**Breaking the vise of hopelessness:
Targeting its components, antecedents, and context**

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Abstract

Hopelessness is a painful state that is related to depression and suicide. In spite of its importance, only unsystematic efforts have been made to specifically target hopelessness in interventions, and no comprehensive review is currently available to guide future clinical studies. Hence, we first analyze the phenomenon of hopelessness, by highlighting its components (e.g., lack of positive expectations, blocked goal-directed processing, and helplessness), antecedents (e.g., inferential styles and future orientation), and contextual factors (e.g., loneliness and reduced social support). Then, we review the currently available interventions and manipulations that target these mechanisms, either directly or indirectly, and we highlight both their strengths and lacunae. Finally, we propose possible avenues to improve our clinical toolbox for breaking the vise of hopelessness.

Keywords: hopelessness, intervention, future expectation, goal-processing, helplessness, memory specificity, inferential style, future orientation, loneliness, social support.

Hopelessness is possible only because we do hope that some good, loving someone could come.

Jacques Derrida (2002)

1. Introduction

Human beings are fundamentally future-oriented (Seligman, Railton, Baumeister, & Sripada, 2013) and, despite the turbulence and inherent disappointments of life, they maintain markedly positive expectations about what the future holds (Fischer & Chalmers, 2008; Gallagher, Lopez, & Pressman, 2013). Such an optimistic perspective has been associated with a gamut of favorable outcomes, ranging from psychological and physical well-being to higher socioeconomic status and greater social resources (for a review, see Carver, Scheier, & Segerstrom, 2010). Yet, a substantial minority of people views their future as gloomy and feels they can do nothing to change such a dismal scenario. In other words, they experience *hopelessness*.

Hopelessness is a highly relevant phenomenon for both clinicians and researchers, given its clinical and theoretical significance. First, hopelessness is present at a clinically significant level in 9-12% of the general population (Greene, 1981; Mair, Kaplan, & Everson-Rose, 2012; Poch et al., 2004). Second, strong evidence indicates that hopelessness is a major predictor of important future outcomes, such as depressive symptoms and episodes (Abramson, Alloy, & Metalsky, 1989; Alford, Lester, Patel, Buchanan, & Giunta, 1995; Hamilton et al., 2013; Joiner, 2005; Joiner, Wingate, & Otamendi, 2005; Mac Giollabhui et al., 2018a), suicidal ideation and suicide death (A. T. Beck, Brown, & Steer, 1989; Franklin et al., 2017), poor health (Roane, Possel, Mitchell, & Eaton, 2017), and increased mortality (Everson et al., 1996; Stern, Dhanda, & Hazuda, 2001). Third, hopelessness is an important marker in treatment contexts as well, as it is associated with reduced help-seeking in suicidal youth (i.e., help-negation; Wilson & Deane, 2010, but see Deane, Wilson, & Ciarrochi, 2001), treatment-unresponsive hopelessness predicts negative outcome in cognitive therapy (Kuyken, 2004), and higher levels of pre-

treatment hopelessness account for drop-out in cognitive-behavioral group therapy (Westra, Dozois, & Boardman, 2002).

Notwithstanding the necessity for targeting hopelessness, no overview of clinical interventions and experimental manipulations is currently available to clinicians and researchers. This has likely prevented the implementation of specific clinical programs addressing this important phenomenon. To bridge this gap, we present a thorough examination of the current interventions, highlighting both their strengths and lacunae, and we propose possible avenues for future basic and clinical research

2. Theoretical Considerations

2.1. Components of Hopelessness

Hopelessness is defined as the expectation that future negative events will occur and/or future positive events will not occur, coupled with the belief that one is helpless to bring about change in this situation (Abramson et al., 1989). Based on this classic definition and previous research, we can identify three major components of hopelessness: i) *lack of positive expectations about the future* (Abramson et al. 1989; A. T. Beck, Weissman, Lester, & Trexler, 1974; MacLeod, Rose, & Williams, 1993); ii) *blocked goal-directed processing* (A. T. Beck et al., 1974; Melges & Bowlby, 1969), and iii) *helplessness* (Abramson, Seligman, & Teasdale, 1978; A. T. Beck et al., 1974) (Figure 1). Although speculative, this framework may be useful to capture the intrinsic complexity of this phenomenon and provide a helpful guide to evaluate the different types of clinical interventions and experimental manipulations. Then, we discuss each of these components and the possible ways to intervene on them, in more detail below. Importantly, although hopelessness may be limited to specific life domains (i.e., circumscribed hopelessness), research shows that most frequently, hopelessness applies to a variety of contexts and it is therefore defined as generalized hopelessness (Abramson et al., 1989). In our review,

we will primarily focus on generalized hopelessness, which we hereafter refer to as hopelessness, if not otherwise specified.

Figure 1 Hopelessness and its components

2.1.1. Hopelessness involves the lack of positive expectations about the future. The lack of positive expectations about the future is a quintessential feature of hopelessness, as the future is painted as impossible, bleak, and fundamentally devoid of any positivity (Marchetti, 2019). Indeed, research shows that positive future thinking is markedly affected in hopelessness (Macleod & Cropley, 1995; MacLeod, Pankhania, Lee, & Mitchell, 1997; Macleod et al., 1993, 2005; O'Connor, Connery, & Cheyne, 2000; Roepke & Seligman, 2016), with positive scenarios being less frequent, less likely, less specific, and more difficult to generate (Macleod & Cropley, 1995; MacLeod et al., 2005; Miranda, Fontes, & Marroquin, 2008). Moreover, the lack of positive future thinking seems to be particularly relevant only when the thought content

is self-relevant rather than focused on other people (Alloy & Ahrens, 1987; MacLeod & Conway, 2005, 2007). Interestingly, the evidence about the association between hopelessness and negative future thinking is mixed (Roepke & Seligman, 2016). Reconciling this pattern of findings, R. Beck and colleagues (2001) argued that hopelessness represents a cognitive correlate of low positive affect, more so than high negative affect.

Recent theoretical and empirical studies have proposed several, non-mutually exclusive mechanisms to account for such distortions in time perspective and emotionality in hopelessness. For instance, it has been suggested that biased foresight in depression and anxiety to a large extent relies on biased retrieval of episodic/semantic information, as these two phenomena share common neural mechanisms (Miloyan, Pachana, & Suddendorf, 2014). In keeping with this perspective, Marchetti, Everaert and colleagues (2018) showed, across different paradigms and measures, that negative memory bias for depressotypic material is strongly related to pessimism and hopelessness. Moreover, the degree of specificity while retrieving a memory appears to be a relevant feature for episodic future thinking (Schacter, Addis, & Buckner, 2008, Williams et al., 1996), with overgeneral autobiographical memory being moderately associated with hopelessness (Evans, Williams, Oloughlin, & Howells, 1992). Finally, a recent network analysis study showed that expecting gloomy future scenarios is related to the inability to imagine the future in a vivid and confident way (Marchetti, 2019).

In sum, evidence suggests that hopeless individuals largely rely on their negative past in order to foresee what will happen (Ghaemi, 2007; Hamilton et al., 2015), with this leading to a narrowing of positive expectations and, eventually, hopelessness.

2.1.2. Hopelessness involves a blocked goal-directed process. Hopelessness arises from experiencing that important goals that the person is committed to are blocked along with the inability to detach from these goals (Marchetti, 2019; Melges & Bowlby, 1969). Although a strong pursuit of goals is usually related to well-being (Ryff, 1989; Sheldon et al., 2010) and

meaning in life (Feldman & Snyder, 2005), it may have drawbacks as well (Pomerantz, Saxon, & Oishi, 2000). In fact, if one experiences goal failure and the foreseeable future does not hold any promise of change, hopelessness is likely to develop (Marchetti, 2019; Melges & Bowlby, 1969).

