



## Hope Theory and Its Relation to Depression: A Systematic Review

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### Abstract

**Objective:** To evaluate the contribution of Hope Theory to depression, allowing the exploration of new knowledge and tools that may help in its respective treatment.

**Methods:** This is a systematic review, conducted between March and April 2018, using PubMed, LILACs, MEDLINE, SciELO and PsycINFO databases to search for articles in Portuguese and English published in the last five years.

**Results:** Two hundred and ninety articles were found, being selected seven that met the established criteria. Depressive symptoms were related to low scores of hope. Hope was perceived as both a protective factor of mental health and a factor of better therapeutic prognosis.

**Conclusion:** It was confirmed that the Theory of Hope can be a psychological support for the treatment of depression as both as a protective factor for mental health and as a better therapeutic prognosis.

**Keywords:** Hope; Depression Psychiatric Status Rating Scales; Psychological Theory

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### Introduction

Positive Psychology is an emerging movement that proposes an expanded perspective on psychological assessment, moving from the exclusive focus on pathology and weakness of people to their psychological strengths and abilities. One of its most important principles lies in the protective power of measurable positive traits against the adverse effects of risk factors, such as stressful life events [1-3].

The value of hope is a recurring theme in western civilization and is referenced since the Greek myth of Pandora; for some decades, researchers have been studying the subject [4]. Stotland associated hope with the perceived probability of attaining a goal, and a high probability reflects high hope. Averill, Catlin, and Chon in 1990 have thought of an approach that defines hope from norms or guidelines established in a social context, being an emotion governed by cognitive rules, being appropriate when an objective is important in terms of probability of obtaining and social acceptance [5].

Based on the fact that it is inherent to any human being to have goals when thinking about the future, and in the existence of two cognitive components orienting to those goals that are the motivation/agency (cognitive willpower) and the pathways (planning ability), Snyder developed his Theory of Hope and Scales to measure it (Trait Hope Scale, State Hope Scale and Children's Hope Scale) [5-7].

The "Trait Hope Scale" consists of 12 items and was developed to measure the "trace of hope" factor globally in the personality of individuals over 15 years of age. In contrast, the "State Hope Scale", which consists of 6 items, was developed to measure the "hope" factor that a person tends to have throughout the most diverse situations of life and is more related to specific objectives. The "Children's Hope Scale" was developed for an age group of 8 to 16 years and consists of 6 items that aim to quantify the "agency" and "pathways" in the present moment and in the future [5-7].

Theories about depression often emphasize future-oriented negative cognitions. Beck's classic cognitive triad for depression, for example, contemplates negative visions of the self, the personal world, and the future. The role of hopelessness over the future occupies a central place in cognitive reports of depression [8].

The present study aims to evaluate the contribution of the Theory of Hope as a supporting factor in the prevention of depression, considering the different theoretical intersections between the themes, making it possible to explore new knowledge and tools that may help in their respective treatment.

## Methods

This study is a systematic review of the literature. The MEDLINE, LILACS, Cochrane, PubMed and PsycINFO databases were searched by four independent researchers, and these results were reviewed by a fifth researcher from March to April of 2017. The descriptors used in all databases were "hope scale" and "depression", with descriptors specifier in the title, abstract, or subject.

The inclusion criteria were original articles or systematic reviews/meta-analyses published as of 2012 in Portuguese or English; the word "depression" or its derivatives (depressive or antidepressant) must be mentioned in the title, and still to have in its methodology the application of the Snyder hope scale for adults. Exclusion criteria were studies with child population, articles of validation of scale and application of another scale of hope other than Snyder's.

