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Incredible Years Program Efficacy for Parents of Children Affected by Autism Spectrum Disorder in West Bank

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الاهداء

الحمد لله أو لا وأخير ا الذي تتم بفضله النعم الى روح ابي الزكية الطاهرة الى روح امي الحبيبة الغالية الى رفيقة دربي في هذه الحياة زوجتي العزيزة الى من هم زينة الحياة ابنائي مهجة فؤادي الى سندي و عزوتي اخوتي واخواتي وجميع أفراد عائلتي الى سندي الغرامي أوفياء أصدقائي جميعا الى من كانوا لي أوفياء أصدقائي جميعا

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أنا الموقع أدناه مقدم البحث الذي يحمل عنوان:

Incredible Years Program Efficacy for Parents of Children Affected by Autism Spectrum Disorder in West Bank

أقر بأن ما اشتملت عليه هذه الرسالة إنما هي نتاج جهدي الخاص، باستثناء ما تمت الإشارة حيثما ورد، وأن هذه الرسالة ككل، أو أي جزء منها لم يقدم من قبل لنيل أي درجة علمية، أو بحث علمي لدى أية مؤسسة تعليمية أو بحثية أخرى.

Declaration

The work provided in this thesis, unless other wisr referenced, is the researchers own work, and has not been submitted elsewhere any other degree or qualification.

Student Name: اسم الطالب: Signature: التوقيع: Data: التاريخ:

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List of Abbreviations

Abbreviation	Full Name	
ABA	Applied Behavior Analysis	
ACI	An-Naiah Child Institute	
ADI-R	Autism Diagnostic Interview – Revised	
ADOS-G	Autism Diagnostic Observation Schedule–	
	Second Edition	
APP	Aggression towards a Person and Property	
ASD	Autism Spectrum Disorder	
BDI II	Beck Depression Inventory-Second Edition	
CARS-P	Childhood Autism Rating Scale-Parent form	
CDC	Centers for Disease Control and Prevention	
DD	Developmental Disabilities	
DSM-5	Diagnostic and Statistical Manual of Mental	
	Disorders 5th edition	
EIBI	Early Intensive Behavioral Interventions	
GARS	Gilliam Autism Rating Scale	
НСР	Holy Child Program	
IBI	Intensive Behavioral Intervention	
ICD-10	International Statistical Classification of Diseases	
	and Related Health Problems 10th Revision	
IRB	Institutional Review Board	
IY	Incredible Years	
IY-ASD	Incredible Years Autism Spectrum and Language	
	Delays Program for Parents with Preschool	
	Children	
	Incredible Years Basic Parent Program	
	Incredible Years Parent Training	
	Incredible Years Questionnaire	
MSEL	Mullen Scales of Early Learning	
PDD-NOS	Pervasive Developmental Disorder Not	
DCI	Otherwise Specified	
	Parenting Stress Index Arabic	
KEACH	Kenabilitation, Education And Caring for Hope	
	Social Communication Questionnaire	
	Self injurious Benavior	
VABS-II	vineland Adaptive Behaviours Scales–Second	
	Edition	

Incredible Years Program: Efficacy for Parents of Children Affected by Autism Spectrum Disorder in the West Bank

By Mohammad Mahmoud Wahdan Supervisors Dr. Sabrina Russo Co- Supervisors Dr. Denise Ziya Berte Abstract

Background: Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder. ASD is defined by deficiencies in communication and socialization, and the presence of restricted interests and stereotypic repetitive behaviors (Haisley, 2014). Parents with children who have ASD experience consistently high levels of stress, which are related, to some degree, with managing challenging child behaviors related to ASD (Estes et al., 2013). This stress can be decreased by the use of Early Intervention Programs for children with ASD. This will also improve parent's behavioral management skills. Autism Spectrum and Language Delays Program for Parents with Preschool Children (IY-ASD) is an internationally standardized and validated program for teaching valuable parenting and behavioral management techniques to parents of children with severe disabilities including ASD (Webster-Stratton, 2015).

Aim: The goal of this study is to test the efficacy of the IY-ASD in reducing familial stress, increasing parenting skills of communication,

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socialization, problem solving, and reducing parental negative behaviors toward their children with ASD, in the Palestinian context.

Participant and Methods: An interventional study design was applied using a pre-post test approach. The research was conducted at An-Najah Child Institute (ACI) in Nablus. Thirty-one parents met the eligibility criteria and participated in the program groups for mothers (61.3%; n=19), and fathers (38.7%; n=12). Twenty one parents (68%) completed the program; ten parents withdrew from intervention prior to the completion of the study.

Results: Parental Stress Index (PSI) decreased after treatment with a mean difference of 11.1, which was found to be significant (95% CI 4.3, 17.9) (p = .002). Similarly, the mean related to total Parental Domain subscales decreased significantly (95% CI 1, 17; p=.030), while the mean score related to total stress decreased from 310 at baseline to 288 post-intervention with a mean difference of 22.1 (95% CI 9, 35.3) (p = .002). Fathers demonstrated lower negative behavior than mothers. The mothers discipline scores pre to post intervention was higher by 0.9 (95% CI; 0.2, 1.5) (p=0.017) as compared to the fathers of children with ASD.

Conclusion:

Generally, the positive findings provided initial support to the hypothesis that the Incredible Years Program can reduce the stress of parents of children affected by ASD in Palestine, as well as improve behavioral management skills for participating parents. In general, mothers reported higher scores in aggression and physical discipline toward their children than fathers. Families with lower economic resources reported decreased levels of aggression compared with families of a higher salary.

Keywords: ASD, Incredible Years Program, Parent Training, Parental Stress

Chapter 1

1.1 Introduction

Childhood is a critical period of time which will determine much of a child's future; therefore, many states have been prompted to ensure that children are provided care for, in terms of their mental, psychological and social health, as to assure their integrated balanced growth (Palestinian Central Bureau of Statistics, 2012).

Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder. ASD characteristics include limited interests, repeated stereotypical behaviors and insufficient communication and socialization abilities. ASD also creates a limited desire to exchange experiences with others and limited nonverbal communication, such as pointing, eye contact or nodding. These behaviors create a failure to develop positive, mutually beneficial relationships (Haisley, 2014).

At the point when a child is diagnosed with ASD, parents may experience a variety of conflicting emotions. Experiences during the diagnostic period, especially in regards to the method that the diagnosis is revealed in or facilitated by professionals, may have an important and long-term effect on parents' psychological health (Baird, McConachie, & Scrutton, 2000). Parents' initial reaction to a diagnosis often includes information gathering and guidance from others (Stoner et al., 2005).

Most parents will require some assistance in caring for a child affected by ASD. This assistance may be in the form of information, emotional and social backing (e.g. widening a parent's social network), community assistance (e.g. professional rehabilitative services), respite support and financial assistance (Bailey et al., 1999). Moreover, mothers have been found to suffer more stress than fathers, particularly with regards to dealing with their child's behavioral challenges (Hastings, 2003). Fathers demonstrate more stress related to their family's financial burden due to the disability (Rodrigue, Morgan, & Geffken, 1992). In order to increase children with ASD's abilities and increase their parent's abilities to manage the effects of ASD, support is critical and compulsory (AL Jabery, et al. 2013).

The nature of ASD demands an extensive variety of services in regards to education, medical and rehabilitative needs. Parents must work alongside providers for these services, participating in diverse services or treatments, and devoting their financial resources, time, and energy to the well-being of the child with ASD (Goin-Kochel et al. 2009).

Caring for children affected by ASD can be a challenge for their service providers and parents; including their paraprofessionals, primary health providers, and teachers. These difficulties engender from the extreme varieties in the child's characteristics and needs, the peculiar and sometimes inflexible nature of the child's behavioral concerns, and the firmly held and assorted opinions concerning appropriate intervention, as well as the litigious environment which may occur due to these varying opinions (Dunlap et al. 2008).

Evidence of parent education advantages has been seen throughout history (McConachie & Diggle, 2007). This education includes training created to disseminate information and share skills related to child development and behavioral management. Parent education for those raising children with challenging behaviors is one of the most common areas of parent education (Brookman-Frazee, Stahmer, Baker-Ericzen, & Tsai, 2006). Training parents allows them to build their abilities to handle the challenging behaviors (Cordisco, Strain, & Depew, 1988). After trainings, parents feel a greater confidence in their parenting abilities and decrease their stress. Parent education reduces stress in families with ASD even more than it does in families facing other developmental disabilities or no disabilities (Koegel, Bimbela, & Schreibman, 1996).

Particularly because there is a lack of agreement about adequate education practices, parents of children with ASD face extraordinary and intricate difficulties which demand that they settle on choices about the kind of therapies that are suitable for their children, while also considering the implementation requirements and how to define the efficiency of these therapies. This is not easy considering the lack of agreement in regards to training needs (Dunlap et al. 2008).

Many years of studies have concluded that parents of children with ASD deal with consistently high levels of stress, which are related to some

degree with managing challenging child behaviors related to ASD (Estes et al., 2013). In a study by Tomanik, Harris, and Hawkins, 2004, 66% of moms with children affected by ASD scored significantly high on a parenting stress measure. Mothers of children with ASD show higher levels of parenting stress, even more than mothers of children who have other disabilities (Estes et al., 2009).

Early interventions which are concerned with attention, social play, imitation skills, and parental responsiveness can help to promote communication abilities in children with ASD (Kasari, Paparella, Freeman, & Jahromi, 2008). Parent training was suggested as an efficient method to treat children with ASD (Matson, Mahan, & LoVullo, 2009). Recently, an evaluation of a community/home based parent- training program, targeting early intervention, noted significant gains in child social communication and receptive language skills, compared to a clinic only sample (Wetherby et al., 2014). Generally, interventions which focus on parent-child interactions within home environments have demonstrated encouraging improvements in children's social communication skills and other critical ASD symptoms (Stahmer & Pellecchia, 2015).

ASD early intervention programs differ in their theoretical capacities. Some methodologies use Applied Behavior Analysis (ABA) or Early Intensive Behavioral Interventions (EIBI) in programs which are implemented in the home but executed by trained therapists. Some programs have an educational framework, other programs concentrate on communication partners, such as parents, as well as naturalistic communication, encouraging interchange between communication partners, eliciting social behaviors, and increasing children's interests for social interaction (Oono, Honey, & McConachie, 2013).

The contribution of parents in intervention strategies designed to assist their children with the goal of establishing social relationships is essential, as parents form the primary social network of all children. It is important, given the characteristics of ASD, that parents help their child in developing mutual interests with other people while practicing imitation. When caretakers behave in methods that are 'synchronous' with their child's, then language and communication are enhanced (Siller & Sigman, 2008). Moreover, parent training carried out in a group setting allows for reciprocal support and potential decrease of parental stress (Oono et al., 2013).

In spite of the fact that most of the literature focuses on the western community, researchers in the Arab World and the Middle East have latterly begun researching matters related to children with ASD and their parents. Crabtree (2007) found that due to political instabilities and socioeconomic issues, "formal" services provided for children with disabilities in Jordan, Lebanon, and Palestine are usually at an early level. Additionally, it was noted that "formal" services in Arab Gulf countries are limited by the shortage in relevant and qualified professionals, as well as the social attitudes regarding disabilities (Crabtree, 2007). In Palestine, parents of children affected by ASD exhibit great levels of stress. While we know that there is a shortage of ASD related services and qualified professionals to support these children and their families, there is limited information about families' access to ASD-related services in the West Bank (Dababnah & Bulson, 2015).

To highlight the most important needs of these parents, one particular program, The Incredible Years Program (IYP), has been effectively examined in a randomized controlled trial with parents of preschoolers who have developmental disabilities (McIntyre, 2008). The Incredible Years is a group-based program which provides developmentally relevant interventions to parents, children, and teachers (Dababnah and Parish, 2014).

IYP has been carried out in a different places and countries, including Canada, Denmark, England, Finland, Ireland, Australia, New Zealand, Norway, Portugal, Russia, Wales, Scotland, Northern Ireland, Sweden, the Netherlands, and in the USA. Presently, there are eight accredited trainers, thirty six mentors and fifty two peer coaches administering training and support in fifteen countries (Incredible Years, 2013).

In the curriculum, parents meet as a group (normally 2 hours per week), in the presence of two qualified facilitators. Parents are provided with opportunities to jointly and singly strategize new methods for supporting their children. The curriculum incorporates role plays, homework, creating personal goals, and evaluation. Facilitators use videotaped scenarios to spur dialogue, problem-solve and share ideas. Participants are provided with hand-outs, activities to implement at home, and reminder notes to put on their refrigerator (Incredible Years, 2013).

1.1.1 Aim of the study

IY Autism Spectrum and Language Delays Program for Parents with Preschool Children (IY-ASD) is an internationally standardized and validated program for teaching valuable parenting and behavioral management techniques for parents of children with severe disabilities, including ASD. This study aims to evaluate the efficacy of the IY-ASD in reducing familial stress, increasing parenting skills, and reducing parent's negative behaviors toward their children with ASD, in the Palestinian context.

1.1.2 Problem statement

In the West Bank of Palestine, there has been little attention given to interventions for children affected by ASD and no such programs available for parents to develop the skills needed to address characteristic symptoms of ASD (Dababnah & Bulson, 2015). Globally, early intervention has been shown to be useful for both children with ASD and their families (Koegel, Koegel, Ashbaugh, & Bradshaw, 2014). However, families raising children with ASD in the West Bank experience considerable delays in accessing ASD-related services (Dababnah & Bulson, 2015). The lack of intervention compounds the high level of stress prevalent with caregivers of children with ASD (Davis & Carter, 2008) Additionally, nonexistent screening practices, inappropriate diagnostic procedures, and financial stressors, child behavioral and medical challenges, stigma from extended family members and the larger community exacerbate parent isolation and discrimination in the West Bank (Dababnah & Parish, 2013).

1.1.3 Significance of the study

To date, the capacity of the Incredible Years Parent Training program has not been evaluated with Palestinian parents of children with ASD in West Bank. This study will explore the efficacy of the IY-ASD program in decreasing stress of parents who have children affected by ASD in the Palestinian society. In addition, to better understand early intervention for children with ASD, this study was designed to evaluate the capacity of IY-ASD in coaching parents to promote positive behaviors toward their children with Autism instead of aggressive and disruptive behaviors, physical force and other harsh punishments, with the goal of later dissemination of this program across Palestine.

This study is considered pioneering, as it is the first to test a program for parents of children with ASD in Palestine, increasing awareness of the importance for such programs in Palestinian society. This study is also exceptional because it is the first, internationally, to use the IY-ASD program with a fathers (male) only group, in addition to the mothers group.

1.1.4 Research questions

This study was devised in order to examine the following questions as detailed below:

1-What is the mean difference in total stress and in each subscale in the parent sphere (capability, aloneness, attachment, health, role limitations, depression, spouse) and the child sphere (distractibility/hyperactivity, adaptability, reinforces parent, demandingness, feeling, acceptability) before and after delivery of the intervention?

2-What are the observed changes in mean total stress level comparing fathers to mothers?

3-What are the changes before, during, and after the intervention in parental behavior (aggressive and disruptive behaviors, physical force and other harsh punishments, academic performance, stress level, positive interactions, confidence level) toward their children with ASD?

4- Do observed changes in parent's behavior differ between fathers and mothers?

1.2 Background

1.2.1 Definition of ASD

In origin, the word 'autism' derives from the Greek word "autos," meaning "self." Swiss psychiatrist, Eugene Bleuler, coined this term in 1906, to characterize behaviors in patients who appeared to see events surrounding them with regard to themselves (Goldstein, 1978). In 1943, Austrian psychiatrist, Leo Kanner, shared the notion of autism in regards to children (1943). Kanner utilized the phrase 'early infantile autism' to depict the irregular patterns of behavior he was seeing in young children characterized by a great deal of impairment in social interaction, communication and having a strong pushback to change.

In the fifth revision of the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders 5th edition (DSM-5), Autism Spectrum Disorder (ASD) is stated to include a variety of disorders classified as neurodevelopmental disorders not caused by psychological or environmental factors but by genetic, or neurobiological factors. In 2013, in the DSM-5, ASD was expanded to the previous (DSM-IV-TR) diagnoses of Autism, Asperger Syndrome, Pervasive Developmental Disorder not otherwise specified (PDD-NOS), and Childhood Disintegrative Disorder (APA, 2013).

People with ASD exhibit repeated actions, and/or particular areas of strong interest. For example, some people with ASD may demonstrate repeated motor movements such as jumping, hand flapping, rocking, toe-walking, etc., or be engrossed by one portion of an item (e.g., spinning the wheels of a toy car) as opposed to its functional whole. Individuals with ASD, who are at more advanced cognitive levels, may obsess on a defined topic or object of interest (e.g., construction signs, train schedules, types of cars). Likewise, people with ASD may strictly follow particular habits or particular day to day schedules. Often, people affected by ASD also display hyper- or hypo- sensitivity to sensory stimuli including certain textures (clothing, food, etc.), sounds, smells and actions (Haisley, 2014).

Children with ASD's social expressiveness and ability to exchange social cues are restricted. They rarely initiate social behaviors (Mash & Wolfe, 1999). While there is a great deal of variety of functions within ASD, and they are not stagnant, often children with ASDs stay within the spectrum as adults. Despite their intellectual functioning, these adults with ASD may have trouble with employment, independent living, social relationships, and mental health (Howlin, Alcock, & Burkin, 2005)

ASD is an important public health problem. In the last decade, increased attention to ASD in the media and in research fields has led to an awareness increase of the lifelong neurodevelopmental disorder in both professionals and laypersons (Dababnah & Bulson, 2015). Early diagnosis of the disorder leads to quick, comprehensive intervention which can mean more success for the individual. Therefore, field research and program evolution has focused a great deal on younger ages in the past two decades (Olley, 2005). These interventions consider ASD behaviors surrounding social skills, communication, daily-living skills, play and leisure skills, academic achievement, and maladaptive behaviors. However, in the West Bank, no known studies have investigated treatment of ASD or related services (Dababnah & Bulson, 2015).

