

Investigating the effect of CBT-based intervention program based on the conceptual framework of burnout and reducing the burnout symptoms of learners in English language teaching centers

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Abstract

CBT represents a combination of behavioral and cognitive theories of human behavior and psychopathology, and a melding of emotional, familial, and peer influences. The numerous intervention strategies that comprise CBT reflect its complex and integrative nature and include such topics as extinction, habituation, modeling, cognitive restructuring, problem-solving, and the development of coping strategies, mastery, and a sense of self-control. CBT targets multiple areas of potential vulnerability (e.g., cognitive, behavioral, affective) with developmentally-guided strategies and traverses multiple intervention pathways. Although CBT is often considered the “first line treatment” for many psychological disorders in youth, additional work is necessary to address treatment non-responders and to facilitate the dissemination of efficacious CBT approaches. In this context, the main goal of the research is to investigate the impact of the intervention program based on CBT based on the conceptual framework of academic burnout and reducing the symptoms of academic burnout of students in In schools and educational centers, especially English language teaching centers.

Keywords: intervention program based on CBT, academic burnout, academic burnout, Behavior Therapy

1-Introduction

Academic burnout can be defined as a negative emotional, physical and mental reaction to prolonged study that results in exhaustion, frustration, lack of motivation and reduced ability in school. Academic burnout negatively affects students. Academic burnout refers to students' feeling of debilitation, pessimism, and low self-efficacy (Salmela-Aro et al., 2009b). Academic burnout also refers to exhaustion and disengagement symptoms experienced by students due to long-term exposure to specific school demands. Past research showed that academic burnout is negatively linked to academic engagement and is associated with increased odds of suicidal ideation amongst students (Seçer, 2015a). Hence, this study aimed to decrease academic burnout among undergraduate history students in Nigeria. In Nigeria, undergraduate history students are students at the university seeking to receive their first degree in history and study about social, cultural, economic, political, and religious dimensions of African history specifically, and the wider world generally. [9,10] The students are taught to compare and contrast African historical experiences with those of the world beyond and recognize the dynamics of the continuously changing relations between Africa and other nations (Alarcon et al., 2011; Romano et al., 2020). School life has a unique quality in that it provides students with the environment and acquisitions they will need academically, socially, and emotionally (Wilson and Tanner-Smith, 2013; Kearney and Graczyk, 2014). On the other hand, problems such as school burnout, which arise due to both school-related and personal characteristics, limit students' acquiring those and using the facilities provided by the school. Although the concept of burnout is predominantly a problem area related to professional life (Maslach and Leiter, 1997), it has started to be associated with similar symptoms observed in students in recent years (Misra and McKean, 2000; Salmela-Aro et al., 2009b; Seçer et al., 2013; Romano et al., 2020). Although being a student is not a job or a profession, it can be thought of as a "job" because its academic duties and responsibilities continue for many years and this process forces the cognitive, emotional and even physical resources of children. Children have many responsibilities such as attending school, doing homework and passing exams for most of the year. In addition, they are faced with the phenomenon of fulfilling the relatively high demands and expectations of their parents and teachers (Seçer, 2015b). Children may develop chronic responses such as being exhausted, developing negative attitudes toward school and school activities, and feeling inadequate (Schaufeli et al., 2002; Lee et al., 2010), decrease in academic achievement (Zhang et al., 2007) and losing ability to cope with the difficulties of this process (Romano et al., 2020) because of this ongoing responsibility and high expectations. These symptoms, which become chronic, also put pressure on the mental health of children (Misra and McKean, 2000; Gil-Monte, 2005; Seçer, 2015a). Thus, children may develop a meaningless and cynical affection toward school and eventually lose their satisfaction by seeing themselves as inadequate, useless and unsuccessful as a student (Salmela-Aro et al., 2009b; Walburg, 2014).

