

# The Effectiveness of Cognitive Restructuring Technique in Counselling

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## ABSTRACT

This study aimed to evaluate the effectiveness of the cognitive restructuring technique during counseling sessions. A purposive sampling method was used to select a subject from junior doctor undergoing training at Government Hospital. Quantitative data were collected using the Perceived Stress Scale (PSS), while qualitative data were obtained through verbatim transcripts of counseling sessions. A total of six counseling sessions were conducted, and the stress level was analyzed through descriptive analysis of the PSS scores and content analysis of the verbatim transcripts. The findings revealed that houseman with high perceived stress levels exhibited stress symptoms across emotional, physiological, cognitive, and behavioral dimensions. Overall, the counseling sessions successfully reduced the client's stress level from high to moderate, demonstrating the effectiveness of the cognitive restructuring technique in managing stress among junior doctor.

**Keywords:** Cognitive Restructuring Technique, Counselling, Houseman, Stress, Symptoms.

## INTRODUCTION

Stress is a universal aspect of life that has shaped human experiences throughout history and continues to grow in complexity due to social, personal, and ecological dynamics. In the medical field, stress is particularly acute during housemanship, a mandatory residency training for doctors to become certified practitioners. In Malaysia, junior doctor rotate through six departments over 24 months, often facing intense pressure that impacts their well-being. Studies reveal that over 70% of Malaysian houseman experience excessive stress during this period, highlighting housemanship as one of the most challenging phases of a medical career.

Stress-related challenges significantly contribute to the attrition of houseman in Malaysia, raising concerns about the future of the healthcare workforce. Between 2008 and 2011, dropout rates ranged from 3.7% to 4.8% per batch year, escalating to a 20% annual dropout rate between 2016 and 2018. Recent data from the Ministry of Health revealed a 37% decline in houseman numbers from 2020 to 2021, intensifying the issue. The mental strain, heavy workload, and systemic challenges faced by houseman have drawn widespread attention, including complaints from house officers and their families. Addressing these challenges is critical to ensure a sustainable and effective healthcare system.

## LITERATURE REVIEW

In the United Kingdom, the Royal College of Physicians (2016) reported that four out of five houseman acknowledged that their work sometimes or frequently caused significant stress. While there has been considerable research on stress levels among undergraduate medical students (Abdulghani et al., 2011; Alzahem et al., 2013) and postgraduate residents (Tyssen et al., 2000), limited attention has been given to understanding stress levels specifically among house officers or houseman. Despite Cognitive Behavioral Therapy being established as effective in over 350 studies on psychological disorders (Anclair et al., 2018), its application for managing stress among house officers or houseman remains underexplored. This study aims to address this gap by applying a Cognitive Behavioral Therapy intervention to evaluate its effectiveness in reducing stress levels among house officers.

Studies conducted in Malaysia have highlighted numerous factors contributing to the stress experienced by houseman. These include the fear of making mistakes, challenges in collaborating with colleagues, feelings of insecurity and uncertainty, heavy workloads, lack of support, bullying from both seniors and peers, and concerns about career progression (Vivekanandan et al., 2016; Tambol et al., 2020; Malaysia, 2019; Samsudin et al., 2018; Ang & Johari, 2008). It is troubling to consider entrusting patient care to overworked and stressed medical professionals who are more prone to errors. Stress among houseman not only affects the quality of patient care but also takes a toll on their health (Ang & Johari, 2008). Stress in the medical profession has been linked to prescription errors, poor teamwork, increased patient complaints, and higher rates of absenteeism (Hassan et al., 2014).

The primary goal of Cognitive Behavior Therapy is to alter thought patterns and behaviors to enhance the quality of life without changing external circumstances. This approach empowers individuals to reshape how they interpret their environment (Beck, 2020). By adopting this approach, houseman can develop more constructive thinking, adapt to changes, sustain their connection to their organization, and cultivate a flexible, non-rigid outlook toward themselves, others, and their work environment (Beck, 2020). Cognitive Restructuring Techniques is a key element of Cognitive Behavioral Therapy, designed as a structured, goal-oriented, and collaborative process. It focuses on identifying, evaluating, and replacing maladaptive thoughts, appraisals, and beliefs that contribute to psychological distress (Clark et al., 2014). This technique helps individuals recognize and modify thoughts that influence their emotional and behavioral responses. Initially, it targets automatic thoughts with brief, reflexive responses to specific situations but can also address deeper cognitive structures, such as schemas involving core beliefs about oneself, others, relationships, and the world (Clark et al., 2014; Beck, 2020).