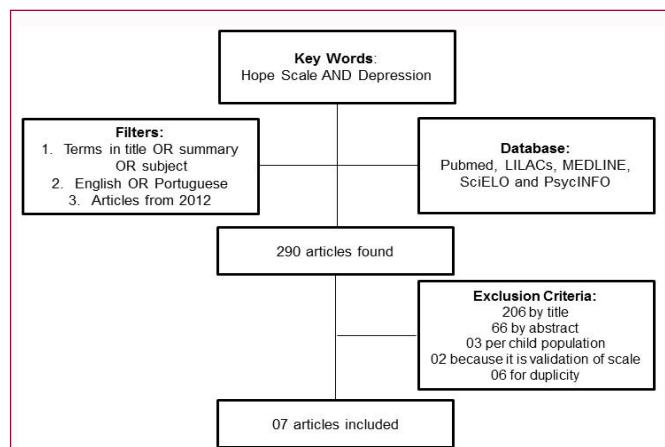
The guiding question of this systematic review was "can the hope approach contributes to the treatment of depression?" From this questioning was carried out the reading of the summaries of the articles found and, according to the inclusion and exclusion criteria, the articles to be read in full were selected. The articles that were part of this systematic review was then selected (Figure 1).

## Results

Applying defined search strategies, 290 articles were identified, 283 were excluded and 07 were included in this review. Finding articles that fulfilled all the inclusion criteria was of great difficulty, since studies on Positive Psychology are more recent and less widespread than the patho-logical model.

Adults with depression were studied by Thimm et al. [8] in a study aimed at exploring and comparing prospective cognitions (hope and estimated probability of future events) in groups of clinically depressed people, previously depressed people and a control group that never presented depression. The Scale of Hope [6] and the Scale of Unrealistic Optimism (UOS, Weinstein, 1980) were applied to the groups. Graduated students and patients consulted by the medical clinic were part of the sample, and they were selected with the Beck Depression Inventory and the Previous Depression Questionnaire. The final sample consisted of 61 clinically depressed patients, 42 with a history of depression and 46 never depressed controls [8].

The currently depressed patients had lower scores of hope compared to previously depressed patients; those who never had a depressive episode had the highest scores of hope. The main objective of the study was the better understanding of hope and optimism in previously de-depressed individuals, with this group being among the never depressed and the clinically depressed in both components of hope. They presented higher scores on motivation/"agency" and ways/"pathways" than the clinically depressed group, but scores



**Figure 1:** Methodology flowchart.

lower than the never depressed group. It has also been found that this group was able to form positive prospective cognitions in a similar way to those never depressed [8].

Patients with severe illnesses commonly experience symptoms of anxiety and depression, which vary according to the severity of the illness and life history of each. Thus, Xu Peh et al. [9] carried out a study to investigate the role of hope in anxiety and depression in a sample of patients with a recent diagnosis of cancer [9].

The study examines the role of cognitive reappraisal (cognitive process of changing thinking about a situation that provokes emotion), suppression of emotions (inhibitory effort of emotions) and hope in anxiety and depression in a sample of patients with recent diagnosis of cancer. The hypotheses tested are that higher levels of cognitive reevaluation and lower levels of suppression of emotions are associated with lower levels of anxiety and depression, and that hope is a potential mechanism of linkage between cognitive reevaluation and psycho emotional outcomes, being in this case the hope the mediator between cognitive reappraisal and anxiety/depression [9].

Analyzing 144 adults with cancer using the Emotion Regulation Questionnaire (ERQ), Adult Hope Scale (AHS) and Hospital Anxiety and depression Scale (HADS) questionnaires and using path analysis to verify if hope was a mediating factor, the authors confirmed the hypotheses tested [9].

Anxiety was positively associated with depression. Higher levels of cognitive reevaluation were associated with lower anxiety and depression, while high levels of suppression of emotions were associated with increased anxiety and depression. In addition, high levels of hope were associated with less anxiety and depression and greater cognitive reassessment [9].

Importantly, the findings suggest that hope was the mediator between cognitive reappraisal and anxiety/depression. There was a significant indirect effect of cognitive reevaluation on anxiety, and on depression, via hope [9].

