compared to other participants. Indeed, poor psychological functioning associated with clinical conditions is characterized by a lack of an existential plan, which is, in turn, related to overinvestment in a few goals. From this perspective, intense commitment to one goal or anti-goal is likely closely linked to poor investment in other goals and, consequently, higher levels of psychopathology. On the other hand, we expected that clusters of goals and anti-goals would show specificity in their associations with pathological personality dimensions and psychopathological symptoms. For instance, we anticipated that goals and anti-goals characteristics of cluster B personality disorders would show strong correlations with personality traits converging on the narcissistic personality disorder profile, as defined by the DSM-5. Similarly, we expected that those underlying depression and anxiety disorders would show the highest correlations with the corresponding symptoms measured by the symptom checklist.

Methods

Participants

A total of 572 participants were recruited using a convenience sampling technique. All participants were Italian adults ($M_{age} = 33.05$ years; $SD = 10.01$), and the majority were females (61.62 %). Participants belong to two groups, namely the community group ($n = 424$) and the clinical group ($n = 148$). Community participants ($M_{age} = 33.48$ years; $SD = 9.96$; $Range_{age} = 52; 77.40$ % females) were drawn from the general population and recruited by students at the School of Cognitive Psychotherapy to obtain course credits. To ensure that the characteristics of this sample did not overlap with those of the clinical group, participants were initially asked a screening question about current or past psychiatric diagnosis or psychotherapeutic treatment. The clinical group ($M_{age} = 32.02$ years; $SD = 10.44$; $Range_{age} = 59; 53.75$ % females) included patients seeking treatment at the clinical centre of the School of Cognitive Psychotherapy. Patients were recruited during their initial appointment, before the start of

the assessment process. The most frequent primary diagnoses among patients in the clinical group were generalized anxiety disorder (31.53 %), obsessive-compulsive disorder (19.82 %) and depression (17.7 %).

Procedure

Before engaging participants in the study, the aims and scope of the research were explained, and information regarding anonymity and privacy was provided. Participants were given the opportunity to ask for additional information. If an individual agreed to participate, they were asked to sign a written informed consent. Afterwards, each participant was asked to complete a battery of self-report questionnaires. No compensation was provided for participation in the study. All procedures complied with the ethical guidelines for research delineated by the Italian Association of Psychology.

Materials

The Inventory of Goals and Anti-Goals (IGAG) was developed specifically for this study. The procedure development involved several steps. First, three expert clinicians in the field collaborated to produce a list of goals and anti-goals relevant to psychopathology. In listing and selecting domains, the following principles were applied: clinicians were asked to refer to the clinical cognitivism framework (Semerari, 2000), which identifies goals and anti-goals involved in the development or maintenance of the most frequent psychiatric disorders listed on axes I and II of the DSM-IV-TR. Clinicians were instructed to pay particular attention to specifying domains that are frequently overinvested across psychiatric conditions and that potentially explain comorbidity. They were also asked to specify different variations of goals that help distinguish psychopathological functioning across various clinical conditions. Disagreements were resolved through discussion with a third-party expert clinician. Researchers identified 20 domains¹. Secondly, this list was translated into a pool of 40 items, resulting in the IGAG. Specifically, each domain consisted of a pair of items describing a goal and its corresponding anti-goal. Participants were instructed to report how descriptive each item was of them using a Likert-type scale ranging from 0 (Not at all) to 4 (Extremely).

In addition to the IGAG, a battery of self-report questionnaires was administered to all participants. For the clinical group, an additional clinician-report question was administered to collect information regarding the primary diagnosis (i.e., “According to the latest version of the DSM, what is the primary diagnosis of your patient?”). The self-report questionnaires measured the following variables:

Demographic variables. Information regarding age, gender, education levels and civil status was collected through a brief questionnaire created for the study.

Personality disorder traits were measured using the Personality Inventory for DSM-5 (Krueger et al., 2012; Fossati et al., 2013). This tool consists of 220 items, with participants asked to answer on a four-point

¹ The following domains were identified: success, social recognition, social rank, attention, physical image, health, closeness, inclusion, autonomy, emancipation, moral adequacy, happiness, social adequacy, psychological strength, regulation capacity, uniqueness, perfection, control, and trust.

Likert-type scale ranging from 0 (*Never or often false*) to 3 (*Always or often true*). Examples include “*I worry a lot about being alone*” or “*Usually, I think before I act*”. Items loaded on 25 facets, which, in turn, converged into five domains: *Negative Affectivity*, *Detachment*, *Psychoticism*, *Disinhibition*, and *Antagonism*. In our study, the instrument demonstrated satisfactory reliability, with Cronbach’s alpha values all $>.90$.

The severity of *psychopathological symptoms* was measured using the Symptom Checklist-90-Revised (Derogatis, 1977; Prunas et al., 2012). As the name of the instrument indicates, this includes 90 items asking participants to indicate the extent to which they experience the symptom described, using a 5-point Likert-type scale ranging from 0 (*Not at all*) to 4 (*Very much*). Examples of items include “*Poor appetite*” and “*Feeling alone*”. The instrument provides a score for each subscale, namely somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism. In addition, the total score obtained on the instrument provides a measure of the general level of distress experienced by the individual (i.e., General Severity Index). In our study, the good psychometric properties of the instrument have been replicated, as shown by Cronbach’s alpha values, all ranging $>.80$.

