CHAPTER 3

3.0 SCIENTIFIC LITERATURE

3.1 THEORITICAL AND INTERVENTIONAL RESEARCH DONE ON THE SUBJECT.

This section explores various theoretical and interventional research studies that establish connections between cognitive distortions, yoga, and counseling, highlighting cognitive distortions and counseling as interventional modalities while specifying the research gap and the need for the Yogic Counseling Module (YCM) examined in the present study.

A comprehensive review of the scientific literature was conducted to explore potential interventions aimed at enhancing adolescents' learning effectiveness and emotional well-being, with a particular focus on psychological interventions such as counselling, cognitive distortions, and their impact on key areas like self-esteem, mindfulness, mental well-being, resilience, depression, anxiety, stress, and errors in thinking. This review included a variety of intervention and follow-up studies that examined the prevalence of emotional and behavioral problems among adolescents in diverse settings, as well as the effects of these interventions on their emotional health and cognitive patterns.

Several intervention-based studies were reviewed, which investigated the effects of psychological approaches like Indian wisdom-based counselling, yoga, and mindfulness on adolescents' emotional regulation, cognitive functioning, and academic success. These studies focused on reducing cognitive distortions irrational thoughts that contribute to maladaptive behaviors and emotional distress and enhancing psychological traits like resilience and self-esteem.

Many of the studies in the review employed intervention and follow-up designs, assessing the impact of psychological interventions on key variables such as anxiety, depression, stress, self-esteem, mindfulness, and overall mental well-being. The studies

showed how Indian wisdom-based counselling and mindfulness practices helped in addressing cognitive distortions, fostering emotional stability, and promoting overall well-being among adolescents.

The review also incorporated systematic reviews and meta-analyses that evaluated the effectiveness of counselling interventions based on Indian wisdom in improving emotional well-being, reducing depression and anxiety and fostering resilience among adolescents. These studies provided valuable insights into how structured psychological interventions can address the emotional and cognitive challenges faced by adolescents with a focus on improving their psychological health and overall quality of life.

While the majority of the studies found significant effects of psychological interventions on various emotional and cognitive outcomes the review also highlighted several weaknesses in the methodological approaches, relevance in module, protocols, and reporting within the field. These weaknesses led to inconclusive results suggesting the need for more rigorous research to substantiate the effectiveness of Indian wisdom based counselling and other psychological interventions in school-based settings. The findings emphasize the importance of further research to build robust evidence supporting the integration of these interventions in educational programs to address cognitive distortions, enhance resilience, and improve adolescents' mental health outcomes.

TABLE 1- SCIENTIFIC REVIEW ON ADOLESCENTS' ISSUES

S.No	Author (Year)	Design	Setting	Sample Size	Intervention	Outcomes	Limitation
1	Kishida et al. (2019)	Intensive longitudinal methods	Yoga practitioners Institute	104	Yoga practice (21-day diary study)	Yoga indirectly improves compassion and social connectedness through mindfulness.	Study, limited to self-reported data.
2	Nasir & Yusoof (2010)	Quantitative study	Juvenile rehabilitation centers & prisons in Malaysia	316	Assessment using Briere's Cognitive Distortion Scale (CDS): cognitive distortion & depression Reynolds Adolescent Depression Scale (RADS)	Cognitive distortion was a key cause of depression among juvenile delinquents.	Findings specific to juvenile delinquents, not generalizable to all adolescents.
3	Sunitha & Gururaj. (2014)	Descriptive study	Young people in India	NA	Descriptive health behaviors problems evaluated	10-30% of young people suffer from conditions needing urgent intervention.	lacks a detailed breakdown of specific age groups, gender differences, and regional variations in health concerns, No intervention proposed, focus on problem identification.
4	Jose & Nelson (2016)	Module Development (structured guidance model for students)	Educational setting	NA	Guidance and counseling module for self-regulation	Self-regulation modules improved student social relations.	The applicability of the module needs further empirical validation.

5	Kushwah et al. (2015)	Experimental study	Controlled experimental setting	55 M 39 F	Integrated yoga practice	Yoga significantly reduces stress and improves health indices.	Sample size and gender-specific differences need further exploration. No long term benefit explored
6	Kushwah et al. (2016)	Comparative study	Controlled experimental setting	66 Male Mangers	Cyclic meditation vs supine rest	Cyclic meditation is more effective than supine rest for stress relief.	Comparison limited to two relaxation methods(Cyclic-Suppine) & No Women participants
7	Usen et al.,(2016)	Survey study	In-school adolescents	798	Evaluation of depressive symptoms & negative beliefs	Depressive symptoms correlated with negative self-beliefs and academic failure.	Causality between cognitive distortions and academic failure not proven.
8	Nair et al., (2017)	Epidemiological survey	Gujarat India	13-17 yrs school chidren	School-based mental health survey	High prevalence of adolescent mental health issues	Focused on one state-also small age gap
9	Rnic et al.,(2016)	Correlational study	Undergraduate psychology students	208	Cognitive-behavioral correlation analysis	Cognitive variables correlated across multiple mental health domains.	Correlation does not imply causation.
10	Chan et al. (2017)	Meta-analysis	Multiple clinical studies	Varied Population	Cognitive distortion in mental health disorders	Catastrophic thinking linked to anxiety, depression, PTSD, and chronic pain.	Limited focus on individual variation in coping mechanisms.
11	Stanziano (2019)	Dissertation review	Literature review	67 (18- 74 yrs)	Cognitive distortions, self-compassion, and insomnia	Cognitive distortions strongly correlated with sleep and emotional distress.	Study based on literature review, lacks direct empirical evidence.
12	Rimvallet al.,(2021)	Longitudinal study	Adolescents (ages 11-	1384	Health anxiety assessment	Persistently high health anxiety leads to	Study period insufficient to analyze long-term