School burnout, which turns into an important pressure tool on social, emotional and physical health, is a problematic that consumes students' available resources (Alarcon et al., 2011; Seçer, 2015b) and when it is not prevented, it has long-term and important consequences. It is argued that school burnout will cause secondary problems such as deterioration in social skills and interpersonal relationships (Yang and Farn, 2005), lack of empathy and health problems (Dyrbye et al., 2012; Mazurkiewicz et al., 2012), depression and anxiety symptoms (Salmela-Aro and Parker, 2011; Seçer, 2015a), sleep disorders, substance use and suicidal ideation (Nteveros et al., 2020) etc. as well as school problems such as decrease in academic achievement and dropping out of school. Therefore, it can be said that school burnout is an important mental health problem that threatens the students academically, socially and emotionally, and it is clear that if it cannot be prevented, it will have long-term and important consequences. So, it is thought that students' positions need to be strengthened in order to effectively deal with problems such as school burnout throughout their educational life (Aypay, 2017; Seçer and Ulaş, 2020). Although the negative impact of school burnout on children's social, emotional and physical health has been clearly demonstrated (Salmela-Aro et al., 2009b; Alarcon et al., 2011; Walburg, 2014; Seçer, 2015b), it is considered that the majority of the studies in the literature do not go beyond cross-sectional/survey nature and therefore contain an important limitation. In the literature, no intervention-based study has been found, and there are various model suggestions. Aypay (2017) suggested that practices that strengthen subjective well-being and future attitudes in young people can contribute to the prevention of school burnout. Romano et al. (2020) suggested that school burnout can be prevented by increasing emotional intelligence and teacher support and through reducing academic anxiety. It is considered that developing and implementing intervention practices for school burnout from the early stages of school life will have an important protective function in terms of children's mental health in the short and long term, and in this way, personal and academic achievements will be strengthened.

In this direction, Cognitive-Behavioral Therapy (CBT) is a frequently preferred approach in terms of intervention for various mental health problems related to adolescence. Along with the studies, it has been scientifically proven that cognitive-behavioral therapy is an effective approach to depression, anxiety, and avoidance in adolescence (Barrett, 1998; Verduyn, 2000; Kendall and Peterman, 2015; Rooksby et al., 2015). Ginsburg et al. (2008) found that a school-based CBT program was effective on anxiety. It has been found that CBT is an effective approach for improving social problem-solving skills in adolescents with behavioral problems (Matthys and Schutter, 2022), emotion regulation skills (Howells, 2018), and at the point of intervention in anxiety disorders in the context of

anxiety sensitivity and emotion regulation (Asnaani et al., 2020). Hannan et al. (2019), on the other hand, evaluated that intensified CBT application in the intervention of school refusal, which is one of the school attendance problems, is promising in terms of increasing the time spent at school.

2-Behavior Therapy

Before there was CBT, there was behavioral therapy – an initially controversial and underestimated approach that ultimately paved the way for empirically-supported treatments for mental health disorders of youth. For example, the Mowrer's "bell-and-pad" procedure for the treatment of enuresis (Wilson and Tanner-Smith, 2013; Kearney and Graczyk, 2014) is an often-cited example of an early behavioral intervention (and it remains a first line treatment for enuresis). Though clinical applications of behavioral strategies did not begin in earnest until the 1960's, the initial work set the stage—by targeting and addressing observable behavior and by measuring outcomes—for later child cognitive-behavioral interventions. Respondent conditioning explanations of behavior influenced early behavior therapy, particularly for the treatment of anxiety. In respondent conditioning, a conditioned stimulus (CS) closely precedes an unconditioned stimulus (UCS) that elicits an unconditioned response (UCR) of fear. After repeated pairings, the CS alone will elicit the conditioned response (CR) of fear. Internal sensations or cues (e.g., physiological arousal) have also come to be recognized as conditioned stimuli. Although the theory is powerful, it remains a somewhat incomplete explanation of human distress. However, respondent conditioning was historically important in birthing notions of exposure tasks for the treatment of anxiety, now a well-established example, if not hallmark, of modern CBT for child anxiety (Kearney and Graczyk, 2014). Respondent conditioning theories brought the concepts of extinction, habituation, and counterconditioning to the attention of developers of treatments for youth. Initial treatments for child anxiety, for example, followed from these early behavioral perspectives. Extinction of a conditioned fear occurs by way of repeated experience with the conditioned stimulus (e.g., bees) in the absence of the unconditioned stimulus (e.g., bee sting). Habituation naturally occurs, and after long periods in the presence of the feared stimulus without the anticipated negative outcome, the stimulus no longer elicits the same heightened levels of arousal. Wolpe's systematic desensitization, based on counterconditioning, advocated for reciprocal inhibition (engaging in an anxiety-antagonistic response, such as relaxation, during exposure trials). Research found that anxiety decreased across exposure trials even in the absence of anxiety inhibitory responses (Nteveros et al., 2020) and gradual exposure (often more palatable to clients) may not be necessary for anxiety reduction to occur. Operant learning theory (Wilson and Tanner-Smith, 2013) played a major role in behavioral therapy as well as child CBT. In operant theory, behaviors are facilitated by environmental contingencies that follow their occurrence. Children's behavior may be positively reinforced, even unintentionally or unknowingly, by attention from caregivers in the child's environment. Negative reinforcement may also occur by the removal of demands placed on the child. Children's independent, developmentally-appropriate behavior may even be punished by caregivers. These contingencies play a major role in the shaping of behavior over time. Environments low in predictable and preferred contingencies may lead to decreased self-efficacy and maladjustment. Problem solving though once linked with behavioral learning, has a cognitive information-processing flavor. Problem solving within CBT for youth focuses on internal thought processes as one mechanism of change. Several early programs for youth employed problem solving (Yang and Farn, 2005).