The primary aim of cognitive restructuring is to reduce stress levels by fostering healthier thought patterns (Mills et al., 2008). Billingsley et al. (2007) highlighted that cognitive restructuring was particularly effective for healthcare professionals as part of stress management strategies. Similarly, Sabzwari and Iqbal (2021) reported that clinicians who employed this technique experienced reduced stress after sharing negative experiences, shifting their perspectives, and adopting better coping strategies. Murphy et al. (2022) further demonstrated that cognitive restructuring has a positive influence on emotional well-being.

Mache et al. (2015) conducted a controlled trial in Germany with 82 houseman, who were randomly assigned to either an intervention or control group for three months. The intervention group underwent resilience training, cognitive behavioral therapy (CBT), and solution-focused counseling. Compared to the control group, this group showed significant improvements in perceived stress, resilience, self-efficacy, and optimism from baseline to follow-up, indicating that such interventions are effective in reducing stress and improving resilience among houseman.

Additionally, a study in Australia by Holt and Del Mar (2006) involved 161 doctors who reported high stress levels. After receiving CBT, their stress levels, measured using the GHQ-12 scale, showed significant reductions. Finally, research has demonstrated that combining cognitive restructuring with positive behaviors or coping mechanisms effectively reduces symptoms of psychological distress (Nguye, 2017; Sheptycki, 2020). This evidence underscores the value of cognitive restructuring as a tool for improving mental health and stress management in healthcare professionals.

## **METHODOLOGY**

This study utilized a single-case study design to evaluate the effectiveness of cognitive restructuring in managing stress levels among house officers in a government hospital, employing a mixed-method approach that combined quantitative and qualitative data. Stress levels were measured using the Perceived Stress Scale (PSS) through pretests and posttests conducted at various stages of the intervention, while qualitative insights were derived from transcriptions of six counseling sessions. A 27-year-old male junior doctor was selected through purposive sampling, meeting criteria for high perceived stress (PSS score of 27–40). Triangulation of data sources, including PSS scores and counseling session transcripts, ensured the validity of findings. The six counseling sessions, each lasting 30 minutes, provided an in-depth exploration of the impact of cognitive restructuring on stress levels, with results evaluated across multiple time points to assess both immediate and sustained effects.

## DISCUSSION

The study outlines the results of the analysis assessing the effectiveness of the cognitive restructuring technique in reducing stress levels among house officers. Analysis of the effectiveness of cognitive restructuring technique on stress level.

The effectiveness of the cognitive restructuring technique is demonstrated through a triangulation analysis incorporating PSS scores, session transcriptions, and observations recorded using the MSE form. The PSS scores revealed a total reduction in stress levels by 22.5%, as illustrated in Figure 1

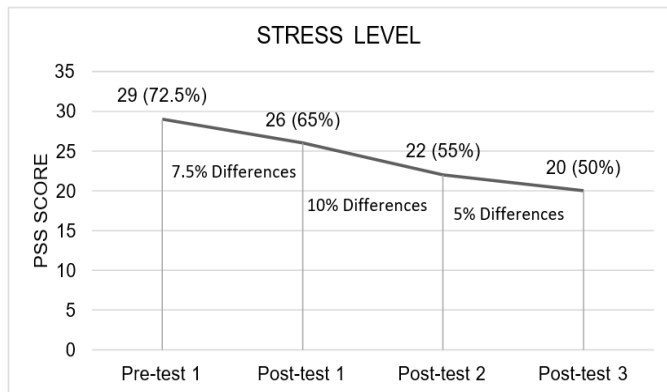


Figure 1: PSS Score Analysis

The findings revealed a significant reduction in the client's stress levels following the cognitive restructuring intervention. The Perceived Stress Scale (PSS) scores showed a decrease from 72.5% (high stress) during the pre-session to 50% (moderate stress) by the final measurement, indicating a 22.5% overall reduction. The client's scores progressively improved, with PSS scores dropping from 29 (pre-test) to 26 (post-test 1), 22 (post-test 2), and 20 (post-test 3) over the course of six counseling sessions and a follow-up period. The seven-column thought record, a core Cognitive Behavioral tool, was instrumental in addressing stress across emotional, physiological, cognitive, and behavioral domains, demonstrating the effectiveness of the cognitive restructuring technique in managing high stress levels.

