

Volume 9, n 1, 2021

Articles

The Resilient Recovery from Substance Addiction: The Role of Self-transcendence Values and Hope

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Abstract

*Background:* Substance addiction is a psychosocial problem facing many people today. While the previous trend in addiction treatment was the harm reduction approach, nowadays it is fully recognized the importance of promoting human resources in order to help people to face the rehabilitation process, to prevent the risk of treatment dropout and future relapses, and to positively re-integrate them into the society. During the process of recovery from substance addiction, resilience is one of the most important protective factors against both dropouts and relapses. This study analyzed for the first time whether and the extent to which self-transcendence values (i.e., benevolence and universalism) promote resilience, considering the mediating role of hope, among patients in residential substance abuse treatment.

*Method:* Seventy-six Italian patients in residential treatment for substance addiction (86.5% males and 13.5% females;  $M_{age} = 40.23$ ,  $SD = 10.88$ ) participated to the study. Participants were asked to complete the Self-transcendence subscale from the Portrait Values Questionnaire, the Hope Scale, and the Connor Davidson Resilience Scale.

*Results:* Findings showed that self-transcendence values were positively related to resilience and that hope fully mediated (in a positive direction) this relationship. Self-transcendence values promoted resilience through the mediating role of hope.

*Conclusions:* This complex relationship suggests a holistic model of resilience during the process of recovery from substance addiction. Limitations of the study, practical implications, and future research developments are discussed.

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**Keywords:**

Self-transcendence values; Hope; Resilience; Substance addiction; Mediation model.

**Received:** 18 December 2020

**Accepted:** 16 March 2021

**Published:** 28 April 2021

**Citation:** Russo, C., Barni, D., Zagrean, I., Lulli, M.A., Vecchi, G., Danioni, F. (2021). The Resilient Recovery from Substance Addiction: The Role of Self-transcendence Values and Hope. *Mediterranean Journal of Clinical Psychology*, 9(1).

<https://doi.org/10.6092/2282-1619/mjcp-2902>

## 1. Introduction

Substance addiction is a worldwide and steadily increasing phenomenon (Substance Abuse and Mental Health Services Administration, SAMHSA, 2020). In Italy, where the present study was carried out, the last Government report pointed out as alcohol and cocaine are the most abused drugs. The report also revealed a small but persistent increase of people, mostly men, involved in a drug addiction treatment, with the majority of them (68.85%) involved in residential rehab (Direzione Centrale per i Servizi Antidroga [Central Executive for Antidrug Services], 2018). This led to an increasing number of psychological studies and interventions aimed to improve the quality of addiction treatments to increase their efficacy and likelihood of success. While the previous trend in addiction treatment was the harm reduction approach (Laudet et al., 2009), it is now fully recognized the importance of promoting human resources, such as gratitude or positive affect, in order to help people to face the rehabilitation process, to prevent the risk of treatment dropout and future relapses, and to positively re-integrate them into the society (Dutra et al., 2008; Krentzman, 2013; Leung & Tong, 2017).

In the current operational framework, resilience is considered one of the most important resources to sustain the recovery process (Matsunaga, 2018). Originally, resilience was conceptualized as a set of personal qualities that enable people to cope with adversities, making them more flourishing than before the stressful event occurred (Connor & Davidson, 2003). Based on this definition, early research on the topic claimed that resilience was a trait characterizing only few individuals (Block & Block, 1980; Jacelon, 1997). Differently, resilience is nowadays considered as a learnable, rather common, ability, which allows people not only to functionally adapt but also to give a “positive meaning” to trauma or losses (Martino et al., 2019; Masten, 2014). Thus, resilience can be acquired and cultivated (Rashid et al., 2014). In particular, as suggested by several studies, resilience seems to depend on the interplay of individual characteristics (e.g., temperament; Kim et al., 2013; Masten & Powell, 2003), the kind of stressful event, and the environment (Johnson & Wiechelt, 2004). As such, the ability of resilience results from the interaction between a range of risk factors (i.e., internal and external characteristics associated with higher odds of negative outcomes), protective factors (i.e., external resources or internal strengths that lessen risk factors), and promotive factors (i.e., external resources or internal strengths that support a positive development and help to overcome adversities) (Margalit & Idan, 2004; Ungar, 2019). Recent research suggests to focus on the promotive factors of resilience in order to understand the mechanisms that contribute to enhance resilience and resilience-related constructs in drug users and individuals in treatment for addiction (Dillon et al., 2007; Flether & Sarkar, 2013).