As evidence of its lasting impact, many current empirically-supported programs for youth have a problem-solving focus. The emphasis on modifying thought processes as a means for producing both behavioral and cognitive change illustrates the integration of CBT and cognitive developmental psychology. Interventions that targeted self-control were described as a third force behind CBT for youth (Nteveros et al., 2020). Explanations of self-control procedures were increasingly cognitive in nature, with influential papers supporting the role of internal factors in self-control. Principles of self-control were being applied to work with children in the mid-1970's, as theoretical advances (e.g., Bandura's self-efficacy) buttressed the relationship between overt and covert events. Studies of self-control and self-efficacy advanced the testing of private cognitive experiences in ways that could be integrated within behavioral paradigms. The emerging successes of cognitive therapy for adult disorders influenced the psychological treatment of children. A core assumption of cognitive therapy is that maladaptive cognitive processes produce psychological disorders, which can be alleviated by modifying these cognitive processes. Ellis' irrational thinking and Beck's (Nteveros et al., 2020) cognitive distortions are examples of the key notions, and the key people, who influenced CBT. Specifically, Ellis and Harper (Yang and Farn, 2005), proposed that people engage in maladaptive behavior and/or experience negative mood states because they engage in irrational thought processes. Thus, they argued that the focus in therapy is changing maladaptive ways of thinking (given that a person's thoughts lead one to experience negative emotions). Beck similarly maintained that maladaptive cognitions (assumptions and beliefs about oneself and the world) are associated with psychological disturbance. Many research evaluations have supported cognitive therapy with adults (Yang and Farn, 2005), and clinical work with children has been influenced by, and frequently refers to, the work of Beck and Ellis. The theories of Beck and Ellis, and the emerging empirical support for their clinical procedures, contributed to growing acceptance that cognitive attitudes, beliefs, expectancies, and attributions are critical for producing, understanding, and modifying the behavior of individuals.

with psychopathology. Given the increasing number of studies supporting therapeutic benefit for cognitive therapy, an increasing focus was placed on assessing and understanding cognition despite traditional difficulties with isolating and measuring such phenomena. The position that cognition is subject to the laws of learning led to attempts to apply functional analytic assessment and contingency-based interventions to the modification of cognition. Although controversy existed regarding this approach, such efforts nonetheless provided an avenue for behaviorists to enter the cognitive arena. Some of the early cognitive therapy with adults relied on persuasion and reason, though later efforts underscored the benefit of prospective hypothesis testing and behavioral tasks (i.e., homework, behavioral activation). The results of rigorous methodological research evaluations spurred further interest (Yang and Farn, 2005). The integration of the strategies of cognitive and behavioral therapy thrived due to the desirability and viability of this combination to produce clinically meaningful outcomes. Indeed, without the favorable research evaluations, the approach would not have gained interest from practitioners nor maintained itself among researchers. Simply put, the use of contingencies to facilitate a child's engagement in exercises that produce cognitive change was both data-supported and clinically appealing.