### Emotional Symptoms

The application of cognitive restructuring significantly improved the client's emotional well-being, as reflected in the transcription:

#### Calm

*"I feel much calmer now compared to before, as I've started shifting toward a more positive mindset. Previously, I struggled to stay calm and would easily stress out over negative events at work. But now, I can better control my emotions and remain calm." (Session 6, Line 16)*

#### Enjoyment

*"I've started to enjoy being a doctor. Even though it's exhausting and some days are very busy, now that I've developed a positive outlook, I find enjoyment in the work I do, even if it's just a little. Before, I didn't feel this way at all." (Session 6, Line 20)*

#### Pride

*"I feel proud of myself for getting this far. There's still so much I need to learn, but when I look back at what I've accomplished, I can't help but feel proud." (Session 6, Line 21)*

## Physiological Symptoms

The cognitive restructuring technique also positively impacted the client's physical health:

### Appetite/Body Weight

*"Physically, I've noticed some changes. I'm eating more regularly now. Previously, I only ate once a day due to stress, but now I eat more often, and my weight has increased from 60kg to 63kg. I'm no longer as skinny as before." (Session 6, Line 26)*

### Sleep Pattern

*"Earlier, I had trouble falling asleep despite being tired because I kept overthinking work. I would sleep late, getting only four to five hours of rest. Now, I overthink much less and can sleep over six hours a night." (Session 6, Line 28)*

### Digestive System

*"When I was stressed, I often had digestive issues and discomfort after meals, requiring medication like Gaviscon or Ganaton. Now, I don't need any medication, and my digestion has improved significantly." (Session 6, Line 31)*

### Body Pain

*"Previously, my body ached a lot because stress made my muscles tense, especially in my shoulders and calves. I'd wake up feeling sore. Over the past few weeks, the pain has reduced, even with a heavy workload." (Session 6, Line 30)*

### Lethargy

*"Being a doctor is undeniably tiring, but I've learned to take short breaks of 10–15 minutes to rest or snack. These short breaks help me feel more relaxed and less fatigued." (Session 6, Line 32)*

## Cognitive Symptoms

Improvements in cognitive symptoms were also evident following the intervention:

### Positive Thinking

*"Since learning the techniques in these sessions, my thoughts have shifted from negative to positive. Before, I felt incompetent as a doctor and doubted I could complete my housemanship. Now, with positive thinking, I believe I can finish and get fully registered." (Session 6, Line 36)*

### Focus

*"My focus has improved. During ward rounds, I can now remember most patient beds without looking at notes, unlike before when I struggled to recall even one patient." (Session 6, Line 38)*

### Motivation

*"My motivation has also increased. I feel more excited to go to work and no longer wake up feeling down. I look forward to completing the day." (Session 6, Line 40)*

### Self-Esteem

*"My self-esteem has improved. I no longer look down on myself as much. I feel more confident presenting cases to specialists." (Session 6, Line 41)*

## Behavioral Symptoms

The client also demonstrated positive changes in behavior:

### Assertiveness

*"I've started addressing issues calmly and professionally, instead of staying silent and getting stressed. I've become more assertive in standing up for myself when it's not my fault." (Session 6, Line 55)*

### Spending Time with Family

*"Recently, on my days off, I spend more time with family instead of staying in my room. I take my mom shopping or visit relatives. Talking about my experience as a houseman with them helps relieve stress." (Session 6, Line 51)*

### Exercise

*"The biggest change is that I exercise more now, like jogging, futsal, or cycling at Cyberjaya Lake with friends. I notice a big reduction in stress after exercising, so I'll keep doing this." (Session 6, Line 47)*

The effectiveness of the cognitive restructuring technique in reducing the client's stress levels was evaluated using a triangulation method. This approach integrated quantitative data from the Perceived Stress Scale and qualitative data from verbatim session transcripts. The findings demonstrate a 22.5% reduction in the PSS score following the intervention. Stress symptoms were notably alleviated in the verbatim transcripts. These results indicate that the triangulated data collection methods effectively support and validate the findings of this single-case study, highlighting the success of the cognitive restructuring technique in managing the client's stress.