1.2.2 Etiology of Autism Spectrum Disorder

While genetic and/or environmental factors have been suggested as reasons for the etiology of Autism Spectrum Disorder (ASD), the precise cause is unknown (Newschaffer et al., 2007). The topic has caused great debate for several decades (Russell, Kelly & Golding, 2009). Researchers have also suggested that ASD causes may be a mix of three factors: genetics, environment and neurological development (King, 2015). While genetic underpinnings are complicated and are connected to a lot of factors, research has found many genetic abnormalities connected to ASD. The research from family and twin studies has led researchers to believe that there is a genetic component in ASD. Many studies are presently being facilitated in order to figure out the genes that appear to be most commonly affected in children with ASD (Akshoomoff, Pierce, & Courchesne, 2002).

Using a large, scrutinized ASD-affected twin sample, a recent study by colleagues found consequential environmental Hallmayer and contributions to ASD diagnosis including, parental age, low birth births, and maternal infections weight, multiple during pregnancy (Hallmayer et al., 2011). Although environmental factors in ASD have been investigated, there is not enough conclusive evidence for establishing etiology. High levels of toxins like lead, antimony (a chemical element) and mercury have been found in the hair and blood samples of affected children. It is possible that ASD children are incapable of detox as efficiently as other children (Filipek et al, 1999). ASD heritability is estimated at 0.50 and aggregates in families. However, the individual's

possibility of having ASD and whether it is linked to genetic causes or environmental causes remains unclear. Causes are likely to interact most of the time, making services for people with ASD and genetic counseling options difficult (Sandin et al., 2014).

1.2.3 Prevalence of ASD

Clearly, ASD is one of the top considerably researched conditions in the mental health field today, in the western world (Matson & Kozlowski, 2011). The Centers for Disease Control and Prevention (CDC, 2014) reports that 1 in 68 children live with ASD, with boys being nearly five times more likely to be diagnosed with ASD than girls. ASD is estimated to affect up to 700,000 people in the UK (National Autistic Society, 2015). Specifically within Asia, estimates vary widely across time and country (China:0.17%, Japan: 0.21%, South Korea: 1.89%) (Rudra et al., 2017). While in Arab Gulf countries, the prevalence of ASD was 1.4 per 10,000 in Oman, and 29 per 10,000 for PDD in UAE, and 4.3 per 10,000 in Bahrain (Salhia, Al-Nasser, Taher, Al-Khathaami, & El-Metwally, 2014).

Despite the fact that more and more children are being diagnosed with ASD in Palestine, there has been limited research on ASD in this population. In the West Bank of Palestine, the pervasiveness of ASD is unknown. It is predicted that 1.6% of children from birth to the age of 17 in the West Bank have physical or intellectual disabilities (Dababnah & Bulson, 2015). The Palestinian Ministry of Health does not have precise

figures on the number of cases of patients with ASD and do not have yet a system to monitor and follow-up diagnosed cases.

Furthermore, limited studies are available in regards to parenting among caretakers of children with ASD. This is in spite of the fact that it is well established that parenting skills play a role in the socialization of children or the way in which children attain the social, emotional, and cognitive skills to be active in the social community (Grusec & Davidov, 2010).

1.2.4 Diagnosis of ASD

The diagnostic basis of ASD in the DSM-IV included three domains: social interaction deficits, communication limitations, and stereotypic behavior. These were condensed into two domains in the DSM-5: deficits in social communication and restricted patterns of behavior, see DSM-V Diagnostic Criteria for ASD in (Annex 1). Problems with communication are a strong predictor of externalizing maladaptive behavior (Hartley, Sikora, & McCoy, 2008) and these behavioral challenges, as well as the child emotional state, can cause the caregiver more stress and mental health risk than the main components of ASD (Hastings et al., 2005).

The main components of ASD are found along a sequence of severity and can be accounted for dimensionally (Grzadzinski, Huerta, & Lord, 2013). No diagnostic subtypes are listed; instead, ASD features are provided to indicate the existence of intellectual and/or language deficit along with the severity level of the main ASD symptoms. Any known genetic or medical disorders are also listed and other co-occurring neurodevelopmental, mental, or behavioral disorders are recorded (APA, 2013).

Many diagnostic tools were created and used to screen and assess ASD, for use by various professional bodies. Current instruments include ASD-specialized history-recording instruments, such as the Autism Diagnostic Interview – revised R (ADI-R) (Lord, Rutter, & Le Couteur, 1994) and the Autism Diagnostic Observation Schedule–Generic (ADOS-G)(Scahill, 2005). Among these instruments the ADI-R and the ADOS-G are internationally recognized as the 'gold standard' assessment protocol for ASD (McPartland & Klin, 2006). An-Najah Child Institute (ACI) followed this international standard in diagnosing the children of the parents that participated in this study.

There is no cure for ASD. Due to the absence of compelling evidence regarding the origin and preferred treatments for ASD, parents of children with ASD create their own viewpoints regarding the disorder. Parent's perception of the child and the effect the child has on the family is affected by the parent's viewpoint regarding the etiology of ASD (Dyches, Wilder, Sudweeks, Obiakor, & Algozzine, 2004). When parents initially face ASD in their family they experience the loss of expectations for a typically developing child and are forced to deal with an unpredictable future for the child, and for the family as well (Desai, Divan, Wertz, & Patel, 2012). Living with a child affected by ASD may often be overwhelming because of the all the difficulties and challenges that they face. Often, parents feel

alone and feel that others are not able to truly acknowledge the difficulties they face on a daily basis (Mandell & Salzer, 2007).

A great portion of parents of children with disabilities or reoccurring health issues endure severe stress. Research has shown that parents of children on the ASD spectrum experience the greatest amounts of stress (Schieve et al.,2007). Studies show that as compared to parents of typically developing children or parents of children with other disabilities, parents of children with ASD experience greater amounts of stress (Osborne and Reed, 2010).

Annex 1

The DSM-V Diagnostic Criteria for ASD

The American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders* is the main diagnostic reference used by mental health professionals and insurance providers in the United States. The current (fifth) edition, which was published in 2013, is commonly referred to as the "DSM-V."

Diagnostic Criteria for Autism Spectrum Disorder

1. Persistent deficits in social communication and social interaction across multiple contexts, as manifested by the following, currently or by history (examples are illustrative, not exhaustive): 1. Deficits in social-emotional reciprocity, ranging, for example, from abnormal social approach and failure of normal back-and-forth conversation; to reduced sharing of interests, emotions, or affect; to failure to initiate or respond to social interactions.

2. Deficits in nonverbal communicative behaviors used for social interaction, ranging, for example, from poorly integrated verbal and nonverbal communication; to abnormalities in eye contact and body language or deficits in understanding and use of gestures; to a total lack of facial expressions and non-verbal communication.

3. Deficits in developing, maintaining, and understanding relationships, ranging, for example, from difficulties adjusting behavior to suit various social contexts; to difficulties in sharing imaginative play or in making friends; to absence of interest in peers.

2. Restricted, repetitive patterns of behavior, interests, or activities as manifested by at least two of the following, currently or by history (examples are illustrative, not exhaustive):

1. Stereotyped, or repetitive motor movements, use of objects, or speech (e.g. simple motor stereotypes, lining up toys or flipping objects, echolalia, idiosyncratic phrases).

2. Insistence on sameness, inflexible adherence to routines, or ritualized patterns of verbal or nonverbal behavior (e.g. extreme distress at small changes, difficulties with transitions, rigid thinking patterns, greeting rituals, need to take same route or eat same food every day).

3. Highly restricted, fixated interests that are abnormal in intensity or focus (e.g. strong attachment to or preoccupation with unusual objects, excessively circumscribed or perseverative interests).

4. Hyper- or hypo reactivity to sensory input or unusual interest in sensory aspects of the environment (e.g. apparent indifference to pain/temperature, adverse response to specific sounds or textures, excessive smelling or touching of objects, visual fascination with lights or movement).

3. Symptoms must be present in the early developmental period (but may not become fully manifest until social demands exceed limited capabilities, or may be masked by learned strategies in later life).

4. Symptoms cause clinically significant impairment in social, occupational, or other important areas of current functioning.

5. These disturbances are not better explained by intellectual disability (intellectual developmental disorder) or global developmental delay. Intellectual disability and autism spectrum disorder frequently co-occur; to make comorbid diagnoses of autism spectrum disorder and intellectual disability, social communication should be below that expected for general developmental level.

1.2.5 Definition of stress

When people try to reconcile with their environmental conditions, stress is often a result. Stress takes the form of a negative emotional, cognitive, behavioral and physiological process (Bernstein, et al 2008). These new environmental conditions disturb, or threaten to disturb, the status quo and force change and adaptation (Auerbach and Grambling, 1998).

When intimidating or hazardous circumstances are perceived, stress, an undesirable condition of emotional and physiological arousal is experienced. Moreover, stress may produce severe emotional or health conditions if not handled properly. Physical problems, such as heart disease, and mental conditions, such as anxiety, can result when individuals are dealing with chronic stress. The Health Psychology field targets, in part, how stress affects bodily functioning and how individuals can manage stress in order to restrict or decrease potentially negative consequences (Auerbach and Grambling, 1998).

1.2.6 Parents of Children Affected by ASD

ASD is quite different from other developmental disorders. Parents of children with ASD appear to experience more stress than parents of children who are not disabled (Sander JL, (1997), have other physical or learning disabilities; or other developmental disabilities(Hastings & Johnson, 2001). Just as ASD is multidimensional and relentless, so are the consequences of the presence of ASD on a family. Considering the fact that about 85% of people with ASD experience cognitive and/or adaptive

restrictions that limit their capacity to live independently, parent assistance in their lives will probably is needed for the long term (Volkmar F, 2000).

Researchers have noted the disproportionate level of burden faced by children with disabilities and their families, as compared to families with children without special needs (Parish et al., 2009).

Families with children with ASD experience permeating economic hardships such as, lower family incomes, significantly higher costs of living, and more job-related burdens than those families with children without ASDs (Montes & Halterman, 2008). Financial burdens and other various antecedents contribute to high levels of stress which can result in negative management techniques and depression in parents with children with ASD, particularly those with young children (Davis & Carter, 2008).

Additionally, parents with a child with ASD have been shown to experience more stress(Rezendes & Scarpa, 2011). Approximately 85 % of individuals with ASD present with cognitive and/or adaptive limitations that limit their ability to live independently, leading to the possibility that they will need some measure of care or assistance from their parents and families for the duration of their lives (Karst & Van Hecke, 2012Many factors are included in why the stress of those parenting children with an ASD is so great. While all parents of children with disabilities must deal with heartache, fear about what's to come and the burden of finding needed services, parents of children with ASD deal with even more stressors. First, despite it being undeserved, parents stress over the origin and potential guilt of how their child got ASD, wondering if they did/didn't do something that played a role. Second, because the disorder is highly connected with social factors, and parents desire a loving and close relationship with their child, they adapt, learning to love in the same manner that their child loves, but usually not without struggling through discomfort and pain. Third, regardless of the particular ASD diagnosis, children on the autism spectrum usually display challenging behaviors such as severe rigidity, a high frequency of tantrums and refusing to sleep (Schieve et al.,2007).

It appears that mothers, as compared to fathers, experience greater effects of having a child with ASD. While fathers say that they are not affected personally by the challenges present due to the disorder, they do recognize the consequences of the disorder on the family (Gray, 2003). This feeling may be because fathers focus on their perceived duties to coach the child to achieve financial independence. This, however, is not the case for mothers, who carry the weight of the responsibilities of the child with ASD. Consequently, this leads to mothers often seeking medication and/or psychotherapy due to the extreme levels of chronic stress and exhaustion (Gray, 2003).

Studies have concluded that parents of children with ASD face consistently tremendous levels of stress, which are associated in part with managing challenging child behaviors (Estes et al., 2013). Parenting stress is correlated with many troubling consequences for children and families, such as poor quality of life for the family (Lee et al., 2009), parent

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depression (Phetrasuwan & Shandor Miles, 2009), and decreased effectiveness of early intervention on child behavior and social skills (Osborne et al., 2008). The amount of stress that parents will face is dependent on their resources, including social support, coping mechanisms, attitudes regarding interventions and the level of ASD symptomatology (Hastings, 2001).

1.2.7 Early intervention for children with ASD

Early intervention can mitigate some of the burdens of managing life with a child affected by ASD. It has been found that early intervention programs for children with ASD can reduce parent stress (Baker-Ericzen et al., 2005). These interventions usually include an emphasis on creating protective factors, including positive parent-child synergy, social and emotional support, known routines, proactive discipline, and working alongside schools and teachers in order to ensure the child's academic success. Parent training has been proposed as a potentially effective method to deliver treatment to children with ASD (Matson et al., 2009). Parental training, in which the parent is instructed to use behavioral management techniques directly with their child, has been widely received as a critical part of effective ASD intervention (Maglione et al., 2012). However, a recent systematic review found that despite the evidence of its critical role, very few ASD interventions explicitly address parent and family training and outcomes (Dababnah and Parish, 2015). Clearly, while there is a vital need for early interventions focusing on caretakers of children with ASD, the services are simply not widely available.

There are some rehabilitation centers for autistic children, which are scattered in the West Bank and East Jerusalem, such as Tomorrow Center for Autism/Jenin, The Jerusalem Princess Basma Centre/East Jerusalem, Hebron house for the care of autistic children/ Hebron, Friends of Autistic Children Society/Ramallah, and one of the main providers of rehabilitative services in West Bank of Palestine for children with ASD, An-Najah Child Institute (ACI)/ Nablus. ACI offers a wide spectrum of rehabilitation support service for ASD children and their families (ACI, 2015).

1.2.8 The Incredible Years program (IYP)

The Incredible Years parenting program fits the benchmarks for a wellestablished, evidence-based intervention (Menting, Orobio de Castro, & Matthys, 2013). Dr. Carolyn Webster-Stratton, Professor Emeritus at the University of Washington, is the creator of the Incredible Years Curriculum. The Incredible Years Program has been delivered in more than twenty four countries and the program interventions translated into many languages other than English including Chinese, Danish, Dutch, Finnish, French, Norwegian, Portuguese, Russian, Spanish, and Swedish (Incredible Years, 2013).

The Incredible Years Program is a group-based early intervention curriculum which provides a number of developmentally-fitting interventions for parents, children, and teachers tackling problematic behaviors (Webster-Stratton, 2011). The goals of the Incredible Years Program for parents include increased parent communication, problemsolving, and stress management, all of which are critically important in managing children affected with ASD. Building a strong foundation early on allows skills to develop in the areas of problem solving, communicating effectively, and navigating healthcare and special education systems which can reduce stress, which parents might experience in the future (Dababnah and Parish, 2014).

The main component of the IYP is the use of video clips of modeled parenting scenarios. The videos stimulate the targeted parent group dialogue, problem solving and collective learning by portraying social learning and child development interactions. This program method of support is created in order to limit the parent isolation risk factor by facilitating parent support networks (Webster-Stratton, 2006).

The Incredible Years series has decades of evidence pointing to improved levels of parent stress, depression, and coping skills, as well as decreased unfavorable child results like aggressive behavior, in a wide array of diverse populations (Jones et al., 2007; Kim et al., 2008; Reid et al., 2001). IYP has been popular in the United Kingdom (Melhuish, 2007) and Sweden (Axberg, 2007). Its affordability studies in England have resulted in successful outcomes (Edwards et al., 2007). Past research has successfully piloted The Incredible Years Parent Program with parents raising children with ASD in the United States (Dababnah and Parish, 2014; Dababnah and Parish, 2015).

The bulk of the ASD literature is based on Western populations; however, social isolation of individuals with disabilities and their families is a global problem (Ghosh et al., 2016). Palestinian families of children with ASD face considerable stigma and discrimination, leading some parents to develop stress, depression, withdraw socially, or deny their child's diagnosis (Dababnah and Parish, 2013). The small body of literature on ASD in the West Bank suggests that the need for family-centered services is urgent.

The focus of the current study is on the Incredible Years Parent Program – ASD Spectrum or Language Delays (IY-ASD) the content and objectives are listed in (Appendix 2) and its application in the Palestinian context.

Regarding the theoretical foundation, various IYP principles augment the program's cultural sensitivity: (a) IYP utilizes group format that reiterates parents' common issues instead of individual challenges, (b) it explicitly respects cultural differences (e.g., parent groups set their own guidelines, parents set their own weekly goals), and (c) it seeks and handles potential cultural obstacles to the intervention plans (e.g., discussing obstacles to child-directed play or praise is part of the program (Webster-Stratton, 2009). One aim of the curriculum is to assert the diversity through multi-cultural cooperation to facilitate the incredible years parent programs (Incredible Years, 2009).

To address the specific demands of parents raising children with ASD, a new IY program was developed, IY for Preschool Children on the ASD Spectrum or with Language Delays (IY-ASD) (Webster-Stratton, 2015). The IY-ASD is designed to complement the IY Preschool Basic Parent Program (Basic IY) for groups where children (2 to 5 years) have a mix of behavior and developmental problems. Alternatively, IY-ASD can be used independently in a 13 to 14 session, two hour weekly course for a group of 8 to 10 parents with children who have ASD. In order to deliver IY-ASD, group leaders must first be trained in basic IY and have experience with this program. They then participate in two additional days of training and practice with IY-ASD. It is recommended that group leaders have graduate degrees in psychology, social work, or education. Effective IY-ASD group leaders must also possess a broad understanding of ASD, including its symptoms and intervention approaches, as well as have experience working with children with ASD and their families. There are eight units: (1) child directed narrated play; (2) pre-academic and persistence coaching; (3) social coaching; (4) emotion coaching; (5) developing imagination through pretend play; (6) motivating children's self-regulation skills; (7) using recognition and rewards to motivate children; and (8) useful limit setting and behavior management. The program uses video vignettes, which include examples of parents and children on the ASD spectrum, role play to practice skills, and home activities (Webster-Stratton, 2015).