Statistical analyses plan

Descriptive analyses (i.e., means, standard deviations and frequencies) were computed for exploratory purposes. The internal consistency of the instruments was assessed using Cronbach’s alpha coefficients. Details are provided in **table 1**. An exploratory factor analysis (alpha factoring) was performed to investigate the factorial structure of the IGAG. We used Promax rotation with Kaiser normalization. Following these procedures, normality tests were performed on the IGAG scores. As the results indicated that distributions were not always normal, non-parametric analyses were conducted. To compare groups on IGAG scores, Mann-Whitney U tests were performed. For this purpose, patients and community participants were matched by age and gender, resulting in two subsamples of 107 participants each. Lastly, bivariate associations between IGAG scores and both PID-5 and SCL-90-R scores were tested through the computation of Spearman

correlation matrices. All analyses were performed using SPSS software version 26 for Windows.

Results

Exploratory factorial analysis

To explore the factorial structure of the IGAG, we employed the Promax rotation with Kaiser normalization. Sampling adequacy was assessed using the Kaiser-Meyer-Olkin (KMO) measure, which yielded satisfactory results (KMO=.93). Additionally, the correlation structure was confirmed to be adequate for factorial analysis, as indicated by the results of Bartlett’s test of sphericity [$\chi^2 (561) = 11468.11, p < .001$]. Six items were found to have poor commonalities or low loadings on all factors and were therefore removed from subsequent analyses. The alpha factor method, using .40 as the cut-off and the criterion of selecting eigenvalues greater than 1 (Stevens, 2009), suggested an eight-factor solution, explaining 58.62 % of the total variance. This solution was confirmed by inspecting the scree plot. The fit indices obtained were all acceptable (i.e., RMSEA: 0.07; TLI: 0.85; CFI: 0.92; SRMR: 0.03; Reduced Chi-Square: 3.86). Although a TLI of 0.85 suggests that the model has a somewhat unsatisfactory, though not entirely unacceptable, fit, the other goodness-of-fit indices indicate a good fit. However, since the TLI was primarily developed for extraction methods like Maximum Likelihood, which assume normally distributed data, it tends to be less appropriate and may yield lower values when using the alpha factoring method. Results are displayed in **table 2**.

The first factor has an eigenvalue of 13.06 and explains 38.41 % of the variance. This factor includes eight items related to the goals of being the centre of attention and maintaining a self-image of uniqueness and superiority. Therefore, this factor was labelled *Interpersonal Prestige*. The second factor has an eigenvalue of 2.06 and explains 6.05 % of the variance. This included five items related to the goal of being strong and calm as well as being able to cope with stressors, and it was labelled *Capacity*. The third factor has an eigenvalue of 1.95 and explains 5.72 % of the variance. It included six statements regarding exclusion and feelings of failure. This was labelled *Social Inclusion*. The fourth factor has an eigenvalue of 1.42 and explains 4.17 % of the variance. This

Table 1. Internal consistency, mean and standard deviations of the SCL-90-R and PID-5 scales employed in the study

		α	Mean	S.D.
Symptoms Checklist 90 items	Somatization	.87	.74	.67
	Interpersonal sensitivity	.85	1.00	.81
	Depression	.90	1.31	.91
	Anxiety	.88	1.06	.83
	Hostility	.76	.73	.68
	Phobic anxiety	.83	.48	.67
	Paranoid ideation	.80	.88	.81
	Psychoticism	.77	.67	.63
	Obsessive-compulsive	.88	1.79	.52
	Global severity index	.97	.95	.65
Personality Inventory for DSM-5	Negative Affect	.93	1.32	.63
	Detachment	.92	.84	.50
	Antagonism	.93	.66	.45
	Disinhibition	.87	.78	.60
	Psychoticism	.94	.54	.50

includes four items related to the fear of losing control and perfectionism. This was labelled *Control*. The fifth factor has an eigenvalue of 1.31 and explains 3.85 % of the variance. It includes four items related to social status and physical attributes. It was labelled *Physical Social Image*. The sixth factor has an eigenvalue of 1.24 and explains 3.66 % of the variance. This consists of two items related to moral duties and caregiving. This was labelled *Self-Sacrifice*. The seventh factor has an

eigenvalue of 1.78 and explains 3.46 % of the variance. It includes two items related to the concern about repeating parental history and was labelled *Familial Mandate*. The eighth factor has an eigenvalue of 0.99 and explains 2.92 % of the variance. This includes two items related to paranoid ideation. This factor was labelled *Trust*.

