

# The Effectiveness of Behavioral Cognitive Mentoring: A Model in Reducing Psychological Stress between Mothers of kids with Cerebral Palsy

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**ABSTRACT---** *The birth of a newborn child brings with it shifts in the family's structure and adds up to the parents' obligations. Families want a child with a common ideal. Furthermore, the opposite occurs in which parents sometimes have a disabled child that can impact the family, resulting in the distress of parents from psychological stress that needs professional assistance from clinicians and counselors. The purpose of this study is to investigate the impact of cognitive-behavioral therapy (CBT) on psychological stress management for mothers of children with cerebral palsy (CP). Cognitive Behaviour Therapy could be an essential part of the intervention used to reduce parenting Stress between Mothers of kids with Cerebral Palsy. We suggest a pragmatic conceptual model designed to clarify the process of development expectations, in order to inform future research into the measurement of health expectations and to enhance our understanding of the aspects influencing the expectations on health behavior and attitudes.*

**Keywords---** CBT, Cerebral Palsy, Psychological Stress, Social Support.

## I. INTRODUCTION

Among a wide range of developmental handicaps in childhood, is cerebral paralysis (CP) noteworthy physical inability influencing the vocation improvement of kids (Jones et al., 2007), with a pervasiveness of 2 to 2.5 per 1000 live births (Dolk et al., 2006; Hutton & Pharoah, 2006).

Cerebral paralysis, a non-dynamic yet hopeless condition brought about by harm to the youthful cerebrum during earliest stages, Cerebral paralysis (CP) is an umbrella term that portrays a gathering of clutters on engine brokenness because of permanent and non-dynamic injury in a creating mind (Hurley et al., 2015; Rosenbaum et al., 2007). The advancement of optional debilitations additionally entangles the engine brokenness of youngsters with CP, for example, joint deformations, muscle contractures, hip separation, and scoliosis (Murphy et al., 1995; Persson-Bunke et al., 2012). Optional disabilities have a critical effect on limiting the support of kids with CP in everyday living exercises (Elkamil et al., 2011). Upbringing a child is one of the most sacred gifts and a tasking endeavor that every parent face (Gray et al., 2013). Attributing the relationships, emotions of raising a child can

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be stress-driven most times, but dissociating the cons from the blessings, it is most rewarding (Brossard-Racine et al., 2012).

It has been well documented that cerebral palsy affects a child's psychological development, and it has been found that children with cerebral palsy have a higher risk of behavioral and emotional problems compared to their peers who have cerebral palsy (Goodman & Brand, 2002; Parkes et al., 2011; Sipal et al., 2010; Yamaguchi et al., 2014).

Cognitive behaviors have been constructive in introspecting different forms of depression, anxiety, and stresses. It refers to Cognitive Behavioural Therapy (CBT), which includes the inculcation of several forms of behavioral and pre-listed approaches that are borrowed from some principles (Dorter, 2013). It yields positivity in terms of results through multiplying conditions, internal and external environmental influences among other principles. Stress and other forms of depression have been managed through different forms of therapy (McCubbin et al., 1980; McCubbin & Patterson, 1983; Thoits, 1995).

Therefore, cognitive behaviors have been very helpful in introspecting different forms of depression, anxiety, and stresses. It refers to a Cognitive Behavioral Therapy (CBT), which includes the inculcation of several forms of behavioral and pre-listed approaches that are borrowed from some principles (Dorter, 2013).

They are likewise fundamentally liable for transmitting positive qualities and practices to their kids. In the event that improvement assets and activities can progressively go towards propelling: instruction and medicinal services for ladies, salary creating plans and joining into the financial standard and ladies' opportunities and rights, this will firmly profit their kids (Todaro et al., 2011). Undoubtedly, thinks about have demonstrated that the more advantageous and progressively taught a mother is the more she will have the option to settle on educated and solid choices for her kids (and she will pass what she has figured out how to the people to come) (Glewwe et al., 2009). Consequently, moms help to haul their youngsters up out of destitution, lessening the nation's poverty over the long-term (Beck et al., 1996).

However, the task of raising children with disability brings great stress and uncommon changes (Thompson, 2000). According to the submission by Hill (1949), raising children with such disabilities affects parenting in regards to psychological, emotional, physical, and financial stress due to medications and consultations (Whittingham et al., 2015).