3-CBT Techniques

Cognitive behavioral therapy, or CBT, is a common form of talk therapy. Unlike some other therapies, CBT is typically intended as a short-term treatment, taking anywhere from a few weeks to a few months to see results. True to its name, cognitive-behavioral therapy (CBT) emerged as a rational amalgam of behavioral and cognitive theories of human behavior, causal and maintaining forces in psychopathology, and targets for intervention (Salmela-Aro et al., 2009b; Walburg, 2014).. The numerous strategies that comprise CBT reflect its complex and integrative history. Following from early respondent conditioning theories, CBT incorporates concepts such as extinction and habituation. CBT went on to integrate modeling and cognitive restructuring strategies from social learning and cognitive theories. In addition, Meichenbaum and Goodman's focus on self-talk and D'Zurilla and Goldfried's problem solving are each evident in CBT's general focus on fostering the development of personal coping strategies and mastery of emotional and cognitive processes. Consistent with a tripartite view (cognition, behavior, emotion) of psychopathology (Salmela-Aro et al., 2009b; Walburg, 2014). CBT targets these multiple areas of vulnerability and employs multiple avenues of intervention. Although the past is certainly relevant, CBT focuses on providing you with tools to solve your current problems. And there a lot of ways to get there with this type of therapy. The key principle behind CBT is that your thought patterns affect your emotions, which, in turn, can affect your behaviors (Huang et al., 2021).

For instance, CBT highlights how negative thoughts can lead to negative feelings and actions. But, if you reframe your thoughts in a more positive way, it can lead to more positive feelings and helpful behaviors.

Your therapist will teach you how to make changes you can implement right now. These are skills you can continue to use for the rest of your life.

Depending on the issue you're dealing with and your goals, there are several ways to approach CBT. Whatever approach your therapist takes, it will include:

- identifying specific problems or issues in your daily life
- becoming aware of unproductive thought patterns and how they can impact your life
- identifying negative thinking and reshaping it in a way that changes how you feel
- learning new behaviors and putting them into practice

After speaking with you and learning more about the issue you want help with, your therapist will decide on the best CBT strategies to use.

Some of the techniques that are most often used with CBT include the following 9 strategies:

3-1-Expanding CBT

Though its initial impetus was the wedding and integrating of cognitive (e.g., thoughts influence behavior and emotion) and behavioral (e.g., research evaluation, contingencies) traditions, CBT rapidly evolved and emerged as a treatment informed by a wider set of models. CBT grew and materialized to address salient disorders in youth, as well as developmental vulnerabilities toward psychopathology. Just as the role of cognition has, in its pioneering fashion, come to be incorporated into behavioral therapy, so too have forces related to social environments, genetic vulnerabilities, therapeutic processes, and familial and peer relationships. As an illustration of expanding models, consider Clark and Watson's (Salmela-Aro et al., 2009b; Walburg, 2014) tripartite model as an explanation for the extensive overlap of the otherwise-seen-as-separate disorders, anxiety and depression. The tripartite model describes how anxiety and depression share a common component, negative affect, which accounts for symptom overlap. Negative affect is the sense of high objective distress and includes a variety of affective states such as being angry, afraid, sad, worried, and guilty. The model suggests that negative affect is a shared dispositional vulnerability for emotional psychopathology, specifically anxiety and depression. By contrast, low positive affect is a factor specific to depression and autonomic arousal is a factor specific to anxiety (Huang et al., 2021). CBT for addressing emotional disorders, in sync with the tripartite model (Matthys and Schutter, 2022), also targets overlapping features. However, Barlow suggested that anxiety is different from autonomic arousal. He proposed that negative

affect is a pure manifestation of the emotion of anxiety, while autonomic arousal is a manifestation of the emotion of fear. Despite small differences, autonomic arousal, high levels of general distress and negative affect, and low positive affect are seen as important predisposing traits of emotional psychopathology. Targeting and treating these salient factors across disorders is a strategic approach that has been accepted within CBT. Barlow described a triple-vulnerability model of emotional disorders: (1) a general genetic vulnerability, (2) a general psychological vulnerability characterized by a diminished sense of control, and (3) a specific psychological vulnerability resulting from early learned experiences. This diathesis-stress model is consistent with how children may develop a sense of diminished control through experiences with both their own highly reactive arousal system or high negative affectivity and with uncontrollable life events (Guo and Hanley, 2015). Once a diminished sense of control is developed, a child is more likely to perceive other events as uncontrollable, even those for which the child could potentially manage. For example, overcontrolling, unresponsive, and unpredictable family environments can foster a sense of uncontrollability and an external locus of control, a major psychological vulnerability (Matthys and Schutter, 2022). A specific psychological vulnerability can arise from early socialization experiences with the family or peers, and can contribute to experiencing psychopathology in particular areas. In accordance with this vulnerability model, CBT approaches for youth incorporate parent training with an increased focus on contextual issues and the development of children's mastery over their own environment.