Comparisons between groups

Table 2. Exploratory factorial analysis of the Inventory of Goals and Anti Goals

Items	Factors							
	Inter-personal prestige	Capacity	Social inclusion	Control	Physical social image	Self-sacrifice	Familial mandate	Trust
1. (G) I want to be an accomplished person	.36	-.29	.04	.11	.51	-.08	.02	-.08
1 (AG) I don't want to be a failure	-.13	-.16	.76	.13	.15	-.06	.01	-.03
2. (G) I want to be perfectly fit	.11	.20	-.11	.02	.57	-.02	-.08	.07
2 (AG) I don't want to look bad	.08	-.08	.67	-.01	.27	-.15	-.05	.07
3. (G) I would like to be totally healthy	-.10	.13	.16	-.13	.73	.08	-.02	.06
3 (AG) I don't want my body to be sick in any sense	-.17	.12	.44	-.18	.53	.01	.03	.11
5. (G) I would like to be recognized and feel included in every circumstance	.62	-.03	.15	-.03	.03	-.01	.13	-.19
5 (AG) I don't want to feel left out	.33	.01	.60	-.05	-.10	.03	.03	-.15
7. (G) I would like to be able to not repeat the mistakes made by my family members	-.03	-.04	.01	-.03	.11	.12	.81	.03
7 (AG) I don't want to be like my parents (at least one of them)	.02	.04	-.02	.01	-.14	-.21	.79	.11
8. (G) I want to be a fair person	-.05	.09	-.02	.19	.16	.52	.08	-.15
8 (AG) I don't want to be guilty	-.07	.11	.47	.15	-.07	.20	-.05	.03
10. (G) I would like to function better	.06	.67	-.04	.01	-.06	-.03	.09	.08
10 (AG) I don't want to be inadequate	.01	.40	.46	.06	-.05	-.03	.01	-.03
11. (G) I would like to be a calm and relaxed person	.05	.85	-.20	.05	.02	.01	-.03	.01
11 (AG) I don't want to be upset	-.04	.86	.13	-.06	.08	-.05	-.06	.01
12. (G) I want to be someone special	.68	.15	-.08	-.06	.13	.10	.01	-.11
12 (AG) I don't want to be just any person	.58	-.01	.15	.08	.18	-.02	-.07	-.06
13. (G) I would like to be a strong person	.15	.62	-.11	.04	.20	.04	.04	-.10
13 (AG) I don't want to be weak	-.02	.48	.24	.26	.09	-.11	.01	-.08
14. (G) I want to do things perfectly	.09	-.09	-.07	.76	.05	.15	-.02	-.03
14 (AG) I do not want to make mistakes	-.11	.01	.29	.82	-.13	-.09	-.04	-.01
15. (G) I would like to have everything under control	.01	.12	-.01	.73	-.01	.01	-.01	.01
15 (AG) I must not and cannot lose control	-.01	.21	-.05	.59	-.08	.03	.07	.16
16. (G) I need to be loved/supported	.42	.10	.17	.01	-.20	.21	.01	-.04
16 (AG) I don't want to be abandoned	.29	.07	.47	-.12	-.17	.22	.01	.12
17. (G) I would like to be noticed at any costs	.93	.08	-.13	-.11	-.08	-.06	-.04	.14
17 (AG) I don't want to be invisible to others	.69	.05	.04	-.02	-.04	-.07	-.01	.11
18. (G) I have to look after and take care of the other	.01	-.04	-.15	-.02	-.02	.84	-.11	.11
18 (AG) I must not hurt others and abandon them	-.08	-.06	.11	.02	-.01	.77	-.02	.06
19. (G) I want to be better than others	.56	-.09	-.10	.18	.16	.01	-.03	.20
19 (AG) I cannot be inferior to others	.42	-.08	.13	.24	.06	-.12	.02	.21
20. (G) I want to be sure that others don't betray me	.08	-.04	.14	-.01	.09	.20	.03	.53
20 (AG) I can't trust others	.06	.02	-.09	.06	.05	.04	.10	.64

Note: Extraction Method: Alpha Factoring; Rotation Method: Promax with Kaiser Normalization; G: Goal; AG: Antigol.

The hypothesis of differences between groups on IGAG factor scores was tested using Mann-Whitney U tests. Preliminarily, community participants and patients were matched by age and gender, resulting in two subsamples of 107 participants, including 60 females and with an average age of 31.46 years ($SD=8.32$). Community participants scored significantly lower than patients on every factor except for the fifth, where no significant differences were observed. Details of these results are displayed in **table 3**.

Associations between variables

Table 3. U-Mann Whitney tests comparing groups' IGAG scores

Factors	Community group		Clinical group		U	p
	Mean	SD	Mean	SD		
Interpersonal Prestige	-.04	.90	.42	1.03	4281	.001
Capacity	-.09	.91	.49	.86	3587	<.001
Social inclusion	-.02	.83	.29	.90	4305	.002
Control	.07	.91	.41	.90	4467	.006
Physical social image	.13	.83	.17	.85	5483	.596
Self-sacrifice	-.05	.86	.28	.91	4498	.007
Familiar mandate	.01	.87	.31	.87	4578	.011
Trust	-.08	.91	.26	.87	4451	.005

Results from the correlational analyses showed that, except for the fifth factor, all IGAG scores were positively and significantly associated with all the PID-5 domains (see **table 4** for details). Significant associations were all moderate in strength except for those linking the *Self-Sacrifice* factor to the Antagonism and Detachment domains of the PID-5. Regarding the associations between IGAG scores and SCL-90-R scores, a similar pattern emerged. All IGAG scales were positively and significantly correlated with all SCL-90-R subscales except for the fifth factor, which was not significantly associated with any of the subscales. Additionally, the *Self-Sacrifice* factor was only weakly associated with the Hostility subscale, and the first factor showed significant but small correlations with the Somatization and Phobic Anxiety subscales of the SCL-90-R. The complete correlation matrices are displayed in **tables 4** and **5**.