Chapter 2

2.1 Literature Review

Considering that this study is the first to investigate the efficacy of IY-ASD among Palestinian parents, and it is the first, internationally, to include a fathers only group, in addition to a mothers group, this chapter reviews and analyzes the available literature on parents of children with ASD. The research will be fully explained in the matrix literature of the study, see table 1.

Autism Spectrum Disorder (ASD) is a neurodevelopmental issue characterized by challenges in social communication (both verbal and non-verbal), limited interests and repetitive behaviors (American Psychiatric Association, 2013).

According to Centers for Disease Control and Prevention (CDC) predictions, about 1 in 68 children have been identified to have ASD. ASD occurs within all racial, ethnic, and socioeconomic groups. It is about 4.5 times more common among boys (1 in 42) than among girls (1 in189) (Centers for Disease Control and Prevention, 2014).

ASD children socialize poorly, experience censure and harassment, and often self- isolate (Bonis & Sawin, 2016). A child who has the signs of ASD (difficulty with communication/language and social norms, and repetitive habits and routines) is facing challenges to express his /her needs to others. Therefore, the prevalence of anxiety or related behaviors such as aggression or conduct disorders among ASD children is high (Kanne & Mazurek, 2011). These behavioral conditions result in increased stress levels, anxiety and depression for parents. How communities react to children with ASD and the minimal amount of support available for caretaker respite often results in parental stress (Benson & Dewey, 2008).

Research has commonly concentrated on how parental stress reflects on the child. The link between ASD behaviors and parent stress is clear (Tomanik, Harris, & Hawkins, 2004). Parents of children with ASD have elevated amounts of parenting stress(Koegel et al., 1992). A lot of research notes the greater levels of stress in parents of children with ASD in relation to parents of typically developing children or parents of children with other disabilities (Reed, Picton, Grainger, & Osborne, 2016). More than 80% of two million parents of children with ASD said that they have been "stressed beyond their personal limits" (Bonis & Sawin, 2016).

Families with children with ASD increasingly face more economic hardships, which are particularly pervasive, such as decreased family incomes, significantly increased expenses, and increased work-related burdens than those families with children without ASDs (Montes & Halterman, 2008). How parents handle the expected stress will decide how much stress they will face. Support, resources and attitudes regarding the efficacy of the interventions also plays a role (Hastings & Johnson, 2001).

Parent educational programs have decreased child behavior issues and increased parental capacity and positive parent-child relationships (Webster-Stratton & Hammond, 1997). Early interventions which target joint attention, social play, parental responsiveness, and imitation skills can help to develop communication abilities in children with ASD (Kasari, Paparella, Freeman, & Jahromi, 2008; Poon, Watson, Baranek, & Poe, 2012; Siller & Sigman, 2008). Parent training has been proposed as a potentially effective method to deliver treatment to children with ASD (Matson, Mahan, & Matson, 2009).

The Incredible Years Program has seen positive results in a randomized controlled trial with parents of preschoolers with developmental disabilities (McIntyre, 2008). The theoretical framework of IYP is based on attachment theories (Ainsworth, 1974; Bowlby, 1988), social learning theory (Patterson, 1995), social cognitive theory (Bandura, 1986), and developmental stage theories (Piaget, 1962).

Decades of evidence shows that the Incredible Years Program has positive outcomes on parent stress, depression, coping strategies, reducing parent burden, and limiting unwanted child outcomes, including combative behavior, in a wide scope of diverse populations (Dababnah and Parish, 2014). McIntyre 2008, found a reduction in child behavior issues in the study sample group receiving IY (McIntyre, 2008).

The essence of the IYP is video clips exhibiting positive parenting behaviors (over 300 clips, lasting about 1–3 minutes) shared by a facilitator in groups of 8–12 parents. The videos exhibit social learning and child development principles and stimulate the targeted discussions, problem

solving, and team learning. IYP was also created to assist parents in comprehending standard child development and temperaments (Webster-Stratton and Reid, 2010).

Findings by Hutchings et al., 2007, showed that compared with the control group, there was an increase in positive parenting for parents who attended a 12 week Incredible Years pre-school basic parent program and a reduction in problem behavior in their children. This study was made up of parents from socially disadvantaged communities from eleven areas in north and mid-Wales (Hutchings et al., 2007).

2.1.1 Parents of children with ASD

Stress is an evident theme in families of children with developmental disorders (Webster, Majnemer, Platt, & Shevell, 2008). Stress levels for parents of children with ASD have been well documented. Studies have repeatedly presented that these parents face increased amount of stress compared to parents of typically developing children (Eisenhower, Baker, & Blacher, 2005).Recent meta-analysis, Hayes and Watson (2012), presented significant combined effect sizes when analyzing stress levels in parents of children with ASD compared to other disorders and disabilities (Eisenhower et al., 2005). Baker and colleagues' (2003) research discovered that the relationship between parenting stress and challenging behavior in children with developmental delays was transactional. Shine and Perry's 2010 research inspected the exchange between intervention gains, adaptive behaviors and parenting stress in families affected by ASD.

There has been limited research regarding the relationship between parenting stress and a child's benefits in intervention. Preliminary study outcomes show the value in considering a parent's experience of stress alongside the child's intervention plan. The researchers discovered an inverse trend between Intensive Behavioral Intervention (IBI) advancements and amount of parental stress. The study also found a sizeable inverse relationship between parental distress and adaptive functioning level (Shine & Perry 2010).

The study by Soltanifar et al (2015) discovered a connection between the severity of the disorder in children and the level of parental stress for fathers, suggesting that fathers of children with more severe developmental disorders are exposed to greater stress levels. Study outcomes also presented major contrasts between fathers and mothers in the three Parenting Stress Index (PSI) subscales, including the PSI-child domain score; with mothers reporting significantly more stress than fathers (Soltanifar et al., 2015).

Benson and Dewey, 2008 inspected reports of parents of children with ASD in respect to the resources they felt most valuable for decreasing stress. The result was that on Total PSI Stress, the Child domain, the Parent Domain and most of the subscales, the parents of children with ASD stated much higher levels of stress as compared to the normative sample. Parents were classified by high stress or low stress into groups set on the PSI Total Stress cutoff mark. Group variance in the mean rankings for parents in the high and low stress groups showed that there were stark differences in the

need for support and the need for agency information or cooperation. Parents categorized into the low stress group ranked the urgency for agency information higher and the need for support lower than high stress parents (Benson and Dewey, 2008).

In order to analyze the connections between parenting a child with autism and stress indicators, Schieve et al (2007) compared parents of children with autism to parents of children with specialized health care needs such as emotional, developmental, or behavioral issues, besides autism, that necessitated treatment and children who have special health care needs without developmental problems to children without special health care needs. The parents of children with autism and recent special service needs were considerably more likely to deal with higher aggravation compared to parents of children with recent special service needs. Contrarily, parents of children with autism who did not have recent special service needs were not more likely to have increased aggravation than parents of children with other developmental problems. (Schieve, Blumberg, Rice, Visser, & Boyle, 2007)

To investigate the impact of diagnostic practices on mothers of children recently diagnosed with ASD, Reed et al (2016) observed the effect of various facets of the diagnosis process on the self-recorded mental health of mothers of children being diagnosed with ASD. The level of the children's ASD and their intellectual capabilities was assessed within twelve months of the diagnosis. Mothers undertook a psychometric assessment battery including the Hospital Anxiety and Depression Scale, General Health Questionnaire, and Questionnaire on Resources and Stress. The actual time from first reporting a challenge to receiving a diagnosis, and the pace of the diagnostic process from first to last appointment, were both negatively correlated to parenting stress. In contrast, mothers' opinions of the speed and assistance of the process were negatively related to levels of anxiety and depression (Reed et al., 2016)

A study by Fewster and Gurayah 2015, explored the experiences and coping mechanisms of parents of children with ASD in South Africa. The results showed that when practitioners administer timely psychosocial support they can contribute a great deal in the lives of parents who have vulnerabilities (Fewster & Gurayah, 2015)

Eikeseth et al, in his study, "Stress in parents of children with autism participating in early and intensive behavioral intervention," investigated stress levels of 43 parents prior to and one year into the Early and Intensive Behavioral Intervention (EIBI) treatment. Sixty-six parents (33 fathers and 33 mothers) began the intervention and twenty-two mothers and 21 fathers concluded the post assessment. All 23 children, four of which were female, whom met the independent diagnosis of autism, according to the International Statistical Classification of Diseases and Related Health Problems 10th Revision (ICD-10) criteria, took part. Parents were evaluated according to the Parenting Stress Index (PSI 3rd ed) initially, as well as after one year of EIBI, the children's adaptive skills were evaluated using the Vineland Adaptive Behavior Scales. While no connections were found between the initial parental stress evaluations and increases in

children's intellectual or adaptive capabilities, other findings proved positive. Mothers and fathers both stated high parental stress at intake; however, after one year of treatment, mothers reported a lower level of stress. Throughout the course of the program fathers' stress levels did not change much (Eikeseth, Klintwall, Hayward, & Gale, 2015).

Shine and Perry examined the stress levels of 151 mothers of children with autism when their children were starting Intensive Behavioral Intervention (IBI), in relationship to the level of progress and outcomes for the children, and also when leaving the IBI program. PSI change scores for the three outcome/progress periods were not compelling, although there seemed to be a pattern within the variables in the direction anticipated. Children with lower outcomes at Time 2 had parents with relatively increased parental stress scores in comparison to the moderate outcome groups. The moderate outcome group stress rated a bit higher than the good outcome group. However, no statistical connection appeared between parental distress and child achievements in the IBI (Shine and Perry, 2010).

2.1.2 ASD Rehabilitation: Early intervention

Study results regarding the influences of a child's day to day living skills on the amount of parenting stress have been varied. Estes and colleagues (2009) showed that once challenging behaviors were considered, day to day living skills also stopped adding to increased levels of parenting stress (Estes et al., 2009). Yet, Green and Carter (2011) showed that the connection between day to day living skills and parenting stress increased as time passed (Green and Carter 2011).

The study of Aldred et al (2004) experimented with a new theoretical social communication program focused on parental communication. The study sample consisted of 14 children diagnosed with ASD (Median age, 48 months, 13 male) in the treatment group and 14 children (Median age 51 months, 12 male) in the control group. All parents were Caucasian, excluding two mothers of African Caribbean descent. The Outcome Measures were the Autism Diagnostic Observation Schedule (ADOS), PSI, and the Vineland Adaptive Behavior Scales. The results of the study showed significant improvement in the active treatment sample as compared with controls on the initial outcome measure ADOS total score, specifically in reciprocal social behaviors, and on secondary measures of expressive language, communicative initiation and parent-child synergy (Aldred et al., 2004).

While the study of Drew et al. (2002) about parent training intervention for autistic pre-school children aimed to report results with a spotlight on the development of joint attention abilities and joint action habits, there were some findings that the parents in the training group advanced in language development compared to the local services group. However, due to other responsibilities (jobs, other children, family) a large number of parents stated that it was a challenge to make use of the suggested activities as carefully as they would like (Drew et al., 2002).

Research by Eapen et al 2013, ascertained the effectiveness of early intervention programs for preschool-aged children with ASD. Here, parents shared that their child's receptive communication skills and motor skills improved and that there was a great reduction in autism-limited features. Statistically compelling advancements in general intellectual functioning, children's abilities on the visual reception, receptive language and expressive language domains were found (Eapen, Crncec, & Walter, 2013).

A Swedish research by Fernell et al (2011) was conducted to evaluate ASD outcomes in a large naturalistic study. For two years, 208 children, ages 20-54 months, with a clinical diagnosis of ASD received intervention and observed prospectively in a naturalistic method. The children were cognitive categorized into three groups: learning disabilities. developmental delays, and normal intellectual functioning. The research group was made unaware of the chosen interventions and intensity provided. Vineland composite scores increased over the two year period with192 children having a complete Vineland composite score result. This increase was accounted for by the subgroup with normal cognitive functioning. No major variation was found between the intensive and nonintensive groups. Individual differences were notable, but no participants were free of disorder challenges during the post assessment (Fernell et al., 2011).

In 2016, Bello-Mojeed et al, assessed the possibilities surrounding parentmediated behavioral intervention for difficult behavior in children with ASD in Nigeria. The study reported, in a pre-post intervention pilot study which included 20 mothers of children with DSM-5 diagnosis of ASD, that both Aggression towards a Person and Property (APP) and Self Injurious Behavior (SIB) post intervention scores, in all four domains of the APP and SIB, were greatly reduced in relation to pre-intervention scores. Mother's greatly benefited through education and 75% of the participants were very satisfied, 100 % stated that they would suggest the intervention to others who have children with ASD (Bello-Mojeed, Ani, Lagunju, & Omigbodun, 2016)

2.1.3 Validity of the IYP

For adapting Webster-Stratton's IY parent training to families of children with developmental delays, in order to provide a base for the feasibility of the developmental disabilities (DD), adaptations were made. The intervention included ages 2-5; twenty-five families with children with developmental delays participated. The intervention included 12 weekly meetings lasting 2.5 hours. Subjects included were developmentally appropriate play, praise, recognition, boundary setting and dealing with difficult behavior. Outcomes included parents seeing positive results for the child and efficacy in limiting harmful parent and child behavior (McIntyre, 2008).

Dababnah and Parish's (2014) aim was to report on the outcomes, acceptability and results of an assessment from an empirically backed intervention. For 15 weeks, two teams of parents (N=17) were involved in a mixed methods intervention, without a comparison group. Data was

gathered pre, post and weekly. Moderate attrition occurred while acceptability and participation were high. Post intervention found that parent stress had vastly lowered. Parents valued the play –based methods, social support and peer education. Some challenges however, included initiating intervention methods, such as time-out for noncompliance for children with sensory or self-regulation difficulties (Dababnah and Parish, 2014).

To compare the parenting behaviors and their effect on children in families who reported a history of child mistreatment to families who did not, Hurlburt et al 2013, stated that parenting behaviors and child behavior, evaluated by blinded raters by in-home observations and self-reported surveys, resulted in developments along many parenting capacities and in the traits of observed child behavior. Program outcomes were alike for parents who did state a history of child mistreatment and those who did not (Hurlburt, Nguyen, Reid, Webster-Stratton, & Zhang, 2013).

In the Incredible Years application in Ireland, the investigation aimed to examine the specific components which affect the sensed success of the intervention in the long term, as well as how the parent's experiences transform. It was reported that the program had a compelling positive effect on parental wellbeing and psychosocial capabilities in the long term. Parents improved stress levels and psychological anxiety revealing potential long term positive effects on their psychosocial capabilities. Further evidence of program success was the continuous positive effect on parenting abilities found in the data between the initial assessment and the post assessment at 12 months (McGilloway et al, 2012).

In New Zealand, Fergusson et al 2009 conducted an initial assessment of the efficacy and cultural standing of the Incredible Years Basic Parent Program (IYBPP). Fergusson et al accumulated research from 214 parents who participated in at least nine IYBPP sessions. Pre–post assessments signified a notable change in behavior and social competence levels. The program was found highly satisfactory by the parent participants (Fergusson, Stanley, & Horwood, 2009).

To evaluate the use of social services by parents and their costs, post IYBP intervention, in the UK, parents with children liable to behavior disorders were randomized to participate in the program or to a wait-list control group. Beck Depression Inventory-Second Edition (BDI II) total and BDI II clinical depression cut-off totals were compared to the amount of usage and expenditure of parents' social services access, at baseline, six, twelve and eighteen months into the program for the intervention group as well as the control group. Participants in the Intervention group who scored above the clinical cut-off on the BDI II at baseline accessed more health and social care services than those who scored below at baseline, six and eighteen months. Only in the intervention group was there evidence of far less use of social services (Charles, Bywater, Edwards, Hutchings, & Zou, 2013)

Authors	Study Title	Study	Study Method	Study Findings
and Date	-	Purpose	-	
(Aldred,	A new social	To evaluate a	The sample	There was a
Green, &	communicati	new,	consisted of 14	significant
Adams,	on	theoretically	children	improvement in the
2004)	intervention	based social	diagnosed with	active treatment
	for children	communicati	ASD., All parents	group on the
	with autism:	on	Caucasian, except	ADOS, especially
	Pilot	intervention	for 2, The	in reciprocal social
	randomized	focused on	Outcome	interactionand on
	controlled	parental	Measures were,	communicative
	treatment	communicati	the Autism	initiation,
	study	on in a	Diagnostic	secondary
	suggesting	randomized	Observation	measures of
	effectiveness	design	Schedule	expressive
		against	(ADOS), PSI and	language,
		routine care	the Vineland	communicative
		alone.	Adaptive	initiation and
			Behavior Scales.	parent-child
				interaction.
(Benson	Parental	To evaluate	Included 55	Compared to the
and	Stress and	parent of	biological parents	normative group,
Dewey.	Needs in	children with	of children with	parents of children
2008)	Families of	ASD	ASD, 20 of which	with ASD had
	Children with	requested	were fathers.	much higher levels
	Autism	needs in	Measures	of stress. Variances
	Spectrum	respect to	included the	in support
	Disorder	essential	Third Edition	necessary was
		stress	(PSI),	evident $p < .05$, and
		minimization	Resources/Needs	as well as the need
		•	Inventory	for agency
			(developed by the	information or
			authors), and the	cooperation, $p <$
			Gilliam Autism	.05.
			Rating Scale	
			(GARS).	D
(Bello-	Feasibility of	To assessed	A pilot study	Post assessment
Mojeed et	parent-	the teasibility	including 20	results evidenced a
al., 2016)	mediated	of parent-	mothers of	reduction in all
	benavioral	inediated	children with	tour domains of the
	intervention	benavioral	DSIVI-5 diagnosis	APP and SIB.
	for benavioral	intervention	of ASD. All the	wothers greatly
	problems in	for difficult	motners	increased their
	children with	benavior in	concluded the	education
	Autism	children with	live session	regarding program
	Spectrum	ASD 1n	weekly group-	content. All of the
	Disorder in	Nigeria.	based program set	parents reported

 Table 1 Matrix-literatures of the study.

