

The Interaction of Cognitive Distortions and Socioeconomic Status (SES) in the Treatment of Depression: A Comprehensive Literature Review, Theoretical Integration, and Clinical and Policy Recommendations

Dr. Şebnem Deniz Onat¹, Meltem Bozdağ²

¹Lecturer Department of Psychology St. Clements University Clinical Psychology / Türkiye–United Kingdom

ORCID ID: 0009-0001-3083-7886

²Master's Student St. Clements University Clinical Psychology / Türkiye–United Kingdom

ORCID ID: 0009-0007-5523-0283

ABSTRACT: This article investigates the interaction between cognitive distortions (CDs) and socioeconomic status (SES) in the treatment of depression through a comprehensive literature review and theoretical synthesis. Grounded in Beck's cognitive theory, the types, formation mechanisms, and role of cognitive distortions in therapeutic processes are examined in detail, while the impact of SES dimensions—income, education, and occupational status—on these distortions is analysed in the light of empirical evidence. The literature clearly indicates that low SES adversely affects depression treatment outcomes through:

1. heightened negative automatic thoughts and dysfunctional schemas,
2. diminished cognitive flexibility,
3. barriers to therapy access and adherence, and
4. reinforcement of maladaptive cognitive structures by chronic environmental stressors.

Furthermore, the study provides specific recommendations for adapting Cognitive Behavioural Therapy (CBT) protocols for individuals from low-SES backgrounds and offers concrete policy proposals to enhance access to mental health services, promote early intervention, and strengthen social support systems.

In conclusion, to maximise the efficacy of cognitive-level interventions in depression treatment, it is essential that SES be systematically integrated into both assessment and intervention phases.

KEYWORDS: depression, cognitive distortions, socioeconomic status, Cognitive Behavioural Therapy, health inequalities

INTRODUCTION

Depression ranks among the leading mental disorders in terms of global disease burden and represents a priority concern for public health and economic costs (World Health Organization, 2020). The cognitive model underscores the central role of individual thought processes in the onset and maintenance of depression (Beck, 1967; Beck, 1979). Nevertheless, this model has traditionally concentrated on intraindividual processes, whereas cognitive mechanisms do not emerge in isolation from the broader social context. Socioeconomic status (SES) constitutes a critical contextual determinant that shapes living conditions, stressor exposure, and psychosocial resources, thereby exerting a profound influence on cognitive processes (Adler et al., 1994). Contemporary evidence demonstrates that low SES not only elevates the prevalence of depression but also gives rise to cognitive distortions that are both more severe and more resistant to change (Evans & Kim, 2013; Santiago et al., 2011).

The objectives of the present article are to:

- examine the conceptualisation of cognitive distortions and their significance in the treatment of depression;
- elucidate, based on extant literature, the manner in which SES components (income, education, occupational status, and subjective social position) influence cognitive distortions;
- develop tailored adaptation recommendations for Cognitive Behavioural Therapy (CBT) protocols in low-SES populations; and
- propose clinical and policy recommendations.

Although the study relies exclusively on a literature review, it has been structured—through its theoretical synthesis and practical implications—to meet the standards required for master's-level theses and peer-reviewed journal publication.

The Interaction of Cognitive Distortions and Socioeconomic Status (SES) in the Treatment of Depression: A Comprehensive Literature Review, Theoretical Integration, and Clinical and Policy Recommendations

METHOD

Literature Review Procedure

The present study is a comprehensive narrative literature review and theoretical synthesis rather than a systematic meta-analysis. No primary data collection requiring ethical approval was conducted. The review encompasses key empirical studies, narrative reviews, meta-analyses, comprehensive syntheses, and foundational theoretical works published over the past 25 years (2000–2025). The following databases were searched: PsycINFO, PubMed, Web of Science, and Google Scholar. Search terms included: “depression”, “cognitive distortions”, “socioeconomic status”, “cognitive behavioral therapy”, “low income”, “treatment outcomes”, and “therapy adaptation”.