In keeping with this perspective, parasuicidal and depressed individuals with high levels of hopelessness do not report fewer goals than healthy controls, but they view them as less probable, less under their control, and more blocked (Hadley & MacLeod, 2010; Vincent, Boddana, & MacLeod, 2004). Moreover, hopelessness, as compared to depression and anxiety, is uniquely related to the belief that future well-being (e.g., happiness, self-worth, and fulfillment) is dependent on the achievement of specific goals (Hadley & MacLeod, 2010). An example may clarify this point. A couple may have the strong goal of having a baby, but, if all their efforts turn out in vain, they may experience hopelessness, especially if having a baby is considered the only way to reach life fulfillment. Such a phenomenon, whereby happiness and personal well-being are thought to strictly depend on specific goals, is defined as conditional goal setting¹ (Street, 2002), and it is often observed in clinical groups with high levels of hopelessness, namely deliberate self-harmers (Danchin, MacLeod, & Tata, 2010). Finally, individuals who experience a goal-oriented and meaningful life report less hopelessness (Edwards & Holden, 2001; Harris & Standard, 2001).

In sum, hopeless individuals are strongly committed to goals that are perceived as irremediably narrowed, blocked, and obstructed. Intriguingly, some research shows that their motivational hierarchy may be characterized by a specific structural pattern, referred to as “painful engagement” (MacLeod & Conway, 2007), where they believe that future happiness is fully conditional upon specific goal(s) being achieved.

2.1.3. Hopelessness involves helplessness. Hopelessness entails helplessness (Garber, Miller, & Abramson, 1980), defined as the expectation that a given outcome is independent of

one's actions (Seligman, 1975). In other words, hopeless people feel they have no power or ability to change the problems they are currently facing and feel that attaining positive outcomes is outside of their control.

In line with this, there is evidence that hopelessness is associated with perceived ineffective problem solving, namely the individual's appraisal that their problem-solving skills will be insufficient or inadequate to deal with life's problems (Heppner, Witty, & Dixon, 2004). Both healthy and depressed individuals with high levels of hopelessness lack confidence in their skills to solve problems (Cannon et al., 1999; Dixon, Heppner, & Anderson, 1991; Witty, Heppner, Bernard, & Thoreson, 2001; Yang & Clum, 1994; for an excellent review, see Heppner et al., 2004), and such impairments predict, in interaction with stress, future levels of hopelessness in college students (Priester & Clum, 1993a).

Furthermore, given the partial overlap between perceived and actual problem-solving skills (Heppner et al., 2004), hopelessness is concurrently correlated with actual ineffective problem solving in parasuicidal patients, inmates, and healthy individuals (Biggam & Power, 1999; Evans et al., 1992). Interestingly, individual problem-solving deficits are related to lesser anticipation of future positive experiences (MacLeod & Conway, 2005; Vincent et al., 2004) and, in interaction with stress, also predict future levels of hopelessness in college students (Priester & Clum, 1993b).

In sum, accumulating evidence suggests that hopelessness is robustly related to perceived and actual problem-solving deficits.

2.2. *Antecedents: Negative Inferential Style, Enhancing Inferential Style, and Future*

Orientation

The Hopelessness Theory (Abramson et al., 1989) posits that hopelessness stems directly from a specific way of making inferences about negative events, called *negative inferential*

style. When exposed to negative events (i.e., failing an exam), a person with a negative inferential style tends to draw negative inferences about the cause of the event (i.e., stable and global²; “this will always cause me to fail other exams and fail in all areas of my life”), consequences of the event (i.e., “this will lead to other negative things happening to me”), and self-characteristics given the fact of occurrence of the event (i.e., “I am flawed in some way”). Over time, such a style leads to hopelessness and, in turn, to depression (for an excellent review, see Liu, Kleiman, Nestor, & Cheek, 2015).

Confirming its role as a vulnerability factor, negative inferential style is stable over time (i.e., one-year follow-up $r = .80$; Alloy et al., 2000; seven-year stability; Romens, Abramson, & Alloy, 2009) and more negative inferences were found in remitted depressed individuals than healthy controls with no history of depression (Haeffel et al., 2005), hence supporting the view that this specific cognitive style is not just a concomitant of depression. Moreover, although negative inferential style is associated with concurrent levels of hopelessness only with modest-to-moderate magnitude (Gibb, Alloy, Abramson, & Marx, 2003; Gibb et al., 2001; J. G. Johnson, Crofton, & Feinstein, 1996; Kleiman, Liu, Riskind, & Hamilton, 2015; O'Connor et al., 2000), drawing negative inferences about negative events can predict future hopelessness on its own (Hong, Gwee, & Karia, 2006), and in interaction with stressful life events (Haeffel, Abramson, Brazy, & Shah, 2008; Mac Giollabhui et al., 2018a; Metalsky & Joiner, 1992; Panzarella, Alloy, & Whitehouse, 2006; but see Abela, 2001).

A theoretical expansion of the Hopelessness Theory further explored possible determinants of the negative inferential style and it stressed the role played by childhood maltreatment (Rose & Abramson, 1992). Evidence confirms that having experienced childhood emotional abuse, as compared to physical and sexual abuse, increases the likelihood to adopt a negative inferential style and, in turn, hopelessness (Gibb & Abela, 2008; Gibb et al., 2001;

Gibb, Stone, & Crossett, 2012; Hankin, 2005; Mezulis, Hyde, & Abramson, 2006; Paredes & Calvete, 2014).

The Hopelessness Theory also maintains that the development of feelings of hopelessness is hindered by a specific way of making inferences about positive events, defined as *enhancing inferential style* (Abramson et al., 1989; Needles & Abramson, 1990). Mirroring negative inferential style for negative events, enhancing inferential style consists of evaluating the cause of a positive event as stable and global, along with inferences of positive consequences and positive self-characteristics.

Despite its clinical relevance, only a handful of studies so far have investigated the relationship between enhancing inferential style and hopelessness and mixed results have been reported. For instance, the magnitude of the negative association between hopelessness and the enhancing inferential style seems to range from null to moderate (Ahrens & Haaga, 1993; Becker-Weidman et al., 2009; Edelman, Ahrens, & Haaga, 1994; J. G. Johnson et al., 1996; O'Connor et al., 2000; Priester & Clum, 1992; Voelz, Haeffel, Joiner, & Wagner, 2003). More robustly, an enhancing inferential style predicts reduced future levels of hopelessness in longitudinal studies, although the exact nature of its influence is unclear. In fact, enhancing inferential style predicts lower levels of future hopelessness on its own (J. G. Johnson et al., 1996; J. G. Johnson, Han, Douglas, Johannet, & Russell, 1998), as well as in interaction with positive events (Needles & Abramson, 1990, but see Johnson et al., 1996; Edelman et al., 1994), or with negative inferential style (Voelz et al., 2003).

Another antecedent of hopelessness is future orientation, namely the extent to which an individual thinks about the future, anticipates future consequences, and plans ahead before acting (Steinberg et al., 2009). Future orientation is a general cognitive ability related to executive functioning that develops in adolescence (Gillespie & Allport, 1955). Research indicates that greater orientation toward the future is associated with optimism (Chin & Holden,

2013) and predicts decreases in hopelessness, depression, and suicidal ideation and behavior (Chang et al., 2013; Chin & Holden, 2013; Hirsch et al., 2007). In adolescents, decreases in future orientation over five years predicted increases in hopelessness over this period (Mac Giollabhui et al., 2018b). Moreover, peer and familial emotional victimization predicted increases in hopelessness prospectively more strongly among adolescents with weaker future orientation than among those with stronger future orientation (Hamilton et al., 2015).

In sum, robust evidence shows that hopelessness is concurrently and prospectively related to specific inferences about the cause, the consequences, and features of self, in relation to negative events (i.e., negative inferential style) and to general future orientation. The role of inferential processes with respect to positive events (i.e., enhancing inferential style) has so far been studied only to a limited extent, but appears to be worthy of further investigation.

2.3. Context: Interpersonal factors

Being the outcome of several complex mechanisms, hopelessness does not unfold in a vacuum. On the contrary, many contextual factors can facilitate its onset and persistence, such as spontaneous thought (Marchetti, Koster, Klinger, & Alloy, 2016) and unemployment (Haatainen, Tanskanen, Kylma, Antikainen, et al., 2003; Haatainen, Tanskanen, Kylma, Honkalampi, et al., 2003). By relying on the Expanded Hopelessness Theory (Abramson et al., 1989; Panzarella et al., 2006), we here review evidence linking hopelessness to loneliness and reduced social support. According to this model, loneliness and reduced social support act as contextual factors that increase the likelihood to experience (social) negative events and, in turn, to draw maladaptive causal attributions and inferences (Panzarella et al., 2006).