			16)			increased healthcare costs.	effects beyond adolescence
13	Kemaloglu et al.,2022	Experimental study	High school students 13-18 yrs	115	CBT-based psychoeducation	CBT-based program improved resilience and reduced irrational beliefs.	More long-term follow-ups needed to assess lasting effects.
15	Flouri & Panourgia (2014)	Longitudinal study	Children followed up over a year	557 10-19 yrs	Maladaptive cognition & emotional regulation	Maladaptive cognition mediates emotional and behavioral difficulties.	Study duration (one year) was insufficient for assessing long-term developmental effects.(Author comment)
STUDIES ON CLINICAL SETTING STUDIES							
16	Ollendick T.H, et al, 2012	Quasi experimental design	Clinical setting	N=33 adolescent and children	Thirteen children and teenagers received individual treatment, while 20 were given group therapy	After eight sessions of therapy, regardless of the research format they were in, more than half of the young people who underwent CBT were no longer diagnosed with their primary anxiety disorder	A randomized control design was not used in this research. There was no blinding of interviewers
17	Wisman M.A. et al, 2023	Two-arm pilot randomized controlled trial	Clinical setting	N=39	ERT + CBR 18 individuals were randomly allocated to the CBT-only control condition. Experimental group with CBT+ERT treatments received 21 patients	Results showed that ERT and CBT seemed to be adequately practicable and acceptable to be delivered in a broader clinical context. Despite adequate treatment	It is impossible to entirely rule out a prospective placebo effect of the online ERT. This study was conducted during the COVID-19 epidemic,

						adherence and patient satisfaction, both could be further enhanced	which could have influenced the findings
18	Creswell C et al, 2021	Training case series of CT-SADA delivered in routine CAMHS, qualitative interviews	Five CAMHS teams within Berkshire Health care and Oxford Health NHS Foundation Trusts	N=12	Teenage social anxiety disorder may benefit from cognitive therapy (CT-SAD-A). In CTSAD-A therapy, eight therapists were trained. Six therapists administered CTSAD-A to twelve young people	Nine out of 12 individuals had positive results on all measures. CT-SAD-A was calculated to have cost £1861 per person. Qualitative interviews revealed that the treatment was acceptable	The results were drawn from a tiny, homogeneous sample, and there was no control group
19	Maric M et al, 2018	Randomized clinical trials	Clinical setting	N=123	Children were assigned to four categories based on (a) whether they had gotten child CBT (CCBT) or family CBT (FCBT), and (b) whether their scores on the CBCL subscale for attention problems were normal versus (sub)clinical	Children with severe anxiety disorders benefit more over the long run from FCBT than CCBT, according to the severity of the children's anxiety disorders. There were no variations between CCBT and FCBT for kids with mild symptoms	In the present research, the only tool available to define the presence of youths' attention and hyperactive problems was their CBCL scores
20	Chavira D.A et al, 2017	Qualitative methods	Latino community	N=43	Latino parents were the subjects of qualitative conversations	Results argued that parents had a very positive view of psychotherapists and all the significant components of CBT.	Latino parents and Latino mental health workers are the study's primary target populations. Consequently,

						Both parents and carers emphasized the importance of making adjustments to address real and observed hurdles to treatment	conclusions cannot be extended
21	Hirshfeld et al, 2010	Waitlist controlled study with randomization	Laboratory setting + clinical setting	N=64	Wait-list controlled study with randomization. Conduct: 64 anxious kids were randomly allocated to receive either a parent-child CBT treatment (n = 34) or a 6-month wait-list condition (n = 30)	Among 57 participants who completed the program, CBT resulted in better outcomes than wait-list controls. Improvements persisted after one year	Low return rates put a cap on internalizing scale, which were not statistically significant
22	Scheidner et al, 2013	Randomized control trial	Out Patients	N=64	In contrast to a general anxiety programme, a disorder-specific therapy programme (TrennungsAngstprogramm Für Familien [TAFF]; English: Separation Anxiety Family Therapy) is available for kids with separation anxiety disorder (SAD)	52 therapy completers experienced a response rate higher than the comparison group. Minimal differences between groups, but some small benefits for TAFF	Effect of TAFF over the general anxiety program might not be substantial enough to make a strong conclusion about its superiority.
23	Wood J.J, et al, 2020	RCT	At three schools in US cities	N=167	Randomized group of children (7–13 years old) with ASD and disruptive and maladaptive anxiety received TAU, standard CBT, or CBT tailored for ASD	CBT tailored for ASD performed better than standard CBT. Both CBT conditions had a greater percentage of effective treatment results than TAU	Study only included children between the ages of 7 and 13, which may limit the applicability of the findings to other age groups