3-2-Current Status and Future Directions

Disorder specific applications of CBT for children and adolescents have enjoyed widespread application. A search of key terms "cognitive behavioral therapy" and "children" on *PsycInfo*, an online database of psychological literature, revealed 1192 articles, 1156 of which were published since 1990. Increased interest in and research on CBT has firmly established its presence in the field of clinical child and adolescent psychology and psychiatry. The initial book on CBT with children and adolescents (Matthys and Schutter, 2022) is now in its fourth edition, with numerous chapters describing CBT procedures for specific disorders. True to its ties with the empirical methods of behavior therapy, CBT with children and adolescents continues to be guided by empirical research. Studies of the nature of specific disorders inform treatment procedures, and evaluations of treatments applied to real cases inform dissemination and practice. To date, an impressive series of empirical research reports support the use of CBT for the treatment and prevention of various psychological disorders in youth. The American Psychological Association Task Force on Promotion and Dissemination of Psychological Procedures established criteria for use in determining whether treatments can be considered empirically-supported (see also Chambless & Hollon's criteria (Guo and Hanley, 2015)). Based on the criteria, treatments can be categorized as either "well established," "probably efficacious," "possibly efficacious," or "experimental." CBT has emerged as the treatment with the most empirical support for numerous internalizing disorders in youth (Matthys and Schutter, 2022). Specific modalities of CBT have been categorized as "well established," such as child-only groups and child groups plus a parent component for youth with depressive disorders. A specific CBT protocol for youth exposed to traumatic events, Trauma-Focused CBT, is also considered "well-established". Many other CBT protocols have been categorized as "probably efficacious" for the treatment of internalizing disorders, including the Coping Cat Program for anxiety and phobic disorders, school-based group CBT for exposure to traumatic events, and individual exposure-based CBT (Matthys and Schutter, 2022) for obsessive-compulsive disorder. Although less support has been found for the use of CBT for externalizing disorders in youth, group CBT is considered a "well established" treatment for adolescent substance abuse and some CBT protocols, such as Anger Control Training and Rational-Emotive Mental Health Program, are considered "probably efficacious" for the treatment of disruptive behaviors in youth. Overall, CBT is often considered the "first line of defense" in the treatment of psychological disorders in youth. Although additional work is necessary to strengthen the efficacy of CBT for youth, researchers have called for a shift toward examining the mediators, moderators, and predictors of treatment outcome. This call implores researchers to go beyond evaluating the degree to which treatment works and to move toward examining why and for whom it works (Pan et al., 2021). Future research has many worthy candidates of investigations. Potential mediating variables worthy of exploration include the individual components of treatment protocols, therapeutic process variables such as therapeutic alliance and child involvement, and within-client change processes. Future work is also necessary to delineate whether certain pretreatment characteristics, comorbid conditions, and treatment formats moderate or predict outcome. Given the ever-increasing use of technology in society, a particular area ripe for research includes the use of computer technology in CBT protocols (Matthys and Schutter, 2022).

3-3- Cultural adaptation of iCBT

Cultural adaptation is prioritized in applying CBT to different ethnic groups (Nicolas et al., 2009). A meta-analysis of 55 studies on CBT for Chinese clients showed a stronger short-term effect for culturally adapted CBT than for unadapted CBT (Ng and Wong, 2018). Culturally adapted CBT was found to be more effective than unadapted CBT in reducing depressive symptoms for Chinese clients with depression (Hwang et al., 2015); and in decreasing