The findings of this study demonstrate that the cognitive restructuring technique effectively reduced the stress levels experienced by the house officer. This is evidenced by a 22.5% decrease in the Perceived Stress Scale (PSS) score, with a consistent reduction observed from post-test 1 to post-test 3. These results align with previous studies conducted by Luberto et al. (2017), Sizoo and Kuiper (2017), and Amin et al. (2018), which confirm the efficacy of cognitive restructuring in alleviating psychological stress in individuals.

The use of the seven-column thought record framework (Greenberger & Padesky, 1995) was instrumental in reducing the client's stress symptoms and levels. This framework enabled the client to identify negative automatic thoughts, differentiate thoughts from facts, recognize the emotional impact of negative thinking, consider alternative perspectives, and experience positive emotional shifts. By challenging negative automatic thoughts, the client developed a more realistic evaluation and positive cognition, which led to improved emotional well-being and a better sense of self-worth through identifying beliefs and cognitive distortions.

This outcome aligns with the primary aim of cognitive restructuring, which is to reduce stress by fostering positive and functional thought patterns (Mills, Reiss, & Dombeck, 2008). Previous research also supports these findings, showing that cognitive restructuring helps clients develop healthier thoughts and improved emotional processing (Murphy et al., 2022). Sabzwari and Iqbal (2021) similarly observed that cognitive restructuring aids doctors in managing stress by cultivating alternative perspectives and emotions.

Counselors play a vital role in guiding clients to recognize and challenge negative thinking patterns. The seven-column thought record technique is particularly valuable as it is simple, practical, and can be self-applied by clients whenever they encounter negative thoughts. According to Greenberger and Padesky (1995), overcoming negative and unrealistic thinking is essential because distorted interpretations of situations can negatively impact actions. By using the seven-column thought record, clients can adopt a more constructive thinking style, which reduces stress levels.

Additionally, combining cognitive restructuring with improved coping mechanisms further enhances stress management. Studies have shown that effective coping strategies can significantly alleviate psychological distress symptoms (Nguye, 2017; Sheptycki, 2020). In this study, the client demonstrated adaptive behavioral

changes, such as engaging in regular exercise, spending more time with family, and practicing assertiveness. These positive behaviors complemented the cognitive restructuring process, leading to better stress management outcomes.

## CONCLUSION

The study concluded that the cognitive restructuring technique effectively reduced stress levels for houseman, demonstrating its potential as a practical and efficient intervention for stress management in healthcare settings. This approach is particularly beneficial for houseman, who face long hours and heavy workloads, as it provides a structured yet concise method to address stress without demanding extensive time commitments. The findings emphasize the need for the Malaysian Ministry of Health to prioritize the well-being of houseman by reassessing working conditions, implementing workplace policies, and offering mental health support systems. Additionally, mentorship programs and stress management modules could further assist house officers in coping with workplace challenges. While the single-subject design limits generalizability, the study highlights the importance of future research on specific stress-causing factors and prolonged interventions to ensure sustained support for healthcare professionals. These efforts can enhance the well-being of houseman and maintain the quality of patient care in Malaysian.