STUDIES WITHIN INDIA CULTURAL CONTEXT							
24	Khanna, S. & Singh, K. (2016)	Mindfulness study	College students	120 (M: 60, F: 60, 18–25)	8-week mindfulness training; Bhagavad Gita (Ch. 6)	Mindfulness training, potentially combined with the philosophical insights from the Bhagavad Gita, improve mental well-being, emotional regulation, stress management	Limited cultural diversity
25	Telles, S. & Naveen, K.V. (2015)	Intervention study	Adults with chronic stress	150 (M: 70, F: 80, 25–45)	Daily yoga sessions; Patanjali Yoga Sutra	Reduced anxiety, depression, and improved resilience	Short study duration, no follow-up
26	Sharma, V. & Gupta, R. (2017)	Weekly group counseling	Therapy patients	45 (M: 25, F: 20, 30–50)	Bhagavad Gita (Ch. 2: Sankhya Yoga)	Improved coping mechanisms and resilience	Self-reported data, small sample size
27	Tripathi, R.K. & Soni, P. (2018)	Cognitive restructuring	Adolescents	70 (M: 35, F: 35, 15–18)	Patanjali Yoga Sutra (Ch. 2)	Improved emotional regulation and attention span	Short intervention duration
28	Kumar, A. & Mehta, P. (2019)	Reflective journaling	Young adults	60 (M: 30, F: 30, 20–30)	Bhagavad Gita (Chs. 4 & 5)	Promoted self-awareness and stress management	Limited control group diversity

Table 2- Yogic Concepts Based Studies

No.	Title	Author (Year)	Design (Sample Size, Diagnosis, Assessments)	Intervention (Duration, Components)	Yogic Counselling Content	Conclusion
1	Psychophysiological therapy based on the concepts of Patanjali	Vahia et al. (1973)	Double blinded RCT, N = 165, Diagnosis: psychoneurosis or psychosomatic disorder, Taylor's Anxiety Rating Scale, Hamilton's Depression Rating Scale, Bell's Social Adjustment Scale	9 years follow-up study, 1 hour for 6 days/week for 6 weeks under supervision	Causes of suffering (Kleshas): lack of insight, faulty self-esteem, undue attachment, frustration, identification with ideas/objects	Psychophysiological therapy showed significant value over mere yoga practices, warranting further research in diverse cultural settings
2	Effect of a yoga practice session and a yoga theory session on state anxiety	Telles et al. (2009)	Convenience-based sampling, n = 300 naïve-to-yoga persons; State-trait anxiety inventory	Yoga practice group: Loosening exercises (sukshma vyayama, asanas, pranayamas, 2-hour session)	Participants watched a prerecorded DVD on yoga principles, stress, and stress reduction from ancient yoga texts	Yoga practice led to a significant reduction in state anxiety (14.7%), while the yoga theory session showed a smaller effect (3.4%)
3	Some ancient concepts in treatment of psychiatric disorders	Vahia et al. (1966)	Case Series (n=30), Diagnosis: Anxiety disorder (n = 14), anxiety with depression (n = 5), conversion reaction (n = 4), asthma with anxiety/depression (n = 3), early schizophrenia (n = 2), peptic ulcer (n = 1), hysteria (n = 1)	Duration: 6 days/week (30 min–1 hour) for 4-6 months, Yoga asana, pranayama, supportive psychotherapy	Dharana and Dhyana: after relief, patients examine causes of disturbed mind	Ancient Indian techniques demonstrated practical application in managing psychiatric disorders by enhancing mental control

4	A single session of an integrated yoga program as a stress management tool	Michiyo Nosaka (2015)	Case-control study (n = 90), Two-dimensional mood scale, General Health Questionnaire 28 (GHQ28), Subjective units of distress for mind and body	Stress management program integrating psychological education, yoga theories, asanas, pranayama, relaxation, cognitive restructuring	Not defined	A single session of integrated yoga therapy was effective in reducing stress
5	Decoding the IAYT: Qualitative evidence-based conceptual framework	Villaceres et al. (2014)	Qualitative study, Semi-structured in-depth interviews, Sample: Treating team (n=4), patients (n=2), 45 min–1 hour interview duration	Yogic counselling using Bhakti Yoga, Vijnanamaya Kosa, Panchakosha theory	If the therapist motivates the patient to adhere to IAYT therapy, counselling can facilitate deeper insight	Counselling and IAYT improve adherence, self-awareness, and stress management
6	Yoga psychotherapy: Integration of western psychological theory and yogic wisdom	Caplan et al. (2013)	Conceptual Paper	-	Western psychological theory and somatic psychology integrated with yogic insights	Eastern philosophy and modern scientific research together can enhance psychological theories and therapies
7	Integrated yoga therapy for mental illness	Nagendra HR (2013)	Conceptual PaperIAYT for mental health	Conceptual PaperIAYT for mental health	Benefits: calming effect, increased awareness, improved attention span, adaptability, and security	Yogic therapy has the potential to address psychosomatic problems and psychiatric disorders

Kishida et al. (2019) used intensive longitudinal methods in a 21-day diary study with 104 yoga practitioners, revealing yoga's indirect impact on compassion and social connectedness through mindfulness, in line with Yama and Niyama principles. Nasir & Yusoof (2010) studied cognitive distortion and depression in 316 juvenile delinquents, finding cognitive distortion as a key factor in their mental state, although the findings aren't generalizable to all adolescents. Sunitha & Gururaj (2014) highlighted health concerns among Indian youth, identifying 10-30% affected by malnutrition, substance use, mental disorders, and stress, calling for urgent policy interventions.