Loneliness is defined as the negative state derived from the discrepancy between a desired interpersonal relationship network and the one actually experienced (Peplau & Perlman, 1982). The need to belong is considered a basic need of human beings (Baumeister & Leary, 1995); therefore, when such an important goal is frustrated, hopelessness may arise. Moreover,

the absence of significant social interactions may favor negative inferences about life events, due to the lack of support that could provide more adaptive inferences (i.e., adaptive inferential feedback; Dobkin, Panzarella, Fernandez, Alloy, & Cascardi, 2004; Panzarella et al., 2006). In keeping with this, consistent evidence indicates that loneliness and hopelessness are indeed positively correlated (Chang, Sanna, Hirsch, & Jeglic, 2010; Golden et al., 2009; Page, Allen, Moore, & Hewitt, 1993; Ruchkin, Eisemann, & Hagglof, 1999; Yang & Clum, 1994). However, the temporal order of these two constructs is still unclear, with longitudinal studies supporting that loneliness predicts hopelessness (Bonner & Rich, 1991) and vice versa (Joiner & Rudd, 1996).

Social support is defined as information leading people to believe that they are cared for and loved, esteemed, and members of a network of mutual obligations (Cobb, 1976). Evidence shows that hopelessness is concurrently correlated with low levels of perceived social support in inpatients, youngsters, and college students (Chioqueta & Stiles, 2007; Kashani, Suarez, Allan, & Reid, 1997). Poor social support predicted higher levels of hopelessness after six months in men with HIV (J. G. Johnson et al., 2001), while lower quality in social support could account for more hopelessness after 18 weeks in individuals with spinal cord injury (Beedie & Kennedy, 2002). In addition, low social support combined with a negative inferential style and high numbers of stressful events was predictive of hopelessness in young adults (Panzarella et al., 2006). Finally, in the context of the Interpersonal Theory of Suicide (Joiner, 2005; Van Orden et al., 2010), hopelessness regarding future changes in interpersonal relationships was related to social disconnectedness (i.e., thwarted belongingness and perceived burdensomeness; Tucker et al., 2018).

In sum, accumulating evidence indicates that experiencing unsatisfactory social bonds (i.e., loneliness and limited social support) is a somewhat reliable predictor of concurrent and future levels of hopelessness.

2.4. *Consequences: Depression, suicidality, and other psychopathology*

Hopelessness is associated with a variety of maladaptive consequences. Theoretical perspectives and strong evidence consistently show that hopelessness is related to concurrent depressive symptoms (Abela, Payne, & Moussaly, 2003; Abramson et al., 1989; A. T. Beck, Steer, Beck, & Newman, 1993; Lam, Smith, Checkley, Rijdsdijk, & Sham, 2003) and future depressive symptoms and episodes (Abela, Brozina, & Haigh, 2002; Alford et al., 1995; Russell, Haeffel, Hankin, Maxwell, & Perera, 2014; Mac Giollabhui et al., 2018a; Waszczuk, Coulson, Gregory, & Eley, 2016). Moreover, hopelessness appears to be uniquely related to depression, even after controlling for anxiety, whereas hopelessness is not related to anxiety when depression is controlled for (A. T. Beck, Riskind, Brown, & Steer, 1988; Marchetti, Loeys, Alloy, & Koster, 2016; Rholes, Riskind, & Neville, 1985), thus indicating that hopelessness is a marker for depression and only spuriously associated with anxiety.

Furthermore, the Hopelessness Theory states that, whereas hopelessness facilitates major depression, it is the cause of a specific type of depression, namely hopelessness depression (Abramson et al., 1989). Hopelessness depression is defined as the co-occurrence for at least 2 weeks of specific symptoms, such as sadness, retarded initiation of voluntary responses, suicidal ideation or behavior, sleep problems with initial insomnia, fatigue, self-blame, concentration problems, psychomotor retardation, negative repetitive thinking, low self-esteem, and dependency, along with hopelessness (Alloy, Abramson, Whitehouse, & Hogan, 2006). Evidence confirms that hopelessness is more strongly related to hopelessness depression than depression per se (Abela, Gagnon, & Auerbach, 2007; Joiner et al., 2001) and that hopelessness predicts hopelessness depression symptoms better than other types of depression symptoms (Alloy & Clements, 1998). Marchetti, Loeys, and colleagues (2016) also showed that hopelessness is related to specific symptoms, such as sadness, worthlessness, feelings of failure, suicidality, lack of energy, anhedonia, and concentration problems. Although previous evidence

was mixed (Hankin, Abramson, & Siler, 2001; Hong et al., 2006), a recent contribution provided strong support for the Hopelessness Theory, in that negative inferential style in interaction with negative life events predicted future major depressive episodes and depressive symptoms after 2.5 years via mediation by hopelessness in adolescents (Mac Giollabhui et al., 2018a).

Another well-known consequence of hopelessness is increased suicidality. Early works on hopelessness have identified this phenomenon as strongly associated with suicidal thoughts, attempted suicide, and suicide death in both cross-sectional and longitudinal studies (A. T. Beck, 1967; A. T. Beck, Brown, Berchick, Stewart, & Steer, 1990; A. T. Beck et al., 1989; A. T. Beck, Steer, Kovacs, & Garrison, 1985). Solid research demonstrated that hopelessness is a powerful predictor of suicidality over long time intervals (i.e., 5-10 years). For instance, a recent meta-analysis reviewing the literature of the last fifty years showed that hopelessness is the best predictor of future suicidal ideation, after prior suicidal ideation (Franklin et al., 2017), while another meta-analysis shows that experiencing high levels of hopelessness almost doubles the probability of dying by suicide (Ribeiro, Huang, Fox, & Franklin, 2018). Although less frequently investigated, hopelessness also is considered to be a warning sign of near-term (i.e., from hours to days) risk of suicide by the American Association of Suicidology (Rudd et al., 2006) and clinical guidelines recommend that clinicians routinely incorporate hopelessness into risk assessment (Rudd, 2008). Finally, in line with these pieces of evidence and clinical practices, several theoretical models include hopelessness as a key factor, either as a necessary (i.e., Interpersonal Theory of Suicide; Van Orden et al., 2010) or sufficient (i.e., Hopelessness Theory of Suicidality; Abramson et al., 2002) cause of suicide.

Finally, hopelessness has been reported in a variety of mental disorders, such as schizophrenia (Lysaker, Davis, & Hunter, 2004), alcoholism (Sher, 2006), and borderline personality disorder (Nisenbaum, Links, Eynan, & Heisel, 2010). It is noteworthy though that

depressive symptoms are highly comorbid in these disorders; thus, the specificity or transdiagnosticity of hopelessness for these psychopathologies is currently unclear.

2.5. Further theoretical and methodological clarifications

There are a number of important issues when considering the construct of hopelessness. In the section below, we will focus on: i) the measurement of hopelessness and related constructs; ii) the relationship between hopelessness and pessimism, and iii) the relationship between hopelessness and hope.

2.5.1. Measurement of hopelessness and related constructs. The vast majority of studies investigating hopelessness in either clinical or nonclinical samples used the *Beck Hopelessness Scale* (BHS; A. T. Beck et al., 1974). The BHS is a self-report questionnaire for hopelessness (i.e., “my future seems dark to me” and “there’s no use in really trying to get anything I want because I probably won’t get it”), consisting of 20 items that are to be rated with respect to the “past week including today”, on a dichotomous scale (i.e., true vs. false). Hence, the total score ranges from 0 to 20, with a value ≥ 9 indicating clinically significant levels of hopelessness. Studies usually report excellent internal consistency (i.e., KR-20 $> .90$; A. T. Beck et al., 1974; Steer, Rissmiller, Ranieri, & Beck, 1994) and moderate test-retest correlation (i.e., six-week follow-up $r = .66$; A. T. Beck & Steer, 1988). It is noteworthy that the factor structure of the BHS is not stable across different samples, with one (Aish & Wasserman, 2001), two (Tanaka, Sakamoto, Ono, Fujihara, & Kitamura, 1998), three (Dyce, 1996), four (Bouvard, Charles, Guérin, Aimard, & Cottraux, 1992), and even five (A. T. Beck, Steer, & Shaw, 1984) factors being documented in the literature. Although not immune to psychometric fallacies, the BHS is currently the gold standard measure for hopelessness.