However, with these significant reports and summing the high number of children with disabilities, mothers have been identified to be the ones on the receiving end. The effect of this disability procreates stress, nagging, temperaments, and other forms of stress (Gray et al., 2013). Mothers bond through birth and nurturing of the kids makes stress an embodiment. Recently, cerebral palsy (CP) is a form of disability that affects the functionality of the kids by the non-progressive development of the motor neurons and other brain functions (Williford et al., 2007). It is defined as "a non-progressive motor impairment syndrome caused by a problem in the developing brain." This is one of the most common disabilities found in newly born kids, according to Stanley, 2000.

## **II. COGNITIVE BEHAVIORAL THEORY**

The cognitive-behavioral theory is researched and submitted as one of the most critically and agreed models of depression and stress management. It is believed that negative and maladaptive thoughts accumulated by

irrational or dysfunctional beliefs are the central phenomenon to stress. Its choice in this research is due to its vast reachability and added holistic approach to depression. This has the vital incorporation of learning and behavioral ingredients to cognitive theories (Hessels & Hessels-Schlatter, 2013; Scanlon, 2013). It has recorded successes that are evident for the past two centuries to the management of stress and depression. The crises on stress handling through depression were prominently described from the learning or cognitive-behavioral models (Kaslow et al., 1984). These models unanimously approached the problem of the over-generalized response of the depressed person to aversive conditions.

Researchers in line with reinforcement contingencies indicated that daily mood is positively correlated with social events and negatively correlated with unpleasant events (Kaslow et al., 1984; Glaser, 1978; Lachman et al., 2015; Selye, 1975; 1976). Deficiency in social ability and skill reinforcement also produce depression (Rehm, 1977). These relationships are congruent with the fundamental theoretical idea that loss or lack of reinforcement produces depression, and this provides a rationale for increasing reinforcement as a therapeutic major to increase mood. Additionally, Seligman (1974) learned helplessness explained the dimensions of overgeneralization in terms of a depressive attributional style leading to an inner, steady, and overall perception of helplessness as a result of unpleasant or adverse events. Depression according to Seligman, is due to learned helplessness and the perception of non-contingency between the individual's behavior and consequences.

A great submission was made by Beck (1988) which proposed and defined depression with stress from a cognitive point of view. Beck believed that negative automatic thoughts due to irrational beliefs are the causes of depression. These thoughts include beliefs about the self, the world, and the future, which will lead to automatic negative thought patterns. In [36] went on to assert that depression is linked with self-defeating beliefs. This is further described in Beck's cognitive triad, where she explained the reason for negative opinions about the self, the world, and the imminent.

### **III. RESULTS AND ANALYSIS**

Stress is the unconditioned reaction to stimuli as a result of alteration in one's physical, emotional, and psychological balance. These factors could be due to family instability and tension, workplace imbalance, financial jumbo and excitements, health, and diseases among others. It is usually defined in a different context and domain. According to Webster's dictionary, stress is "a constraining force or influence such as a physical, chemical, or emotional factor that causes bodily or mental tension and may be a factor in disease causation."

Parental instability is the first point of effect once a child is born with a deformity or disability. In this case, the disability being CP as it affects the mothers. A study conducted by Minnes (1988) is seen as a foundational study of in the 1980s; in the study, 60 mothers of children born with disabilities were investigated to identify the effects of stress on the sample mothers. The study mediated stress as to facilitate the degree of coping using the external family influences, resources and child characteristics. The study was carried out in Toronto with the most influencing variables being resources, child degree of disability and manageability attempts that aid child's daily activities, social supports, religiosity, marital status of the mother and the professional engagements through the supports received.

It was observed that family stress was subjected to the degree of care received from outsiders and family members. In their study, family stress was measured using questionnaires with variables including the marital status of the families having children with mental instability (single and non-single parents). Significantly, family health status was investigated to play a significant role in handling stress more specifically in the mother's perspective. More studies investigated the need and influence of family status, resources, supports and moral intervention as a predictor and relief platform for mothers of children born with CP (Hayden & Goldman, 1996; Bella et al., 2011; Koszycki et al., 2007; Miodrag & Hodapp, 2010).

#### **IV. CBT FOR MOTHERS SUFFERING FROM DEPRESSION**

The cognitive-behavioral theory is one of the highest influential models of addressing depression which believed that negative and maladaptive thoughts generated by irrational or dysfunctional beliefs are the central phenomenon that leads to depression. It is chosen in this research because of its holistic approach to depression that incorporated both learning, behavior and cognitive theories (Beck et al., 1988). It has been documented that, for the past two centuries, the phenomena of depression were prominently described from the learning or cognitive-behavioral models (Kaslow et al., 1984). Both the models unanimously approached the problem of the overgeneralized response of the depressed person to aversive conditions.