Discussion

This manuscript aimed to illustrate the process for developing a new tool, the Inventory of Goals and Anti-Goals. This objective was pursued by addressing a significant gap in empirical research: the contrast between the centrality of identifying overinvested goals and anti-goals in clinical cognitive practice and the lack of quick, easy-to-use instruments to capture these variables. As a result of this limitation, researchers have primarily focused on the level of overinvestment or the ability to engage in new goals, often overlooking the topic of goal content. The IGAG aims to measure overinvestment in goals and anti-goals while distinguishing between different types of goals.

Factorial structure and associations with external variables

A list of domains (i.e., goals and corresponding anti-goals) was created by expert clinicians, and a pool of items was developed to operationalize each domain.

Exploratory factor analysis led to the identification of eight factors. A general observation regarding the associations between these factors and measures of both pathological personality traits and psychopathological symptoms is that a pattern of positive and significant associations was the rule rather than the exception in our results. This observation aligns with the perspective that conceptualizes the intensity of investment in goals and/or anti-goals and an index of psychological inflexibility, rigid fixation and the consequent impoverishment of the individual's existential plan—a core feature underlying vulnerability to psychopathology. A general proneness to overinvesting in the pursuit of goals and anti-goals is

likely associated with difficulty in accepting a revision of the existential plan when goals are unattainable, leading to the development of pathological strategies aimed at reaching such goals. Our results generally support this perspective, suggesting that beyond the role of goal content, a general transdiagnostic factor accounting for psychopathological vulnerability may consist of a general tendency to overinvest in goals and anti-goals.

The first domain, *Interpersonal Prestige*, included items related to issues that are typical of cluster B personality disorders. Specifically, the items described the goals of being special, superior and recognized by others, as well as the anti-goals of being invisible, inferior or unloved. Of note, the potential link between this factor and Cluster B personality disorders is suggested by the pattern of correlations observed with the domains of the PID-5, with the highest correlation found in Antagonism—a domain typically associated with narcissistic personality disorder (Calvo et al., 2016; Hopwood et al., 2013). In contrast, we observed that scores on this factor were correlated with all subscales of the SCL-90-R. This result may be due to the characteristics of our sample, which was not homogeneous in terms of clinical status or psychiatric diagnoses.

The second factor, *Capacity*, included items describing the importance of being strong, calm and able to cope with stressors. This factor was positively and significantly related to all domains of the PID-5 and all subscales of the SCL-90-R. Of note, the causal pathways between overinvestment in this goal were not clarified by our research design. This is an important issue, as we may speculate that some individuals develop a mental disorder because of a fear of being vulnerable—such as individuals with dependent personality disorder—whereas others may overinvest in this area as a consequence of mental disorder. For instance, this may result from the suffering caused by stigma associated with their condition or from negatively evaluating the consequences of their symptoms (Pasmuzzi et al., 2016). From this perspective, the use of the IGAG appears promising for future research focusing on

Table 4. Bivariate associations between PID-5 and IGAG scores

	IGAG									PID-5			
	IP	Ca	SI	Co	PSI	SS	FM	T	Nega- tive Affect	Detach- ment	Antago- nism	Disinhi- bition	Psychoti- cism
IP	-												
Ca	.60**	-											
SI	.67**	.76**											
Co	.68**	.68**	.65**										
PSI	.45**	.45**	.50**	.47**	-								
SS	.54**	.72**	.65**	.60**	.33**								
FM	.52**	.56**	.58**	.47**	.36**	.45**	-						
T	.46**	.40**	.39**	.49**	.13**	.35**	.39**	-					
Negative Affect	.34**	.50**	.43**	.39**	-.02	.39**	.38**	.39**	-				
Detachment	.26**	.41**	.27**	.38**	.01	.19**	.34**	.38**	.59**	-			
Antagonism	.45**	.25**	.31**	.34**	.17	.15*	.28**	.38**	.47**	.42**	-		
Disinhibition	.28**	.41**	.31**	.24**	-.03	.22**	.34**	.30**	.70**	.61**	.46**	-	
Psychoticism	.33**	.40**	.33**	.36**	.01	.28**	.32**	.39**	.72**	.66**	.62**	.72**	-

Note: PID-5: Personality Inventory for DSM-5; IGAG: Inventory of Goals and Anti Goals; IP: Interpersonal Prestige; Ca: Capacity; SI: Social Inclusion; Co: Control; PSI: Physical Social Image; SS: Self-Sacrifice; FM: Familiar Mandate; * $p < .05$; ** $p < .01$.