psychological distress, and negative thoughts and emotions of Chinese university students, as well as increasing their positive thoughts and emotions, and personal growth (Pan et al., 2021). However, there are challenges of using CBT with Chinese clients, such as translation of some of the CBT terms from English to Chinese in a culturally relevant manner (Guo and Hanley, 2015); working with negative automatic thoughts and core beliefs that are culturally defined (Guo and Hanley, 2015); and low compliance with therapy homework (Guo and Hanley, 2015). Thus, cultural modifications are necessary to work with Chinese clients with CBT. First, fine-tuned translations and examples that better fit the Chinese context and culture are recommended (Huang et al., 2021). For example, Wong (2005) translated “cognitive distortion” into “Si Xiang Xian Jing” in Chinese and also translated different types of cognitive distortions into four-character Chinese words that can be explicitly comprehended by Chinese clients. Second, it is recommended that more work be done with Chinese clients to find more flexible beliefs that are culturally rooted in collectivism (Guo and Hanley, 2015). For example, reframing skills in ways that promote the Chinese values of respect, saving-face, filial piety and interpersonal harmony (Choi et al., 2012), and considering using community resources and family responsibility to facilitate change (Guo and Hanley, 2015). Third, the assignment of therapy homework should be reconsidered by presenting the work as an experiment to enhance self-understanding (Guo and Hanley, 2015). Fourth, the five strategies proposed by Wong (2005) can be used to cope with negative emotions, including stop-and-think, self-talk and positive self-statement. Fifth, client's own examples can be used to demonstrate how to use CBT skills to cope with daily life stress (Pan et al., 2021). Finally, client and therapist could speak the same language and share a similar cultural background (Shen et al., 2006). Like CBT, iCBT should also accommodate the language and cultural contexts of Chinese clients. However, most iCBT programs were developed in non-Chinese languages, with a select few in Chinese, such as “TourHeart” (Mak et al., 2017; Tsoi et al., 2022) and “The Little Prince is Depressed” (Wong et al., 2012), but they mainly promote mental health, and provide psychoeducation resources and online assessment tools with few interactive components and minimal therapist support (coaching). Young et al. (2022) recently developed an iCBT program for Hong Kong university students, but it is self-guided with technical support only. For Chinese clients, the design of web-based mental health service programs is suggested to be easy to navigate and understand, user-centered and therapist-guided for self-help, add life examples that resonate with local clients, and have more interactive features and less text (Patel et al., 2017; Tsoi et al., 2022; Young et al., 2022). Therefore, this project develops a therapist-guided and video-based iCBT program that is linguistically and culturally appropriate for Chinese university students in Hong Kong and will evaluate its effectiveness in improving mental health outcomes, particularly in reducing psychological distress.

3-4- ICBT for university students

Evidence has shown that internet-based interventions for common mental health issues often result in outcomes similar to those of face-to-face psychotherapy (Carlbirg et al., 2018). As for university students, recent studies have developed some guided iCBT programs that address their mental health concerns, such as perfectionism (Buhrman et al., 2020), anxiety and/or depression (e.g. Harrer et al., 2021; Raevuori et al., 2021;), procrastination (Küchler et al., 2019), and somatic symptom distress (Hennemann et al., 2018); and some unguided iCBT programs addressing psychological or physical problems (Fabritiis et al., 2022), social anxiety and insomnia (Attridge et al., 2020), and public speaking fear (Tillfors et al., 2008). However, few iCBT programs specifically help university students cope with psychological distress. Furthermore, research has shown that iCBT with therapist guidance appears to produce better outcomes than unguided intervention (Andersson and Titov, 2014). Guided iCBT was associated with more effectiveness and lower attrition than unguided iCBT for coping mental health issues (Gershkovich et al., 2017; Karyotaki et al., 2021).

Meta-analyses have consistently showed that, in comparison to inactive controls, internet interventions can have significant small-to-moderate effects on a range of mental health conditions for university students, such as symptoms of depression and anxiety, stress, sleep, eating disorders and role functioning (Becker and Torous, 2019; Davies et al., 2014; Harrer et al., 2018). Preventive intervention of various iCBT programs can prevent university students from developing poor mental health. Upon completion of different iCBT programs, university students of non-clinical sample were found to have significant improvement in perceived stress, psychological stress, symptoms of anxiety and depression, worry, social anxiety, negative thoughts, insomnia, depression literacy, satisfaction with studies, and work output (Attridge et al., 2020; Dear et al., 2019; Harrer et al., 2021; Lintvedt et al., 2013; Saleh et al., 2018). Large clinical reductions were also reported in the symptoms of anxiety (41 %), depression (36 %), stress (45.8 %), insomnia (43.4 %), respectively, for university students who are at risk for developing mental health problems (Attridge et al., 2020; Dear et al., 2019). Some of the positive effects have been maintained at 2-month (Lintvedt et al., 2013), 3-month (Dear et al., 2019; Harrer et al., 2021) and 1-year follow-up assessments (Andersson et al., 2012). Nevertheless, 29 % of 27 studies on technology-based intervention for the mental health of university students in a systematic review fail to find a significant effect at postintervention (Farrer et al., 2013). Thus, the effectiveness of iCBT for university students appears to be inconsistent. More RCTs are necessary to test the effectiveness of these interventions (Christensen et al., 2002). Moreover, very few iCBT studies can be found for Chinese population. Preliminary evidence shows that iCBT is effective in reducing anxiety, depression, and

perceived stress for Hong Kong university students (Young et al., 2022). Thus, positive effects of iCBT would be expected for Chinese university students.