Serious diseases like cancer impact not only the patients themselves but also their families. Shekarabi-Ahari Gh et al. [10] studied the effectiveness of group therapy, based on hope therapy, the levels of hope and depression of mothers of children diagnosed with cancer [10].

**Table 1:** Characteristics of the studies included in the systematic review.

Author	Sample	Country	Instruments
Peh et al. [9]	144 adults	Singapore	HADS, ERQ, ESAS-R, AHS
Ahari et al. [10]	40 mothers	Iran	BDI, Snyder Hope Scale
Trezise et al. [11]	199 elderly	Australia	CES-D, ISI, AHS
Prasko et al. [12]	72 adults	Slovakia	BDI-II, CGI, BAI, TCI-R, ADHS, ISMI, DES
Thimm et al. [8]	149 adults	Norway	BDI, PDQ, DAS, Snyder Hope Scale, UOS
Hirsch et al. [13]	372 students	United States	BDI-II, BHS, SBQ, THS
Shi et al. [14]	2925 medical students	China	CES-D, RS-14, ADHS, LOT-R

**Legend:** HADS: The Hospital Anxiety and Depression Scale; ERQ: The Emotion Regulation Questionnaire; ESAS-R: Edmonton Symptom Assessment Scale; AHS: The Adult Hope Scale; CES-D: Centre of Epidemiologic Studies Depression Scale; ISI: Insomnia Severity Index; BDI-II: Beck Depression Inventory-II; CGI: Clinical Global Impressions Scale; BAI: Beck Anxiety Inventory; TCI-R: Temperament and Character Inventory; ISMI: Internalized Stigma of Mental Illness; DES: Dissociative Experience Scale; PDQ: Previous Depression Questionnaire; DAS: Dysfunctional Attitude Scale; Snyder e UOS: Unrealistic Optimism Scale; BHS: Beck Hopelessness Scale; SBQ: Suicidal Behaviors Questionnaire-Revised; e THS: Trait Hope Scale; RS-14: Resilience Scale; e LOT-R: Life Orientation Test-Revised

Twenty mothers were selected on a pre-test according to their scores on the Snyder's Hope Scale (below 20 points) and the Beck Depression Scale (above 19 points). They were then divided equally into two groups (intervention and control). The intervention group received 8 sessions of group therapy based on a protocol of hope therapy, being a session of 2 h per week. After 8 weeks the two groups went through the post-test with a new application of the mentioned scales [10].

The results demonstrated that hope therapy increased hope and decreased depression in the mothers of children with cancer, both results were statistically significant. The follow-up of two months after the intervention verified that there was no significant difference in the levels of hope in both groups, but the depressive symptoms were significantly lower in the mothers who participated in the group therapy after this period [10].

The elderly, a sample with 199 individuals, were also analyzed by Trezise et al. [11], being examined whether dispositional hope and its dimensions are related to insomnia and depressive symptoms in this age group. It was seen that higher levels of hopelessness were related to depressive symptoms and consequently had a higher correlation with insomnia. Consistent with the theory of hope proposed by Snyder et al. [4], the results indicate that dispositional hope, action and pathways act as protective factors by weakening the relationship between insomnia symptoms and depressive symptoms. Almost one-third of the sample analyzed had depressive symptoms and almost half of the sample had insomnia. Comparing these samples, it was seen that higher levels of insomnia and lower levels of hope were more associated with depressive symptoms [11].

Prasko et al. [12] studied 63 adults with treatment-resistant depression to identify the influence of dissociative symptoms, hope, personality traits, and demographic factors in the response to treatment in this group of patients. It has been proposed that an important element that contributes to the effectiveness of therapy is hope. It has been seen that in pursuit of their goals, people are involved in two related cognitive and motivational processes: 1) path thinking, which contains thinking about ways to achieve goals; and 2) action, which involves motivation to achieve goals and despite frustration and failure. Previous research has found that high hope scores are positively correlated with better mood, physical health, and better ability to cope with the disease [12].