Future studies should expand the participant pool to include house officers from various hospitals across urban and rural settings in Malaysia. This diversity would provide a broader perspective on the stressors and coping mechanisms of junior doctors, ensuring the findings are generalizable across the healthcare system. Incorporating a control group would provide a clearer understanding of the impact of cognitive restructuring on stress reduction. Additionally, comparing its effectiveness with mindfulness-based stress reduction or peer counseling could identify the most effective strategies for different stress profiles among house officers. It would be valuable to investigate whether combining cognitive restructuring with mindfulness and peer counseling could yield even greater benefits. For instance, mindfulness could help house officers regulate their immediate emotional responses, while peer counseling provides a supportive environment to share and validate experiences. To evaluate the long-term effectiveness of cognitive restructuring, future studies should include a follow-up component, tracking participants' stress levels at three and six months post-intervention. This approach would provide insights into the durability of the improvements and the need for potential booster sessions. Scaling up the study to involve multiple institutions or regions could provide robust evidence for integrating stress management programs into junior doctor training. Collaborating with healthcare policymakers could pave the way for national-level initiatives to improve the mental well-being of house officers.

For instance, one house officer shared, 'The constant fear of making mistakes while being scrutinized by seniors made me doubt my abilities daily.' This highlights the emotional toll of the high-pressure environment unique to the Malaysian healthcare system. Cognitive restructuring involves identifying and challenging negative thought patterns, such as 'I am not good enough,' and replacing them with balanced thoughts like 'I am learning and improving every day.' For Malaysian house officers, this might mean viewing constructive feedback as a tool for growth rather than personal failure. While cognitive restructuring focuses on reshaping thought patterns, mindfulness emphasizes being present and accepting emotions without judgment. Peer support, on the other hand, offers emotional and practical assistance through shared experiences. For instance, house officers may find mindfulness exercises helpful during short breaks, while peer support groups can provide a sense of camaraderie and shared understanding. In the Malaysian context, the expectation of showing deference to senior colleagues can make it challenging for house officers to voice concerns, further compounding stress. Stress management strategies need to account for such cultural nuances to be effective.

To strengthen the study's external validity, future research should implement a larger sample size and include a control group. Randomly assigning participants to an intervention group receiving cognitive restructuring and a control group receiving no intervention or an alternative approach would provide more robust evidence of the technique's effectiveness. Expanding the participant demographic to include a wider age range, female house officers, and individuals from different cultural backgrounds would add depth to the findings. Such diversity could reveal how cognitive restructuring interacts with various personal and cultural factors, offering a more nuanced understanding of its impact. Long-term follow-ups are crucial to understanding the sustained impact of cognitive restructuring on stress levels. Evaluating participants' outcomes at six months and one year post-

intervention would provide valuable insights into the technique's durability and the potential need for refresher sessions. Incorporating additional measures, such as job satisfaction surveys and burnout scales, would offer a more holistic understanding of the intervention's impact. For example, improvements in stress levels could correlate with higher job satisfaction and reduced burnout, highlighting the broader benefits of cognitive restructuring. By synthesizing data from a diverse participant pool, control group comparisons, and a variety of stress-related measures, future studies could provide actionable insights. These findings could inform the development of targeted interventions to support house officers' mental health and professional well-being.