The promising outcomes might be attributed to the advantages of iCBT over conventional face-to-face approaches. ICBT is more accessible, tailor-made for the needs of students, available during times of high stress, allows anonymity, protects privacy, reduces related stigma due to private use of the service at private place, provides proactive monitoring, and permits self-referrals via the internet, and has high user satisfaction and acceptability (e.g., Andersson and Titov, 2014; Kauer et al., 2014; Lintvedt et al., 2013). However, internet interventions for university students often have low adherence and completion rates, low repeated use, and expectations for more human contact and immediate responsiveness (Becker and Torous, 2019; Gericke et al., 2021; Lattie et al., 2019).

4-Discussion

A Cognitive Behavior Therapy (CBT) is a psychotherapy based on modifying everyday thoughts and behaviors, with the aim of positively influencing emotions. The general approach developed out of behavior modification and cognitive therapy, and has become widely used to treat mental disorders. The particular therapeutic techniques vary according to the particular kind of client or issue, but commonly include keeping a diary of significant events and associated feelings, thoughts and behaviors; questioning and testing assumptions or habits of thoughts that might be unhelpful and unrealistic; gradually facing activities which may have been avoided; and trying out new ways of behaving and reacting. Relaxation and distraction techniques are also commonly included CBT and is widely accepted as an evidence-based, cost, effective psychotherapy for many disorders. The techniques are also commonly adopted for self-help manuals and increasingly self-help software packages (Norcross and Goldfried, 2005). The use of rational emotive behavior therapy (CBT) for reducing students' academic burnout symptoms has been demonstrated in previous randomized controlled studies. Researchers have also affirmed the rationale for employing CBT in burnout management by indicating that burnout is associated with dysfunctional thinking patterns. Also, Ogbuany et al observed that a positive decrease in students' burnout could be achieved through altering their burnout-related thoughts. It has also been observed that individuals can develop tolerance to frustration and recover from burnout through participation in an CBT program. Cognitive behavioral therapy interventions in high school would mainly be concerned with helping students realize three things: how their thought patterns affect their behavior; how they can take control of these thought patterns and how they can apply interventions to effect behavior change (Hall and Hughes, 1989). Regarding the effectiveness of the school burnout intervention program based on CBT, several researches have been conducted in the form of therapeutic interventions and quantitative studies.. The findings obtained from this quantitative dimension reveal that the intervention program is an effective approach in reducing the symptoms of emotional exhaustion, depersonalization and low personal accomplishment (Salmela-Aro et al., 2009a,b), which are three main dimensions of school burnout. This finding is consistent with the limited number of research results that include interventions for school burnout in the literature (Salanova et al., 2010; Anggreini et al., 2019; Susanti et al., 2019). However, with the thought that quantitative approaches focusing on statistical validity as a requirement of positivist approaches will constitute an important limitation. it was aimed to strengthen the validity by explaining and expanding the findings obtained by trying to learn how the students' experiences in the process shaped and to include these in the analysis (Mertens, 2019; Creamer, 2020). In this respect, it was determined that the analyzes carried out in two different qualitative processes, during and after the experimental application, generally explained the quantitative results and supported the findings regarding the effectiveness of the intervention program implemented. The study finding also agrees with the research by Nwabuko et al [31] that found that the REBT program effectively decreases burnout symptoms amongst participants. Ezenwaji et al (Ezenwaji I, 2019) also found that REBT intervention can help participants to manage academic burnout. Onuigbo et al (Onuigbo LN, 2020) also observed that REBT is a clinically relevant methodology for burnout management. However, limitations can be found in this research despite the result. Only quantitative data was used to assess the impact of the online CBT treatment program. Future studies should integrate the use of qualitative data to study how this intervention affects students' burnout. Although the participants were assessed after 1 month at follow-up, the effectiveness of online CBT on academic burnout after a longer duration should also be considered in future research. The research implication is that given the psychological and economic effects of the coronavirus pandemic, (Aki BD, 2020, Ilesanmi O, 2020). the use of online interventions like CBT program to decrease student burnout can be considered a suitable strategy at this period. Quantitative findings indicate that symptoms related to burnout significantly decrease after the intervention and the document analyzes obtained during the experimental application show that the cognitive distortion processes, which constitute the main focus of CBT, are understood by the students sufficiently and that the cognitive model is used effectively . in the development of effective coping approaches. Similarly, the findings obtained from phenomenological interviews . can be evaluated as evidence that the cognitive model is used effectively both in the academic process and in daily life .