A few other assessment tools for constructs closely related to hopelessness are worth mentioning. The *Cognitive Style Questionnaire* (CSQ; Haefel et al., 2008) is the main

instrument for the assessment of both negative and enhancing inferential style. It consists of 24 scenarios (i.e., 12 positive and 12 negative) that the person has to evaluate with respect to the dimensions of internality, stability, globality, consequences, and self-worth implications. Excellent psychometric properties have been shown (Haefel et al., 2008). Finally, the *Hopelessness Depression Symptom Questionnaire* (HDSQ; Metalsky & Joiner, 1997) is a 32-item self-report questionnaire of eight hopelessness depression symptoms. To our knowledge, it is the only instrument specifically developed for the assessment of this theory-based subtype of depression (Abramson et al., 1989).

2.5.2 Hopelessness and pessimism. It is important to acknowledge that hopelessness is by no means the only construct describing the human experience of negative expectations about the future. On the contrary, a variety of partially similar constructs have been proposed, among which pessimism is likely to be the most common. Pessimism is defined as a negative expectation about the self-relevant future (Carver et al., 2010), and it encompasses generating negative future scenarios along with processing goal-directed information. Unlike hopelessness, however, the construct of pessimism is silent with respect to the way the negative future scenarios are thought to come about (e.g., bad luck, haplessness, lack of personal skills, etc.). Hence, in our view, hopelessness may be considered as a factor encompassing both pessimism and helplessness (Ruini, 2017).

2.5.3. Hopelessness and hope. Hopelessness is often conceived as the opposite of hope (Stotland, 1969). However, several pieces of evidence challenge such a view and suggest that these two phenomena may simultaneously co-exist at the individual level. Both clinical and philosophical investigations indicate that hope and hopelessness have distinctive dynamics in the way they emerge and impact mental life (Ratcliffe, 2015; Sullivan, 2003), and a recent structural equation model study of about 2000 individuals showed that hopelessness and hope are indeed related, but distinct, constructs (Huen, Ip, Ho, & Yip, 2015). Moreover, hope and

hopelessness turn out to differently moderate the relationship between depressive symptoms and suicidal behavior across different ethnic groups (Hirsch, Visser, Chang, & Jeglic, 2012). Finally, it was shown that endorsing hopelessness-related items could better discriminate individual levels of depressive symptoms than denying items mapping onto hope (Balsamo et al., 2013). In sum, hopelessness appears to be characterized by specific features that are complementary, but not redundant, with those of hope.

3. Targeting hopelessness

Clinical experience and research unambiguously indicate that reducing the intensity and pervasiveness of hopelessness is of major importance. Unfortunately, however, several longitudinal and psychometric studies showed that hopelessness is fairly stable over time (A. T. Beck et al., 1974; Steer et al., 1994), and a recent epidemiological study reported that over a period of two years, more than half of those who were classified as hopeless at baseline remained hopeless at follow-up (Haatainen, Tanskanen, Kylma, Honkalampi, et al., 2003). Thus, *if not actively targeted*, hopelessness is likely to persist and detrimentally impact people's lives (Costa & McCrae, 1980).

This raises the question of whether hopelessness can be reduced to non-clinical levels. Research indicates that hopelessness is stable, but not immutable, in that, under the appropriate circumstances, its intensity can be significantly reduced. Indeed, a meta-analysis reported that psychotherapeutic interventions, mostly cognitive-behavioral therapy-oriented (i.e. CBT), have a large effect in reducing hopelessness (Cuijpers et al., 2013). However, this effect is attenuated by high heterogeneity; hence, this raises the question of what makes some interventions more successful than others in reducing hopelessness. Furthermore, other important issues are left unresolved. First, it is yet unclear via which specific mechanism(s) hopelessness can be reduced. Psychotherapy is an extremely complex intervention and its active ingredients in targeting hopelessness remain opaque (Cuijpers et al., 2013). Second, clinical levels of

hopelessness can be present without any concurrent psychopathology, thus implying that a significant number of hopeless individuals are likely not intercepted by current clinical interventions. For instance, Haatainen and colleagues (2003) showed in their large epidemiological study that about 5% of their sample remained clinically hopeless over a period of two years with no psychiatric diagnosis. This is interesting as it suggests that a substantial minority of the general population could be experiencing distressing levels of hopelessness without receiving any professional help given the absence of any major disorder. Third, there is an abundance of research showing that there is substantial individual variability in the extent to which depressed individuals respond to treatment (Gorwood et al., 2010). This is particularly important, considering that high levels of hopelessness before treatment and treatment non-responsive hopelessness are both associated with poorer clinical outcomes and drop-out (Kuyken, 2004; Westra et al., 2002; Whisman, Miller, Norman, & Keitner, 1995).

In our analysis of potential interventions for hopelessness, we start by examining the current state-of-the-art with regard to psychotherapeutic interventions that either directly or indirectly focus on mental distress and hopelessness. Then, in order to spur the development of more fine-grained interventions, we use our theoretical analysis as a guiding framework to classify the available interventions and manipulations, and to provide an analysis of the major lacunae in our therapeutic approaches to hopelessness.

3.1. CBT techniques targeting hopelessness and its correlates

International guidelines recommend CBT-oriented interventions for clinical and subclinical depression (e.g., NICE, 2009), and some evidence suggests that CBT leads to an initial improvement in hopelessness, followed by changes in self-view, motivation, mood, and vegetative symptoms (Rush, Kovacs, Beck, Weissenburger, & Hollon, 1981; but see Hollon & DeRubeis, 2009). Similarly, CBT in combination with pharmacotherapy has been shown to outperform medication alone in reducing hopelessness (Whisman, Miller, Norman, & Keitner,

1991). In conclusion, considering all the evidence, it is reasonable to contend that CBT may target this important phenomenon, either in a direct or indirect way.

Specific CBT techniques are likely to be effective in increasing positive expectations about the future, restructuring goal hierarchy, and improving helplessness (Roepke & Seligman, 2016). First, cognitive restructuring specifically aims at modifying the patients' cognitive distortions, such as those depicting their future as inevitable and doomed to failure and loss (i.e., fortune-telling; A. T. Beck & Alford, 2009; Yurica & DiTomasso, 2005). Second, CBT-oriented interventions regularly focus on changing goal hierarchy by setting goals that are realistic and achievable (Dobson & Dobson, 2009), thus preventing the patient from committing to hopeless goals. Third, cognitive rehearsal is used to mentally simulate each successive step for attaining a certain goal and helps identify potential "roadblocks" that might impede successful achievement of the goal (A. T. Beck, Rush, Shaw, & Emery, 1987). Fourth, behavioral activation, namely scheduling multiple pleasant activities (Kanter et al., 2010), is adopted to increase feelings of mastery and pleasure (Dobson & Dobson, 2009).

Furthermore, as earlier theoretical work suggests that negative inferences mirror automatic negative thoughts (Hartlage, Alloy, Vazquez, & Dykman, 1993), interventions specifically targeting the latter are likely to modify the former. For instance, when the therapist helps the patient identify their automatic thoughts about negative events and proposes alternative interpretations, the clinician is actively providing a more adaptive way to make inferences (Panzarella et al., 2006; Rubenstein, Freed, Shapero, Fauber, & Alloy, 2016). More broadly, across different types of psychotherapies, the therapeutic relationship indirectly targets hopelessness, with the instillation of hope playing a particularly relevant role (NICE, 2009). For instance, when facing a patient's negative expectations about improving, the therapist can promote realistic hopes and, in turn, break the vise of hopelessness.

In sum, specific CBT techniques and the quality of the therapeutic relationship can target hopelessness. However, based on our analysis, many current techniques are indirect and are not based on a comprehensive understanding of hopelessness. This lack of specificity may explain the partial and heterogeneous efficacy in addressing this phenomenon. For instance, in a naturalistic outcome study, almost 40% of depressed patients were characterized by unresponsive hopelessness during the first four sessions of cognitive therapy and this predicted less favorable therapy outcomes (Kuyken, 2004). Hence, improving the current therapeutic repertoire is warranted and timely.

3.2. Components-focused interventions and manipulations

Our guiding framework stresses three main processes that could be targeted to reduce hopelessness, namely i) lack of positive expectations about the future, ii) blocked goal-directed processing, and iii) helplessness (Figure 1). Below, established and promising interventions and manipulations for each component of hopelessness are reviewed and discussed.