Authors	Study Title	Study	Study Method	Study Findings
and Date	·	Purpose	·	• 0
Authors and Date	Study TitleNigeria:apilot studyStudy studyStudy studyStudy on self-perceivedhealthofparentsofchildren withautismspectrumdisordersandparentsofnon-disabledchildreninCroatia	Study PurposePurposeToassessself- perceived healthperceived 	Study Methodby the program manual. All children received a Functional Behavioral Analysis and an individualized behavior management strategy. The major outcome evaluator was the Aggression and Self Injury Questionnaire, which determined Aggression towards a Person and Property (APP) and Self Injurious Behavior (SIB).A total of 350 parents participated in the study: 178 parents of children with ASD (71% response rate) and 172 parents of non-disabled children matched by age, education, and place of living. Parents' self-perceived health was assessed using the Croatian version of the health status questionnaire SF- 36.	Study Findings that they would advise friends with children with challenging behaviors to participate and 75 % of parents reported being very satisfied. The study found that parents of children with ASD reported significantly more self-perceived health problems than the control group parents, Eleven percent of parents in the ASD group reported significantly more self-perceived health problems than the control group parents, Eleven percent of parents in the ASD group reported sychological disorders, compared to 4.3% of parents in the control group. Stress, anxiety and depression were the primary psychological disorders reported in both groups
				(accounting for over 80% of
				reported

Authors	Study Title	Study	Study Method	Study Findings
and Date		Purpose		
				psychological disorders).
(Charles et al., 2013)	Parental depression and child conduct problems: evaluation of parental service use and associated costs after attending the Incredible Years Basic Parenting Program	To understand if an above clinical cut- off score on the Beck Depression Inventory II (BDI II) is linked to a particular level of parental health and social care service access in high-risk families participating in the IY Basic	Using a subsample (N = 119) from the first U.K. community- based randomized controlled trial of the 12-week IY Basic Program (N = 153), parents with children at risk of developing conduct disorder were randomized to participate in the program or to a waiting-list control group. BDI II total and BDI II clinical depression cut-off scores were used.	The Intervention group parents utilized social services much less than the others. Parents from that group which scored above the clinical cut-off on the BDI II at baseline utilized more health and social care services compared to parents who scored below at baseline.
(Dababna h and Parish. 2014)	Incredible Years Program Tailored to Parents of Preschoolers With Autism: Pilot Results	Program. Determine the acceptapility n and results from an empirically supported practice.	For 15 weeks, two groups of parents (N=17) were included in a mixed approach trial without a control group. Measures: Quantitative data incorporated a pre/post parent stress questionnaire and a weekly acceptability questionnaire.	Acceptability and attendance were high, attrition modest. Parents appreciated the play-based methods of the program, as well as the social support and peer learning. Post intervention parent stress lowered significantly. Parents reported challenges in utilizing intervention tactics, like time outs for misbehavior, especially in regards to children with sensory or

Authors	Study Title	Study	Study Method	Study Findings
and Date		Purpose		
				self-regulation difficulties.
(Drew et al., 2002)	A pilot randomized control trial of a parent training intervention for pre-school children with autism Preliminary findings and methodologic al challenges	To report the findings of this study, targeting the development of joint attention abilities and joint action habits.	Selected using the CHAT screen, families of 24 children who met the ICD-10 criteria for childhood autism (mean age = 23 months) were randomized to the parent training group or to local services only. Study included a 12 month post evaluation.	The parent training group appeared to have made more gains in language development compared to the local services group. However, numerous parents stated the challenges associated with consistently utilizing what they had learned, due to busy schedules.
(Eapen et al., 2013)	Clinical outcomes of an early intervention program for preschool children with Autism Spectrum Disorder in a community group setting.	Determine efficacy of early intervention for preschool- aged children with ASD.	Interventions were about ten months and included 26 children. Participants were engaged in individualized, weekly sessions and 15–20 hours of group-based sessions. Pre and post analysis including the Mullen Scales of Early Learning (MSEL) and two parent-report questionnaires - the Social Communication Questionnaire (SCQ) and Vineland Adaptive Behaviors Scales– Second Edition (VABS-II) were conducted	Parents shared that there were major gains in their child's receptive communication and motor skills on the VABS-II, and a substantial decline in autism-specific features on the SCQ. Major post- intervention gains were found in children's abilities on the visual reception, receptive language and expressive language domains of the MSEL as well as their general intellectual capabilities, as assessed by standardized developmental quotients.
(Eikeseth	Stress in	Assess Early	Parents (22	While no

Authors	Study Title	Study	Study Method	Study Findings
and Date	v	Purpose	J.	v 8
et al., 2015)	parents of children with autism participating in early and intensive behavioral intervention	and Intensive Behavioral Intervention (EIBI) treatment's effect on parent stress.	mothers, 21 fathers) were evaluated using the Parenting Stress Index (PSI 3rd ed.) initially and after one year of EIBI. Children's adaptive abilities were evaluated with the Vineland Adaptive Behavior Scales The 23 children with autism met the autism criteria according to the ICD-10.	connections were found between intake parental stress and gains in children's intellectual or adaptive capabilities, findings shared that mother's stress levels declined one year into the program. Mothers and fathers stated high parental stress initially, but Fathers' stress levels did not change much throughout the intervention.
(Fergusso n et al., 2009)	Preliminary Data on the Efficacy of the Incredible Years Basic Parent Program in New Zealand	Examine initial effectiveness and cultural acceptability of the Incredible Years Basic Parent Program (IYBPP).	Assessment methods included pre/post test scores on the Eyberg intensity and problem scales; pre/post test scores on the parent rendition of the child Social Competence Scale; and parent satisfaction ratings. Parents numbered 214 and participated in nine sessions.	Participants (Maori and non-Maori) were pleased with the program. Pre/post-test comparisons showed measurable positive change in behavior and social competence scores (p<0.001). Effect sizes ranged from 0.50 to 0.77. Effects were similar for Maori and non-Maori subjects.
(Fernell et al., 2011)	Early intervention in 208 Swedish preschoolers with autism spectrum disorder. A prospective naturalistic	To assess ASD outcome in a large naturalistic study.	For two years, 208 children, ages 20–54 months, with a clinical diagnosis of ASD were enrolled in this program and observed by naturalistic means.	While none of the participants left the program free of challenges, the Vineland composite scores did rise over the span of the program. This change was

Authors	Study Title	Study	Study Method	Study Findings
and Date		Purpose		
(Fewster	study. First port of	To explore	Participants were categorized into the following groups: learning disability, developmental delay, and typical intellectual functioning. Researchers were blind to the variety and intensity of interventions provided, 192 children received Vineland composite score results.	accounted for by the group with normal cognitive functioning. A compelling difference between the intensive and non-intensive groups was not found. Individual differences were notable.
& Guravah	call: facing	the lives and	parents of children with	number of themes throughout parents'
,2015)	autism	mechanisms	ASD. Information	experiences and
,/	spectrum	of parents of	was gathered by	coping methods.
	disorder	children with	semi-structured	"A road map to
		ASD from a	interviews.	coping with ASD"
		South A frican	recorded and	to guide service
		perspective.	transcribed	providers in
		1 1	verbatim using false names for	assisting parents of children with ASD.
			the parents. To	By presenting
			categorize the	prompt
			themes thematic	interventions, care takers are able to
			analysis was	contribute greatly
			utilized.	to the experiences
				of susceptible
(Hurlburt	Efficacy of	To compare	Blind observers	parents.
et al	the Incredible	whether	evaluated families	effected parents
2013)	Years group	parenting	of 481 children.	who did and did
	parent	practices and	Through	not have child
	program with	child	questionnaires	mistreatment in
	families in	behavioral	and in- home	their past. Child
	Head Start	outcomes	observations, they	conduct and
	reported a	between	parenting	showed positive

Authors	Study Title	Study	Study Method	Study Findings
and Date		Purpose	•	, C
	history of child maltreatment.	families with child mistreatment in their past and families without	practices and child behavior.	change post intervention.
(McIntyre, 2008)	Adapting Webster- Stratton's incredible years parent training for children with developmenta 1 delay: findings from a treatment group only study	To provide data for the feasibility of the development al disabilities (DD) modifications applied to the Incredible Years Parent Training (IYPT).	Program was made up of 12, 2.5 hour long weekly meetings and included 25 families with 2–5 year old children with developmental delays. Sessions included developmentally appropriate play, praise, ,, restrictions and dealing with difficult behavior.	Intervention appeared to reduce unwanted parent/child interaction and building parental attitudes towards child positive impact.
(Reed et al., 2016)	Impact of Diagnostic Practices on the Self- Reported Health of Mothers of Recently Diagnosed Children with ASD.	To evaluate the effect of various components of the diagnosis technique on the self- reported mental health of mothers of children going through an ASD diagnosis.	One-hundred- fifty-eight mothers of consequently diagnosed children with ASD did a psychometric assessment battery containing the Hospital Anxiety and Depression Scale, General Health Questionnaire, and a Questionnaire on Resources and Stress. The children's ASD level and intellectual capabilities were evaluated within twelve months of	Parent stress was affected by the diagnostic pace during appointments and the length of time between initially sharing a problem to receiving diagnosis. In contrast, mothers' viewpoints of the pace and assistance during the process were negatively related to levels of stress and distress.

Authors	Study Title	Study	Study Method	Study Findings
and Date		Purpose		
a 1 ·		— 1	the diagnosis.	
Schieve, Blumberg, Rice, Visser, & Boyle, 2007)	The Relationship Between Autism and Parenting Stress	To evaluate the links between parenting an autistic child and stress indicators.	Parents of children reported to have autism were compared with parents of: (1) children with special health care needs other than autism that required treatment (2) children with special health care needs without developmental disorders and (3) children without special health care needs.	The parents of children with autism and recent special service needs were considerably more likely to have more aggravation than parents of children with recent special service needs. Conversely, parents of children with autism but without recent special service needs were not more likely to have high aggravation than parents of children with other developmental issues
Soltanifar et al. (2015)	Comparison of parental stress among mothers and fathers of children with autistic spectrum disorder in Iran	To assess parenting stress among parents of children with ASD and evaluate the relationship between severity of the disorder in children and the level of parental stress.	The level of pervasive developmental disorder in children was evaluated by the Childhood Autism Rating Scale (CARS); parent stress was evaluated by the Parenting Stress Index (PSI). Forty two couples with children diagnosed with ASD were involved.	Results evidenced a positive correlation coefficient between the PSI-parent domain and Childhood Autism Rating Scale- Parent form CARS- P, and between the total stress index and CARS-P. Higher stress levels were found in fathers of children with more severe developmental disorders. There were also major differences between fathers and mothers in the three PSI subscales including PSI-child

Authors and Date	Study Title	Study Purpose	Study Method	Study Findings
				domain score (P $<$ 0.005), PSI-parent domain score (P $<$ 0.005), and the total stress index (P < 0.005). When
				compared to fathers, mothers carried much more stress.

2.1.4 Summary and Implications

This literature review suggests that many randomized controlled trials have found efficacy in parenting interventions for decreasing challenging child behaviors. Many of these interventions have been evaluated for their efficacy in the USA and other Western countries. Due to the recently found value in such programs, interest in evaluating such programs and their effectiveness in Palestine and the Arab word has been on the rise.

Chapter 3 Methodology

3.1 Study Design

An interventional study design was applied using a pre-post test approach. The research was conducted at An-Najah Child Institute (ACI) in Nablus. The ACI operates a program enrolling 18-20 children with ASD annually. In 2016, An-Najah Child Institute hosted two, 39-week long IY-ASD parents groups (*one for females and one for males*). Each group was led by a facilitator, with expertise in IY-ASD. Three questionnaires were collected from each participant before the program began, including the PSI-3, demographic questionnaires, and a behavioral checklist specific to the program which was repeated after each two units. At the end of the program, parents completed the self-administered survey (PSI-3).

3.2 Hypothesis

• Parents of Children Affected by Autism Spectrum Disorder will report lower levels of stress after they complete the IY-ASD.

• There will be observed changes in level of stress, as indicated by a statistical significant difference between pre and post scores on the parent stress at level *p* value of less than .05 significant, with variances between fathers and mothers.

• Parents will improve behavioral management skills and increase their positive behavior toward their children, as indicated by self reported scores on repeated measures, (aggressive and disruptive behaviors, pro- social behavior, physical force and other harsh punishments, academic performance, stress level, praise and positive interactions, confidence level) at the significant level *p* value of less than .05, after participation in the IY-ASD.

• There is a significant difference at a level of *p* value of less than .05 related to parents behavior, with variances between fathers and mothers who completed the IY-ASD.

3.3 Study subjects and selection criteria

The ACI sustains an operative system to diagnose children with ASD. After detailed information is gathered, a team of specialists, including a speech and language pathologist, occupational therapist, clinical psychologist and special educator, meet to decide on the assessment procedures to be completed and then to confirm the diagnosis.

In case of suspected ASD, an Autism Diagnostic Interview – Revised (ADI-r) and Autism Diagnostic Observation Schedule– Second Edition (ADOS-2) will be administrated to the child and the parents. ADI-R is a 100-item developmental interview for the parents and is used to diagnose autism in children and adults with a mental age over two years. ADOS-2 is an observation-based assessment of the socio-communicative behaviors that are often delayed in autism and other pervasive developmental

disorders. ADI-r and ADOS -2 have been translated and validated into Arabic by the publisher (ACI, 2015). The ADOS is an observational scale that does not need translation.

The IY program was instituted with parents whose children are attending the ACI REACH (Rehabilitation, Education and Caring for Hope) Program. The parents whose children attend the ACI REACH program were informed about the Incredible Years program and asked for their participation through written materials and an orientation session. All parents and/or primary caretakers were encouraged to participate if they were at least 18 years old. More than one primary caregiver from each family could potentially participate, but only if they were of mixed gender (e.g., a mother and father). The first 12 female caregivers who completed fill the questionnaire formed the first experimental group. The first 12 males who completed fill the questionnaire formed the second experimental group. The flow of participants through intervention is clarified in figure 1.



Figure 1: Flow of participants through intervention N=number, M=male, F=female .

3.4 Procedures

3.4.1 Research procedures

First, parents of 18 children were invited to participate in the study by an invitation letter, which was sent to them by their child in each child's school bag. Parents were then contacted by phone to confirm their attendance of the assessment session.

Participants attended a data collection session, which included filling in the consent form, a demographic data form, and the Parenting Stress Index Form. The assessment session lasted no more than 90 minutes.

Participants then attended 39 weekly sessions utilizing the Incredible Years Parenting Curriculum for Parents of Children with ASD. Two groups were held, one for female and one for male parents and caretakers. The groups were co-led by an English speaking trainer from the United States who is a masters level clinical social wworker, certified as a trainer in basic IY and with experience in IY-ASD. She possess a broad understanding of ASD, including its symptoms and intervention approaches, as well as experience working with children with ASD and their families. In addition to the cofacilitator who was a native Arabic speaking Palestinian health provider trained the Incredible Years model. The co-facilitator provided simultaneous interpretation of live sessions and written translation of materials and videos. The sessions lasted approximately two hours each. During sessions, participants were taught specific parenting techniques related to ASD. They were encouraged to share about their personal progress using these methods and watched videos of the techniques. The program included written exercises, guided conversations, homework suggestions and role play.

Rules of mutual confidentiality and respect between the participants were established during the first session and reinforced throughout the program.

3.4.2 Intervention procedures

The IY-ASD met for 39 sessions pertaining to the eight units outlined in the curriculum, with coordinated materials and exercises. Each unit contains strategies to address the child's behavior, the parent's interaction with the child, and parent coping strategies. Each session included four parts: (1) participant "check-in," where each parent discussed the previous week's successes and challenges with the group; (2) facilitator instruction of new material, which involved videos and interactive discussions; (3) small and large group practice of skills; and (4) goal setting for the coming week and distribution of homework.

After each two units, a program specific questionnaire was administered to monitor parenting behaviors. A weekly program evaluation was completed to monitor participant comfort with the program. At the completion of the program, participants received a certificate and a final individual data collection session was administered (not more than one hour) to examine treatment effects. Participants were encouraged to give feedback at each session and reminded on a regular basis of the voluntary nature of their participation in the program, as a whole, and in each activity presented.

3.4.3 Summary of the IY-ASD eight unit intervention

Unit I: Child-directed narrated play promotes positive relationships

Parents learn to follow the child's lead and utilize his or her interests during play and to describe and comment on the child's actions, engaging in childdirected play, narrating and imitating play, waiting for the child to indicate choice, considering positioning for face-to-face interaction, encouraging verbal and nonverbal communication, and modeling and prompting play behaviors and language. Parents share in their children's favorite toys and foods, any hyper- or hypo sensitivities (e.g., sights, sounds, touch and smells), and the kinds of physical or sensory routines they enjoy (e.g., running, jumping, hide-and-seek games, songs).