Jose and Nelson (2017) developed a structured counseling module for improving student self-regulation and social interactions, showing emotional management improvements but noting the need for further empirical validation. Kushwah et al. (2016) found that integrated yoga practice reduced stress, improved health, and altered energy patterns by gender. Usen et al. (2016) conducted a study with 798 adolescents, showing cognitive distortions correlated with depressive symptoms and academic failures, making cognitive distortion a stronger academic predictor than depression.

Rnic (2016) examined 208 first-year psychology students, linking cognitive behavioral variables with mental health outcomes, such as anxiety, depression, and PTSD. Rimvall et al. (2021) analyzed health anxiety in adolescents, advocating for early intervention for those with persistently high anxiety. Kemaloglu et al. (2022) found cognitive behavioral group psychoeducation increased psychological resilience and reduced irrational beliefs.

Flouri and Panourgia (2014) explored how maladaptive cognitions and emotional regulation mediate life adversity's impact on children's emotional and behavioral problems.

Merikangas et al. (2010) found internalizing disorders in 1 in 4 adolescents in the USA, while externalizing disorders affect nearly 1 in 5, however, these results are based on older data. The World Health Organization (2001) reported that up to 20% of adolescents worldwide face behavioral problems, though the grouping of disorders limits the report's usefulness. Jenson et al. (1995) found the prevalence of behavioral disorders in adolescents ranged from 16.5% to 40.8%, influenced by socioeconomic and cultural factors. Belfer et al. (2005) studied Indian adolescents, finding mental health issues ranging from 13.7% to 50%, but the regional focus limits its representativeness.

Mishra and Sharma (2001) found a strong association between familial stress and externalizing disorders among Indian adolescents, though small sample size and cultural bias were limitations. Ling et al. (2020) used latent class analysis to identify high, middle, and low-risk subgroups of adolescents, limiting its applicability to broader populations. McElroy et al. (2022) conducted a longitudinal study on UK adolescents, finding that mental health issues remained stable over time, but the study's generalizability is limited. Caspi et al. (2018) proposed a taxonomy of psychopathology, identifying a "thought disorder" dimension alongside internalizing and externalizing disorders, although further validation is needed.

Kotov et al. (2017) identified two subtypes of externalizing disorders in US adolescents, but the study's cross-cultural applicability is limited. Picoito et al. (2021) demonstrated the continuity of externalizing and internalizing problems in European youth, although their study only focused on European data. The JAMA Psychiatry (2018) report found that adolescent disorders had long-term consequences, such as higher unemployment and disability risks, but didn't address familial or genetic confounding.

Olino et al. (2019) found overlapping internalizing and externalizing issues in US adolescents transitioning into adulthood, but the reliance on specific diagnostic tools limits

generalizability. Esposito et al. (2017) studied parental involvement in adolescent behavioral disorders, finding that low supervision correlates with externalizing behavior. However, the correlational design limits causality conclusions.

Frick et al. (2019) found that early impulsivity and lack of empathy predict conduct disorders in adolescents, but this study had limited generalizability. Lanza et al. (2020) identified a subgroup with oppositional defiant disorder and depressive symptoms, but the study lacked longitudinal data. Patel et al. (2018) found a high prevalence of comorbidity between internalizing and externalizing symptoms globally, but their findings lacked cultural specificity.

Laurens and Cullen (2017) found strong predictive links between childhood behavioral problems and adolescent psychopathology. Reiss et al. (2021) linked peer rejection with externalizing behaviors, but the lack of longitudinal insights limits conclusions. Odgers and Russell (2016) explored the impact of socioeconomic status (SES) on adolescent behavior, finding low SES increases externalizing disorders, but didn't assess interaction effects. Luby et al. (2018) found preschool emotional dysregulation predicted adolescent depression, though the study had limited follow-up. Basten et al. (2016) found that persistent externalizing behavior increased risks for substance use and unemployment, though the study was generalized to a Western sample. Copeland et al. (2013) found psychiatric comorbidity in childhood and adolescence increased life disruptions, but the cross-sectional design limits conclusions.

Goodman et al. (2015) showed childhood mental health issues remained stable over time, especially in the UK, limiting generalizability. Shakya et al. (2019) found social media use increased anxiety and depression in adolescents, though the study lacked causation distinction. Fergusson et al. (2018) linked regular cannabis use with higher rates of

externalizing disorders in New Zealand adolescents, but its regional specificity limits generalizability. Thapar et al. (2015) found genetic vulnerability and stressful life events interact in the onset of mental disorders, though the sample lacked diversity. Aguilar et al. (2020) found poor academic performance was inversely correlated with externalizing behaviors in Spanish adolescents, but the cross-sectional design limited conclusions. Kessler et al. (2016) found depression and conduct disorder were the leading diagnoses worldwide, though prevalence estimates varied based on diagnostic criteria.