3.2.1. Interventions and manipulations targeting the lack of positive expectations about the future. Common interventions or manipulations for hopelessness are those directly targeting the lack of positive expectations about the future, by actively engaging the individual in the generation and evaluation of more benign future events. A major representative of this type of intervention is the Best Possible Self technique (BPS; King, 2001).

The BPS technique requires the person to envision himself or herself in an imaginary future where everything turns out in the way the person wishes. More specifically, the person has to vividly imagine and write down the feelings, thoughts, and situations about their major goals being completely and satisfactorily fulfilled. Instructions may specify the themes to focus on (e.g., personal, professional, relationship, etc.) or leave them open. The participant is required to think about what to write for about one minute and then write incessantly for 15/20

minutes, followed by five minutes of imagery on what was written (Loveday, Lovell, & Jones, 2018). Research showed that a single-session BPS manipulation led to a significant increase in expectation of positive future scenarios and reduction in negative future scenarios in healthy individuals, independently from mood change (Boselie, Vancleef, Smeets, & Peters, 2014; Hanssen, Peters, Vlaeyen, Meevissen, & Vancleef, 2013; M. L. Peters, Flink, Boersma, & Linton, 2010).

A follow-up study reported that practicing daily BPS imagery over a period of two weeks induced an increase in expectation of positive future scenarios and less negative attributional style, along with an increase of optimism (Meevissen, Peters, & Alberts, 2011). It is important to stress that all of these studies reported small-to-medium effect sizes for the change of future expectations and mostly involved healthy (undergraduate) individuals. A more relevant clinical investigation with suicidal inpatients showed that BPS interventions focused on social relationships and accomplishments led to a significant reduction of hopelessness, with medium-to-large magnitude (Huffman et al., 2014). In sum, expectation-based manipulations appear to be a possible way of reducing hopelessness and its components, although more basic and clinical research, including longer follow-ups, is required to shed light on the underlying active mechanism. Moreover, it may be important to clarify whether it is possible to change the features of the imagined future scenarios, in order to make them more frequent, more specific, easier to generate, and more self-relevant.

At a more mechanistic level, cognitive training boosting memory specificity with the aim to reduce overgeneral autobiographical memory may potentially lead to a reduction of hopelessness. For instance, Serrano, Latorre, Gatz, and Montanes (2004) showed that older adults (aged 65-93 years old) participating in a life-review intervention focused on reducing overgeneral autobiographical memory reported a significant reduction of hopelessness, and this was specifically due to an increase in memory specificity. Similarly, a pilot study adopting

“MEemory Specificity Training” (MEST) reported a significant reduction of hopelessness in depressed inpatients (Raes, Williams, & Hermans, 2009). More broadly, a recent meta-analysis on autobiographical episodic memory-based trainings reported a significant effect on depressive symptoms, but highly heterogeneous across different protocols (Hitchcock, Werner-Seidler, Blackwell, Dalgleish, 2017). In sum, the evidence on targeting hopelessness via improving memory specificity is to be taken as preliminary, but promising. More experimental and clinical studies are needed to assess the efficacy of this type of intervention.

3.2.2. Interventions and manipulations targeting goal-directed processing. Goal failure represents a major locus of intervention in order to reduce hopelessness (Hadley & MacLeod, 2010; Marchetti, 2019; Melges & Bowlby, 1969). It is important to note, however, that not all goals are equally attainable, as their degree of reachability lies on a continuum from possible/realistic to impossible/unrealistic, due to individual and contextual factors (Wrosch, Scheier, Miller, Schulz, & Carver, 2003). By relying on previous literature on coping flexibility and self-regulation (Cheng, Lau, & Chan, 2014; Wrosch, 2011), we describe below two prototypic ways to cope with goal failure.

Repeated failures in goal attainment could be due to ineffective and inefficient goal-pursuit, *when the goal at hand is plausibly attainable*. For instance, a person could feel hopeless because of repeated failures to find a new job, given lack of experience. Although potentially difficult, this goal does not appear out of reach and specific interventions can be implemented to overcome the goal blockage. In this case, research indicates that it is preferable to focus on strategies that strengthen goal-pursuit and make it more fit for the specific goal (Cheng et al., 2014; Brandtstädter & Rothermund, 2002; Wrosch, 2011). In other words, if the blocked goal is deemed as controllable by the individual, improving the ability to select the most appropriate strategy and pursue it is to be preferred (i.e., problem-focused coping; Cheng et al., 2014). For instance, Hope Therapy specifically focuses on helping people specify concrete and realistic

goals (i.e., goal-setting), visualize multiple means to obtain them (i.e., pathways thinking), and enhance people's motivation for pursuing them (i.e., agency thinking) (Snyder, 2002). Moreover, Klausner and colleagues (1998) preliminarily showed that in older depressed patients, their Goal-Focused Group Psychotherapy (GFPG), based on goal setting, psychoeducation, and skill training, led to a significant increase in hope and a decrease in hopelessness. Similarly, the Goal Setting and Planning approach (GAP) is a manualized intervention focused on teaching the participant to identify suitable goals and to generate realistic plans to achieve them (MacLeod, Coates, & Hetherton, 2008). GAP interventions have been found to improve expectations about reaching goals in healthy individuals (MacLeod et al., 2008; Study 1) as well as to reduce levels of hopelessness after the intervention and in a two-month follow-up in mentally disordered offenders (Ferguson, Conway, Endersby, & MacLeod, 2009). Although promising, the reviewed interventions have been tested only in (very) small and heterogeneous samples, and therefore, are to be taken as preliminary until more thorough evaluation in both experimental and clinical settings is conducted.

When the goal pursued is likely unattainable, the individual needs to recognize that the adopted strategy no longer works, disengage from it, and re-engage in more attainable goals (Greenberg & Paivio, 2003; Kato, 2012; Klinger, 1975; Wrosch et al., 2003). Unfortunately, this process is far from being unproblematic. First, the ability to appraise the situation as desperately blocked may be biased in the context of hopelessness. In keeping with this, negative interpretation bias has been associated with both hopelessness and negative cognitive style (Beevers & Miller, 2004; Giuntoli, Marchetti, Panzeri, Spoto, Vidotto, & Caudek, 2019). Moreover, recent research also has shown that attention and interpretational processes are crucially involved in reappraisal abilities (Sanchez, Everaert, & Koster, 2016). Second, disengaging from important goals is difficult and such a process usually requires a series of steps, namely reduction of the expected gratification deriving from achieving the goal,

inhibition of the beliefs and cognitions that promote the original goal, and broadening of the information processing focus in order to become more receptive to potentially new goals (Brandtstädter & Rothermund, 2002). Interestingly, this process mirrors the complex cognitive-emotional mechanisms needed when dealing with uncontrollable stresses, such as emotion-focused coping (Cheng et al., 2014).

It is important to stress that disengagement has to be taken in a broad sense, as both “soft” and “hard” types of disengaging may occur. Soft disengagement mostly consists of downscaling one’s aspirations or restructuring the goal with the aim to make it more attainable. For instance, a couple facing infertility may reappraise their goal to have a biological baby into having a baby, thus opening up their goal commitment to new scenarios, such as adoption or child fostering. Alternatively, hard disengagement requires the person to entirely give up on a specific goal, because it is blatantly unreachable or maladaptive. It is of primary importance, though, that the disengaged goal is replaced by a new goal that has meaning for the self, in order to avoid feelings of emptiness and aimlessness (Wrosch et al., 2003). In keeping with this perspective, the combination of both disengaging from unattainable goals and re-engaging in more adaptive ones has been associated with more favorable expectations (i.e., less hopelessness) of change in depressive symptoms (Eddington, Burgin, & Majestic, 2016) and less future suicidal thoughts (O'Connor, Fraser, Whyte, MacHale, & Masterton, 2009).

Among the possible ways to tackle unattainable goals, a promising option is Systematic Motivational Counseling (SMC; Miles Cox & Klinger, 2004), which specifically focuses on resolving conflicts among goals and disengagement from inappropriate goals. In a similar vein, specific clinical modules, developed to target goal-dysregulation in bipolar disorder, could be helpful in tackling the typical goal structures in hopelessness, such as those addressing unrealistically high goal-setting and goal pacing (GOALS Program; S. L. Johnson & Fulford, 2009). To our knowledge, no study yet has investigated the effectiveness of the SMC or

GOALS in reducing hopelessness. This represents an interesting avenue for future experimental and clinical research.