Both Turkish-language and international publications were systematically examined in a balanced manner, with particular priority given to review articles and meta-analyses. The methodological heterogeneity of the included studies (cross-sectional, longitudinal, and clinical trial designs) was carefully considered when evaluating the generalisability of findings.

THEORETICAL FRAMEWORK

Beck’s Cognitive Model and Cognitive Distortions

Beck’s cognitive theory accounts for depression through the interplay of negative automatic thoughts, dysfunctional core beliefs, and cognitive distortions (Beck, 1967; Beck et al., 1979).

Cognitive distortions are systematic errors in the information-processing operations of the cognitive system. Common examples include catastrophising, overgeneralisation, selective attention to the negative, personalisation, all-or-nothing (dichotomous) thinking, and mind reading.

These distortions systematically bias the interpretation of experienced events in a negative direction, thereby contributing to the deterioration and maintenance of depressed mood.

Theoretical Effects of SES: Social Causation and Social Selection Hypotheses

The influence of socioeconomic status (SES) on mental health is conceptualised within two major theoretical frameworks:

1. The **social causation** hypothesis posits that low SES elevates the risk of mental disorders through increased exposure to stress, deprivation, and social isolation.
2. The **social selection** (or downward drift) hypothesis contends that pre-existing mental disorders propel individuals into economically disadvantaged positions (Dohrenwend et al., 1992).

The majority of the literature provides robust evidence in support of the social causation pathway; however, the two processes are generally regarded not as mutually exclusive but as reciprocal and mutually reinforcing dynamics.

Stress-Resource-Cognitive Load Model

Chronic economic stress and associated adverse life events deplete cognitive resources, exerting deleterious effects on attention, executive functioning, and cognitive flexibility (Miller et al., 2011). This reduction in cognitive capacity leads individuals to interpret events more rapidly, automatically, and negatively, thereby amplifying cognitive distortions. The model offers a valuable explanatory framework for understanding why cognitive distortions tend to be more intense and treatment-resistant in the context of low SES.

COGNITIVE DISTORTIONS AND SES: EMPIRICAL FINDINGS

Low SES and Depression Prevalence

Meta-analyses have consistently documented a strong association between low socioeconomic status and depression. A comprehensive meta-analysis conducted by Lorant et al. (2003) demonstrated that lower educational attainment and reduced income significantly increase the risk of depression. Similarly, Reiss (2013) emphasised that low SES during childhood and adolescence substantially elevates the long-term risk of psychopathology.

SES and the Intensity of Cognitive Distortions

Santiago, Wadsworth, and Stump (2011) found that low-income groups exhibit significantly higher levels of negative automatic thoughts and schema-level beliefs of inadequacy.

In a similar vein, Johnson and Mullen (2016) observed that individuals from lower SES backgrounds display more frequent catastrophising and selective attention to negative information.

Likewise, Evans and Kim (2013) reported that childhood poverty impairs cognitive control processes, thereby facilitating the deeper entrenchment and greater persistence of cognitive distortions in adulthood.

The Role of Education: Cognitive Flexibility and Metacognition

Educational attainment serves as a key determinant that enhances cognitive flexibility and refines problem-solving strategies. Individuals with higher levels of education more readily detect and challenge cognitive errors, whereas those with lower educational

The Interaction of Cognitive Distortions and Socioeconomic Status (SES) in the Treatment of Depression: A Comprehensive Literature Review, Theoretical Integration, and Clinical and Policy Recommendations

attainment exhibit a greater need for concrete, highly structured interventions—a requirement consistently highlighted in the literature (Adler et al., 1994; Reiss, 2013).

Occupational Status, Job Insecurity, and Perceived Control

Occupational status and job insecurity significantly influence individuals' sense of personal control, thereby accelerating the reinforcement of hopelessness- and inadequacy-based cognitive distortions. Periods of job loss or employment precariousness precipitate marked declines in mental health and necessitate the restructuring of underlying cognitive schemas (Hill et al., 2005).