Table 5. Bivariate associations between SCL-90 and IGAG scores

	IGAG									SCL-90							
	IP	Ca	SI	Co	PSI	SS	FM	T	SOM	OBS	INT	DEP	ANX	HOS	PAR	PSY	
IP	—																
Ca	.60**	—															
SI	.67**	.76**	—														
Co	.68**	.68**	.65**	—													
PSI	.45**	.45**	.50**	.47**	—												
SS	.54**	.72**	.65**	.60**	.33**	—											
FM	.52**	.56**	.58**	.47**	.36**	.45**	—										
T	.46**	.40**	.39**	.49**	.13**	.35**	.39**	—									
SOM	.16*	.32**	.22**	.23**	-.01	.24**	.27**	.25**	—								
OBS	.25**	.39**	.30**	.39**	-.07	.30**	.34**	.32**	.64**	—							
INT	.30**	.38**	.38**	.38**	-.12	.30**	.34**	.37**	.55**	.75**	—						
DEP	.29**	.45**	.37**	.39**	-.06	.36**	.40**	.33**	.65**	.87**	.77**	—					
ANX	.24**	.41**	.32**	.34**	-.07	.30**	.31**	.34**	.69**	.76**	.67**	.80**	—				
HOS	.24**	.27**	.22**	.28**	-.09	.15*	.25**	.29**	.50**	.60**	.62**	.64**	.61**	—			
PHOB	.16*	.36**	.27**	.30**	-.06	.28**	.30**	.30**	.54**	.64**	.64**	.63**	.70**	.42**	—		
PAR	.32**	.29**	.30**	.35**	-.02	.24**	.31**	.38**	.52**	.67**	.79**	.68**	.61**	.65**	.56**	—	
PSY	.35**	.45**	.39**	.43**	.08	.34**	.41**	.37**	.56**	.81**	.73**	.84**	.75**	.61**	.64**	.73**	—

Note: SCL-90: Symptoms Checklist 90 items; IGAG: Inventory of Goals and Anti Goals; Ca: Capacity; SI: Social Inclusion; Co: Control; PSI: Physical Social Image; SS: Self-Sacrifice; FM: Familiar Mandate; T: Trust; SOM: somatization; OBS: obsessive-compulsive; INT: interpersonal sensitivity; DEP: depression; ANX: anxiety; HOS: hostility; PHO: phobic anxiety; PAR: paranoid ideation; PSY: psychoticism; GSI: Global Severity Index; * $p < .05$; ** $p < .01$.

the role of negative meta-evaluations of symptoms as a maintenance mechanism in psychopathological conditions.

The *Social Inclusion* domain describes goals related to addressing feelings of exclusion and failure. This domain is likely to be involved in depression and anxiety disorders (Perdighe & Gragnani, 2021; Rogier et al., 2021). In line with this idea, we observed that the strongest association with the PID-5 scores was related to the Negative Affect domain, which includes separation anxiety and emotional lability (Krueger et al., 2012).

Moreover, among the highest correlations of this factor with the scores obtained on the SCL-90-R, we found the Depression and Interpersonal sensitivity scales, which are closely related to both depression and anxiety disorder (Kennedy et al., 2001). Of note, our factorial analysis identified a unique factor encompassing fear of social exclusion and fear of failure. This result suggests that the frequently observed comorbidity between depression and anxiety disorders (Pollack, 2005) may, at least in part, stem from overinvestment in the same domain. Conversely, or perhaps complementarily, this

result may reflect the frequent psychiatric diagnoses of depression and anxiety disorder in our sample of patients. Future studies may wish to address this issue by comparing samples of individuals with depression and social anxiety disorder with both disorders on the *Social Inclusion* scores.

Fears of losing control and making mistakes were grouped together in the *Control* factor by the factorial analysis. Of note, this factor was positively and significantly associated with all subscales of the PID-5 and the SCL-90-R. However, we observed that the lowest coefficient was associated with the Disinhibition domain of the PID-5. This finding is not surprising, as this domain includes features related to impulsivity (Krueger et al., 2012) that may lie at the opposite end of the continuum of compulsivity (Everitt & Robbins, 2005), a psychological variable linked to obsessive perfectionism (Moretz & McKay, 2009).

The only factor of the IGAG that did not demonstrate good construct validity was *Physical Social Image*. This factor neither discriminated between groups nor showed significant associations with symptoms or personality disorder traits except for a small association found with the Antagonism PID-5 domain. This lack of construct validity suggests that items may not fully capture the nature of the domain measured and/or that this factor contained poorly defined and contrasting subdimensions.

The *Self-Sacrifice* factor included items related to moral duties and caregiving. Overinvestment in this domain was significantly associated with all subscales of the PID-5 and the SCL-90-R. However, the lowest correlation coefficients were observed with the Antagonism domain of the PID-5 and the Hostility subscale of the SCL-90-R. This pattern of findings appears to confirm the construct validity of this factor, which is typically associated with feelings of guilt for harming others (Glenn, 1995). Interestingly, although previous studies argue for the need to differentiate altruistic guilt from deontological guilt (Basile et al., 2011), the factorial analysis in our study did not identify distinct domains related to these psychological variables. However, because these two types of guilt are likely related, and because the intensification of one of these feelings is typical of specific mental disorders (i.e., depression and obsessive-compulsive disorder), the findings of our analysis may reflect the characteristics of our sample (F. Mancini & Gangemi, 2015).

The *Familial Mandate* factor operationalizes the fear of repeating parental mistakes. Notably, this factor includes only two items: one describing a goal and the other its corresponding anti-goal. Because this factor clearly differentiates the group of patients from other participants, it is not surprising that we found positive and significant associations between these scale scores and all measures of personality disorder traits and psychopathological symptoms. A key component explaining psychopathological vulnerability is known to be related to familiarity, including obsessive-compulsive disorder, one of the most frequent diagnoses in our sample (F. Mancini & Gangemi, 2015). This may explain our results, with the observed overinvestment of patients in this goal reflecting concerns about the poor outcome of treatment.