Unit II: Pre-academic and persistence coaching promotes language development and school readiness

Parents learn to describe pre-academic concepts such as colors, shapes, object names, numbers and positions during play. The use of visual supports is encouraged for all children to support both expressive and receptive language development. Parents name the child's internal state when s/he is being patient, trying again, staying calm, concentrating, persisting with a challenging task, or trying to engage in joint play. Parents explore how to support their children to persevere with tasks such as brushing their teeth, getting dressed or doing a puzzle.

Unit III: Social coaching promotes friendship skills

In this section, parents learn to use reading, gesturing, prompting and modeling to promote turn-taking skills, increase children's enjoyment of social interactions through shared sensory activities (e.g., dancing, bouncing on a trampoline, swinging), and prompting and enhancing faceto-face joint attention. They learn how to use social coaching during play interactions with their child to encourage critical social skills. Parents learn how to follow the child's lead, and praise social skills such as getting dressed for school and toilet training. Parents learn the importance of drawing attention to their child's feelings by using emotion coaching. Parents start this coaching by naming their child's emotions at the time their child is experiencing them, they learn the importance of describing and naming the feelings of book characters to help their children learn feeling words. Parents learn to use social coaching, in combination with emotion coaching, and take turns when reading, to point out a picture and use partial prompts, by pausing to let the child fill in the answer. Physical games (e.g., water play, spinning) can be used to motivate a child's feeling vocabulary.

Unit V: Pretend play promotes empathy and social skills

Parents learn how to encourage their children's imaginary play skills; group leaders help the parents discuss how to encourage empathy, emotion language, and social behaviors such as helping, sharing, waiting and trading through pretend play. The use of puppets, dolls, or other figures is another effective way parents can encourage children's imaginary play. Parents also structure interactions that involve nonverbal responses from their child (e.g., "Would you like to shake the puppet's hand?").

Unit VI: Promoting children's self-regulation skills

In Part 6, parents participate in scenarios designed to help children use visual tools, such as "calm down thermometer," and practice self-calming strategies, such as positive imagery, self-talk words, and deep breathing.

For example, parents view a video vignette where a father is helping his child learn about breathing by practicing taking big breaths while visualizing smelling a flower and blowing out a candle.

Unit VII: Using praise and rewards to motivate children.

In this part of the program, parents learn to directly and clearly praise children for positive behaviors. Parents discuss methods to enhance praise with a warm tone or enthusiasm, smiles, eye contact, as well as gestures or specific language. For example, one of the vignettes shows a boy who has been rather aggressive with his cat. His parents give him attention and label praise whenever he is gentle with his cat in order to teach him what it means to be gentle. They also learn how to add to the impact of praise by pairing praise with tangible rewards such as their child's favorite stickers, bubbles, or special food items. The group leader helps parents learn how to praise and reward themselves, and other family members, for their parenting efforts.

Unit VIII: Effective limit setting and behavior management.

In the final part of the program, parents learn ways to: give positive, clear, simple and necessary limits or instructions, transition their children to new activities using visual-auditory tools (buzzers, music, sand timers and songs), use command cards, and positive reminders, and utilize proactive discipline approaches such as distractions, redirections, and ignoring selected misbehaviors.
3.5 Outcome measures

In addition to one-time baseline demographic data (age, gender, marital status, number of children in household less than 18 years, number of household members, level of education, employed outside the house, income level, number of children in household with autism, date of child diagnosis, if the child receives ASD medication, date child began treatment, distance from home to the ACI, living place), (Appendix 3), participants also completed the two self-administered surveys, Parenting Stress Index-Arabic edition and the Incredible Years Questionnaire.

3.5.1 Parenting Stress Index, Arabic Edition (PSI)

The PSI (Abidin, 1995) consists of 120 items and takes less than 30 minutes for the parent to complete. The PSI assesses parents' levels of stress using a 5-point Likert-type scale, ranging from strongly agree to strongly disagree. Three PSI scores that are used are the Total Stress score, the Child Domain score (i.e. stress attributed to child characteristics such distractibility/hyperactivity, adaptability, acceptability, demandingness, mood, and reinforces parent) and the Parent Domain score (i.e., stress associated with aspects of functioning in the parental role such as depression, attachment, competence, isolation, role restriction, spouse, and health) The child domain and parent domain are summed to yield a total stress domain (see table 2). Alpha reliability coefficients for the Total Stress scale, the Child Domain and the Parent Domain were found to be .90 or higher (Abidin, 1995). These coefficients represent the stability of scores

from three weeks to one year. The measure is also used to determine clinically significant levels of parent stress, which are based on normative samples reported in the instrument's manual (Dababnah and Parish, 2014) (see table 3). The PSI and the PSI Arabic version has been employed in several studies (Dunn et al, 2001) in examining stress in parents of children with ASD.

Domain	Subdomains	Question	sample of the questions
		number	
Child	Distractibility/hyperactiv	1-9	My child is so active that it exhausts
domain	ity		me.
	Adaptability		My child doesn't seem comfortable
		31-41	when meeting strangers.
	Reinforces parent		6 6
	I I I I I I I I I I I I I I I I I I I		My child smiles at me much less than L
	Demandingness		expected
	Demandinghess	10-15	expected.
	Mood	10 15	My child has had more health problems
	WIOOd		than L avported
	Accontability	42.50	than I expected.
	Acceptability	42-30	My shild generally welves up in a had
			will be the second seco
		16.20	mood.
		16-20	
			My child is not able to do as much as I
			expected.
		21-27	
Parent	Competence	28-30 +	I can't make decisions without help.
Domain		51-60	
	Isolation		I feel alone and without friends.
		91-96	
	Attachment		Sometimes my child dose things that
		61-67	bother me just to be mean.
	Health		
			Physically, I feel good most of the
	Role restriction	97-101	time.
	Depression		Most of my life is spent doing things
	1	68-74	for my child.
	Spouse		
	2poulo		There are quite a few things that bother
		75-83	me about my life
		10 00	nie ussut my me.
			Since having a child my spouse and L
		84-90	don't do as many things together
Total Stress	The child domain and para	nt domain are sur	mmed to vield a total strass
Total Suess	The child domain and pare	nt uomann are sun	nineu to yielu a total stress

Table 2: The PSI Domains.

Validated with Diverse Populations

The PSI has been empirically validated to predict observed parenting behavior, and children's current and future behavioral and emotional adjustment; not only in a variety of U.S. populations, but also in a variety of international populations. The transcultural research has involved populations as diverse as Chinese, Portuguese, French Canadian, Italian, studies Korean. etc. These demonstrated comparable statistical characteristics to those reported in the PSI Manual, suggesting that the PSI is a robust diagnostic measure that maintains its validity with diverse non-English-speaking cultures. This ability to effectively survive translation and demonstrate its usefulness as a diagnostic tool with non-English-speaking populations suggests that it is likely to maintain its validity with a variety of different U.S. populations (PAR, 2012).

The PSI-3 is currently available from the publisher in Arabic, and this measure has been purchased for use by the ACI (Appendix 4).

3.5.2 Incredible Years Questionnaire (IYQ)

The IYQ consists of seven items measuring parents' negative behaviors toward their children with Autism (including, aggressive and disruptive behaviors, pro- social behavior, physical force and other harsh punishments, academic performance, stress level, praise and positive interactions, confidence level) (Appendix 5). The purpose of the questionnaire was to determine what progress was being made towards the targeted outcomes.

Validity of (IYQ)

The IYQ was used by the Holy Child Program (HCP) in Beit Sahour/West Bank, by certified trainers of the Incredible Years Parenting Program in Palestine. The questionnaire was distributed to the mothers in Arabic (Khoury, 2014). It has been approved for the ACI to have the Arabic version (Appendix 6).

3.6 Statistical analysis

Descriptive statistics were used to summarize characteristics of parents and children. Frequencies with percentages were used to summarize categorical variables and mean with standard deviation (SD) for continuous variables. Paired samples t-test was used to examine for any statistically significant differences between baseline and end of intervention PSI levels for parental and child domains and related subdomains. Repeated measures analyses, using a linear, mixed-modeling approach was used to examine for statistically significant relationships between predictor variables and changes in PSI and IYQ levels at baseline, and at the end of the intervention. All tests were two-sided. A *P*-value less than .05 was considered statistically significant. All analyses were conducted using the SPSS computer program (version 23.0).

3.7 Ethical consideration

The study was approved by the Institutional Review Board (IRB) at An-Najah National University before any data was collected. Informed consent forms with full disclosure about the study and its benefits and potential risks was given and explained to all potential participants before the study. Only those that voluntarily registered were included.

Parents voluntary filled out all surveys. A mental health professional was available in case surveys induced distress or discomfort. Parents were already familiar with ACI and attended regular parent sessions related to their child's rehabilitation there.. Group rules regarding confidentiality and respect were established and strictly maintained to insure the comfort of each participant. Two professional facilitators were available and administered each session to insure the comfort of each participant. Participants were able to terminate participation at any time if they were not satisfied with the program. Contacts for professional counseling services were available to all participants if the content or process of participating in the program created distress or discomfort.

Chapter 4

4.1 Results

The description of baseline characteristics of children and their parents is detailed in Table 3. Thirty-one parents met the eligibility criteria and participated in IYP groups, 61.3% were mothers (n=19). Twenty-one parents (68%) completed the program; ten parents withdrew from intervention prior to the completion of the study. Causes of drop out as reported by parents were schedule or job-related conflicts (n=7) and dissatisfaction with the program (n=3). We used the intention to treat analysis for any missing values due to loss to follow up. The missing values were given their group grand mean value to maintain statistical power.

Fifteen parents (48.4%) reported that they reside in an urban center, 12 (38.7%) in a village, and four (12.9%) were living in internally displaced refugee camps. The closest residential distance from ACI was 1 km and the furthest distance was 32 km (M=11.04, SD=10.93). All parents were married (100%; n=31), with ages between 26 and 63 years (M= 42.46, SD=8.83). The ages of their children, when diagnosed with ASD, were from 3 to 11 years (M=5.40, SD=1.90). When the study started, the ages of those children were from 6 to 13 years (M=7.52, SD=1.92). All parents reported having only one child with ASD (M=1, SD=.00). The majority of children were male (74.2%; n=23) yet females were represented (25.8%; n=8). Most children were not taking medication for ASD (71%; n=22) but those who did, received medication 5 times/day maximum (M=1.42,

SD=1.94) for at least two years before beginning the intervention (M=3.19, SD=.84). Parent education levels varied, from elementary school (3.2%; n=1) to master's degree (6.5%; n=2). Most of the parents were employed (64.5%; n=20), with a mean salary of 4033.29 (SD=1520.08) ils. The mean number of sessions attended by parents was 25 (SD=9.08).

Variable	Mean (SD)	Frequency (%)
Age of Parent	42.5 (8.83)	
Age of Child with ASD	7.5 (1.92)	
Gender of Parent		19 (61.3%)
Female		12 (38.7%)
Male		
Gender of Child		
Female		8 (25.8%)
Male		23 (74.2%)
Marital Status		
Married		31 (100%)
Level of Education		
Elementary school		1 (3.2%)
High school or equivalent		8 (25.8%)
Some college(2 years)		5 (16.1%)
Bachelor's degree		15 (88.4%)
Master's degree		2 (6.5%)
Employment Status		
Employed		20 (64.5%)
Unemployed		11 (35.5%)
Salary	4033.29 (1520.08)	
Number of Children with ASD	1 (.00)	
Age of child when diagnosed with ASD	5.4 (1.90)	
Is focus child taking medication		
Yes		9 (29%)
No		22 (71%)
Length of time child taking	1.42(1.94)	
medication/day	2.10 (9.4)	
Length of time in treatment/year	3.19 (.84)	
Residence		15 (40 40/)
		13 (48.4%)
v mage		12(38.7%)
Refugee Camp	11.04 (10.02)	4(12.9%)
Distance from family home to ACI /km	11.04 (10.93)	
Number of sessions attended	25.33 (9.08)	1

Table 3: Baseline Characteristics of Participants .

Note: SD= standard deviation. Continuous variables are summarized by mean (SD) and categorical variables by frequency (%).

4.1.1 Parental Stress Index

Parental Stress Index related to Child Domain

The difference in mean between parental PSI scores related to Child Domain, at baseline and at the end of the intervention is shown in Table 3. On the total Child Domain, at baseline (pre- intervention) parents had a mean PSI of 156.9 (SD= 17.9). By the end of the intervention, parents PSI mean decreased to 145.8 (SD =19.4) with a mean difference of 11.1, which was found to be significant (95% CI 4.3, 17.9) (p = .002).

Scores on four of the six Child Subdomains decreased significantly from pre to post intervention. Mean PSI related to Adaptability decreased from 37 at baseline to 32.9, with mean difference at 4.1 (95% CI 2.0, 6.1) (p < .001 e.g., child who does not seem comfortable when meeting strangers). The Reinforces subdomain parent score decreased from 15.9 at the beginning of intervention to 14.2 at the end, with mean difference at 1.71 (95% CI 0.4, 3.0) (p= .011; e.g., child smiles at parent much less than he expected),also, Mood decreased from 15 at baseline to 13.9 with mean difference at 1.42 (95% .14, 2.69) (p = .030; e.g., child who generally wakes up in a bad mood); and Acceptability score decreased from 25 to 22 with mean difference at 2.96 (95% CI 1.51, 4.42) (p < .001; e.g., child who doesn't seem to learn as quickly as most children). There was no statistically significant difference in mean PSI scores in the scales of Distractibility/ Hyperactivity and Demandingness between the baseline and the end of the intervention (see table 4).

Child Domain	Pre Mean (SD)	Post Mean (SD)	Pre-post 95% CI of the mean of difference the		l of the ice	SE mean of the differenc	p-value (2-tail)
			difference	lower	upper	e	
Distractibility/hyperacti vity	32.2 (3.4)	31.7 (3)	0.51	-0.87	1.9	0.68	0.454
Adaptability	37 (5.08)	32.94 (5.62)	4.06	2.03	6.09	0.99	<.001
Reinforces Parent	15.87 (3.38)	14.16 (3.01)	1.71	0.41	3.00	0.63	0.011
Demandingness	29.13 (5.07)	29.23 (4.17)	-0.097	-2.16	1.97	1.01	0.925
Mood	15.26 (3.51)	13.84 (3.00)	1.42	0.14	2.69	0.62	0.030
Acceptability	25.00 (4.21)	22.03 (3.40)	2.96	1.51	4.42	0.71	< 0.001
Total Child Domain	156.87 (17.97)	145.77 (19.41)	11.09	4.33	17.86	3.31	0.002

SD= Standard deviation; CI= Confidence interval; SE=Standard error

Parental Stress Index related to Parental Domain

The mean parental PSI related to total Parental Domain decreased by nine, which was found to be significant (95% CI 1, 17; p=.030); see table 5. There were no statistically significant differences in mean PSI, within the parental subdomains, except for Depression and Isolation. Mean PSI scores related to Depression reduced by 2.8 (95% CI .80, 4.76) (p = .007; e.g., when a child misbehaves or fusses too much, parent feels responsible, as if he/she didn't do something right). Similarly, PSI score related to Isolation reduced from baseline to post-intervention by 2.7 (95% CI .56, .77) (p =.015; e.g., when parent feels alone and without friends) (Table 5).
 Table 5: Mean differences in parent stress scores pre-post intervention for Parent Domain.

Parent Domain	Pre Mean (SD)	Post Mean (SD)	Pre-post mean of	95% CI of the difference		SE mean of the	<i>p</i> -value (2-tail)
			difference	lower	upper	e	
Competence	34.29 (7.59)	33.29 (6.48)	1.00	-1.80	3.80	1.37	0.473
Attachment	17.89 (2.49)	18.37 (3.06)	-0.47	-1.65	0.70	0.57	0.415
Role Restriction	23.59 (4.61)	23.40 (3.90)	0.19	-1.21	1.60	0.69	0.781
Depression	25.81 (3.98)	23.03 (4.84)	2.78	0.80	4.76	0.97	0.007
Spouse	19.37 (4.69)	18.37 (4.31)	1.00	-1.12	3.13	1.04	0.342
Isolation	18.67 (5.47)	16.00 (2.62)	2.67	0.56	0.77	1.03	0.015
Health	16.19 (4.09)	14.67 (2.79)	1.51	-0.00	3.04	0.47	0.051
Total Parent Domain	156.22 (22.71)	147.27 (21.32)	8.95	0.94	16.96	3.92	0.030

SD= Standard deviation; CI= Confidence interval; SE=Standard error

Parental Stress Index related to Total Stress

Results from the PSI have shown a significant difference in Total Stress from pre to post intervention, the mean score related to total stress decreased from 310 at baseline to 288 post-intervention with a mean difference of 22.1 (95% CI 9, 35.3) (p = .002); see table 6.

Table 6: Mean differences in Parent stress scores pre-post interventionfor Total stress.

Total stress	Pre Mean	Post Mean	Pre-post mean of	95% CI difference	of the	SE mean	p-value (2-tail)
Domain	(SD)	(SD)	the difference	lower	upper	of the differe	
						nce	
Total Stress	310.03 (38.95)	287.90 (37.93)	22.13	8.94	35.31	6.45	0.002

SD= Standard deviation; CI= Confidence interval; SE=Standard error

There were no significant differences in PSI Life Stress score (p = .303) (see table 7).

Table 7: Mean differences in Parent stress scores pre-post interventionfor Life Stress.