Social Capital and Support Systems

The presence of social support enables individuals to test negative cognitions against external reality, thereby reducing rumination. Conversely, low social capital intensifies ruminative tendencies and strengthens internalising patterns (Santiago et al., 2011). This mechanism clearly illustrates the impact of the social dimension of socioeconomic status on cognitive distortions.

TREATMENT ACCESS, ADHERENCE, AND RESPONSE: THE ROLE OF SES

Access Barriers and Treatment Continuity

In individuals with low socioeconomic status, access to treatment is severely constrained by financial limitations, transportation difficulties, inflexible working hours, and lack of health insurance coverage. Miranda et al. (2003) reported significantly lower rates of therapy initiation and markedly poorer treatment retention among low-income adult populations. These barriers disrupt both the duration and consistency required for effective cognitive restructuring.

CBT Response and SES

Although Cognitive Behavioural Therapy (CBT) is a well-established and efficacious treatment modality, evidence indicates that individuals from low socioeconomic status (SES) backgrounds derive the anticipated therapeutic benefits more slowly or to a lesser degree (Miranda et al., 2003; Johnson & Mullen, 2016).

The principal reasons for this attenuated response are as follows:

- Persistent exposure to adverse and counter-therapeutic life events
- Reduced cognitive flexibility
- Cultural or educational incongruence of psychoeducational materials
- Difficulty sustaining or completing between-session homework assignments

Pharmacotherapy and SES

Adherence to pharmacotherapy is also closely associated with socioeconomic status. Patients from low-income backgrounds frequently encounter difficulties in accessing medication, limited follow-up for managing side effects, and economic concerns that lead to inappropriate dosing or premature discontinuation. These factors collectively diminish the overall efficacy of both pharmacological and psychotherapeutic interventions.

ADAPTED INTERVENTION MODELS: EVIDENCE-BASED RECOMMENDATIONS

Brief and Intensive CBT Models

Given the limited access to long-term, individual therapy sessions among low-SES populations, brief, targeted, and homework-supported Cognitive Behavioural Therapy (CBT) protocols are strongly recommended. Empirical evidence indicates that well-structured brief interventions can achieve clinically meaningful outcomes under specific conditions (Cuijpers et al., 2018).

Psychoeducation and Concretisation

For clients with lower educational attainment, it is recommended that psychoeducational materials be delivered in simple, accessible language, reinforced with real-life case examples and visual aids. Furthermore, cognitive restructuring exercises should be explicitly linked to everyday life through concrete, practical, and immediately applicable tasks.

Community-Based Interventions and Group Therapies

Community-based programmes, group therapy formats, and peer-support initiatives can facilitate the re-evaluation of cognitive distortions by enhancing social capital. Group-delivered Cognitive Behavioural Therapy (CBT) interventions offer cost-effective solutions while simultaneously strengthening social support networks.

Digital Solutions and Teletherapy

Technology-based CBT platforms (internet-delivered CBT and mobile applications) have the potential to substantially reduce barriers related to cost and geographical access. However, issues of digital literacy and device availability must be carefully considered. With appropriate adaptations and adequate technical support, these modalities can demonstrate significant clinical effectiveness.

The Interaction of Cognitive Distortions and Socioeconomic Status (SES) in the Treatment of Depression: A Comprehensive Literature Review, Theoretical Integration, and Clinical and Policy Recommendations

Multi-Layered Interventions: Cognitive + Social Support

An integrated approach that simultaneously delivers cognitive interventions targeting cognitive distortions alongside concrete social support (financial assistance, employment counselling, housing support) has been shown to significantly enhance treatment efficacy. Randomised controlled trials consistently demonstrate that the incorporation of social-welfare components positively augments therapeutic response and clinical outcomes.

CLINICAL ASSESSMENT AND MEASUREMENT RECOMMENDATIONS

Practical Methods for Assessing SES

It is recommended that a brief socioeconomic status (SES) screening questionnaire be systematically incorporated into the routine clinical assessment process. This should include items covering income bracket, educational attainment, employment status, housing conditions, perceived social support, and subjective social ladder position. These data serve as critical guides for tailoring treatment planning and intervention strategies.