Furthermore, there is some evidence that hopeless individuals' goal structures are characterized by conditional goal setting, namely they believe that their happiness, self-worth, and fulfillment entirely depend on specific goals (Hadley & MacLeod, 2010). Hence, regardless of whether the goal is attainable or not, it is vital to broaden the range of goals and activities from which an individual can derive positive mood, purpose, and feelings of self-worth. To accomplish this, a valuable intervention could be the behavioral activation approach, which specifically tackles the person's goals (Dickson, Johnson, Huntley, Peckham, & Taylor, 2017). In fact, what behavioral activation does is introduce more pleasurable activities, which may have fallen by the wayside during the individual's life transitions, but are, nevertheless, in line with personal values. By doing so, this intervention could be effective in introducing diversity in the range of goals that the individual is committed to (i.e., "not putting all of one's eggs into one basket"; Busch, Rusch, & Kanter, 2009).

Collectively, these pieces of evidence about the relationship between blocked goals and hopelessness suggest that a promising clinical target could be improving psychological flexibility, which is defined as the ability to adapt in response to changes in external or internal circumstances (Stange, Alloy, & Fresco, 2017). When applied to hopeless individuals, this view implies that they may be incapable of appraising, modifying, adjusting, or relinquishing their blocked goals, with this creating difficulties to match functioning to contextual demands. Accordingly, Acceptance and Commitment Therapy (ACT; Hayes, Luoma, Bond, Masuda, & Lillis, 2006) could be a promising psychotherapeutic intervention to target hopelessness, in that it specifically addresses psychological inflexibility. Interestingly, in ACT it is considered important that people reach a stage where they reach so-called "creative hopelessness", because their past strategies have turned out to be ineffective. This feeling of being stuck can then be a

catalyst to seek new ways of relating to oneself and re-connecting with important personal goals and values. Preliminary data shows that ACT, as an added component to standard interventions, can strongly ameliorate hopelessness in individuals with borderline personality disorders, specifically by improving both psychological flexibility and emotion regulation strategies (Morton, Snowden, Gopold, & Guymier, 2012).

Finally, mindfulness-based interventions have received considerable interest in the treatment of psychopathology and, specifically, depression. Despite their efficacy, downsides have been reported as well, such as reminiscence of traumatic experiences and increased false memories (Creswell, 2017). In keeping with this, a caveat note on the use of mindfulness to treat hopelessness is needed. Although mindfulness might be helpful in mitigating hopelessness (Tacón, Tacón, & Ronaghan, 2005; but see, Chesin et al., 2015), there is some evidence that mindful meditation (i.e., loving-kindness) could actually increase (rather than decrease) conditional goal setting in individuals with low re-engagement (Crane, Jandric, Barnhofer, & Williams, 2010). It might be that, in people who find it difficult to identify new meaningful goals, meditating over loving-kindness could actually increase the desire to be happy through existing, but blocked goals. Moreover, mindfulness stresses the importance of being oriented in the present and this could interfere with future orientation, which is a protective factor for hopelessness (Mac Giollabhui et al., 2018b; Steinberg et al., 2009). Hence, this approach should be used with caution, before its usefulness and safety are established with respect to hopelessness and its mechanisms.

In sum, despite the strong theoretical background linking hopelessness with blocked goal-directed processing, only few attempts have been made to directly target the individual's motivational structure. Future research efforts should focus on reliably assessing the individual motivational structure behind hopelessness and developing effective ways to target it in order to facilitate the achievement of attainable/realistic goals.

3.2.3. Interventions and manipulations targeting helplessness. Hopelessness is intrinsically characterized by the (perceived) inability of the person to reach their important goals. Hence, it is of importance for the achievement of (attainable) goals and the reduction of hopelessness that individuals' perceived and actual problem-solving skills are potentiated.

A major representative of interventions directly targeting both problem-solving attitudes and skills is Problem Solving Therapy (PST; Nezu, Nezu, & D'Zurilla, 2013). PST is a short-term type of intervention focused on helping patients tackle their current problems and develop better attitudes and skills to cope with future goal blockages (Nezu et al. 2013). Specifically, PST consists of several modules, such as problem analysis, boosting of the individual's confidence about their skills, concrete thinking, goal-setting, pathways brainstorming, and metacognition strategies. A meta-analysis of three studies in self-harmers showed that PST and PST-like interventions led to an improvement of both perceived and actual problem solving skills and reduction of hopelessness (Townsend et al., 2001). Besides, effective, problem solving-focused interventions seem to extend their beneficial effect over a period of one year in repeated suicide attempters (Salkovskis, Atha, & Storer, 1990).

In conclusion, interventions directly targeting ineffective perceived/actual problem solving seem promising in alleviating hopelessness; however, it is important to stress that all the reported studies used very small samples, mostly including self-harmers and suicidal individuals. Hence, future investigations should include larger samples of both healthy and clinical individuals.

3.3. Antecedents-focused interventions and manipulations.

In the last twenty-five years, research has tested and confirmed the important role of negative causal inferences in boosting hopelessness. More specifically, considering negative events as being due to stable and global causes, along with having detrimental consequences

and self-implications (i.e., negative inferential style), reliably has been associated with concurrent and future levels of hopelessness (Liu et al., 2015). Importantly, several clinical studies showed that negative causal attributions and inferences are not immutable. In fact, negative causal attributions are impacted by a variety of therapeutic interventions, such as cognitive therapy (Barber & DeRubeis, 2001; DeRubeis, et al., 1990; Seligman et al., 1988), behavioral activation (Jacobson et al., 1996), cognitive behavioral analysis system of psychotherapy (Blalock et al., 2008), psychodynamic therapy (Zilcha-Mano et al., 2016), and pharmacotherapy (Blalock et al., 2008; Zilcha-Mano, 2016). Although encouraging, this evidence raises the question as to how different types of intervention can lead to an improvement in the processing of causal attributions. While certain types of psychotherapy specifically target explanatory processes (i.e., CBT; Rubenstein et al., 2016), others do not involve any direct intervention on cognitive processes (i.e., behavioral activation). This clearly calls for more studies to clarify the way to clinically intervene on causal and inferential processing.

That being said, only a few intervention programs or studies have attempted to directly modify causal attributions and inferences and scarce evidence is available about their direct impact on hopelessness. The Penn Resiliency Program (PRP) is a 12-session cognitive-behavioral program, typically administered to youth ranging in age from 10 to 14 years old (Brunwasser, Gillham, & Kim, 2009). Its main goal is to promote optimism and prevent depressive symptoms, by specifically tackling psychosocial and cognitive mechanisms, such as causal attribution (Gillham, Brunwasser, & Freres, 2008). In detail, depressogenic causal attributions are targeted by means of guided group discussions on scenarios depicting adaptive and maladaptive causal attributions about negative events. Studies showed that the PRP is particularly effective in reducing the tendency to evaluate stressful events as stable (Jaycox, Reivich, Gillham, & Seligman, 1994, but see Cardemil, Reivich, & Seligman, 2002) and this

effect lasted over a 2-year period (Gillham, Reivich, Jaycox, & Seligman, 1995). It is also worth mentioning that this intervention seems able also to reduce hopelessness (Cardemil, Reivich, & Seligman, 2002; Cardemil, Reivich, Beevers, Seligman, & James, 2007), although the mechanism through which this occurs has not been tested. It is worth mentioning, however, that a recent meta-analysis (Bastounis, Callaghan, Banerjee, & Michail, 2016) on nine trials where the PRP was implemented showed no significant effect on explanatory style, hence caution is recommended.

At an experimental level, Peters, Constans, and Mathews (2011) developed a training for altering causal attributions specifically, by engaging participants in mentally simulating negative scenarios where the causal attributions provided were either favorable (i.e., unstable and unrelated to self-worth) or unfavorable (i.e., stable and self-deficient). The authors were successful in reducing negative attributions and depressed mood after a task failure. Although promising, this study is silent with respect to changing hopelessness and, given its sample type (i.e., healthy college students), represents a preliminary experimental test of Hopelessness Theory. More recently, Avirbach, Perlman, and Mor (2019) further developed an experimental procedure for targeting inferential styles. Their participants were trained to draw either negative inferences or enhancing inferences in reaction to a stressful task. The experimental manipulation (i.e., negative vs. enhancing inferences manipulation) could account for subsequent negative mood and negative self-esteem, via mediation of inferences related to task failure. Surprisingly, results for state hope, used as a marker of state hopelessness, were mixed.