Lastly, the *Trust* factor included items measuring the goal of trusting others. This domain is likely associated with paranoid ideation (Kirk et al., 2013), a notion supported by our results. Specifically, we found that scores on this factor were positively and significantly associated with levels of personality disorder traits and psychological symptoms, consistent with the idea that

paranoid ideation is a shared feature across several disorders. Additionally, the strongest association was observed with the Paranoid Ideation subscale of the SCL-90-R.

Discussion and Implications

The preliminary development of the IGAG represents an initial effort to address the lack of tools measuring goals and anti-goals. Advancing knowledge in this area could help balance an approach that is excessively focused on the processual and functional nature of the mind, instead emphasizing the constellation of personal meanings underlying patients' suffering (F. Mancini, 2016). From a clinical perspective, the IGAG is likely to facilitate clinical assessments based on cognitive clinical case formulation guidelines (Saliani et al., 2022), thereby providing a strong foundation for the development of a therapeutic alliance, as defined by Bordin (1979).

Our findings align with the idea that psychological suffering is mostly due to overinvestment in goals and/or anti-goals, which also serves as a key maintenance and exacerbation factor for psychopathological conditions (Mancini & Perdighe, 2012; F. Mancini, 2016). Specifically, the higher overinvestment of patients, as measured by the IGAG, suggests that this mechanism may not be specific to a single domain but rather a common component across domains. In other words, patients focus more on irrevocable goals than do healthy controls and psychotherapy trainees (Miceli & Castelfranchi, 2017). These results confirm that individuals who overinvest and/or are less willing to disinvest from a domain experience greater suffering both at a symptomatic level (Barlow et al., 2020; Conway et al., 2004; Wrosch et al., 2003, 2007) and at a personological level (A. Mancini & Mancini, 2021).

Limitations

Our study was exploratory and, due to its preliminary nature, has several limitations. First, the inconsistency in the use of active versus passive formulation of items may have introduced a bias in participants' responses, potentially partially measuring differences in coping style. Additionally, a future version of the IGAG could replace misleading terms referring to capacity (e.g., "I can/could", "I need") with formulations that are more consistent with the theoretical definitions of the constructs being investigated (Miceli & Castelfranchi, 2017). Such modifications may also reduce participant fatigue and confusion. Finally, the pool of items could be expanded to include more pathology-specific items, such as those related to the antisocial dimension of personality.

Conclusions

This preliminary study highlights the importance of investigating one of the pillars of clinical cognitivism—goals and anti-goals—to better understand and treat psychopathologies (F. Mancini, 2016), particularly personality disorders (López-Pérez & McCagh, 2020), as well as to explore the mental functioning of non-clinical individuals. From a clinical perspective, the IGAG seems promising in capturing the psychological architecture of goals, thereby supporting the tailoring of clinical interventions. Additionally, it is likely to facilitate the sharing of insights into the psychological

configuration of the patient, strengthening the therapeutic alliance and enhancing treatment effectiveness.