In addition to the fact that quantitative findings show that there is a significant difference between pre-test and post-test measures, it is also possible to see the change in children more subjectively through qualitative findings (Mason,

2006). In this sense, it is understood that with the obtained qualitative findings, students frequently use overgeneralization, personalization and selective abstraction distortions and learned to distinguish their reactions as functional and dysfunctional reactions. Increasing children's awareness of cognitive distortions and functional coping approaches is an important achievement of intervention practice and is expected to positively affect not only the school life but also the daily life.

In this context, as a result of the study conducted by Farina et al. (2020), it was found that the level of satisfaction with peer and adult relationships at school mediator the relationship between empathy skills (affective and cognitive) and school burnout as a risk factor. It has been evaluated that the intense use of the affective dimension of empathy is a risk factor for emotional exhaustion. The qualitative findings of the study were also found to be compatible with the intense emphatic concerns of the students, as well as feeling unable to cope with school-related responsibilities or feeling overwhelmed by the weight of these tasks (Wagaman et al., 2015; Bloom, 2017). In addition, studies have shown that students become overwhelmed with school and their work due to the decrease in their evaluations of the school and their feelings of emotional attachment to the school, as a result of seeing the school as less valuable, and a result, they experience school burnout. It has been found to be effective (Wang et al., 2015). In the PISA 2012 (Organisation for Economic Co-operation and Development, 2013) results, it was reported that Korean students with the highest academic performance level were also the most unhappy students with the effect of decreased motivation and school engagement in the transition to high school education. In this context, the finding obtained from the study that there are exams in the transition to the next education level and that both parents and teachers have expectations above their abilities and skills is important in terms of experiencing burnout, parallels the report.

In addition, students' perfectionist tendencies and inadequacy of coping skills were found to be closely related to school burnout (Lau et al., 2020). A meta-analysis study by Kim et al. (2018) revealed that social support, which is closely related to the depersonalization dimension of school burnout, is effective in reducing school burnout. In this study, it was found that the perceived social support from parents, teachers, and peers helped students to stay away from the school context and develop a sense of belonging.

Social support has a mediator role between school burnout and academic self-efficacy (Aslan, 2018), and in the study conducted by Ulaş and Seçer (2018), academic self-efficacy has a mediator role in the relationship between school burnout and psychological maladjustment.

Among the prevention and intervention studies on school burnout, (Salanova et al., 2010) applied a 4-month cognitive-behavioral approach based on social cognitive theory and aimed at reducing the burnout of university students and increasing their self-efficacy and performance. The main purpose of this program was expressed as minimizing students' pre-exam anxiety levels and increasing their efficacy beliefs, and school burnout was handled indirectly, and the findings revealed that the practice was significantly effective on students' school burnout. In the study conducted by Çapri and Yedigöz-Sönmez (2013), the effect of the stress-coping program on the burnout levels of high school students was examined and it was concluded that this program was significantly effective on the burnout of high school students. However, this study has additional academic factors such as lack of motivation, academic motivation, commitment to school, as well as the intensity of exams and test anxiety, the stress in general and academic stress in particular, at the point of experiencing school burnout obtained through interviews and document analysis before creating the psychoeducation program content. It has been found that psychosocial factors such as depression, anxiety, self-regulation, avoidance of responsibility, perceived parental attitudes, comparison within peer groups or lack of social support have an important place.

5-Conclusion

Although CBT is often considered the "first line treatment" for many psychological disorders in youth, additional work is necessary to address treatment non-responders and to facilitate the dissemination of efficacious CBT approaches.

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