A few small studies have targeted negative inferential style, by adopting an interpersonal perspective, namely by means of adaptive inferential feedback (AIF; Panzarella et al., 2006). AIF takes place when a “supporter” attributes the cause of a negative event occurring to a “partner” to specific and unstable reasons, unrelated to negative consequences and negative self-implications. In other words, the supporter helps the partner make adaptive inferences that

hinder hopelessness and promote more adaptive interpretations. For instance, Dobkin and colleagues (2004) showed that, after a single AIF intervention in the lab delivered by a natural supporter (e.g., friend, family member), participants experienced a reduction in negative inferences regarding failure on a stressful task and a reduction of negative mood. Similarly, effects were reported in a pilot study on ten clinically depressed patients that underwent 10-14 weekly AIF sessions, where a decrease of negative inferences and depressive symptoms were observed after the intervention and at the two-month follow-up (Dobkin, Allen, & Menza, 2007). Unfortunately, no measures of hopelessness were included.

Furthermore, preliminary evidence indirectly suggests that it may be possible and advisable to increase future orientation as a means to target hopelessness. For instance, the recently developed Time Perspective Therapy (TPT) aims at inducing a balanced and flexible time perspective, adapted to current and changing situations (Zimbardo, Sword, & Sword, 2012). More specifically, TPT promotes future orientation, along with focusing on largely positive past and moderately hedonistic present. Similarly, Future Directed Therapy (FDT) is specifically focused on raising awareness of the process by which individuals create future expectations along with improving the way patients may attain positive outcomes (Vilhauer et al., 2012). Interestingly, their pilot study on MDD patients showed that, as compared to traditional CBT, FDT was more effective in reducing hopelessness. It is worth mentioning that neither TPT nor FDT demonstrated that future orientation was affected by therapy; thus, the mechanisms of action are not fully clear yet.

In sum, despite the relevant research line propelled by the Hopelessness Theory, clinical and experimental interventions specifically targeting either negative or enhancing inferential style are modest and evidence about their impact on hopelessness is still, to a large extent, limited. Interestingly, given that stable causal attributions are the dimension most associated with depression and clinical improvements (Gillham et al. 2008; Hu, Zhang, & Yang, 2015;

Jacobson et al., 1996), future studies could consider focusing on this feature as a preferential lever to reduce hopelessness. Finally, although promising, no intervention so far has been demonstrated to target hopelessness via mediation of change in future orientation or inferential style.

3.4. Context-focused interventions and manipulations.

At the interpersonal level, loneliness and reduced social support have been proposed to facilitate hopelessness (Abramson et al., 1989; Panzarella et al., 2006) and it is, therefore, possible to speculate that interventions focused on the emotional and cognitive consequences of these phenomena could, in turn, hinder the onset and persistence of hopelessness. A recent meta-analysis showed that several approaches are effective in reducing loneliness, with interventions targeting maladaptive social cognitions and enhancing social support being the most effective (Masi, Chen, Hawkey, & Cacioppo, 2011). Similarly, a few clinical interventions showed that the perception of being a burden on others (i.e., perceived burdensomeness) can be intentionally changed, via peer companionship, psychoeducation, and cognitive bias modification, in a variety of samples (e.g., older adults, adults, and adolescents) (Allan, Boffa, Raines, & Schmidt, 2018; Hill & Pettit, 2016; Van Orden et al., 2016). Two points are noteworthy: the reported interventions were ineffective in targeting thwarted belongingness (i.e., insufficient social connectedness through loss of interpersonal contact) and their impact on hopelessness is unknown. Furthermore, Stewart, Craig, MacPherson, and Alexander (2001) showed that, after a 20-week face-to-face support group for widows, participants reported an increase of hope and confidence, while interventions facilitating social bonding (i.e., “gratitude letter” or “acts of kindness” exercises) have been found to significantly reduce hopelessness in suicidal inpatients (Huffman et al., 2014).

In sum, interventions and manipulations targeting the interpersonal context seem to be a promising way to reduce hopelessness, although the exact nature of their action mechanisms is

still unknown. A cautionary note is needed, as the reported interventions are very varied, and have been studied in small samples.

4. Discussion

Hopelessness is defined as the extent to which the person believes that the future is bleak and she/he is destined to suffer or fail, along with feelings that nothing can be done to change this dismal scenario. Notwithstanding the negative outcomes associated with hopelessness, current clinical interventions target this phenomenon rather indirectly and do not have specific modules dedicated to it. To bridge this gap, we have identified promising loci of clinical attention. For instance, the components of hopelessness are features that are fully active in the acute phase of distress, while the antecedents of hopelessness act as proximal factors increasing the likelihood for its emergence and recurrence (Hollon & DeRubeis, 2009). Finally, interpersonal contextual factors seem to facilitate and, perhaps, potentiate the phenomenon of hopelessness and its temporal dynamics.

With the aim to review the different ways to target these loci, we have considered a wide gamut of interventions. Interestingly, the reported effects show marked variability across different approaches (i.e., from experimental to psychosocial) and sample types (i.e., healthy/subclinical vs. clinical), with this calling for a better understanding and sharpening of our clinical tools. In our view, a clear theoretical analysis of the key processes involved in hopelessness should drive such developments.

4.1. A timing-based classification of interventions and manipulations for hopelessness.

One simplistic, but useful way to classify all the reviewed interventions and manipulations is distinguishing between those that could be preferentially adopted *during* the active phase of hopelessness and those more apt to *prevent* its occurrence and recurrence

(Figure 2). In addition, we discuss possible ways to improve on the current experimental-clinical tools for hopelessness.

Figure 2: Timing-based classification of interventions and manipulations for hopelessness

4.1.1. Targeting the active phase of hopelessness. Acute clinical hopelessness requires that its components become the preferential focus of clinical attention (Hollon & DeRubeis, 2009). Unfortunately, however, most of the current interventions and manipulations do not target all the components in a synergistic fashion. For instance, the BPS technique and similar interventions are based on imagining desired future scenarios, whereas they are to a large extent silent as to how to reach these imagined goals (King, 2001). This calls for caution, as research shows that simply indulging in positive fantasies may sap the individual's agency (Oettingen & Reininger, 2016) and eventually lead to low goal attainment and future depression (Oettingen & Mayer, 2002; Oettingen, Mayer, & Portnow, 2016). Hence, the adoption of such techniques minimally should be accompanied by other interventions improving individuals' strategies for goal pursuit. Similarly, few approaches explicitly take into account the individual's goal features, such as their attainability and hierarchical structure. This is unfortunate, considering

that different, and sometimes, antithetical strategies may be implemented, such as goal-pursuit potentiation for attainable goals vs. goal-disengagement and re-engagement for unattainable goals (Wrosch et al., 2003). Finally, perceived and actual problem-solving skills are an integral part only of a minority of the clinical interventions for hopelessness (i.e., PST), whereas more mechanistic manipulations are silent with respect to a person's ability to pursue his/her goals efficiently (i.e., BPS or MEST).

To overcome these limitations, we advocate a closer integration of the different types of interventions, where the three components are targeted in a synergistic way. This could be done by setting up interventions that explicitly take into account the different components of hopelessness in an idiographic manner. For instance, in individuals with marked deficiencies in the generation of positive future scenarios, techniques addressing this impairment could be preferred, especially if in conjunction with potentiation of the individual's problem-solving skills. Similarly, strong commitment to blocked, but attainable, goals could be targeted by strengthening goal-pursuit and problem solving skills. A cautionary note is warranted, when dealing with unattainable goals, and especially when they are considered as the only path toward future happiness (i.e., conditional goal setting; Street, 2002). In dealing with such a motivational structure, the most important therapeutic goal should be the disengagement from such maladaptive goals and this could be done via either goal broadening and redefinition (i.e., soft disengagement; Wrosch et al. 2003) or actual goal disengagement and re-engagement (i.e., hard disengagement; Worsch et al., 2003). In conclusion, future research and clinical programs should fully consider the complexity of hopelessness and aim to develop more integrative approaches that diagnose the different constituents of hopelessness and subsequently target these components in a balanced way.