References

- Anderson, J. R. (1993). Problem solving and learning. *American Psychologist*, 48, 35–44. <http://dx.doi.org/10.1037/0003-066X.48.1.35>
- Austin, J. T., & Vancouver, J. B. (1996). Goal constructs in psychology: Structure, process, and content. *Psychological Bulletin*, 120, 338–375. <http://dx.doi.org/10.1037/0033-2909.120.3.338>
- Barlow, M. A., Wrosch, C., & McGrath, J. J. (2020). Goal adjustment capacities and quality of life: A meta-analytic review. *Journal of personality*, 88(2), 307–323. <https://doi.org/10.1111/jopy.12492>
- Basile, B., Mancini, F., Macaluso, E., Caltagirone, C., Frackowiak, R. S., & Bozzali, M. (2011). Deontological and altruistic guilt: evidence for distinct neurobiological substrates. *Human brain mapping*, 32(2), 229–239. <https://doi.org/10.1002/hbm.21009>
- Beck, A. T. (1976). *Cognitive therapy and the emotional disorders*. New York, NY: International Universities Press.
- Bordin, E. S. (1979). The generalizability of the psychoanalytic concept of the working alliance. *Psychotherapy: Theory, Research & Practice*, 16(3), 252–260. <https://doi.org/10.1037/h0085885>
- Calvo, N., Valero, S., Sáez-Francàs, N., Gutiérrez, F., Casas, M., & Ferrer, M. (2016). Borderline Personality Disorder and Personality Inventory for DSM-5 (PID-5): Dimensional personality assessment with DSM-5. *Comprehensive psychiatry*, 70, 105–111. <https://doi.org/10.1016/j.comppsy.2016.07.002>
- Carver, C. S., & Scheier, M. F. (1981). *Attention and self-regulation: A control-theory approach to human behavior*. Springer-Verlag. <https://doi.org/10.1007/978-1-4612-5887-2>
- Castelfranchi, C., & Miceli, M. (2004). Gli scopi e la loro famiglia: Ruolo dei bisogni e dei bisogni sentiti. *Cognitivism Clinico*, 1(1), 5–19.
- Castelfranchi, C., & Parisi, D. (1980). *Linguaggio, conoscenze e scopi*. Bologna, Italy: Il Mulino.
- Conway, M. A., Meares, K., & Standart, S. (2004). Images and goals. *Memory*, 12(4), 525–531. <https://doi.org/10.1080/09658210444000151>
- Curtis, J. T., & Silberschatz, G. (1986). Clinical implications of research on brief dynamic psychotherapy in formulating the patient's problems and goals. *Psychoanalytic Psychology*, 3(1), 13–25.
- Day, S. J., Holmes, E. A., & Hackmann, A. (2004). Occurrence of imagery and its link with early memories in agoraphobia. *Memory*, 12(4), 416–427. <https://doi.org/10.1080/09658210444000034>
- Derogatis, L. R. (1977). *SCL-90-R: Administration, scoring and procedures manual*. Clinical Psychometric Research.
- Dweck, C. S. (2017). From needs to goals and representations: Foundations for a unified theory of motivation, personality, and development. *Psychological review*, 124(6), 689–719. <https://doi.org/10.1037/rev0000082>
- Ellis, A. (1962). *Reason and emotion in psychotherapy*. Lyle Stuart.
- Everitt, B. J., & Robbins, T. W. (2005). Neural systems of reinforcement for drug addiction: From actions to habits to compulsion. *Nature Neuroscience*, 8(11), 1481–1489. <https://doi.org/10.1038/nn1579>
- Fossati, A., Krueger, R. F., Markon, K. E., Borroni, S., & Maffei, C. (2013). Reliability and validity of the personality inventory for DSM-5 (PID-5): predicting DSM-IV personality disorders and psychopathy in community-dwelling Italian adults. *Assessment*, 20(6), 689–708. <https://doi.org/10.1177/1073191113504984>
- Gilbert, P., & Simos, G. (2022). *Compassion focused therapy: Clinical practice and applications*. Routledge.
- Glenn, L. S. (1995). Guilt and self-sacrifice: The plight of the better-off sibling. *Journal of Contemporary Psychotherapy: On the Cutting Edge of Modern Developments in Psychotherapy*, 25(1), 61–75. <https://doi.org/10.1007/BF02308669>
- Gollwitzer, P., & Wicklund, R. A. (1985). *The pursuit of self-defining goals*. In J. Kuhl, & J. Beckmann (Eds.), *Action control: From cognition to behavior* (pp. 61–85). Springer-Verlag.
- Haase, C. M., Singer, T., Silbereisen, R. K., Heckhausen, J., & Wrosch, C. (2021). Well-being as a resource for goal reengagement: Evidence from two longitudinal studies. *Motivation Science*, 7(1), 21–31. <https://doi.org/10.1037/mot0000199>
- Haller, H., Cramer, H., Lauche, R., Gass, F., & Dobos, G. J. (2014). The prevalence and burden of subthreshold generalized anxiety disorder: a systematic review. *BMC psychiatry*, 14, 128. <https://doi.org/10.1186/1471-244X-14-128>
- Heckhausen, J., & Heckhausen, H. (2018). Motivation and action: Introduction and overview. In J. Heckhausen & H. Heckhausen (Eds.), *Motivation and action* (3rd ed., pp. 1–14). Springer.
- Hirsch, C. R., Meynen, T., & Clark, D. M. (2004). Negative self-imagery in social anxiety contaminates social interactions. *Memory*, 12(4), 496–506. <https://doi.org/10.1080/09658210444000106>
- Hopwood, C. J., Schade, N., Krueger, R. F., Wright, A. G., & Markon, K. E. (2013). Connecting DSM-5 personality traits and pathological beliefs: Toward a unifying model. *Journal of Psychopathology and Behavioral Assessment*, 35(2), 161–173. <https://doi.org/10.1007/s10862-012-9332-3>
- Kappes, C., & Schattke, K. (2022). You have to let go sometimes: advances in understanding goal disengagement. *Motivation and emotion*, 46(6), 735–751. <https://doi.org/10.1007/s11031-022-09980-z>
- Kennedy, B. L., Morris, R. L., Pedley, L. L., & Schwab, J. J. (2001). The ability of the Symptom Checklist SCL-90 to differentiate various anxiety and depressive disorders. *The Psychiatric quarterly*, 72(3), 277–288. <https://doi.org/10.1023/a:1010357216925>
- Kirk, H., Gilmour, A., Dudley, R., Riby, D. M. (2013). Paranoid Ideation and Assessments of Trust. *Journal of Experimental Psychopathology*, 4(4):360-367. doi:10.5127/jep.027812
- Krueger, R. F., Derringer, J., Markon, K. E., Watson, D., & Skodol, A. E. (2012). *Personality Inventory for DSM-5 (PID-5)* [Database record]. APA PsycTests. <https://doi.org/10.1037/t30042-000>
- López-Pérez, B., & McCagh, J. (2020). How do I want to feel? The link between emotion goals and difficulties in emotion regulation in borderline personality disorder. *The British journal of clinical psychology*, 59(1), 96–114. <https://doi.org/10.1111/bjc.12235>
- Lorenzini, R., & Coratti, B. (2008). *La dimensione delirante. Psicoterapia cognitiva della follia*. Raffaello Cortina Editore.
- Lorenzini, R., & Sassaroli, S. (2000). *La mente prigioniera. Strategie di terapia cognitiva*. Raffaello Cortina Editore.
- McClelland, D. C. (1987). *Human motivation*. Cambridge University Press.
- Mancini, A. e Mancini, F. (2021). *Il ruolo degli scopi nei disturbi di personalità*. In Perdighe, C. e Gragnani, A. (a cura di) (2021). *Psicoterapia Cognitiva. Comprendere e curare i disturbi mentali*. Milano. Raffaello Cortina Editore.
- Mancini, F. & Perdighe, C. (2012). Perché si soffre? Il ruolo della non accettazione nella genesi e nel mantenimento della sofferenza emotiva. *Cognitivism clinico*, 9(2), 95–115.
- Mancini, F. (2016). Sulla necessità degli scopi come determinanti prossimi della sofferenza psicopatologica. *Cognitivism Clinico* 13(1), 7–20.
- Mancini, F., & Gangemi, A. (2015). Deontological guilt and obsessive compulsive disorder. *Journal of behavior therapy*