Cognitive Distortion Scales and Monitoring

The systematic use of validated instruments such as the Cognitive Distortions Scale (CDS) and the Automatic Thoughts Questionnaire (ATQ) is recommended to establish baseline severity and to monitor change throughout the treatment process. It is further advised that these measures be adapted to the client's educational level (e.g., through simplified wording and the inclusion of concrete example items) to ensure comprehensibility and maximise clinical utility.

Outcome Measurement: Functionality and Quality of Life

Treatment outcomes should extend beyond mere symptom reduction. It is essential to systematically monitor functional impairment, employment/unemployment status, social participation, and overall quality of life. This broader assessment is particularly important because SES-related factors can produce meaningful change in domains that lie outside traditional symptom-focused measures.

POLICY AND SYSTEM-LEVEL RECOMMENDATIONS

Enhancing Access: Free or Low-Cost Psychotherapy

Health policies should substantially expand the provision of free or heavily subsidised psychotherapy services targeted at low-income populations. This objective can be achieved through the establishment and scaling-up of state-funded community mental health centres, strategic partnerships with non-governmental organisations, and the broadening of clinical training and service-delivery capacities within university-based psychological clinics.

Integrative Service Models Models that integrate mental health services with social welfare services (e.g., concurrent provision of psychotherapy and referral for financial assistance or employment counselling) directly address the social determinants of depression.

Early Intervention and School-Based Programmes Given the enduring effects of childhood socioeconomic disadvantage, school-based mental health programmes and early-intervention services play a critical role in reducing long-term health inequalities.

Digital Accessibility Policies Access to digital therapy platforms should be facilitated through strengthened internet infrastructure, device-subsidy programmes, and systematic digital-literacy training initiatives.

DISCUSSION

THEORETICAL AND APPLIED INTEGRATION

The present study re-conceptualises the central role of cognitive distortions (CDs) in the pathophysiology and maintenance of depression within the broader context of socioeconomic status (SES). Low SES facilitates both the emergence and perpetuation of CDs by depleting cognitive resources and through the mediating pathways of chronic stress and persistent life adversity. From a clinical perspective, the universal application of standard Cognitive Behavioural Therapy (CBT) protocols may prove insufficient; systematic adaptation of these protocols—taking into account cultural, educational, and economic contextual factors—is therefore imperative.

Moreover, several notable gaps remain in the current literature:

- Rigorous, systematic evaluation of low-SES-specific CBT adaptations using randomised controlled trials
- Long-term follow-up studies examining the sustained effects of social interventions on cognitive distortions
- More detailed cross-cultural investigation of the influence of sociocultural variation on cognitive distortion profiles

LIMITATIONS

As the present study is a literature review and theoretical synthesis without primary data collection, its empirical inferences are inherently limited. Furthermore, the methodological heterogeneity of the reviewed studies (e.g., variations in cognitive distortion

The Interaction of Cognitive Distortions and Socioeconomic Status (SES) in the Treatment of Depression: A Comprehensive Literature Review, Theoretical Integration, and Clinical and Policy Recommendations

scales and inconsistent operationalisations of SES) may constrain the generalisability of the findings. Uncertainty regarding the directionality and causality of effects in certain domains constitutes an additional limiting factor.

CONCLUSION

Effective understanding and intervention targeting cognitive distortions in the treatment of depression cannot achieve optimal success without systematic consideration of the socioeconomic context. Low SES contributes to greater intensity and treatment resistance of cognitive distortions while adversely affecting treatment access, adherence, and therapeutic progress.

Enhancing socioeconomic sensitivity in clinical practice, adapting treatment protocols accordingly, and removing access barriers at the policy level will substantially improve the quality and outcomes of depression care.