Kim-Cohen et al. (2019) found early maltreatment strongly predicted externalizing disorders later in life, though longitudinal tracking didn't extend into adulthood. Patalay et al. (2021) found adolescents from lower SES backgrounds were at higher risk for internalizing and externalizing disorders, though urban-rural differences weren't accounted for. Asarnow et al. (2017) found cognitive-behavioral therapy effectively reduced suicidal ideation in adolescents, though short-term follow-up limits conclusions. Emslie et al. (2019) found combination therapy was most effective for treatment-resistant depression in adolescents, though the sample lacked diversity. Weisz et al. (2016) found evidence-based therapies outperformed traditional methods for internalizing disorders, though the study focused on affluent regions. Zimmerman et al. (2020) linked early trauma exposure to both internalizing and externalizing disorders, but the study lacked demographic stratification. Twenge et al. (2017) found smartphone use correlated with increased anxiety, depression, and sleep disruptions, though it lacked longitudinal evidence.

Fergusson and Horwood (2015) found that conduct disorder was linked to lower educational attainment, but the findings have not been widely replicated. Costello et al. (2016) found that persistent socioeconomic disparities exacerbate internalizing and externalizing symptoms, with a focus on rural regions. Wichstrøm et al. (2018) found correlations between

sleep problems, depression, and externalizing behaviors in adolescents, but lacked objective sleep measurements. Sznitman et al. (2022) found that early-onset substance use increased the prevalence of conduct disorders, though self-reported substance use may have caused biases. Beauchaine et al. (2021) found abnormal prefrontal cortex activity in adolescents with conduct disorders, but the neuroscience focus limited behavioral interpretation.

Research on yogic concepts-based tools and counseling increasingly underscores the potential of integrating traditional Indian philosophies with modern mental health practices. Studies have shown that yogic principles such as dharana (concentration), dhyana (meditation), and the Panchakosha model can effectively address psychological issues like anxiety, depression, and psychosomatic disorders. These interventions not only alleviate stress and emotional distress but also enhance self-awareness, mental clarity, and adherence to therapeutic processes. This growing body of literature supports the development of holistic frameworks, such as Integrated Yoga Therapy (IAYT), which combines Eastern spirituality with Western psychological models. Experimental studies, like Vahia et al. (1973), demonstrated that psychophysiological therapy based on Patanjali's principles (asana, pranayama, and pratyahara) was more effective than conventional psychiatric methods for treating psychoneuroses. Telles et al. (2009) further reinforced yoga's role in stress management, showing that a single yoga session significantly reduced state anxiety. Vahia et al. (1966) emphasized the benefits of dharana and dhyana in cognitive restructuring and emotional regulation, while Nosaka (2015) showed that integrated yoga sessions combining relaxation and psychological education reduce stress. Villaceres et al. (2014) found that IAYT, based on Bhakti Yoga and Panchakosha theory, improved self-awareness and motivation. Caplan et al. (2013) and Nagendra (2013) also advocated for the integration of yogic insights with Western psychology to create comprehensive therapeutic models. Despite these advances, there are gaps in research, particularly regarding early adolescents, standardized evaluation methods, and the

cultural adaptability of interventions. The Yogic Counseling Model (YCM) promises to offers a potential solution, combining traditional yogic principles with contemporary psychological frameworks, providing a culturally sensitive and developmentally appropriate intervention for adolescent well-being.

3.2 SUMMARY OF SCIENTIFIC LITERATURE

These studies collectively offer insights into the complex factors contributing to mental health disorders in adolescents, including genetic, environmental, and social influences. While many studies show limitations in samples and their nature, design of the study and few studies emphasized the need for longitudinal data. The studies provided valuable insights into the effectiveness of counselling from yogic perspective which could improve adolescent's mental health, however gap is seen that needs further deep understanding. The long term impact of studies based on yoga, mindfulness and contemporary interventions is seen. Studies also gave clear connection that psychological resilience has a relationship with cognitive distortions and there is need for future research on this, leading to view that YCM with its unique nature of combination of western methods and eastern wisdom to offer a culturaaly sensitive and holistic solution to mental health issues faced by adolescents. It was also seen that small sample size, short interventions and self-reported data needs to be addressed in future. The wisdom of east set the stage for more comprehensive research that can effectively bridge the gaps between Eastern philosophical traditions and Western psychological models in adolescent mental health care.

3.3 FRAMEWORK FOR YOGIC COUNSELLING MODULE (YCM)

Adolescence is a developmental phase that bridges childhood and adulthood, during which individuals experience significant physical, biological, and psychological changes (Del et al.,

2009). This stage is crucial for shaping identity and cognitive development (Casey et al., 2010). In 2021, the global adolescent population reached 1.2 billion, with India having the largest number of adolescents (UNICEF, 2021). During this time, adolescents often face a gap between their aspirations and reality, which can lead to dissatisfaction and negative behaviors, including crime (Hazra, 2021).

Studies tell us that critical thinking and proper guidance during this phase can improve academic performance and decision-making (Sun et al., 2012). Research indicates that cognitive distortions during adolescence can lead to stress and depression (Deal & Williams, 1988), causing cognitive dissonance (conflicting beliefs) that creates discomfort (Beck, 2021). Cognitive development at this stage involves learning to understand and interpret the world through perception, classification, and reasoning (Crotty et al., 2023), making self-awareness essential for personal growth. Piaget and Kohlberg highlighted the importance of moral reasoning in cognitive development, while Erikson (1968) focused on adolescents resolving the conflict of identity vs. role confusion.