Several promotive factors of resilience have already been identified in the literature. However, one critical promotive factor has not been systematically explored, namely personal basic values (Daniel & Wassell, 2002; Nguyen et al., 2016). Values can be defined as guiding principles of what people consider desirable and worthy in their lives. As such, they are conceptualized as central factors of people's motivational system able to affect perceptions, attitudes, and behaviours (Rokeach, 1973; Schwartz, 1992). Several studies on the topic of personal values relied on the Theory of Basic Human Values (Schwartz, 1992, 2005, 2012), that is the most well-known evidence-based theory on values (Brosch & Sander, 2015; Roccas & Sagiv, 2017). Schwartz (1992) identified ten basic values, characterized by different motivational goals, that are universally recognized. These values are organized along a two-dimensional structure, resulting in four higher-order values. The first dimension contrasts conservation values (tradition, security, conformity), which emphasize self-restraint, preservation of traditional practices, and safeguard of stability, vs. openness to change values (stimulation, self-direction, hedonism), which emphasize instead the relevance of change, independence, and freedom. The second dimension captures the conflict between self-enhancement values (power and achievement), which emphasize the pursuit of one's own interest and relative success and dominance over others, and self-transcendence values (universalism and benevolence), which emphasize concern for the welfare and interests of others, transcending own selfish needs.

Self-transcendence values, that are the focus of the present study, are usually considered "healthy values" (Schwartz & Sortheix, 2018). According to the Self-determination theory (Ryan et al., 1995; Ryan & Deci, 2001, 2017), human wellbeing is linked to the satisfaction of innate psychological needs, namely autonomy, competence, and relatedness (Chan et al., 2019). These needs turn into the category of intrinsic self-actualizing goals. Self-transcendence values are an intrinsic part of this goal category (Schwartz & Sortheix, 2018) by complying with the basic need of relatedness and underling both self-expansion and self-actualization motivations. As such, they are often associated with positive emotions (Schwartz, 2012) and positive adjustment outcomes (Lönnqvist et al., 2009; Sortheix & Lönnqvist, 2014). For these reasons, Schwartz (2012) labelled self-transcendence as growth, anxiety-free, and social-focused values. As a matter of fact, studies carried out on the general population showed the positive relationship between self-transcendence values, wellbeing (Haslam et al., 2009; Jamaludin et al., 2016; Karabati & Cemalcilar, 2010), life satisfaction (Sortheix & Lönnqvist, 2014), and coping (Fegg et al., 2005; Krok, 2015). Moreover, several studies pointed out the protective role of self-transcendence values against transgressive or unhealthy behaviours (Beller, 2021; Danioni et al., 2020; Danioni & Barni, 2019; Rosnati et al., 2014; Russo et al., 2019).

To the best of our knowledge, no studies have investigated the role of self-transcendence basic values during the process of addiction recovery so far. However, previous research highlighted the protective role of the core value of spirituality in the treatment and recovery from addiction (Burke, 2006; Grim & Grim, 2019; Pardini et al., 2000). Specifically, previous evidence pointed out that considering the role of spirituality during the recovery helps to improve positive coping skills in rehab patients (Arévalo et al., 2008; Currier, 2020; Kondo et al., 2000). Although spirituality and self-transcendence values are different constructs, these are strongly related (Cook, 2004; Hyland et al., 2010). Spirituality is often considered as the value that reflects the one's desire to go beyond the self, exploring transcendence without any specific religious affiliation (Del Rio & White, 2012).