## REFERENCES

1. Abdulghani, H. M., AlKanhil, A. A., Mahmoud, E. S., Ponnampuruma, G. G., & Alfaris, E. A. (2011). Stress and its effects on medical students: A cross-sectional study at a college of medicine in Saudi Arabia. *Journal of Health, Population, and Nutrition*, 29(5), 516.
2. Alzahem, A. M., Van der Molen, H. T., & De Boer, B. J. (2013). Effect of year of study on stress levels in male undergraduate dental students. *Advances in Medical Education and Practice*, 4, 217.
3. Amin Nasab, A., Yousefian, Z., & Sehatti, M. (2018). The effectiveness of stress reduction-based cognitive therapy on perceived stress and migraine symptoms of women suffering from migraine. *Journal of Social Behavior and Community Health*, 2(2), 210–218.
4. Anclair, M., Lappalainen, R., Muotka, J., & Hiltunen, A. J. (2018). Cognitive behavioural therapy and mindfulness for stress and burnout: A waiting list control pilot study comparing treatments for parents of children with chronic conditions. *Scandinavian Journal of Caring Sciences*, 32(1), 389–396.
5. Ang, K. T., & Johari, M. R. (2008). Stress during housemanship training. *Journal of Health Management*, 11(1), 31–39.
6. Beck, J. S. (2020). *Cognitive behavior therapy: Basics and beyond* (3rd ed.). Guilford Publications.
7. Billingsley, S. K., Collins, A. M., & Miller, M. (2007). Healthy student, healthy nurse: A stress management workshop. *Nurse Educator*, 32(2), 49–51.
8. Clark, S., Bowers, G., & Reynolds, S. (2014). Managing negative thoughts, part 1: Cognitive restructuring and behavioral experiments. In *Evidence-Based CBT for Anxiety and Depression in Children and Adolescents: A Competencies-Based Approach* (pp. 157–175).
9. Greenberger, D., & Padesky, C. A. (1995). *Mind over mood: A cognitive therapy treatment manual for clients*. Guilford Press.
10. Hassan, M., Hussain, T., Ahmed, S. M., Fraz, T. R., & Rehmat, Z. (2014). Perceived stress and stressors among house officers. *Indian Journal of Occupational and Environmental Medicine*, 18(3), 145.
11. Holt, J., & Del Mar, C. (2006). Reducing occupational psychological distress: A randomized controlled trial of a mailed intervention. *Health Education Research*, 21(4), 501–507.
12. Hughes, C., et al. (2014). *CBT for mild to moderate depression and anxiety: A guide to low-intensity interventions* (1st ed.). Berkshire: Open University Press.
13. Luberto, C. M., Magidson, J. F., & Blashill, A. J. (2017). A case study of individually delivered mindfulness-based cognitive behavioral therapy for severe health anxiety. *Cognitive and Behavioral Practice*, 24(4), 484–495.
14. Mache, S., Vitzthum, K., Klapp, B. F., & Groneberg, D. A. (2015). Evaluation of a multicomponent psychosocial skill training program for junior physicians in their first year at work. *Family Medicine*, 47(9), 693–698.
15. Malaysia, K. K. (2019). Psychological morbidities amongst house officers in Sarawak General Hospital Kuching. *Medical Journal of Malaysia*, 74(4), 307.
16. Mills, H., Reiss, N., & Dombeck, M. (2008). Cognitive restructuring. *Mental Help Net*. Retrieved from <https://www.mentalhelp.net/articles/cognitive-restructuring-info>
17. Murphy, S. T., Vittorio, L. N., & Strunk, D. R. (2022). Vindicating Pollyanna? An experimental test of cognitive restructuring and positive thinking interventions. *Psychotherapy Research*, 1(8).
18. Nguyen, T. (2017). Application of cognitive restructuring and behavioral activation techniques for anxiety disorders. *ResearchGate*. <https://doi.org/10.13140/RG.2.2.23452.23681>
19. Sabzwari, S., & Iqbal, R. (2021). An introduction to cognitive restructuring for COVID-19-induced stress in postgraduate trainees.
20. Samsudin, E. Z., Isahak, M., & Rampal, S. (2018). The prevalence, risk factors, and outcomes of

- workplace bullying among junior doctors: A systematic review. *European Journal of Work and Organizational Psychology*, 27(6), 700–718.
21. Sheptycki, A. (2020). *Cognitive behavioural therapy for major depression: Identifying and examining core therapist techniques*. McGill University (Canada).
  22. Sizoo, B. B., & Kuiper, E. (2017). Cognitive behavioural therapy and mindfulness-based stress reduction may be equally effective in reducing anxiety and depression in adults with autism spectrum disorders. *Research in Developmental Disabilities*, 64, 47–55.
  23. Tambol, Z., Bakar, A. Y. A., Mahmud, M. I., & Karim, D. N. F. M. (2020). The psychological well-being of ‘houseman’ medical officers in Malaysia. *International Journal of Academic Research in Business and Social Sciences*, 10(11), 1006–1015.
  24. Tyssen, R., Vaglum, P., Grønvold, N. T., & Ekeberg, Ø. (2000). The impact of job stress and working conditions on mental health problems among junior house officers: A nationwide Norwegian prospective cohort study. *Medical Education*, 34(5), 374–384.
  25. Vivekanandan, G., Thirupathy, U., Affan, M., Zamri, A. A., Ariffin, K., Asraff, A., & Sugnadan, S. (2016). Stress perceived by houseman in a hospital in northern Malaysia. *Medical Journal of Malaysia*, 71(1)