Low scores of hope seem to be related to a higher risk of suicide. Thus, Hirsch et al. [13] examined hope and lack of hope as

moderators of the association between depressive symptoms and suicidal behavior, considering the ethnic and racial differences of the participants studied [13].

A total of 372 college students from the northwestern US were enrolled in the study, 96 (26%) of whom were black, 155 (41%) Hispanic, 70 (19%) white, 21 (6%) Asian, and 3 (1%) Native Americans. Only the statistical data of the first three racial groups were considered, due to the small number of participants from other ethnic groups. Participants were evaluated using the Beck Depression Inventory-II (BDI-II), Beck Hopelessness Scale (BHS), Suicidal Behavior Questionnaire-Revised (SBQ) and Trait Hope Scale (THS) questionnaires, respectively, assessing depressive symptoms, hope scores, suicidal behavior and scores of hope [13].

The results showed that depressive symptoms were positively related to higher scores of hopelessness and suicidal behaviors, being negatively related to high scores of hope. Thus, individuals with higher hopelessness scores are at greater risk of suicidal behavior when depressive symptoms occur [13].

No significant differences were found between levels of hope and hopelessness among ethnic groups. However, for the black ethnic group, hopelessness acts as the main mediator between depressive symptoms and suicidal behavior, whereas for whites the main mediator is hope [13].

Depression in young adults is a major concern for global public health. Thus, Shi et al. [14] investigated the prevalence of depressive symptoms, demographic risk factors related to depression and effects of factors such as resilience, hope and optimism [14].

A total of 2925 medical students were interviewed among the four medical teaching institutions in Liaoning Province, China. Demographic characteristics such as age, gender, place of residence, study program, academic year, and parental educational level were assessed. It was used the Center of Epidemiologic Studies Depression Scale (CES-D), Wagnild and Young Resilience Scale-14 (RS-14), Adult Dispositional Hope Scale and Life Orientation Test-Revised (LOT-R) questionnaires, which evaluated, respectively, the depressive symptoms and factors of resilience, hope and optimism [14].

In the results, it was observed that 66.8% of the students presented symptoms of depression, most of them men, older students and attending the 5 years teaching program. The place of residence and the education of the parents did not seem to influence the symptoms [14].

In the statistical analysis, depressive symptoms were negatively related to positive psychological variables. In addition, resilience was strongly related to hope and moderately related to optimism, while hope was also moderately related to optimism [14].

Faced with the studies found, it is possible to observe a correlation between hope and lower rates of depression. Such finding indicates that even with few studies still on the subject there is a positive relation between hope and improvement of depressive symptoms (Table 1).

## Discussion

The article by Xu Peh et al. [9] evaluated the role of hope in newly diagnosed cancer patients as mediator in their capacity for analysis (reappraisal), anxiety and depression [9].

The authors argue the need to understand the protective factors that can help patients to deal with emotional stressors and cancer diagnosis. Some studies have addressed emotional regulation strategies, two of which are more deeply studied: cognitive reappraisal and expressive suppression [15-17]. Cognitive reappraisal refers to the self-regulating cognitive process of changing the way of thinking about a situation that provokes emotion before this emotion is completely provoked. Expressive suppression refers to the behavior with inhibitory effort of the emotion expression after the emotion is provoked [18,19].

Faced with the potential for motivation to facilitate effective emotional regulation, the authors propose that hope or hope-based cognitions may be a possible pathway from cognitive re-appraisal to adaptive emotional regulation [9].

Thus, the authors point out that cognitive reappraisal seems to be a strategy of adaptive emotional regulation, whereas suppression of emotions seems to be associated with adverse consequences. Their results also suggest that hope-oriented cognitions can be a mediating pathway between cognitive reappraisal and adaptive emotional regulation [9].