Both basic and core values are relatively stable across times and situations in adulthood (Bardi & Schwartz, 2003; Hitlin & Piliavin, 2004; Schwartz, 1992). However, recent evidence showed that, under some circumstances, the importance ascribed to values may spontaneously or voluntarily change (Schuster et al., 2019). Interestingly, research reported a relevant increase in the importance given to self-transcendence values in the case of traumatic events or transitions, such as in the case of war (Sundberg, 2016) or serious diseases (Iwamoto et al., 2011). According to Naveh-Kedem and Sverdlik (2019), people who lived experiences during which their lives were at risk are more likely to experience the so-called “mortality salience” (Greenberg et al., 1992) that consists of increasing awareness of the fragility of the human existence and death (Bassett & Going, 2012). In order to cope with the traumatic experience, people tend to focus on self-transcendent aspects of their lives, such as significant relationships, love, spirituality and their role and impact in the world (Connor & Zhang, 2006). Woodier (2011) - through a series of single case studies carried out with Looked After children (i.e., children in the care of Local Authority) - applied a field intervention in order to promote the process of resilience. Part of his intervention focused on strengthening the importance ascribed to self-transcendence dimension, such as honesty and helpfulness. The enhancement of these values helped children to be more confident in the social workers around them, to better overcome the difficulties and to become more hopeful about their future.

Hope is usually conceptualized as a way of thinking that helps people to hold positive expectations about the future (Snyder, 2000), and as such, it could be considered as an inner energy (Margalit & Idan, 2004). In order to exist, hope needs three main components: goals, which refer to principles considered worthy and desirable for the person; pathway thinking, which refers to the planning routes to reach these goals; and, finally, agency thinking, which consists in the tendency of developing and maintaining these motivations (Snyder, 2002).

According to Snyder (2000, 2002; Snyder et al., 2002), goals are the first essential component of hope and represent its cognitive anchor. Hopeful people need to endorse valued goals that they desire to reach (Rand & Touza, 2020). These goals guide them to plan effective behavioural strategies in order to be satisfied. In the context of substance addiction recovery, the hopeful thinking is strongly and positively associated with adaptive coping skills, allowing patients to face the challenging goal of long-term abstinence with determination (Mathis et al., 2009). As such, hope seems to be positively related to the completion of substance addiction treatments, supporting both contextual and personal characteristics, that might have a positive impact on the recovery trajectory (Best & Lubman, 2012; Carvajal et al., 1998; Irving et al., 1998; Kimball et al., 2017; Mathis et al., 2009; Stevens et al., 2018). The hopeful thinking has been often described as a deeply personal process, but it can also be highly interpersonal. Indeed, hopeful people are more likely to require the assistance of others in case of need, because they are more trustful of the others' willing to help (Margalit & Idan, 2004). In line with this, Snyder et al. (1997) theorized that hope is not related to selfish and self-oriented processes, but it has its roots in prosocial-processes concerning the welfare of the in-group members.

Taking into account these conceptualizations, it emerges the connection between the definition of "goals" proposed by Snyder (2000, 2002; Snyder et al., 1997, 2002) and the "self-transcendence values" proposed by Schwartz (1992, 2005, 2012). Furthermore, previous research showed the strong association between hope and social-focused values related to the altruism (Guter, 2016; Heiy et al., 2015). Findings pointed out the role of hope in predicting various positive outcomes in the general population, such as positive affect, flourishing (Demirli et al., 2015), and resilience (Granek et al., 2013). Moreover, research carried out with people involved in drug treatment programs showed as hope is significantly related to coping, emotion regulation and self-esteem (Law & Guo, 2012), as well as it seems to be an important resource to prevent affective symptoms during the substance abuse recovery (e.g., anxiety; May et al., 2015). In recent years, the study of the mediating role of hope in the general population has become more frequent. For example, Yang et al. (2016) pointed out that hope positively mediated the relationship between self-compassion and satisfaction with life. Moreover, Chang et al. (2016) and Rose et al. (2018) highlighted as higher levels of spirituality and religiosity were indirectly associated with lower levels of depression, through higher levels of hope. Finally, in their theoretical paradigm of hope and resilience for learning disabilities, Margalit and Idan (2004) suggested the necessity to solve the gap regarding the role of the various facets of relatedness in predicting resilient outcomes, as well as the gap concerning the mediating role of hope.