The target of a cognitive behavioral therapy for the treatment of depression is to replace irrational thoughts in hopes of encouraging a balanced and the actual perspective for stress patient. In this way, the patient can attack problems tactically and prevent further depressive relapses. Studies have been conducted to evaluate cognitive-behavioral therapy (CBT) for stress (PPD) either alone or in combination with drugs and psychotherapy (Fitelson et al., 2011).

Cognitive-behavioral therapy was combined with problem-solving therapy and has proven its effectiveness in the treatment of depression. Cognitive-behavioral therapy includes a problem-solving approach. In combining problem-solving therapy with cognitive behavioral therapy, Lavee et al. (1985), McCubbin and Patterson (1983) examined the changes in a client's problem-solving skills and perceptions related to the efficacy of the cognitive-behavioral treatment for depression. Thirty depressed patients who are using antidepressant drugs were used. The researcher provides patients with cognitive behavioral therapy in a group format for 2.5 hours a day for a week. Pre and post-treatment measurements showed that patients' depression decreased as their problem-solving skills increased.

#### **V. RESULTS AND DISCUSSION**

The scientist sent the amended questionnaires to 30 chosen respondents randomly to gather the data from 3 settings in Jordan. The study utilized the Exploratory Factor Analysis (EFA) to investigate and evaluate the dimensionality of things estimating each build in the examination. Numerous specialists, for instance Nor et al. (2015), Abuayyash et al. (2018), Hoque and Awang (2016) stress that the analyst needs to utilize Exploratory Factor Analysis (EFA) methodology for each build to decide whether the dimensionality of things has changed from past investigation where the measurements were created. The dimensionality of things may change when the current investigation is unique concerning past studies as far as distinction in industry, the distinction in culture

and financial status between the two populaces, and the pass in time (span) between the current investigation and the past investigations. The measurements acquired by past investigations probably will not hold particularly when the present examination is led in various conditions and diverse industries.

This develops 10 estimating items in a survey. The EFA brings about Table 1 show the elucidating insights for each item estimating ECBT. This develops was estimated utilizing the interim scale from 1 (strongly disagree) to 5 (strongly agree) the given thing articulation (Awang, 2012). The thing explanation, the mean score and standard deviation of the score for each thing is introduced in Table 1.

**Table 1:** The mean and standard deviation for items measuring ECBT

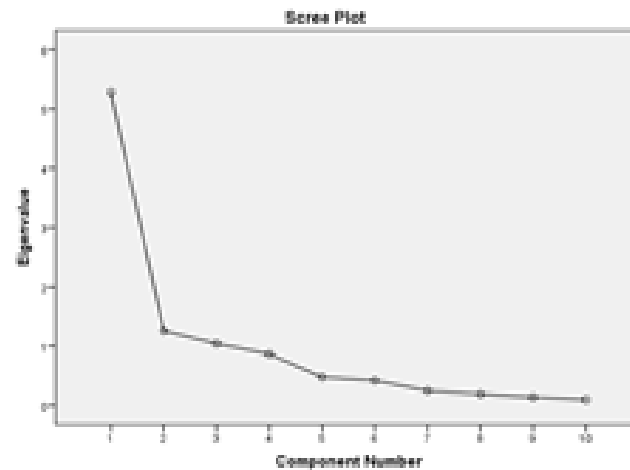
	<i>Mean</i>	<i>Std. Deviation</i>
ECBT1	4.33	.661
ECBT2	4.20	.664
ECBT3	3.87	.819
ECBT4	3.70	.952
ECBT5	4.83	.379
ECBT6	4.73	.450
ECBT7	3.87	.900
ECBT8	3.83	.834
ECBT9	3.73	.907
ECBT10	3.53	.900

The Exploratory Factor Analysis (EFA) utilizing the extraction technique for Principal Component with Varimax (Variation Maximization) Rotation was performed on these 10 things estimating the ECBT build. The outcomes in Table 2 show that the Bartlett's Test of Sphericity is critical (P-Value < 0.05). Besides, the proportion of inspecting amplexness by Kaiser-Meyer-Olkin (KMO) is superb since it surpassed the necessary estimation of 0.6 (Hoque & Awang, 2016). These two outcomes (Bartlett's Test is huge and KMO > 0.6) demonstrate that the data is satisfactory to continue further with the data decrease strategy in EFA.