Life Stress	Pre mean	Post Mean	Pre-post mean of	95% CI difference	of the	SEmeanofthe	<i>p</i> -value (2-tail)
Domain	(SD)	(SD)	the difference	lower	upper	difference	
Life Stress	10.44 (9.64)	13.20 (10.44)	-2.76	-8.14	2.61	2.63	0.303

SD= Standard deviation; CI= Confidence interval; SE=Standard error

Factors associated with Stress Level difference pre and post intervention in Child Domains

Factors associated with mean difference in PSI for total Child Domain

As shown in table 8, there were no statistically significant associations between predictor variables and mean difference in PSI for the Total Child Domain, including Gender, Level of Education, Employment Status, Gender of child, Use of ASD medication, Residence, Age of Child when diagnosed with ASD, Salary, Age of parent, Age of child, Length of time child taking medication, Length of time in treatment, Distance from ACI, and Number of Sessions Attended.

Variable	Effect on	95% Co	onfidence	<i>p</i> -value
	stress	Interval		-
	score	Lower	Upper	
	Pre-post	Bound	Bound	
Gender				
Female	.25	-21.05	21.51	.980
Male	0^{b}			
Level of education				
Elementary school	-27.93	-96.30	40.44	.391
High school	-13.32	-51.44	24.81	.461
Some college(2y)	-12.95	-55.04	29.14	.515
Bachelor's degree	-22.18	-61.44	17.07	.242
Master's degree	0^{b}			
Employed				
Yes	-10.79	-32.87	11.30	.308
No	0^{b}	•		•
Gender of child				
Female	-2.29	-22.67	18.10	.811
Male	0^{b}			
Is the child receives ASD				
medication				
Yes	-24.70	-76.06	26.65	.315
No	0 ^b		•	
Residence				
City	-9.65	-40.85	21.56	.513
Village	-6.50	-42.16	29.16	.698
Refugee Camp	0 ^b	•	•	
Age of child when diagnosed with	2.27	-12.82	17.36	.749
ASD				
Salary	4.109090E	01	.01	.988
Salar y	-005			
Age of parent	11	-1.68	1.46	.878
Age of child	-1.30	-16.27	13.67	.853
Length of time child taking	5.13	-10.35	20.60	.484
medication				
Length of time in treatment	3.55	-17.39	24.48	.719
Distance from ACI	61	-1.81	.60	.295
Number ofsessions attended	38	-1.91	1.15	.601

 Table 8: Factors associated with mean difference in PSI for total child

 domain.

Note: 0^b=Reference category. CI= Confidence interval

Factors associated with mean difference in PSI for Child Subdomains

Findings indicate that there were no statistically significant effects from the predictor variables on most of PSI for child subdomains, including Acceptability, Adaptability, and Mood (see appendix 7, 8, 9). Only the Reinforces Parent subdomain had some variables that were associated with the mean difference in PSI.

Factors associated with mean difference in PSI for Reinforces Parent

There were no statistically significant relationships between predictor variables and mean differences on the PSI for Reinforces Parent, except for Child Receiving Treatment status, Length of time child taking medication, and Parental Age. Parents of children receiving ASD medications had lower PSI scores than parents of children not receiving ASD medications. From baseline to end of intervention, the score decreased by -7 PSI (95% CI; -13.5, -.5) (p = .038). Increases in number of times child took medication during the day elevated the PSI score pre-post intervention by 2.2 PSI (95% .2, 4) (p = .034). Moreover, increase in parental age by one year was associated with increase in PSI score before/after intervention by 0.2 PSI (95% CI; 0.01, 0.4) (p = .042) see table 9.

Variable	Effect on	95%	Confidence	<i>n</i> -value
v unuble	stress score	Interval	connucince	p value
	Pre-nost	Lowor	Unnor	
	TTC pose	Lower	Bound	
Caralan		Douna	Douna	
Gender	2 40	21	5 10	067
remaie	2.49 0 ^b	21	5.18	.007
	0	•	•	•
Level of education	5.00	10 70	2.44	010
Elementary school	-5.23	-13.70	3.44	.213
High school	-3.18	-8.02	1.65	.177
Some college(2y)	-2.35	-7.69	3	.357
Bachelor's degree	-3.30	-8.29	1.67	.173
Master's degree	0 ^b			
Employed				
Yes	.74	-2.06	3.54	.574
No	0^{b}			
Gender of child				
Female	-1.58	-4.16	1.007	.208
Male	0^{b}			
Is the child receives ASD				
medication				
Yes	-6.97	-13.48	45	.038
No	0^{b}			
Residence	-			
City	-1.60	-5.56	2.36	.397
Village	27	-4.79	4.25	.900
Refugee Camp	0^{b}			
Age of child when diagnosed	40	-2.31	1.52	.659
with ASD				
Salary	.0004	0003	.001	.266
Age of parent	.21	.01	.41	.042
Age of child	.01	-1.89	1.91	.989
Length of time child taking	2.15	.188	4.11	.034
medication	_			
Length of time in treatment	-1.80	-4.46	.85	.165
Distance from ACI	.014	14	.17	.845
Number of sessions attended	.06	14	.25	.546

Table 9: Factors associated with mean difference in PSI for totalReinforces Parent.

Note: 0^b =Reference category. CI= Confidence interval

Factors associated with stress level difference pre and post intervention in parent domains

Factors associated with mean difference in PSI for total parent domain

The only variable that demonstrated a statistically significant relationship with mean difference in PSI for the total Parent Domain was related to the Level of Education. Parents with a Bachelor's degree of education compared to parents with Elementary education had lower PSI scores from baseline to end of intervention by -42.7 PSI (95% CI; -78.4, -6.9) (p = .023) see table 10.

Variable	Effect on stress	95%	Confidence	<i>p</i> -value
	score	Interval		-
	Pre-post	Lower	Upper	
	_	Bound	Bound	
Gender				
Female	11.62	-7.758155	30.989163	.216
Male	0^{b}			
Level of education				
Elementary school	-42.53	-104.83	19.77	.163
High school	-28.72	-63.46	6.02	.097
Some college(2y)	-31.34	-69.69	7.01	.100
Bachelor's degree	-42.67	-78.44	-6.91	.023
Master's degree	0^{b}			
Employed				
Yes	-10.30	-30.43	9.82	.287
No	0^{b}			
Gender of child				
Female	-4.08	-22.66	14.49	.641
Male	0^{b}			
Is the child receives ASD				
medication				
Yes	-22.02	-68.82	24.78	.326
No	0^{b}			
Residence				
City	-14.16	-42.60	14.27	.299
Village	-16.02	-48.51	16.47	.304
Refugee Camp	0^{b}			
Age of child when	-1.47	-15.22	12.28	.820
diagnosed with ASD				
Salary	.001	004	.007	.640
Age of parent	.14	-1.29	1.58	.830
Age of child	2.21	-11.43	15.85	.730
Length of time child	3.91	-10.20	18.01	.557
taking medication				
Length of time in	.78	-18.30	19.86	.930
treatment				
Distance from ACI	23	-1.33	.860	.656
Number ofsessions	86	-2.25	.53	.204
attended				

Table 10: Factors associated with mean difference in PSI for totalParent Domain.

Note: 0^b=Reference category. CI= Confidence interval

Factors associated with mean difference in PSI for parent subdomains

There were no statistically significant relationships between predictor variables and mean difference in PSI for all Parent subdomains including Depression, Health, and Isolation (see appendices 10, 11, 12).

Factors associated with mean difference in PSI for Total Stress

There was no statistically significant associations between predictor variables and mean difference in PSI for Total Stress, including Gender, Level of education, Employed, Gender of child, If the child receives ASD medication, Residence, Age of child when diagnosed with ASD, Salary, Age of parent, Age of child, Length of time child taking medication, Length of time in treatment, Distance from ACI, Number of sessions attended, see appendix 13).

4.1.2 Incredible Years Questionnaire

Social behaviors

While 77.4% (n=24) of parents acknowledged that they noticed positive behaviors in their children at baseline, 100% (n=31) reported that they noticed new, positive social behaviors in their children at the end of the intervention, see table 11.

Table 11: Positive Social Behaviors noticed in Children from pre topost intervention.

Social	Baseline	Time 1	Time 2	Time 3	Time 4
Behaviors	N (%)	N (%)	N (%)	N (%)	N (%)
Yes	24(77.4)	28(90.3)	30(96.8)	31(100)	31(100)
No	7(22.6)	3(9.7)	1(3.2)		

N= number. (%) = percentage of parents noticing Positive Social Behaviors in their children

Academic Performance

Of the 31 parents who completed the IYP, 93.5% (n=29) reported that their children's academic performance improved at the end of the intervention as compared to their academic performance at baseline, 77.4% (n=24) see table 12.

Table 12:	Improvement in	child's academic	performance	from pre	to
post interv	vention.				

Academic	Baseline	Time 1	Time 2	Time 3	Time 4
Performance	N (%)				
Yes	24(77.4)	27(87.1)	28(90.3)	27(87.1)	29(93.5)
No	7(22.6)	4(12.9)	3(9.7)	4(12.9)	2(6.5)

N= number. (%) = percentage.

Positive interactions

At baseline of the intervention, 83.9% (n=26) of parents stated that they had positive interactions with their children, while 100% (n=31) of parents

reported that they had positive relationships and interactions at the end of the intervention, see table 13.

 Table 13: Parents Positive Relation/ interactions with their Children

 pre-post intervention.

Positive	Baseline	Time 1	Time 2	Time 3	Time 4
Relationships	N (%)	N (%)	N (%)	N (%)	N (%)
Yes	26(83.9)	29(93.5)	28(90.3)	31(100)	31(100)
No	5(16.1)	2(6.5)	3(9.7)		

N= number. (%) = percentage.

Praise

After completing the intervention, 96.8% (n=30) of parents reported that they praised their children. Before starting the IYP, 87.1% (n=27) of the parents reported praising their children see table 14.

Table 14: Praising children pre-post intervention.

N (%	6) N (%) N (%)	N (%)	N (%)
Yes 27(8	7.1) $30(96)$	5.8) 31(100	$) \qquad 30(96.8) \\ 1(3.2)$	30(96.8) 1(3.2)

N= number. (%) = percentage.

Parental Stress

Pre intervention, 54.8% (n=17) of parents reported low stress levels, after the intervention this number rose to 87.1% (n=27), see table 15.

Parental	Baseline	Time 1	Time 2	Time 3	Time 4
Stress	N (%)				
Increase in	8 (25.8)	2 (6.5)	6 (19.4)	1 (3.2)	
stress	6 (19.4)	2 (6.5)	4 (12.9)	4 (12.9)	4 (12.9)
Equal stress	17 (54.8)	27 (87.1)	21 (67.7)	26 (83.9)	27 (87.1)
Decrease					
stress					

Table 15: Parent Stress levels pre-post intervention

N= number. (%) = percentage.

Aggressive and Disruptive Behaviors

The aggression mean at baseline (m=2.8) dropped post intervention (m=1.3), see figure 2. Pre-intervention, 12.9% (n=4) of parents stated that they never had to discipline their children for disruptive or aggressive behaviors, and percentage of parents who never disciplined their children increased to 77.4% (n=24) at the end of the intervention.



Figure 2: Aggressive and Disruptive Behaviors mean pre- post intervention

Physical Force and Other Harsh Punishments

Similarly the Physical Force and discipline mean at baseline (m=2.0) was decreased post intervention (m=1.2) see figure 3. 54% (n=17) of parents reported they never discipline or punished their children , while 83.9% (n=26) of parents reported they never use physical force or harsh punishments to discipline their children.



Figure 3: Physical Force and Other Harsh Punishments mean pre- post intervention.

Amount of Praise

Before starting intervention, the mean of number of Praise was m=5, and it increased to m=5.9 post intervention, see figure 4. The percentage of parents never praising their children at baseline was 3.2% (n=1). By the end of the intervention no parents reported that they never praise their children.



Figure 4: Number of Praise mean pre- post intervention.

Confidence Level

At baseline, the mean of parent's confidence level was m=2.7, this decreased post intervention to m=2, see figure 5. While 12.9% (n=4) of parents reported very little Confidence or no Confidence prior to the intervention, at the end of the intervention no parents reported zero or little confidence.



Figure 5: Parent Confidence Level mean pre- post intervention.

Factors associated with parent's behavior difference pre and post intervention in IYQ items

Only two (Aggressive and Disruptive Behaviors, and Physical Force and Other Harsh Punishments) of the seven IYQ items had a relationship with predictor variables. Mothers of children with ASD had higher aggression scores from baseline to end of intervention, 0.7 (95% CI; 0.2, 1.12) (p= 0.013) than fathers of children with ASD. Parents with a lower salary had decreased aggression scores from pre to post intervention by -0.00016 (95% CI; -0.00032, -0.000003), see table 16. Moreover, fathers demonstrate less negative behavior than mothers, the mothers' discipline scores pre to post intervention increased by 0.9 (95% CI; 0.2, 1.5) (p= 0.017) compared to the fathers of children with ASD, see table 17.

Table 16: Factors associated with mean difference in IYQ forAggressive and Disruptive Behaviors.

Variable	Effect on stress score	95% Interval	Confidence	Sig.
	Pre-post	Lower Bound	Upper Bound	
Gender Female Male Salary	.657 0 ^b 00016	.189 00032	1.12 .000003	.013 .046

Note: 0^b=Reference category

Table 17: Factors associated with mean difference in IYQ for Physical

Force and Other Harsh Punishments.

Variable	Effect on stress score	95% Interval	Confidence	Sig.
	Pre-post	Lower	Upper	
		Dound	Doulia	
Gender				
Female	.861	.184	1.539	.017
Male	0 ^b	•		•

Note: 0^b =Reference category

Chapter 5

5.1 Discussion

The aim of this study was to test the efficacy of the IY-ASD in reducing familial stress, increasing parenting skills, and reducing parent's negative behaviors toward their children with ASD in the Palestinian context. Thirty-one parents participated in the study, twenty-one parents completed the program. We use the intention to treat analysis for any missing values due to loss to follow up. The missing values were given their group grand mean value to maintain statistical power. The findings showed clear evidence of the positive efficacy of the Incredible Years Program for Parents of Children Affected by Autism Spectrum Disorder in reducing negative parent and child behavior and increasing parental perceptions of child positive impact. These results are consistent with a number of other studies (Dababnah and Parish, 2014; Fergusson et al., 2009; Hurlburt et al., 2013; McIntyre, 2008; Leijten et al., 2017). Many studies have focused only on mothers of children with ASD and have not examined the IY-ASD effect among the fathers of these children. The current study is unique, in that it examines the results of the IY-ASD program on a male-oriented fathers only group, in addition to the mothers group.

In this linear, mixed-modeling study, we found that levels of stress for Palestinian parents of children affected by Autism Spectrum Disorder in the West Bank decreased significantly after completion of the IYP, pointing to possible sustained benefits over time. Analyses of the outcome measures highlighted the effect of the Incredible Years on parenting skills found between the baseline and post intervention of positive parenting during parent-child interaction (McGilloway et al, 2012).

In general, the significant changes in Parental Stress Index scores of total child domain, total parent domain, and total stress domain suggest that the reduction in parent's stress emitted primarily from participation in the Incredible Years Parent Program, as no other variable was found to account for the variability in pre and post scores. In terms of numbers, the mean of parental stress of total child domain decreased at the end of the intervention by 11.1 points, while the mean of parental stress of total parent domain decreased by 9 points and the mean of total stress score deceased by 22.13 points. This indicates that the program was appropriate and effective for the Palestinian participants and their children that are affected by ASD.

Evidence shows that symptoms of depression are high among parents of children with ASD (Dababnah and Parish, 2014). The present study clearly shows that most parents of children with ASD experienced significantly decreased levels of depression and isolation in parent subdomains post intervention, compared with pre-intervention. Significantly decreased levels of stress were also attributed to child characteristics in four of the six child subdomains (Adaptability, Reinforces Parent, Mood and Acceptability), as a result of parents participation in the IYP program.

This study shows that parents reported high level of total stress domain at baseline but that levels of stress decreased after completing the IYP without

significant difference between mothers and fathers in all PSI subdomains. This indicates that in Palestinian society, both mothers and fathers of children with ASD share the same level of stress. This finding supports the work of Padden and James (2017), who found that parents of children with ASD have high levels of stress with no significant gender differences observed. While there are many studies reporting that mothers have significantly more stress than fathers (Gray, 2003; Soltanifar et al., 2015), conversely, other studies found that stress among fathers is higher than mothers (e.g., Eikeseth et al., 2015).

Taken together, it seems that the predictor variables (Gender, Level of Education, Employment Status, Gender of child, Use of ASD medication, Residence, Age of Child when diagnosed with ASD, Salary, Age of parent, Age of child, Length of time child taking medication, Length of time in treatment, Distance from ACI, Number of Sessions Attended) are not correlated with the parenting stress index for parents in most of the child subdomains. Mothers and fathers rated parental age as an important factor to lower stress. Parents also ranked children who are taking medication for ASD for a long time as a significantly essential factor to reducing parenting stress.

As for the aspects of functioning in the parental role, mothers and father with more years of education suffer less parenting stress and appear to be more able to cope with their child's situation. This is consistent with previous studies (Scrimin, Haynes, Altoe, Bornstein, & Axia, 2009). As for actual parental behavior, we found that the Incredible Years Parent Program decreased parent reported aggressive and disruptive child behavior, decreased mothers and fathers use of physical force and other harsh punishment toward their children, increased parental use of praise, and increased pro-social behaviors, pointing to a positive cultural shift. Findings indicate that the Incredible Years Program helped participants to manage their children's behavior successfully. In addition, all parents had more positive interactions and relationships with their children at the end of the IYP. These findings supported previous studies maintaining that the Incredible Years Parenting Program can successfully convert parent practices and improve child outcomes (e.g., Gardner et al., 2007; Menting et al., 2013). Nonetheless, Leijten et al (2017) found that Incredible Years did not reduce parent reported child aggression.