## **1.1. The current study**

Based on the above considerations, the main aim of this study was to analyze the relationship between self-transcendence values and resilience in a group of young adults and adults involved in a residential drug treatment program. We expected that the endorsement of self-transcendence values could be resulting in a hopeful and resilient adaptation to the adversities during recovery. In particular, we were interested in the role of hope in mediating the relationship between self-transcendence values and resilience. We hypothesized that hope positively mediates the association between self-transcendence values and resilience.

## **2. Materials and method**

### **2.1. Participants and procedure**

Participants were 76 young-adults and adults (86.5% males), aged between 18 and 64 ( $M = 40.23$ ,  $SD = 10.88$ ), involved in a residential drug treatment program, mostly in rehabilitation for alcoholism (38.9%) and cocaine (32.9%). Participants' abstinence from alcohol or drugs lasted from a minimum of 1 to a maximum of 5 years ( $M = 2.33$ ,  $SD = 1.39$ ). The prevalence of men in our sample was in line with the statistics reporting that men are more likely to use alcohol and illicit drugs and to enter to a rehab program compared to women (Center for Behavioral Health Statistics and Quality, 2017; Substance Abuse and Mental Health Services Administration, 2016).

Participants were recruited with the collaboration of four drug treatment centers located in Rome and in the province of Rome, Italy. Those who gave their written informed consent filled in an anonymous self-report questionnaire. The study was approved by the Ethics Committee for Scientific Research (CERS) of the LUMSA University of Rome, Italy, and followed the APA ethical guidelines of research. The main investigator of this study had previously completed the National Institutes of Health training course "Protecting Human Research Participants" (Certification Number: 2868994).

### **2.2. Measures**

#### **2.2.1. Self-transcendence values**

We used the self-transcendence subscale extracted from the Italian version of the Portrait Values Questionnaire - short form (PVQ-21; Schwartz, 2003; Italian validation by Capanna et al., 2005). It is composed of five verbal portraits of a person and his/her social focus aspirations and objectives, which indirectly reflect the importance of benevolence or universalism values. Respondents' self-transcendence values are inferred from their self-reported similarity to the described persons (from 1 = "Not like me at all" to 6 = "Very much like me"). An example of

item is “He/She thinks it is important that every person in the world should be treated equally. He/she believes everyone should have equal opportunities in life” ( $\alpha = .60$ ).

### 2.2.2. Hope

We used the Hope Scale (AHS; Snyder et al., 1991) to measure respondents’ level of hope. It is composed of 12 items, ranging from 1 = “definitely false” to 8 = “definitely true”. Four items concerned the Pathways thinking (e.g., “I can think of many ways to get out of a jam”), four concerned the Agency thought (e.g., “I energetically pursue my goals”), and finally, four items were fillers. The total score was obtained by summing the four pathways and the four agency items ( $\alpha = .86$ ). Since there was not an Italian validation of this scale, the scale was back-translated from English into Italian. We then performed a Confirmatory Factor Analysis (CFA) to verify the factor structure of the scale. Results showed satisfactory fit indices ( $\chi^2/df = 23.62/20, p < .01$ ; CFI=.99; RMSEA=.05; TLI=.97; SRMR=.05).