Cognitive distortions, as identified by Beck (1976), are negative thinking patterns that distort reality and lead to emotional and behavioral problems. Cognitive Behavioral Therapy (CBT) focuses on identifying and correcting these distortions to improve emotional health. Beck categorizes overgeneralization and catastrophization as key distortions that impact emotional well-being and contribute to unhealthy behaviors (Beck, 2011; Rnic et al., 2016). Cognitive distortions can increase the risk of emotional disorders like depression and anxiety (Beck, 1976; Marcotte et al., 2006). These distorted thinking patterns are associated with both internalizing and externalizing disorders, contributing to stress, aggression, and other mental health problems (Babicka et al., 2023; Deal & Williams, 1988; Hammen, 1990). In India, the prevalence of behavioral problems among adolescents' ranges from 13.7% to 50% (Belfer,

2008; Pathak et al., 2011).

Complementary therapies, such as yoga and meditation, are becoming increasingly recognized for their effectiveness in addressing psychological issues like anxiety and stress. Research suggests that yoga and pranayama techniques can help reduce stress and improve mental well-being (Sengupta et al., 2012; Parshad, 2011). Counseling, involving active listening and guidance from a trained professional, is crucial for helping individuals manage stress and make better decisions. The strength of the therapeutic relationship between the counselor and client plays a key role in the effectiveness of counseling (Duncan et al., 2010).

Counseling in India has deep historical roots, reflected in practices and scriptures. Historical stories mention about Kautilya, who guided King Chandragupta, and Bhishma Pitamaha, who offered counsel to the Kauravas in the epic Mahabharata are seen as early examples of guidance roles. In the Bhagavad Gita, Arjuna receives spiritual counseling from Krishna, illustrating the counseling process.

The Yogic Counseling Module (YCM) is a modern approach that combines counseling with yogic practices to empower individuals by helping them achieve clarity in their thoughts and actions. Studies show that traditional Indian practices like yoga and meditation play a significant role in personal growth and mental health (Thakur, 2021) and YCM is designed to reduce cognitive distortions and aid adolescents in making timely corrections to avoid the negative consequences of distorted thinking. Counselors can incorporate these concepts into their sessions, applying Indian-contextual counseling methods to help adolescents navigate their challenges (Figure 4).