- and experimental psychiatry, 49(Pt B), 157–163. <https://doi.org/10.1016/j.jbtep.2015.05.003>
- Mancini, F., Gangemi, A. e Giacomantonio, M. (2021). *Il cognitivismo clinico e la psicopatologia*. In C. Perdighe e A. Gragnani (Eds.), *Psicoterapia cognitiva*. Milano. Raffaello Cortina Editore.
- Mancini, F., Gangemi, A., & Johnson-Laird, P.N. (2007). Il ruolo del ragionamento nella Psicopatologia secondo la Hyper Emotion Theory. *Giornale italiano di psicologia*, 4, 763–793.
- Martin, L. L., & Tesser, A. (1989). *Toward a motivational and structural theory of ruminative thought*. In J. S. Uleman & J. A. Bargh (Eds.), *Unintended thought: Limits of awareness, intention, and control* (pp. 306–326). New York, NY: Guilford Press.
- Miceli, M., & Castelfranchi, C. (2017). Irrevocable Goals. *Review of General Psychology*, 21(1), 69 – 81. <http://dx.doi.org/10.1037/gpr0000094>
- Moretz, M. W., & McKay, D. (2009). The role of perfectionism in obsessive-compulsive symptoms: "not just right" experiences and checking compulsions. *Journal of anxiety disorders*, 23(5), 640–644. <https://doi.org/10.1016/j.janxdis.2009.01.015>
- Nesse, R. M. (2000). Is depression an adaptation? *Archives of General Psychiatry*, 57, 14–20.
- Pasmatzis, E., Koulierakis, G., & Giaglis, G. (2016). *Psychiatrike = Psychiatriki*, 27(4), 243–252. <https://doi.org/10.22365/jpsych.2016.274.243>
- Perdighe, C. & Gragnani A. (2021). *La formulazione del caso*. Perdighe, C. & Gragnani, A. (a cura di) (2021). *Psicoterapia Cognitiva. Comprendere e curare i disturbi mentali*. Milano. Raffaello Cortina Editore.
- Pollack M. H. (2005). Comorbid anxiety and depression. *The Journal of clinical psychiatry*, 66 Suppl 8, 22–29.
- Prunas, A., Sarno, I., Preti, E., Madeddu, F., & Perugini, M. (2012). Psychometric properties of the Italian version of the SCL-90-R: a study on a large community sample. *European psychiatry : the journal of the Association of European Psychiatrists*, 27(8), 591–597. <https://doi.org/10.1016/j.eurpsy.2010.12.006>
- Pyszczynski, T., & Greenberg, J. (1987). Self-regulatory perseveration and the depressive self-focusing style: A self-awareness theory of reactive depression. *Psychological Bulletin*, 102, 122–138. <https://doi.org/10.1037/0033-2909.102.1.122>
- Rogier, G., Beomonte Zobel, S., & Velotti, P. (2021). COVID-19, Loneliness and Technological Addiction: Longitudinal Data. *Journal of Gambling Issues*, 47. <http://dx.doi.org/10.4309/jgi.2021.47.4>
- Rheinberg, F., & Vollmeyer, R. (2018). *Motivation* (9th ed.). Kohlhammer.
- Saliani, A. M., Astiaso Garcia, B., Perdighe, C., Barcaccia, B. y Mancini F. (2022). La formulación del caso desde la perspectiva de una mente gobernada por objetivos y creencias. *Revista de psicoterapia*, 33 (123), 111-132. <https://doi.org/10.33898/rdp.v33i123.35674>
- Semerari, A. (2000). *Storia, teorie e tecniche della psicoterapia cognitiva*. Editori Laterza.
- Sheldon, K. M., & Elliot, A. J. (1999). Goal striving, need satisfaction, and longitudinal well-being: The self-concordance model. *Journal of Personality and Social Psychology*, 76(3), 482–497. <https://doi.org/10.1037/0022-3514.76.3.482>
- Stevens, J. P. (2009). *Applied Multivariate Statistics for the Social Sciences* (5th ed.). New York. Routledge.
- Vallacher, R. R., & Wegner, D. M. (1987). What do people think they're doing? Action identification and human behavior. *Psychological Review*, 94, 3–15. <http://dx.doi.org/10.1037/0033-295X.94.1.3>
- Wrosch, C., Scheier, M. F., Carver, C. S., & Schulz, R. (2003). The importance of goal disengagement in adaptive self-regulation: When giving up is beneficial. *Self and Identity*, 2(1), 1–20. <https://doi.org/10.1080/15298860309021>
- Wrosch, C., Miller, G. E., Scheier, M. F., & de Pontet, S. B. (2007). Giving up on unattainable goals: benefits for health?. *Personality & social psychology bulletin*, 33(2), 251–265. <https://doi.org/10.1177/0146167206294905>