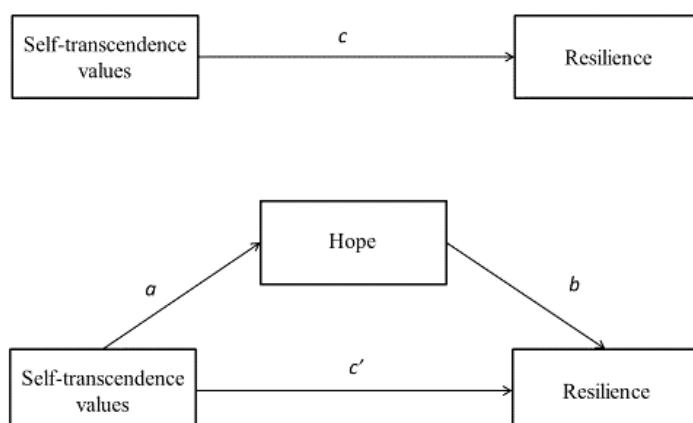
### 2.2.3. Resilience

We used the Connor Davidson Resilience Scale (CD-RISC; Connor & Davidson, 2003; Italian validation by Di Fabio & Palazzeschi, 2012) to measure participants’ resilience. The scale is composed of 25 items, ranging from 0 = “rarely true” to 4 = “true nearly all of the times”. The scale considers how respondents have coped with adverse situations over the past month. An example of the items is “I am able to adapt to change” ( $\alpha = .88$ ).

## 2.3. Data analysis

Preliminarily, we described the study variables in terms of means, standard deviations, and ranges. Bivariate Pearson correlations were used to measure associations between the variables. Then, we computed a simple mediation model, where self-transcendence values were the predictor (X), hope was the mediator (M), and resilience was the outcome (Y). Figure 1 depicted the theoretical framework of our mediation model.

**Figure 1.** Path diagram of the hypothesized mediation model.



On the top of the figure is represented the association between self-transcendence and resilience (total effect,  $c$ ). In the bottom part of the figure, we introduced the role of hope as mediator. Thus,  $c'$  was the direct effect, adjusting for the hope;  $a$  was the effect of the self-transcendence on hope, and  $b$  was the effect of hope on resilience. Finally, the mediation effect was calculated by the product of  $a$  and  $b$ , that is equivalent to  $c-c'$  (Baron & Kenny, 1986). In order to explore the replicability of our results, we used the standard bootstrap 95% confidence interval; parameter estimates were based on 5000 bootstrap samples (Hair Jr et al., 2017). We carried out all the analyses using the Jamovi software (The Jamovi Project, 2019; R Core Team, 2018) for Windows.

### 3. Results

Descriptive statistics of the study variables and their correlations are reported in Table 1, which showed strong positive correlations among all the variables (i.e., self-transcendence values, hope, and resilience).

**Table 1.** Pearson correlation coefficients, means, standard deviations (SD), and ranges of the study variables.

	1	2	3
1. Self-transcendence	-	0.35**	0.36**
2. Hope		-	0.64**
3. Resilience			-
Mean	4.50	5.88	2.44
SD	0.86	1.23	0.65
Range	1-6	1-8	1-4

The inter-correlation among the study variables allowed us to move on with the mediation model (Baron & Kenny, 1986). Table 2 reported the standardized effects of the mediation model.

**Table 2.** Results of mediation with standardized effects and bootstrap 95% CI.

Effects	Resilience [95% CI]
Total	0.340 [0.09, 0.41]
Indirect	0.210 [0.03, 0.28]
Direct	0.130 [-0.08, 0.24]

Results showed a significant  $\beta$  coefficient between self-transcendence values and hope ( $\beta = 0.35$ ;  $p < 0.05$ ), as well as a significant  $\beta$  coefficient between hope and resilience ( $\beta = 0.60$ ;  $p < 0.01$ ). Specifically, self-transcendence values were positively related to hope, and, in turn, it was positively related to resilience. However, the direct effect of self-transcendence on resilience, after adjusting for the mediator, was not significant ( $\beta = 0.13$ ;  $p = .249$ ), this showing that hope fully mediated the relationship between values and resilience. In other words, hope plays a role in enhancing the effects of self-transcendence values on resilience. Results were confirmed by the Bootstrap method (5000 times; Table 2).