**Table 2:** The KMO and Bartlett's Test Score for ECBT

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.793
Bartlett's Test of Sphericity	Approx. Chi-Square	180.065
	df	45
	Sig.	.000

The scree plot in Figure 1 demonstrates three measurements or segments that rose out of the EFA method for this stable build. As it were, the EFA method has assembled 10 things into 3 measurements or parts. Each measurement or part has its very own arrangement of estimating things. The turned segment grid will decide absolutely; which things have a place with which part (Awang, 2012).



**Figure 1:** Scree plot shows three components emerged from the EFA procedure

The results in Table 3 show there are three dimensions or components that emerged from the EFA procedure based on the computed Eigenvalue greater than 1.0. The eigenvalues ranged between 1.231 and 3.282. The variance explained for component 1 is 32.820%, component 2 is 30.660% and component 3 is 12.314%. The total variance explained for measuring this construct is 75.794%. The total variance explained for the construct is acceptable since it exceeds the minimum 60%.

**Table 3:** Total variance explained for ECBT

Component	Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	3.282	32.820	32.820
2	3.066	30.660	63.480
3	1.231	12.314	75.794

The following Table 4 presents the three dimensions or components that emerged and their respective items resulted from the EFA procedure. The factor loading for every item should be greater than 0.6 in order to be retained. The measuring items, their factor loading and their respective components are shown in Table 4.

Lastly, the investigation needs to register the estimation of Cronbach's Alpha, which mirrors the Internal Reliability for the held things in estimating this stable build. The unwavering inner quality or inward consistency shows how solid the only things are holding together in estimating the separate develop. The estimation of Cronbach's Alpha ought to be more prominent than 0.7 for the things to accomplish Internal Reliability (Awang, 2012).

The result of the study concludes that patients' training on problem-solving skills played a crucial role in resolving depression through cognitive behavioral therapy.

Although CBT has been demonstrated to be a successful intervention in the treatment of depression, this form of therapy is resource-intensive and often require experts, as well as involving long-time therapeutic sessions (Brandenburg et al., 2015). The patient mostly relies on the therapist who has limited time, which means that at the endpoint, when the therapist is absent, there is a possibility of relapse over time.

**Table 4:** The components and their respective items

<i>Rotated Component Matrix</i>			
	<i>Component</i>		
	1	2	3
ECBT1		.816	
ECBT2		.762	
ECBT3		.900	
ECBT4	.670		
ECBT5			.718
ECBT6			.770
ECBT7	.646	.603	
ECBT8	.692		
ECBT9	.885		
ECBT10	.903		

Furthermore, cognitive behavioral therapy is not often the ultimate solution in existing real-life situations because many women cannot afford the treatment due to its expensiveness, and the most critical point is the professionals' inadequacy which constitute significant challenges. Domestic routine work with child care pressure, time constraint, stigma and discomfort with sharing personal feelings are other constraints and reasons for rejecting such therapy. Furthermore, inaccessibility to the therapy especially for rural patients who may not withstand the multitude of appointments for the therapy has been observed (McCubbin & Patterson, 1983; Lavee et al., 1985).

## VI. CONCLUSION

These associations aim to prepare children for inclusion in regular schools after the fifth grade, while it appears that very few students with cerebral palsy in Jordan have access to appropriate educational and support services. For instance, numerous youngsters with cerebral paralysis do not get treatment for the primary incapacitated, for example, discourse and sustenance issues, and what is more, most guardians report learning and conduct issues for not treating them. It ought to be noted, as indicated by Almasri and Saleh (2015), custom curriculum and psychotherapy are not accessible for kids with CP. Be that as it may, as indicated by Almasri et al. (2014), educated the guardians about the need regarding open data on administrations accessible to their youngsters. While according to Bakar (2016), participation from all stakeholders in social activity work towards goals within a view of learning being based on a cultural and collective foundation should be emphasized.

What is more, new intercession benefits in Jordan are at present restricted. in the present. All in all, it does not furnish understudies with physical incapacities, incorporating youngsters with cerebral paralysis and their folks and bolster administrations Caffeine over a full scope of territories, including restorative, instructive, passionate, social, physical and scholarly angles.

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