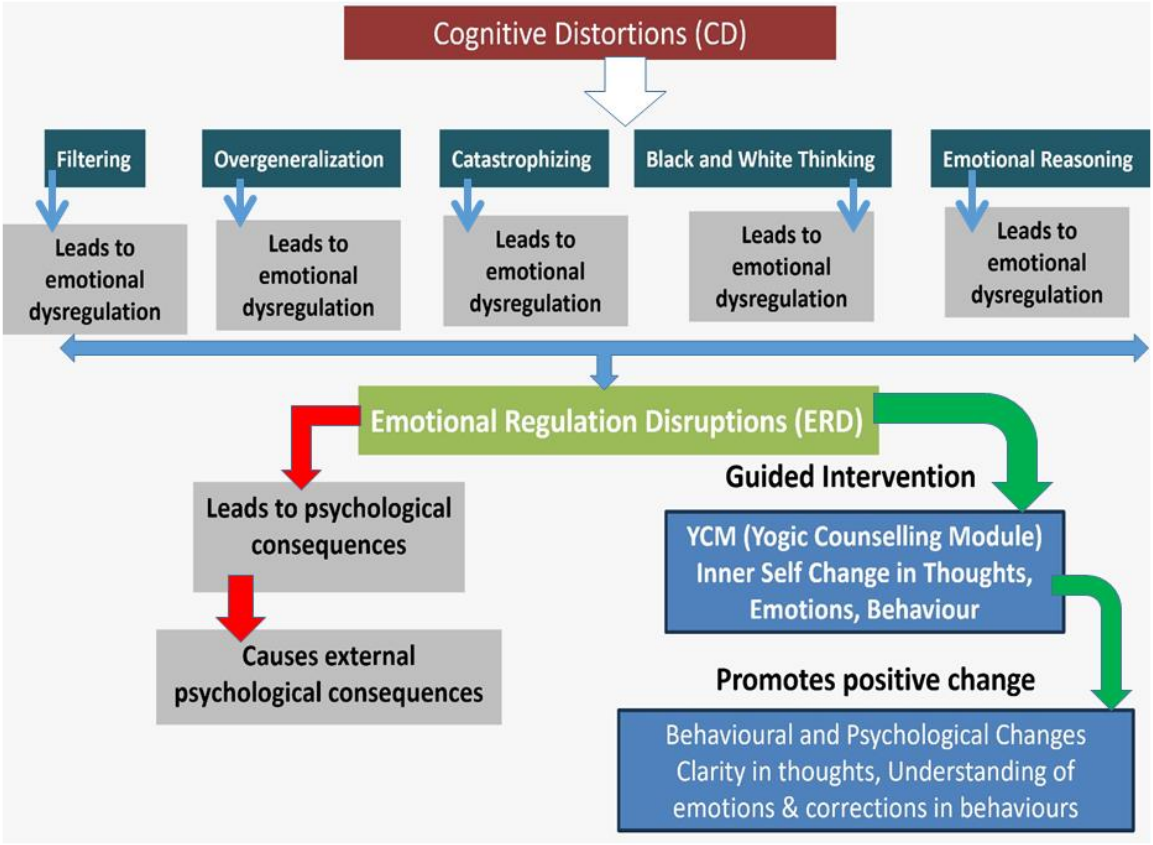


Figure 4- Shows Effect of YCM Impact on reducing Cognitive Distortions

The Yogic Counseling Module (YCM) developed presents a multi-dimensional approach for adolescents well-being by integrating SLT and CBT from the western psychology to address the psychosocial and cognitive challenges of adolescents. Albert Bandura proposed the Social Learning Theory which looks into individuals' behaviors and emotional responses through observing “others” in a social context (Rumjaun & Narod, 2020). Adolescence is a stage of life where individuals shape their beliefs and develop coping strategies to navigate challenges. They improve their self-esteem by learning from their experiences and observing the behaviors of peers, parents, and teachers (Jindal & Miller, 2008). When positive behaviors are observed and reinforced, adolescents become better equipped to cope with stress and enhance their self-esteem (Nanda, 2018). However, exposure to negative behaviors can lower self-worth and increase the risk of mental health disorders. Yogic Counseling parallels SLT by

emphasizing learning through interaction and emulation of a positive attitude through the understanding of underlying yogic principles from various scriptures such as the *Upanishads, Bhagavad Gita and Patanjali Yoga Sutra*. Yogic counselling uses the methods of guided reflection, which adolescents internalize by way of practices like self-regulation, understanding emotional balance, and decision-making, which is considered to promote resilience (Broderick,2021).

Cognitive Behavioral Therapy (CBT) is a well-established therapeutic model that focuses on identifying and challenging negative thought patterns to promote cognitive restructuring and behavioral change (Angiras, 2020). This approach helps mitigate negative emotional responses and behaviors, which are shaped by an individual's interpretations of events, rather than the events themselves. Yogic principles advocates for recognizing and restructuring mental states towards a more positive outlook through notional corrections (Bhawuk, 2010).Guided techniques to explore the working of *Manas* (mind), *Buddhi* (intellect), *Chitta* (memory), and *Ahamkar* (ego) through processes enables adolescents to critically evaluate their thoughts, identify distortions, and align their behaviors with *Dharmic* principles (right living principles), focus on long-term well-being (*Shreyas*) instead of immediate gratification (*Preyas*). Through deliberations like *Mananam* (contemplation) and *Nidhidhyasanam* (consistent practice), which incorporates practicing and implementing '*what is right yet not easy*', Yogic Counseling teaches incorporating *Svadhyaya* (self-study), and *abhyasa* (practice) paralleling CBT's behavioral activation by prompting consistent engagement in positive behaviors. Adolescents undergo introspection that enhances self-awareness about their own actions and understanding of self and others emotions and this simple technique incorporated in Yogic Counseling help in creating habits that convert into values to live by during lifetime.

This integrative approach yields a comprehensive framework to address the psycho-

social and cognitive challenges adolescents face. By applying yogic principles aligned with modern therapeutic models, Yogic Counseling may enhance self-discovery, emotional regulation, and behavior modification. This approach may be particularly beneficial in contexts where contemporary therapeutic modules are inaccessible and underexplored by this cohort. The novel method of counseling may offer a structured path and efficient instrument for adolescents to build resilience and emotional well-being. Figure 5 describes the theoretical model of YCM.

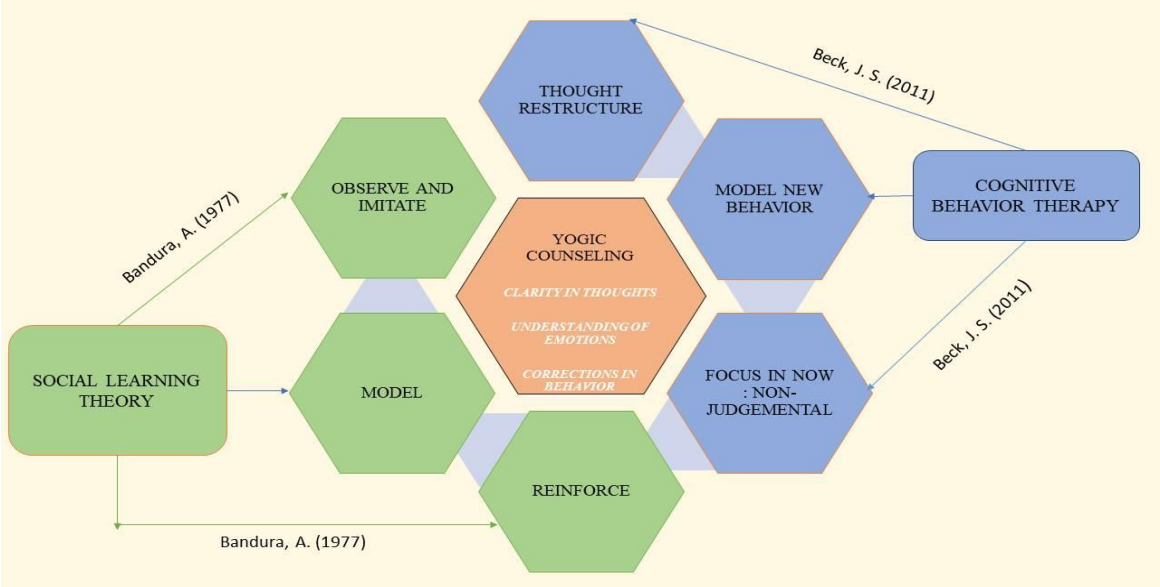


Figure 5- Theoritical Model of YCM, SLT and CBT

3.4 NEED OF THE STUDY

We have discussed that adolescence is a critical developmental phase, typically spanning ages 13 to 18, where individuals experience significant cognitive, emotional and behavioral transformations. This period plays a pivotal role in the formation of self-identity and the maturation of cognitive abilities. However, adolescence also presents numerous psychological challenges, and one of the most common obstacles adolescents face during this stage is the presence of cognitive distortions irrational and biased thinking patterns that often