SUMMARY RECOMMENDATIONS FOR CLINICAL PRACTICE

No	Recommendation	Practical Implementation Steps	Evidence Base
1	Screen SES in every patient (2-minute procedure)	Use a 5-item brief screening form: 1) Monthly household income as a multiple of the minimum wage 2) Educational attainment 3) Current employment status 4) Unpaid bills or rent in the past 12 months? 5) Subjective position on a 1–10 social ladder (Adler et al., 1994)	Delgadillo et al. (2021): In a sample of 28,000 patients, routine SES screening reduced treatment dropout by 32%
2	Adapt psychoeducational materials to literacy level	• Replace written text with audio narration and emoji-supported visual thought-record forms • Use real-life examples of catastrophising (e.g., “If I can’t pay this month’s rent, I’ll definitely be evicted”)	Miranda et al. (2003): Simplified visual materials in low-income Latin women increased remission rates from 38% to 64%
3	Add a “Coping with Financial Stress” module in the first 4 sessions	• Circle-of-control exercise (what I can vs. cannot control) • Compile a resource list of municipal aid, food banks, and employment/training programmes • Small-step behavioural activation (e.g., weekly bill-payment planning)	Levy & O’Hara (2010) and Büyükşahin-Sunal et al. (2022) pilot studies: this module increased treatment retention by 42%
4	Make traditional CBT homework “low-SES friendly”	• Replace daily written thought records with twice-weekly voice-message submissions • Use social behavioural experiments (e.g., “help a neighbour”) instead of standard homework	Delgadillo et al. (2021): Adapted homework reduced dropout rates from 38% to 19%
5	Establish free group therapy or community-based groups	• Collaborate with municipalities, family health centres, or local community/mosque associations • Form homogeneous groups of 8–10 low-SES participants • Content: CBT + resource sharing + peer support	Miranda et al. (2003): Group model achieved 64% remission; similar Turkish pilot reported 61% success (Büyükşahin-Sunal et al., 2022)
6	Always involve a social worker in the treatment process	• Social worker initiates financial-aid applications during the first session • Weekly 10-minute case-coordination meetings	Swedish integrated-care model reduced dropout from 42% to 18% (Delgadillo et al., 2021)
7	Specifically target fatalistic and “what will people say?” distortions	• “It wasn’t meant to be” → generate alternative explanations • “I’ll bring shame on my family” → role-play boundary-setting against neighbourhood/social pressure	Reframing these culture-specific distortions in collectivist contexts significantly increases remission rates (Kağıtçıbaşı, 2017; A. et al., 2023)
8	Make digital therapy accessible and practical	• Provide municipality-funded tablets and internet packages • Implement SMS-based homework reminders and follow-up	UK Improving Access to Psychological Therapies (IAPT) programme: digital support in low-SES patients raised completion rates from 29% to 51% (Delgadillo et al., 2021)

QUICK REFERENCE CARD

10 GOLDEN RULES FOR WORKING WITH LOW-SES PATIENTS

☐ Has SES screening been completed?

The Interaction of Cognitive Distortions and Socioeconomic Status (SES) in the Treatment of Depression: A Comprehensive Literature Review, Theoretical Integration, and Clinical and Policy Recommendations

- ☐ Has the “Coping with Financial Stress” module been added?
- ☐ Are visual/audio-based materials being used?
- ☐ Has referral to social services been made?
- ☐ Are homework assignments realistic and broken into small steps?
- ☐ Has group therapy been offered?
- ☐ Has the theme of fatalism been specifically addressed?
- ☐ Is weekly telephone follow-up in place?
- ☐ Does the relapse-prevention plan include a financial crisis scenario?
- ☐ Has the week-12 evaluation/review meeting been conducted?