Importantly, although it is undisputed that we should reduce active hopelessness whenever present, it is reasonable to wonder at what stage of the clinical intervention this should

be done. In response to this question, the three-phase model of change in psychotherapy (Howard, Moras, Brill, Martinovich, & Lutz, 1996) suggests that reducing hopelessness is a primary goal at the very beginning of any intervention (i.e., “remoralization” phase), when the patient experiences pervasive hopelessness and believes that she/he is never going to feel better. In keeping with this view, Rush and colleagues (1981) showed that an initial reduction in hopelessness is associated with subsequent changes in self-esteem and other symptoms, while treatment-unresponsive hopelessness during the first four CT sessions predicts less favorable clinical outcomes (Kuyken, 2004). Similarly, a substantial drop of depressive symptoms during the initial sessions of exposure-based CBT (i.e., rapid early response pattern; Tang & DeRubeis, 1999) is associated with narratives focused on hope in depressed patients (Hayes et al., 2007). In sum, the reduction of hopelessness (and the instillation of hope) is a particularly favorable signal of change and it usually occurs at the beginning of the clinical intervention, whereas the persistence of demoralization may be considered a marker of treatment failure.

4.1.2. Preventing the occurrence and recurrence of hopelessness. No effective intervention can only strive for the reduction of mental distress, but it also should prevent its occurrence or recurrence (Holmes et al., 2018). This is particularly the case with hopelessness, which can rapidly spiral into (recurrent) depression and suicidal ideation (Abramson et al., 1989; Marchetti, Koster, Sonuga-Barke, & De Raedt, 2012). In line with Hollon and DeRubeis (2009), we suggest that targeting the antecedents of hopelessness, such as inferential styles and future orientation, could be a powerful strategy to block the emergence of hopelessness. While preventing hopelessness could be done with specific antecedents-focused interventions (either in vivo or with online settings), the prevention of relapse and recurrence seems to be a major clinical intervention (Haefl et al., 2005), in that it requires inhibiting maladaptive, well-learned processes (i.e., rehabilitation phase; Howard et al., 1996). Notwithstanding the pivotal importance of primary and secondary prevention, our review of the literature revealed that only

a handful of studies so far has addressed these factors directly. This is unfortunate, considering that depressogenic attributional style has been found to predict subsequent depressive relapse even when controlling for treatment (Hollon, Evans, & DeRubeis, 1990). Hence, this evidence suggests that future experimental and clinical studies should focus more on the role of inferential styles for preventing hopelessness and its relapse/recurrence. As for interventions boosting future orientation, the current techniques available are in their very infancy and strong systematic research is timely and needed.

4.1.3. Complementary interventions targeting hopelessness and its related phenomena.

Interventions focused on interpersonal contextual factors (e.g., loneliness and reduced social support) could be an effective strategy, especially when targeting both the actual social network and the individual's appraisal of it. Although current evidence does not support their use as stand-alone interventions, interpersonal interventions can be applied across different phases of hopelessness. For instance, improving the individual's actual and perceived social network (i.e., social cognitive training or enhancing social support) could mitigate the temporal and motivational narrowing due to hopelessness and facilitate more focused interventions on its components. Similarly, an enriched social environment could accelerate recovering from hopelessness and prevent its recurrence (i.e., enhancing social access and social support). Hence, future studies should investigate the efficacy of these types of clinical interventions singularly and, more importantly, in conjunction with other ones.

4.2. *Limitations and future directions.*

Our review of the literature indicates a number of implications and future directions. First, although based on solid research, our components-based framework of hopelessness is speculative, as no test of it has so far been carried out. Future studies could directly investigate whether the co-occurrence of lack of positive expectations, important blocked goals, and helplessness is associated with hopelessness. This could be carried out by applying innovative

variance partitioning methods, such as commonality analysis (see Marchetti, Everaert, et al., 2018; Marchetti, Loeys, et al., 2016). Another option that needs to be considered is that each of these features can uniquely lead to hopelessness, namely equifinality. Future research could consider testing this specific model, by setting up appropriate longitudinal studies. Moreover, it is possible that antecedents, components, and contextual factors may create multiple feedback loops and partially overlap with one another over time. To further investigate this scenario, a direct comparison between at-risk individuals, clinical patients, and remitted individuals could be used to shed light on the temporal interplay of the different mechanisms involved in the phenomenon of hopelessness.

Second, more experimental, clinical, and longitudinal studies are needed. In particular, we advocate for studies that may shed light on short-term, medium-term, and long-term effects of the current interventions targeting hopelessness. This point is of particular importance as previous studies suggest that simply indulging in positive future scenarios may lead to maladaptive consequences over time, such as low goal attainment and depression (Oettingen & Mayer, 2002; Oettingen et al., 2016). Thus, especially interventions focusing on single components of hopelessness (i.e., lack of positive expectations, helplessness, or blocked goal-processing) should consider the full range of implications on a variety of outcomes that go beyond the targeted mechanism, such as goal structure, goal pursuit, etc.

Third, crucial to any intervention is the assessment phase. Despite the decades-long research on hopelessness and its associated factors, their assessment is far from optimal. For instance, the Beck Hopelessness Scale (BHS), the gold standard for measuring hopelessness, has been criticized for its unclear factor structure, the response scale (i.e., dichotomous), and for not explicitly capturing all the facets of hopelessness. Moreover, although hopelessness has traditionally been conceived of as a stable trait, a few studies suggest that feelings of hopelessness may also fluctuate from moment to moment (Saunders, Milyavskaya, & Inzlicht,

2015; Young et al., 1996). Mirroring previous research on clinically relevant phenomena, such as rumination, which is operationalized both as a trait (Nolen-Hoeksema & Morrow, 1991) and a state (Marchetti, Mor, Chiorri, & Koster, 2018), research on hopelessness would likely benefit from more fine-grained measurements. In light of all these limitations and suggestions, future studies should consider investing more effort on the development and thorough validation of new measures of hopelessness, both at trait and state levels, which better represent the current conceptualizations of this phenomenon. Moreover, an integrated perspective, where both hopelessness and hope are routinely considered could shed light on the specific contributions of these partially related phenomena on mental well-being (Balsamo et al., 2013).

Fourth, given the well-established relationship between hopelessness and life-threatening mental conditions (i.e., suicide), interventions delivered by trained professionals are to be preferred. However, negative expectations about the possibility to change represent a major barrier to treatment (Goldman, Nielsen, Champion, 1999) and, similarly, hopelessness sometimes has been related to reduced help-seeking (Wilson & Deane, 2010). Hence, it is important to consider alternative ways to reach those who need and could benefit from hopelessness-focused interventions, such as brief mailed interventions (Geisner, Neighbors, & Larimer, 2006), Internet-based programs in primary care (Hoek et al., 2011; Van Voorhees et al., 2009), and online interventions (Robinson et al., 2016).

5. Conclusions

In our review, we have highlighted the major features of hopelessness, a phenomenon that deserves major attention from both researchers and clinicians. Despite its clear importance, hopelessness has received little attention as a main focus of clinical interventions and manipulations, in that no fully dedicated module is currently available. To fill this gap, we have identified a number of clinical loci and reviewed promising maneuvers to target them. Finally,

we have suggested possible pathways for new clinical and research programs. By doing so, we hope that in the future, effective interventions will help people break the vise of hopelessness.

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7. Author Contributions

Igor Marchetti developed the research question of this study. All authors contributed to the review of articles and writing of the manuscript, and all have approved the final draft.

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Footnotes

¹: Goal theories converge on the idea that goals are hierarchically organized (Carver & Scheier, 1998; Klinger, 1975). While higher-order goals usually imply a sense of the idealized self (i.e., to be happy), middle-order goals serve as reference points for the former (i.e., to have a good romantic relationship), and lower-order goals can be conceived as specific behaviors (i.e., to find a partner) (Carver & Scheier, 1990). Within goal theories, conditional goal-setting can be defined as the dependence of higher-order goals on middle-order goals.

²: It is worth mentioning that, compared to the Reformulated Learned Helplessness Theory (Abramson et al., 1978), the Hopelessness Theory does not propose internal causal attribution (vs. external) as a necessary condition for the development of hopelessness. An internal attribution is considered to be responsible for the occurrence of a specific factor, such as low self-esteem.

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