## 5. Discussion

During the treatment of substance addiction, people face several difficulties and challenges to get their lives sorted out. In this context, resilience is one of the most important protective factors against both the treatment dropout and the relapses (Dutra et al., 2008). Resilience is an improvable ability that makes it possible for people not only to adapt to a traumatic situation but also to flourish and acquire new positive schemas, leading to a positive development (Martino et al., 2019; Masten, 2014). Thus, identifying predictors of resilience can help in developing interventions meant to foster resilience and strengthen coping strategies in drug abuse recovery.

For the first time, this study analyzed the relationship between self-transcendence values and resilience in a group of people in residential drug treatment programs, while also considering the mediating role of hope. Results showed a positive association between self-transcendence values and resilience. Self-transcendence values, which underline social-focused motivational goals, could play a protective role during traumatic situations and transitions (Iwamoto et al., 2011; Naveh-Kedem & Sverdlik, 2019; Sundberg, 2016). They can lead to positive perceptions, attitudes, affects, and behaviours (Schwartz & Sortheix, 2018), by specifically complying with the innate psychological need of relatedness (i.e., intrinsic self-actualizing need) (Deci & Ryan, 2000; Ryan & Deci, 2017). Previous evidence suggested that the satisfaction of the need of relatedness leads to higher levels of resilience (Ryan, 2004). Indeed, goals which promote relatedness (i.e., self-transcendence values) foster people to cultivate significant relationships with other individuals. In turn, these relationships not only enhance perceived wellbeing, but also work as a buffer against stress (Margalit & Idan, 2004). Chan et al. (2019) found that drug abusers' negative emotions, which can increase the risk of taking drugs, were strongly related to their poor relationships with significant others. That is, the lack of satisfaction of the psychological need of relatedness was psychologically substituted with drugs. Thus, increasing self-transcendence values among people in rehabilitation for drug addiction could improve their desire and aim to establish significant relationships with others, nurturing the basic psychological need of relatedness. In other words, self-transcendence values might enhance significant relationships with others, leading to positive emotions and feelings, such as empathy and love (Tamir et al., 2016), and to the perception of care and support. These factors, in turn, seem to be the best motivators to quit drugs (Chan et al., 2019).

Of course, this does not mean that the importance given to self-transcendence values should be unique or excessive. It is worth considering the possibility to develop maladaptive adjustment in case of excessive care of others. Indeed, even if mainly investigated among health

professionals or caregivers, previous research showed that compassion for others is a limited resource, and, as such, it might dry up, leading to the so called “compassion fatigue” (Merlo et al., 2020a). Compassion fatigue is characterized by the loss of the ability to nurture relationships, developing physical and emotional signs such as exhaustion, sadness, and cynicism (Boyle, 2015; Settineri et al., 2019). For these reasons, this phenomenon is often depicted with the wording “the cost of caring” (Figley, 2002; Ledoux, 2015; Merlo et al., 2020b).