Academic performance may be especially worrisome for parents of children with ASD. In the current investigation, there were clear improvements in this domain among children over the time parents participated in the IYP. Similar findings were upheld in a previous study by Kuory (2014), where he mentioned that only one mother of all participants stated that her child's academic performance did not improve since attending the IYP.

Despite all parents reporting no or little self-confidence, there was a reduction in confidence levels among those parents, according to IYQ results. This is not surprising in the Palestinian society, because parents

always think about their children's future and they have fears that their children may not be able to communicate and interact with the local community, and this keeps them worried.

In total, the differences between mothers and fathers regarding parental behavior were found in the areas of Aggression, and Physical discipline. Mothers acknowledged that they had to discipline their children related to aggressive behaviors more than fathers. This may be a result of mothers spending more time caring for their children than fathers, who are busy securing financial and other external needs of the family. Similar results were found in other studies (e.g., Garcia & Alampay, 2012) where they reported that the father is the primary financial provider of the family and has a limited role in child-rearing as compared to the mother. Campbell (2002) confirmed the fact that lack of parental involvement by the fathers can heighten the intensity and duration of mother-child conflict and problems in discipline. Further, mothers were found to use physical discipline and other harsh punishments toward their children more than fathers, the author believes this is because mothers are spending more time with their children while also trying to accomplish other household and childcare duties.

The results of the present study indicate that parents with a low salary demonstrated decreased levels of aggression towards their children. Similarly, previous studies proposed that higher family income is linked with a higher risk of aggression in children with ASD. It is possible, that parents with a high salary are more able to enroll in interventions that challenge (and may be frustrating for) their child with ASD, and this may lead to produce aggressive behaviors. Another possibility is that parents at different levels of salary may be more or less likely to report aggression (Anderson, 2011).

5.2 Limitations

Despite the important findings of this investigation, there were some limitations that must be taken into consideration. First, because of the small sample size, there may not have been enough participants to test significant differences between mothers and fathers experiencing the IYP. Secondly, many parents had inconsistent attendance with partial sessions being common, especially in the male group. Third, timing of groups with parents attending during regular work days. Fourth, bias may exist. The program was instituted with parents whose children with ASD are attending a rehabilitation, education and caring program for children affected by ASD in the same organization offering the IYP, so we don't know the effect of IYP on families whose children are not involved in such programs of rehabilitation. Fifth, the study did not have a control group to determine the changes that may only occur due to the experimental treatment. Sixth, there are some procedure bias due to the fact that we are using self reported measure instead of observer based measure. Seventh, no follow up studies.

5.3 Conclusion

The current study is the first of its kind to evaluate the efficacy of the Incredible Years Program for Parents of Children Affected by Autism Spectrum Disorder in the West Bank, Palestine. Not only that, but it's the first study in the world testing the IY-ASD program on an exclusive fathers (males) group, in addition to the mothers group.

The overall positive findings provide preliminary support for the hypothesis that the Incredible Years can reduce the stress of parents of children affected by ASD in Palestine, improve parent's behavioral management skills, and result in positive behavior toward their children after participation in the program.

In general, the gender factor (male or female) of parents did not correlate with the parenting stress; both fathers and mothers have the same level of stress. The differences between mothers and fathers were that mothers reported higher scores in aggression and physical discipline toward their children than fathers. While families with a low salary had a decreased level of aggression compared with families of a high salary.

The encouraging results of the present study are attributed to the effect of the Incredible Years program. Parents seemed to benefit from a program which fully engaged them as caregivers and addressed some of their personal needs. Thus, the Incredible Years can be used with this unique population, the Palestinian parents of children affected by ASD.

5.4 Recommendations

According to what has resulted from this study, the author's recommendations are as follows:

• Future research with larger samples would be better to investigate the Incredible Years effectiveness on parents of children with ASD.

• Future research needs to test this program with a randomized controlled trial.

• Timing for sessions should be taken into consideration as an important factor to get the maximum benefit for parents.

• Further investigation into the prevalence of autism spectrum disorders in Palestine.

• The positive results of such study should reach all parents of children with ASD to encourage them to participate in such programs.

• In the future, we should do a Palestinian validation for the PSI, it was validated in Jordan and Syria.

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Appendices

Appendix 1

Content and Objectives of the Autism Spectrum & Language Delays Program

Content Objectives

Part One: Child-Directed Narrated Play Promotes Positive Relationships

• Value of parents giving focused child-directed attention during play as a way of promoting positive relationships.

• Understanding how to get in a child's attention spotlight and not letting the child exclude you.

• Understanding how to narrate child-directed play to build language development.

• Learning how to transition to new play learning opportunities.

• Appreciate the importance of parental gesturing, imitation, modeling, face to face interactions, and visual prompts.

• Value of using picture choice cards.

• Choose games that address your child's sensory needs but avoid overstimulating.

• Understanding times not to follow your child's lead.

Part Two: Pre-Academic and Persistence Coaching Promotes Language Development and School Readiness

• Determining appropriate developmental goals for children on the autism spectrum.

• Tailor pace, amount, and complexity of language modeled according to child's communication stage.

• Understanding the value of persistence coaching for promoting children's attention span and managing their frustration.

• The modeling principle—and importance of positive affect and exaggerated facial responses.

• Staying in child's attention spotlight by being responsive.

• Understanding the value of prompting and pre-academic coaching for building children's language skills and school readiness.

• Learning to coach pre-reading readiness.

• Adjusting verbal and non verbal language and visual prompts according to children's communication stage.

• Responding to child's language as meaningfull even if not understandable or conventional.

• Using visual supports such as gestures, pictures, and concrete objects to help child understand what others are saying.

Part Three: Social Coaching Promotes Friendship Skills

• Social coaching and one-on-one child-directed play promotes a child's social skills.

• Understanding how to model, prompt, and coach a child's social skills.

• Respond enthusiastically and with praise whenever child shares or helps you (exaggerate responses).

• Understanding how to: Use songs, physical games, and sensory routines to optimize a child's social learning opportunities and draw attention to parent's face.

• Encourage back and forth communication by pausing to wait for child's response or signal before giving child what he/she wants.

• Use puppets and pretend play to encourage social communication.

• Use social coaching at dinner, bed time, and dressing time.

Part Four: Emotion Coaching Promotes Emotional Literacy

• Emotion coaching promotes children's emotion language skills and empathy.

• Emotion language is a precursor to self-regulation.

• The "attention rule"—the principle of paying attention to more positive than negative emotions and modeling positive expression of emotions.

• Understanding how to respond effectively to negative or uncomfortable emotions.

• Learning how to combine emotion coaching with social and persistence coaching.

• Using feeling picture cards to promote children's understanding of feelings words and beginning empathy.

Part Five: Pretend Play Promotes Empathy and Social Skills

• Understanding the value of pretend play with puppets to promote children's social skills and empathy

• Understanding the most effective ways to use puppets with children.

• Developing scenarios and practicing using them to promote children's social skills, empathy, and emotion language.

• Understanding how to use puppets and action figures along with books.

Part Six: Promoting Children's Self-Regulation Skills

• Determining when children are receptive to learning about calm down teaching or self-regulation prompts (e.g., positive self-talk, deep breathing, happy images) • Understanding how to use pretend and puppet play to do self-regulation teaching and practice.

• Learning how to explain the calm down thermometer to children and practicing strategies.

• Importance of using the ignore technique when child is too dysregulated.

• Understanding concept of "selective attention."

• Parents modeling self-control and calm-down strategies.

Part Seven: Using Praise and Rewards to Motivate Children

• Learning how to spotlight labeled praise for children.

• Identifying child's "positive opposite" target behavior to praise and reward.

• Understanding how to set up a developmentally appropriate plan of child social behaviors.

• Recognizing the value of sensory activities and rewards for children.

• Learning how to praise and reward oneself and others for parenting efforts.

• Importance of developing a parent support network.

Part Eight: Effective Limit Setting and Behavior Management

• Understanding how to give clear, brief, positive instructions.

• Using parent visual command cards as needed to make command understandable.

• Reduce number of commands to only necessary commands/instructions.

• Learning about the importance of giving children transition time and reminders.

• Understanding when to use redirections and physical prompts (guiding hands).

• Establishing clear and consistent household rules.

• Learning how to re-engage children in new learning opportunity when misbehavior subsides.

• Identify behaviors that can be ignored.

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Appendix 2

An Najah Child Institute (ACI)

ACI is a specialized institute belonging to An-Najah National University. It aims to provide quality diagnosis and management services to children with developmental disorders and training to health and education professionals through integrating academic training, research and clinical services.

The institute is targeting all Palestinian Children suffering from child developmental disorders (CDDs). These include -but not limited to- autism and its related disorders, ADD/ADHD, immature neurological development; speech and communication disorders, sensory processing disorders, learning disabilities and school avoidance.

Vision:

The vision is to lead the fields of early childhood development and special education to help build an inclusive society for children of all abilities

Mission:

Our mission is to improve the quality of life for children of all abilities through excellence in education, research, health care, advocacy and support.

Objectives:

ACI is a multidisciplinary institute that fosters collaborative initiatives and multidisciplinary efforts aiming to:

- Offer an early detection and diagnostic services to children with developmental disorders.
- Create a supportive learning environment that stimulates children physically, intellectually, socially and emotionally.
- Training of health care workers and special educators in relation to child developmental disorders.
- Actively contribute to social change preventive interventions that improve the health of children with developmental disorders.
- Development of qualified clinical expertise, skills and competence in the care of children with child developmental disorders (developmental pediatrics).
- Plan and conduct research in relation to child developmental disorders.

ACI Structure: The institute is composed of 3 units:

1. **The clinical services unit**: to assess, diagnose, and manage CDDs at an early stage according to the best evidence practices. These services will be provided to all children from birth up to 18 years old.

2. **The kindergarten unit**: aims to be a pilot project in providing proper education for normal children and children with CDDs according to the best international practices that meets the local cultural needs. Students aged 3-12 years will be the target age of this kindergarten.

3. **Training and research Unit**: to train professionals in the field (Paediatrician, clinical psychologist, special educators, occupational therapists, etc.) in order to prepare a multidisciplinary team capable of providing best care and education to children with developmental disorders. Additionally, this unit plans to eventually conduct relevant research that would contribute to knowledge, care, and prevention of CDDs in Palestine and the region.

A. Clinical Unit

Clinical Unit is one of the three sections which the ACI is composed with the kindergarten and the research units. The three Units are going to work in partnership, applying a multidisciplinary work each in his fields of professionalism and cooperating with each other.

Goals and Objectives

The general goal of the Clinic is to support the service users and those involved with them to describe their experiences in such a way as to identify their strengths and formulate their needs. In order for this to be meaningful, it must take a whole systems approach and take account of every aspect of the person's life. The Clinical unit specific objectives are to provide the followings:

- Early detection services,
- Complete clinical assessment and Clinical diagnosis,
- Structuring the individual educational plan,
- Intervention and rehabilitation,
- Psycho education for patients and their family,
- Home visits for patients and their families,
- Connecting the patients with social network and community resources,
- Training and clinical supervision for specialists and centers
- Sharing in and supporting researches through the expertise and professionalism,

Services provided

Patient Care:

The beneficiaries of the Clinic Unit are first of all the children with symptoms of the spectrum of childhood developmental disorders, their families and the community. Other beneficiaries are the trainees that will take part in the training courses and seminars and work shop that will be carried by the Clinic. The Clinic Unit is operative for the services of the patients every working day from 9.00 to 15.00 and the services are divided

into assessment, clinical diagnosis, and intervention. Specialized validated diagnostic tools are being used to accurately assess and diagnose children with CDDs.

Rehabilitation Class

This is a Special Education class that is supervised by the clinics and serviced by all available specialists at ACI. We aim at providing intervention services and rehabilitation programs to enable children to adjust to different environments and to be empowered to live a meaningful life.

In these classes, the ACI provides educational and rehabilitation services to children diagnosed with Pervasive Developmental Disorders (PDD). A variety of evidence-based learning strategies and techniques from selected teaching approaches and learning principles are being applied .The Individualized Intervention Programs (IIP) and Individual Education Plans (IEP) are based on Applied Behavior Analysis (ABA), Picture Communication System (PECS), Speech and Language Therapy (SL), Occupational Therapy (OT), Sensory Integration (SI), Special Education Strategies for ADHA, ADD, Dyslexia and other language Disabilities (LD)

Community services:

The services for the community will be carried out in different ways.

1. <u>Stigma awareness campaign</u>: It is particularly important to understand the nature and consequences of stigma and discrimination. Social inequality and exclusion have a potentially devastating effect on the recovery process for the patients and will make it difficult for service users to achieve their potential or take their rightful place in society.

2. <u>Advocacy for families</u>: the ACI's first priority is to support children with developmental disabilities by facilitating their access to the best resources available. We believe that to achieve this goal we must target the families of these children to increase awareness about their disorders, provide them with practical tools to improve their and their children's lives, and empower them to advocate for their rights. We propose to do this through a series of awareness and educational workshops, support groups and the creation of an association for families with children developmental disabilities.

3. <u>*Post traumatic Debriefing:*</u> Palestinian children are victims of many types of traumatic events. Although less visible than physical injury, emotional injuries are no less serious and pause long and short-term consequences. The debriefing will include general assessment on the targeted population to recognize the emerging cases that will need an individual support.

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Training services:

The staff of the clinic unit will be keeping up to date with changes in practice and participating in lifelong learning, personal and professional development for one's self and colleagues through supervision appraisal and reflective practice.

The clinic unit will also offer trainings to our partners and internships for the students of the universities from the faculty of education and medicine. We will hold seminars and workshop on several themes as well as sharing in designing the educational plan for potential other professionals in the field of child development.

Staff

An interdisciplinary team made up of many kinds of professionals is working closely to meet the needs of individuals and their families. Customized team evaluations will address the areas of concern and provide recommendations for therapies, treatment, and activities that will help each individual achieve their full potential and live a meaningful life. The team is composed of

• Head of Clinical Unit	• Special education Specialist
Clinical Psychologist	Occupational Therapist
• Speech & language	• Mental Health Nurse
Pathologists	
Operative system

Referrals to the center will be made either by parents or school teachers, through a referral form designed for this purpose.

- *Intake:* Full detailed information is gathered by the assessment specialist from the parents according to the case history form (case history, demographical data collection, anamnesis, clinical reports)

- The team of specialist including the assessment specialist, speech and language pathologist, occupational therapist, clinical psychologist and special educator all meets to decide on the assessment procedures to be taken.

- Specific assessment will be implemented on the interested areas of development.

- *The restitution*: at the completion of the diagnostic clinical relationship, it is stretched a conclusive diagnosis, the behavioral profile and proposed treatment, individual educational plan or eventual review of the rehabilitation project, a full confidential psycho educational report is written about the child.

- *The final meeting with parents:* this phase involves the communication of the diagnosis, with indications on possible developments in a long term, the panorama of the therapeutic approaches, and the characteristics of the "personalized" therapy. This will be followed, when possible, by a meeting

extended to the pediatrician, the child neuropsychiatry and the representatives of the centers of rehabilitation and the school staff.

- When communicating the diagnosis to the parents, they are proposed referring to the territorial structures of rehabilitation or to the rehabilitation special class of the Institute (class D).

2. Montessori Kindergarten Unit

Traditional Education is defined as the process of receiving or giving systematic instruction. The Montessori Kindergarten is established to present an innovation in childhood education and aims at being pioneer in introducing an effective educational approach which will produce a new generation of children who are able and ready for Life and not just school. This system was introduced by Maria Montessori (1870-1952) and based on three basic components: the child, the environment, and the teacher.

The Montessori approach is a child-centered approach where the child is free to spontaneously interact with the environment. This environment is carefully planned and structured with didactic materials to meet the child's social, emotional, physical, intellectual and spiritual needs. The Montessori system provides structured learning materials in Exercises of Practical Life, Sensorial and Mathematics materials so that the child could learn in small, hierarchical steps. The role of the teacher is to act as a facilitator, observer, and a caregiver. This Montessori Kindergarten will represent the first model for a working approach in Early Childhood Education. This approach will elicit the children from different backgrounds and abilities. It will plant the seeds on *inclusion* that will be nurtured and sponsored by many other schools and institutions through collaboration and exchange of experiences and teaching techniques

Services provided

Classrooms Services:

The KG is open to all children from all backgrounds and abilities. Children age 3-6 years old, and do not have any special needs or concerns, will be automatically enrolled. Children with special needs (autism and related disorders, ADD/ADHD, speech disorders, learning disabilities) diagnosed and assessed by the clinical unit. An Individual Educational Plan (IEP) will be developed in the clinics. This IEP will be used as an instructional guideline for the children's learning and progress.

This unit offers three classrooms for children age 3-6 years.

• Classes A and B (15-20 students each) will provide mainstream educational services for children with at least one diagnosed case (special needs) integrated in the class. These classrooms are fully furnished with the Montessori tools. • Class C (10-15 students) will provide special services for children age 3-6 years who need assistance in reaching their potentials. These services will include: Speech, special education, occupational therapy, and counseling.

Community Services

A variety of community-based activities will be carried out to introduce the Montessori approach for other Kindergartens in Palestine, promote and support internal and external inclusion and train other professionals from external institutions

Staff

The services for all classrooms are being provided by a well-trained and dedicated team. It includes

- 1- Director of the kindergarten unit
- 2- Class room Teachers
- 3- Teacher Assistants
- 4- Special Education Teacher
- 5- Receptionist
- 6- Maid

3. Research and Training

Research Activities

One of the goals of the ACI is to support researches facilitating access to and delivering the best quality, evidence-based, values-based health and social care interventions to meet the needs and aspirations of service users and their families and carers.