The clinical implications of these findings include the understanding that healthcare professionals need to recognize and address the psycho emotional needs of patients with a recent cancer diagnosis, and that supportive interventions based on hope cognitions can bring benefits to those patients who are experiencing symptoms of anxiety and depression [20-22].

Interventions based on hope cognitions aim to: (1) facilitate goal setting by encouraging patients to formulate achievable goals related to treatment or to psychosocial issues in their adjustment to cancer, (2) facilitate the flexible elaboration of alternative or contingency plans, and (3) build mastery and motivation by facilitating the reassessment of obstacles as challenges rather than threats to the goals set, or by emphasizing progressive successes in achieving small goals [9].

Another article, by Ahari GS et al. [10], examined mothers of children diagnosed with cancer before and after eight sessions of group hope therapy. Hope therapy uses positive psychology rather than focusing on deficiencies. Positive self-talk, hopeful imagination, healthy diet, sports, and network support are some of the characteristics of hopeful individuals who were approached in this study. The positive results of the hope therapy, significantly reducing the levels of depression and increasing the levels of hope in this sample, point to a preventive and therapeutic possibility of the application of this therapy in groups exposed to important stressors

[10]. Similar results were found by Bahmani et al. [23], in a group of women treated with hemodialysis, by Tamadon et al. [24], with leukemia patients and by Bajri et al. [25], in a group of women with breast cancer.

Another line of research approaches hope as a coadjutant with other protective factors for depressive symptoms, as Trezise et al. [11]. Greater levels of hope, action, and pathways will weaken the relationship between insomnia and depressive symptoms. Studies with this theme, even though it has a more restricted objective, contribute to generate more interventions and therapeutics that contribute to the improvement of depressive symptoms. In this case, hope is once again an important factor in achieving this goal [11].

University students were analyzed by Hirsch et al. [13], who investigated traces of hope and hopelessness as possible moderators for the association between depressive symptoms and suicidal behavior in different ethnicities [13].

They observed that for blacks, Hispanics and whites, there is a positive relationship between depressive symptoms and suicidal behavior, hopelessness being a moderator who relates positively and hope, negatively [13].

No differences were found between levels of hope and hopelessness among ethnic groups. However, the findings suggest that culture seems to influence the meaning and functioning of cognitive and emotional risks as well as protective factors [13].

Based on these results, reinforcing the traits of hope during the treatment of depressive individuals appears to be an effective strategy for suicide prevention. In addition, since the satisfaction factor with life proved to be the greatest predictor of hopeful behavior in whites, then measures such as improvements in education and vocational opportunities, facilitated support networks, and encouragement of identification and achievement of goals appear to be effective for reducing the risk of suicide [13].

The study by Shi et al. [14], evaluated the prevalence of depressive symptoms in medical students and their correlation with the integrated effects of the factors resilience, hope and optimism [14].

The results showed that the prevalence of depression in medical students is higher (66.8%) than in students in other courses (44.2%). This high prevalence may be related to the hostile environment inherent in medical education and sleep deprivation. Older students experience more stressful situations, such as clinical practice, and men in this region still play a dominant role in society and the family and are subject to more responsibilities [14].

Another important finding was that the three variables resilience, hope and optimism were all negatively related to depressive symptoms. These results deserve attention in terms of the creation of therapeutic strategies and prevention of depressive symptoms, since the three factors studied can be developed and reinforced [14].

## Conclusion

The studies included in this review converge to the conclusion that there is an association between depression and low levels of hope, and it is possible and important to invest in treatments that address this dimension of the patient. In view of the articles found it is possible to suggest the relation between higher scores of hope and lower scores of depression, although further studies on the subject are still necessary. It is also necessary to adopt a more homogeneous

methodology to evaluate this correlation, since the studies found are with diverse populations and with depression associated with clinical comorbidities. It is an important topic and in the face of the prevalence of depressive symptoms can help in the prevention and treatment of them.

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