Regarding the other findings, in addition to this direct pathway to resilience, an indirect pathway was identified including the positive impact of self-transcendence values on hope, which in turn promoted resilience. Indeed, the present study has the merit of showing that hope fully mediated the link between self-transcendence values and resilience. By recognizing the complex nature of resilience, the present study opens the possibility of a more holistic model of resilience in the process of recovery from substance addiction. In this regard, Margalit and Idan (2004), in their paradigm of hope and resilience theory for learning disabilities, argue that the connection between hope and resilience is so strong in fragile situations that it is not possible to study resilience without taking into account the role of hope. Specifically, according to the authors (Margalit & Idan, 2004), to promote resilient outcomes, it is important to seek the source of hope at the aim to shape students’ wellbeing and achievements. As such, it is possible to work on their resources rather than their deficits. Accordingly, hope could be viewed as an inner energy resource working as a promotive factor for the resilient adaptation to tricky circumstances. Based on our findings, we can expand this model by including self-transcendence values. Hope is conceptualized as a thinking aptitude tied to the ability to pursue valued goals (Snyder, 2000). Being connected with others is the higher order human goal, because the pursuit of all other goals occurs in a social environment (Rand & Touza, 2020). So, we could explain the connection between self-transcendence values and hope, by speculating that self-transcendence values activate the process through which people value the goal of transcending themselves, satisfying the need of relatedness. As such, self-transcendence values raise people’s awareness of the importance of others, fostering them to cultivate significant relationships (Schwartz, 2012). Previous studies highlighted that hope is a highly interpersonal path rather than completely personal (Margalit & Idan, 2004), having its roots in prosocial-processes (Snyder et al., 1997). Indeed, hopeful people are more trustful in others and are likely to require for help in case of need. This is particularly relevant in substance abuse recovery (Carvajal et al., 1998; Irving et al., 1998; Kimball et al., 2017; Mathis et al., 2009).

## 5.1. Conclusion

Despite these promising results, five main limitations of the present study must be acknowledged. Firstly, the small convenience sample prevents the possibility to generalize the findings. However, in order to face this limit, we used the bootstrap method to compute the confidence intervals (Schoemann et al., 2017). Secondly, the cross-sectional nature of the study did not allow us to draw causal relations among the study variables, and for this reason future longitudinal studies are needed. Thirdly, we did have neither information about the previous drug experiences of the participants nor about the kind of psychological treatments they were involved into in the rehab centers. Fourthly, in our study, we involved only a group of people in treatment for substance addiction. Future studies should also involve a normative group in order to understand whether and to what extent the relationships among self-transcendence, hope, and resilience exist also for people not in treatment. Finally, we used single self-report scales to measure the constructs. Additional scales and a multimethod approach could give greater solidity to the results obtained.

However, to the best of our knowledge, this is the first study that addressed the role of self-transcendence values in promoting resilience, considering the mediating role of hope, in a group of people in residential treatment for substance addiction. These findings lead to consider the possibility to strengthen interventions to promote resilience in substance abuse recovery through self-transcendence values and hope. Previous studies highlighted the promising effect of hope interventions (Hossain et al., 2018), also in the case of substance addiction (Best & Lubman, 2012; Koehn & Cutcliffe, 2012). Hope interventions usually consist of tasks aimed to make valued goals clear, such as abstinence in case of substance addiction, and to enhance the necessary motivation to pursue those goals (Snyder et al., 2006). It has been moreover recently developed a theoretical model of value-change, according to which, the change might happen by the use of tasks that relied on some facilitators, such as, for example, priming, identification, and reasoning (Bardi & Goodwin, 2011). In this regard, empirical studies aimed to enhance self-transcendence values reported significant results (Arieli et al., 2014). The present study showed that both self-transcendence values and hope are critical components in the promotion of resilience and that they are strongly interrelated in the process towards resilience. Thus, it could be relevant to develop an integrated program to strengthen the resilient capacities during the tricky circumstance of recovery from drug addictions, including both hope and value change interventions.

## Ethics approval

This study was approved by the Ethics Committee for Scientific Research (CERS) of the LUMSA University of Rome, Italy.

### **Conflict of Interest Statement**

The authors declare that the research was conducted in the absence of any potential conflict of interest.

### **Acknowledgments**

The researchers would like to express their deepest gratitude to all the participants that accepted with enthusiasm to be involved in this research project, sharing with us their experiences.

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**DOI:** 10.6092/2282-1619/mjcp-2902