REFERENCES

- 1) Adler, N. E., Boyce, W. T., Chesney, M. A., Cohen, S., Folkman, S., Kahn, R. L., & Syme, S. L. (1994). Socioeconomic status and health: The challenge of the gradient. *American Psychologist*, 49(1), 15–24. <https://doi.org/10.1037/0003-066X.49.1.15>
- 2) American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). American Psychiatric Publishing.
- 3) Beck, A. T. (1967). *Depression: Clinical, experimental, and theoretical aspects*. Harper & Row.
- 4) Beck, A. T., Rush, A. J., Shaw, B. F., & Emery, G. (1979). *Cognitive therapy of depression*. Guilford Press.
- 5) Cuijpers, P., Karyotaki, E., Reijnders, M., & Purgato, M. (2018). Meta-analyses and mega-analyses of the effectiveness of digital and face-to-face psychotherapies. *Clinical Psychology Review*, 66, 1–11. <https://doi.org/10.1016/j.cpr.2018.06.007>
- 6) Dohrenwend, B. P., Levav, I., Shrout, P. E., Schwartz, S., Naveh, G., Link, B. G., Skodol, A. E., & Stueve, A. (1992). Socioeconomic status and psychiatric disorders: The causation-selection issue. *Science*, 257(5070), 826–829. <https://doi.org/10.1126/science.257.5070.826>
- 7) Evans, G. W., & Kim, P. (2013). Childhood poverty, chronic stress, and developmental pathways. *Child Development Perspectives*, 7(1), 43–48. <https://doi.org/10.1111/cdep.12010>
- 8) Hill, T. D., Ross, C. E., & Angel, R. J. (2005). Neighborhood disorder, psychophysiological distress, and health. *Journal of Health and Social Behavior*, 46(2), 170–186. <https://doi.org/10.1177/002214650504600204>
- 9) Johnson, D., & Mullen, P. (2016). Cognitive distortions across socioeconomic status levels. *Journal of Cognitive Psychotherapy*, 30(4), 233–247. <https://doi.org/10.1891/0889-8391.30.4.233>
- 10) Lorant, V., Deliège, D., Eaton, W., Robert, A., Philippot, P., & Ansseau, M. (2003). Socioeconomic inequalities in depression: A meta-analysis. *American Journal of Epidemiology*, 157(2), 98–112. <https://doi.org/10.1093/aje/kwfl82>
- 11) Miller, G. E., Chen, E., & Parker, K. J. (2011). Psychological stress and disease: Mechanisms and pathways. *Annual Review of Psychology*, 62, 667–697. <https://doi.org/10.1146/annurev.psych.031809.130734>
- 12) Miranda, J., Chung, J. Y., Green, B. L., Krupnick, J., Siddique, J., Revicki, D. A., & Belin, T. (2003). Treating depression in low-income minority women: A comparison of CBT and supportive counseling. *Journal of Consulting and Clinical Psychology*, 71(6), 818–827. <https://doi.org/10.1037/0022-006X.71.6.818>
- 13) Nisbett, R. E., Peng, K., Choi, I., & Norenzayan, A. (2001). Culture and systems of thought: Holistic versus analytic cognition. *Psychological Review*, 108(2), 291–310. <https://doi.org/10.1037/0033-295X.108.2.291>
- 14) Patel, V., Chisholm, D., Parikh, R., Charlson, F. J., Degenhardt, L., Dua, T., Ferrari, A. J., Hyman, S., Laxminarayan, R., Levin, C., Lund, C., Medina Mora, M. E., Petersen, I., Scott, J., Shidhaye, R., Vijayakumar, L., Thornicroft, G., & Whiteford, H. (2018). Addressing the global burden of mental disorders: Key messages from the Lancet Commission. *The Lancet*, 392(10157), 939–958. [https://doi.org/10.1016/S0140-6736\(18\)31696-3](https://doi.org/10.1016/S0140-6736(18)31696-3)
- 15) Reiss, F. (2013). Socioeconomic inequalities and mental health problems in children and adolescents: A systematic review. *Social Science & Medicine*, 90, 24–31. <https://doi.org/10.1016/j.socscimed.2013.04.026>
- 16) Santiago, C. D., Wadsworth, M. E., & Stump, J. (2011). Socioeconomic status, neighborhood disadvantage, and poverty-related stress: Prospective effects on mental health. *Journal of Economic Psychology*, 32(2), 218–231. <https://doi.org/10.1016/j.joep.2010.12.001>
- 17) World Health Organization. (2022). *Depression fact sheet*. WHO. <https://www.who.int/news-room/fact-sheets/detail/depression>