negatively affect self-perception, emotional health, and overall behavior. Cognitive distortions such as catastrophizing, black-and-white thinking, and emotional reasoning can lead to poor decision-making, anxiety, depression, and the development of maladaptive coping mechanisms. These distorted thought patterns can significantly impair an adolescent's ability to navigate the complexities of life during this formative stage, leading to emotional distress, social withdrawal, and an inability to effectively manage stress and interpersonal relationships. Cognitive distortions, including extreme thinking (i.e., thinking in absolutes), can distort adolescents' perceptions of themselves, their relationships, and their world, often leading to feelings of helplessness, self-doubt, and anxiety.

The impacts of these distorted thought patterns are pervasive and multifaceted, affecting cognitive, emotional, and behavioral domains. In terms of cognition, adolescents who struggle with cognitive distortions often misinterpret reality, leading to issues with self-esteem, academic performance, and social engagement. These distortions, for example, could result in negative self-view that hinder participation in school activities and foster feelings of inadequacy in social contexts. Furthermore, cognitive distortions interfere with emotional regulation, amplifying emotions like anxiety, guilt, anger and making it increasingly difficult for adolescents to maintain emotional balance. Distorted thinking can also give rise to behavioral issues, including avoidance behaviors, social withdrawal, aggression, or risk-taking. These maladaptive behaviors increase vulnerability to mental health issues such as depression, anxiety, and academic failure, making it essential to address cognitive distortions early in life.

Traditional therapeutic models, such as cognitive-behavioral therapy (CBT), have long been used to address these negative thought patterns. CBT focuses on identifying and restructuring cognitive distortions, with the goal of promoting more rational and realistic thinking. While this approach has proven to be effective, there is an increasing recognition that

a more holistic approach is needed, one that integrates emotional regulation, self-awareness, and behavioral change, alongside cognitive restructuring. Offering integrative approach combining modern psychological techniques with age old traditional practices from the Indian trations allows YCM to address cognitive distortions. With concepts of self-awareness practices, ethical guidelines and emotional regulation techniques such as *pranayama* (breathing exercises), *dhyana* (meditation), and svadhyaya (self-inquiry) to foster long-term emotional and cognitive transformation by promoting mindfulness, emotional intelligence, resilience and improve well-being.

Multiple studies on mindfulness has shown results that it can reduce anxiety, improve self-regulation and increase emotional intelligence which are all essential skills for adolescents grappling with cognitive distortions (Schonert-Reichl & Lawlor, 2010; Ghorbani et al., 2014). When mindfulness is combined with ethical principles like *yama* (moral restraints) and *niyama* (positive observances), which serve as foundational guides for behavior and thought as in YCM it encourages adolescents to cultivate self-discipline, empathy, leading to a deeper sense of self-awareness and self-worth. Catastrophizing, a major cognitive distortion domain, termed as assuming the worst in the How I think questionnaire used in this study is described as a state where individuals expect the worst possible outcome, and this issued is presumed to be addressed through pranayama and meditation in YCM with apply the tool of balance approach to mind(*Samatvam).*On the other hand Black-and-white thinking, where situations are seen as either all good or all bad, can be addressed through self-inquiry and practice that promote cognitive flexibility. Self-inquiry helps challenge black-and-white thinking, fostering cognitive flexibility and emotional regulation (Schonert-Reichl & Lawlor, 2010; Ghorbani et al., 2014).

Practices like reflecting on thoughts, challenging absolute judgments and embracing the understanding of self experiences leads to holistic approach in individual. By encouraging

adolescents to pause and reflect on the event, encouraging them to develop self-awareness leading to self control of actions and regulating emotions, YCM can fosters handling emotional intelligence and resilience the two key qualities that contribute to healthy devlopment during adolescence

Existing interventions like mindfulness-based practices and cognitive-behavioral therapy (CBT) have demonstrated positive effects in this area and there is a clear need for a more comprehensive and culturally relevant approach. YCM as a multi-faceted intervention integrates cognitive restructuring, emphasizes self-reflection, implement ethical discipline life and improves emotional processing. The model may promote long-term emotional resilience by combining mental discipline with actionable behavioral change offering a holistic and culturally responsive approach for diverse adolescent populations.

Future research is needed to explore the practical applications of YCM in various educational and counseling settings especially for adolescents. Large-scale studies and longitudinal research are recommened for an evidence-based model for improving adolescent mental health. The integration of YCM into mainstream counseling frameworks could provide a culturally grounded and holistic solution to the mental health challenges faced by adolescents today addressing the gaps in traditional therapeutic models and offering a more comprehensive approach to adolescent well-being.