Evidence-based practice (EBP) is an interdisciplinary approach gaining ground in <u>medicine</u> as <u>evidence-based medicine</u> and spread to other fields such as <u>nursing</u>, <u>psychology</u>, <u>education</u>, library and information science and other fields. Its basic principles are that all practical decisions made should be based on research studies and that these research studies are selected and interpreted according to some specific norms characteristic for EBP.

Training Activities

The ACI is planning to provide training activities, both internal and external, for ACI staff, medical doctors (MDs), clinical psychologist, special educators, occupational therapists, etc and will be in the form of short courses

a. *Training of clinic staff:* such as speech and language pathologist, physiotherapist and occupational therapist each according to his needs.

b. *Training of KG staff:* teachers and their assistants working at the ACI will need training by a special education specialist using the available local and regional expertise in addition to LNF as needed.

c. *Training of MDs* (Primary health care doctors/ family medicine doctors, Primary health care nurses) from all parts of West bank: this will be a short term rotation at the centre in addition to a learning module about child development. This aims to help doctors and nurses in general practice to be aware of such problems and early detect and refer patients to the center for appropriate care.

d. *Training of parents, educators and the community:* Once the centre becomes established and functioning, it will be an important source for awareness and training to the special educator teacher, parents and community at large.

Demographic questionnaire

 Name:
 ID:

What is your age?
 years

What is your gender?

O Female

O Male

What is your current marital status?

- O Married
- O Divorced
- O Widowed
- O Other

What is the highest level of education you have completed?

- O Elementary school
- O High school or equivalent
- O Some college(2 years)
- O Bachelor's degree
- O Master's degree
- O Doctoral degree

Are you employed outside the house ?

- O Yes
- O No

Level of income (Salary)? ______nis

Number of household members?

- O 2
- 0 3-5
- O 6-8
- O 9 or more

Number of children in household less than 18 years?

- O 1
- O 2-5
- O 6-8
- O 9 or more

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Number of children in household with autism	?	
O 1		
O 2		
O 3		
O 4		
O 5 or more		
Age of child with ASD? years		
Age of child when diagnosed with ASD?	years	
Gender of child with ASD?		
O Female		
O Male		
Is the child receives ASD medication? No	Ŵs	0
Name of medication	how often/day	
Length of time in treatment?	years	
How far do you live from the An-Najah Child km	Institute ?	
You live in?		

O City

O village

O camp

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كتيب الاختبار لدليل الضغط الوالدى

التعليمات :

من فضلك أكتب على ورقة الإجابة : اسمك ، ونوع جنسك ، وتاريخ ميلادك ، وموطنك الأصلى ، والحالة الإجتماعية ، واسم الطفل ، ونوع الجنس ، وتاريخ ميلاد الطفل وتاريخ اليوم • من فضلك سجل جميع اجاباتك على ورقة الاجابة ، ولا تكتب في هذا الكتيب •

يحتوى هذا الاستبيان على ١٢٠ عبارة • اقرأ كل عبارة منها بتمعن وركز على الطفل الذى يعنيك ، وضح دائرة حول الإجابة التى ترى انها افضل مايعبر عن رأيك • ضع دائرة حول الحرفين (م • ج) إذا كنت موافقاً جداً على العبارة • ضع دائرة حول الحرف (م) اذا كنت موافقاً فقط على العبارة . ضع دائرة حول الحرفين (غ • م) اذا كنت غير متأكد من ان العبارة تمثل رأيك تماما • ضع دائرة حول الحرفين (غ • م) اذا كنت معترضاً على العبارة . ضع دائرة حول الحرف (ع) إذا كنت معترضاً على العبارة •

على سبيل المثال : اذا كنت احيانا تحب الذهاب الى السينما عليك أن تضم الدائرة حول الحرف (م) عند قيامك بالإجابة على العبارة وذلك على النحو التالي :

(3 - 3)، (3 - 3)، (3 - 3)، (3 - 3)، (3 - 3)، (3 - 3)، (3 - 3)

فى حالة إذا لم تجد العبارة التى تعبر عن مشاعرك تماماً ، الرجاء وضع دائرة حول أقرب عبارة الى ماتشعر به • لانتوقف لتفكر ، يجب أن تكون اجابتك أول رد فعل لك تجاه كل سؤال • ضع دائرة واحدة فقط حول كل عبارة وأجب على جميع العبارات • ولاتمحو الإجابة • إذا أردت تغيير الإجابة ضع العلامة (×) على الإجابة الخطأ وضع دائرة حول الإجابة الصحيحة مثلا :

- **Y** -

أحب الذهاب الى السينما • (م • ج) ، (م) ، (غ • م) ، (ع • ج)

(٤) تقريباً لايحب أن يلعب معى أبدأ

للإجابة على العبارة رقم (١٦) اختر اجابة واحدة من بين الاختيارات الفعسة التالية : ١٦- يبكى طفلى ويسبب صخبا : (١) أقل كثيراً مما كنت أتوقع (٢) أقل مما كنت أتوقع (٣) بقدر ماكنت أتوقع تقريباً (٤) أكثر بكثير مما كنت أتوقع (٥) يبدو تقريبا أنه لايتوقف عن ذلك (٥) يبدو تقريبا أنه لايتوقف عن ذلك ١٩- عندما يلعب طفلى يبكى أو يسبب صخبا أكثر من معظم الأطفال ٠ ١٩- عندما يلعب طفلى فهو لايكثر من القهقهة أو الضحك ٠ ١٩- يستيقظ طفلى عموماً وهو منحرف المزاج ٠ ١٩- منظر بأن طفلى متقلب المزاج جداً ومن السهل إثارة اضطرابه ٠

- ٢٢- يبد طفلي كما لو أنه نسى ماسبق أن تعلمه في بعض المجالات ، وارتد الى ممارسات
 من التي يتميز بها الأطفال الصغار ٠
 - ۲۳- لايبدو على طفلى أنه يتعلم بنفس السرعة التي يتعلم بها معظم الأطفال .
 - ۲٤ لايبدو أن طفلى يبتسم بنفس القدر الذي يبتسم به معظم الأطفال .
 - ٢٥- يفعل طفلى بضعة أشياء تضايقني بشدة ٠
 - ۲۱- لايقدر طفلي على أداء ماكنت أتوقع منه ان يؤديه بنفس قدر توقعاتي
 - ۲۷- لايحب طفلى أن يحتضنه الآخرين أو يلمسونه كثيراً •

دوری کام أو کاب ۰

٢٩ – المسئولية الوالديه أصبعب مما كنت أظن -
٣٠- أشعر بأنى قدير ومتمكن وفي قمة لياقتي عندما أرعى طقلي ٠
٣١- مقارنة بالطفل العادى ، يجد طفلى صعوية كبيرة في التعود على تغيير المواعيد أو
تغيير الأشياء في المنزل -
۳۲- رد فعل طفلی یکون شدید جداً عندما بعدت شیء لایحیه ۰
٣٣- ترك طفلى مع جليسة أطفال يعتبر في المعتاد مشكلة ٠
٣٤ - يضبطرب طفلي بسهولة لأثقه الأشياء -
٥٦- يلاحظ طقلى بسهولة الأصوات العالية والأضواء المبهرة ويبالغ فى رد فعله تجاهها -
٣٦- تنظيم مواعيد نوم طغلي وأكله أصعب مما كنت أتوقع .
٣٧- يتجنب طفلى عادة اللعبة الجديدة لوهلة قبل أن يبدأ اللعب بها ٠
٢٨- من المنعب جداً أن يتعود طفلي على الأشياء الجديدة ويستغرق ذلك منه وقتاً طويلاً •
٣٩- لايبدو على طغلى الأرتياح عندما يقابل الأغراب ٠
للإجابة على العبارة رقم (٤٠) ، اختر اجابة واحدة من بين الاختيارات
الأربعة التالية :
 -8- عندما يكون طقى مضطربا فهو :
(١) من السهل تهدئته
(٢) تهدئته أصبعب مماكنت أنتظر
(٣) من المسعب جداً تهدئته
(٤) لايهدأ ابدأ مهما قطت له
للإجابة على العبارة رقم (٤١) ، اختر اجابة واحدة من بين الاختيارات
الشمسة التالية :

٤١ – القد الكنشفت ان جعل طفلي يفعل شيئاً أو يتوقف من فعل شيئا هو :

- 7. -

(٢) أعالج معظم للواقف جيداً توعا ما

- V -

- (٢) في بعض الأحيان تنتابني الشكوك ولكني اجد انه في امكاني معالية معظم المواقف بدون اي مشاكل -
 - (٤) ادى بعض الشكوك في مقدرتي على معالجة المواقف.
 - (a) لا اعتقد اننى أجيد معالجة المواقف جبداً بتائا.
- للإجابة على العبارة رقم (٥٨) اختر إجابة واحدة من بين الإختيارات الخمسة التالية :
 - ٥٨ أشعر أننى :
 - (١) أب (أوأم) مسالماً جداً
 - (٢) أب (أو أم) أحسن من الآب أو الأم العادي
 - (۲) أب (أرأم) عادى
 - (٤) شخص ادیه بعض العناء فی کونه أبا (أو أما)
 - (٥) است صالحاً بدرجة كبيرة في كوني أبا (أو أما)

للسؤالين رقمي (٥٩ ، ٦٠) اختر اجابة واحدة من بين الاختيارات الخمسة التالية :

٥٩- ماهو أعلى مستوى دراسي أتممته في المدرسة أو الكلية أنت ووالد/ والدة الطفل؟

- الأم:
- (١) الصف الأول الابتدائي إلى الصف الثاني اعدادي
 - (٢) المسف الثالث الاعدادي إلى الثانوية العامة
- (٣) تعليم مهنى أو بعض سنوات من الدراسة الجامعية.
 - (٤) خريج جامعي
 - (e) دراسات عليا أو دراسات تخصصية

- A -

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٦٠- الآب :

- الصف الأول الابتدائي إلى الصف الثاني إعدادي
 - (Y) الصف الثالث الاعدادي إلى الثانوية العامة
- (٣) تعليم مهنى أو بعض سنوات من الدراسة الجامعية.
 - (٤) خريج جامعي
 - (a) دراسات عليا أو دراسات تخصصية

للسؤال رقم (٦١) ، اختر اجابة واحدة من بين الإختيارات الخمسة التالية : ٦١- هل تجد سهولة في فهم مايريده أو يحتاج اليه طفلك ؟

- (۱) سهل جداً
 - (۲) سهان
- (۲) صحب توعا ما
 - (٤) مسعب جداً
- (e) عادة لا أقدر أن افهم ماهي المشكلة

۲۰- تستغرق عملية تنمية مشاعر الدف، والتقارب ما بين الوالدين وأطفالهما وقتا طويلا .

- ۲۲- اقد توقعت أن احظى بمشاعر دف، وتقارب مع طفلي أكثر مما تحقق لي معه فعلا ، وذلك بضابقتي ،
- 14- في بعض الأحيان يؤدى طفلى بعض التصرفات التي تضايفنى لمجرد أن يكون لليماً.
- ٥٥- لم أشعر ابدأ بأرتياح في صباى ، عند قيامي بإحتضان الأطفال ، أو بالإعتناء بهم ، ٦٦- طفلي يعرف انني امه / أبوه ويريدني أكثر مما يريد غيرى من الناس ،
 - ١٧- عدد الأطفال الذين رزقت بهم حتى الآن كثيراً جداً .
 - ۸- أنفق معظم حياتي في اداء خدمات لطفلي •
- ۲۹- أجد اننى اتنازل عن جزء من حياتي أكثر مما توقعت من اجل تلبية طلبات اطفالي .

. . .

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- ٨٧- منذ ميلاد الطغل لم نقضمي أنا وزوجتي (زوجي) ، معا وقتا كافيا كأسرة مثلما كنت أتوقع .
 - ۸۸ منذ میلاد طفلی الأخیر انتخض اهتمامی بالجنس ·
 - ٨٩- يبدو أن وجود طفل قد زاد من عدد المشاكل التي نواجهها مع الأسهار والأقارب
 - ٩٠- انتضح ان انجاب الأطفال عملية مكلفة أكثر مما كنت أتوقع ٠
 - ۹۱- أشعر بالوحدة ويأنى بلا أصدقاء -
 - ٩٢- عندما أذهب إلى حفل فإنى عادة ما أتوقع إلا استمتع به ٠
 - ۹۲ لم أعد أهتم بالناس بقدر ماكلت أفعل سابقاً •
 - ٩٤- كثيراً ما أشعر بأن من يقاربونني في العمر لايحبون صحبتي بصفة خاصة •
- ٩٥- عندما تصادفني مشكلة تخص رعاية أولادي أجد أن لدى عدد كبير من الناس ممن يمكنني اللجوء اليهم طلبا للمساعدة أو النصبح •
- ۹۲- منذ آن رزقت بأطفال أصبحت فرصتی فی رؤیة اصدقائی أو تكوین صداقات جدیدة اقل بكلير عما ذی قبل ٠
- ١٧- خلال الشهور السنة الأخيرة أنتابتني الأوجاع والآلام والتوعكات الصحية أكثر من المعتاد .
 - ٩٨- أشعر بأن صحتى البدنية على مايرام معظم الأرقات
 - ٩٩- وجود طفل تسبب في تغيير في نظام نومي -
 - ١٠٠ لا استمتع بالأشياء مثلما أعتدت سابقاً
- للإجابة على العبارة رقم (١٠١) اغتر اجابة واحدة من بين الاختيارات الأربعة التالية :
 - ۱۰۱- منذ میلاد طغلی :
 - (۱) مرضت کلیراً

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150 Appendix 5 INCREDIBLE YEARS QUESTIONNAIRE FOR PARENTS

1. Aggressive and Disruptive Behaviors

How many times a day do you think you had to discipline your children for disruptive or aggressive behaviors? Never 11-5 times per week 11 time per day 2-5 times per day more than 5 times per day

2. Pro-Social Behaviors

Have you noticed any new positive behaviors in your children? □ Yes □ No

3. Physical Force & Other Harsh Punishments

How often did you use physical force or harsh punishments to discipline your children?

Never
1-4 per month
1-5 times per week
1 time per day
2-5 times per day
More than 5 times per day

4. Academic Performance

Have your child's grades or performance in school improved? □ Yes □ No

5.parent Stress Level

Do you think your stress level has: ☐ Increased, ☐ Stayed the same or ☐ Decreased?

6. Praise & Positive Interactions

a) Have you been able to have more positive relation/ interactions with your children?

 ☐ Yes □ No

Examples:?

- b) Do you think you have increased the number of times you praise your child?
 □ Yes □ No
 - c) How often do you think you praised your child?
 Never
 1-4 per month
 1-5 times per week
 1 time per day
 2-5 times per day
 - ☐ More than 5 times per day

7. Confidence Level

How confident were you as a parent in your ability to achieve successful outcomes (get positive results) with your child? Please rate yourself on the following scale by circling the number that best reflects how you felt:



152 Appendix 6 PSI T-Test Child Domain

Factors associated with stress level difference (pre-post) in Acceptability (AC) /child domain.

Variable	Effect on stress	95% Confidence Interval		Sig.
	score	Lower	Upper	
	Pre-post	Bound	Bound	
Gender				
Female	11	-4.57	4.34	.956
Male	0 ^b			
Level of education				
Elementary school	-6.96	-21.29	7.36	.310
High school	-4.93	-12.91	3.06	.204
Some college(2y)	-5.87	-14.69	2.95	.173
Bachelor's degree	-4.01	-12.23	4.21	.309
Master's degree	0 ^b			
Employed				
yes	-1.93	-6.56	2.70	.381
No	0 ^b			
Gender of child				
Female	78	-5.05	3.49	.699
Male	0 ^b			
Is the child receives ASD				
medication				
Yes	-1.84	-12.60	8.92	.716
No	0 ^b			
Residence				
City	-2.98	-9.51	3.56	.341
Village	-2.45	-9.92	5.02	.488
Camp	0 ^b			
Age of child when diagnosed	18	-3.34	2.98	.902
with ASD				
Salary	000	001	.001	.496
Age of parent	06	39	.27	.696
Age of child	.34	-2.80	3.47	.819
Length of time child taking	.21	-3.03	3.45	.889
medication				
Length of time in treatment	1.66	-2.73	6.04	.427
Distance from ACI	16	41	.09	.181
Number_sessions_attended	001	32	.32	.992

Factors associated with stress level difference (pre-post) in Adaptability (AD)/child domain.

Variable	Effect on stress	95% Confidence Interval		Sig.
	score	Lower	Upper	
	Pre-post	Bound	Bound	
Gender				
Female	-1.07	-7.14	5.00	.708
Male	0 ^b			
Level of education				
Elementary school	-8.22	-27.75	11.32	.377
High school	-3.45	-14.34	7.44	.503
Some college(2y)	-4.15	-16.17	7.88	.467
Bachelor's degree	-7.70	-18.91	3.51	.161
Master's degree	0 ^b			
Employed				
yes	-3.85	-10.16	2.46	.208
No	0 ^b			
Gender of child				
Female	55	-6.37	5.28	.841
Male	0 ^b			
Is the child receives ASD				
medication				
Yes	-3.99	-18.66	10.68	.564
No	0 ^b			
Residence				
City	-4.37	-13.28	4.55	.307
Village	-3.85	-14.04	6.34	.426
Camp	0 ^b			
Age of child when	1.36	-2.95	5.67	.505
diagnosed with ASD				
Salary	4.26	001	.002	.996
Age of parent	.12	34	.55	.619
Age of child	-1.15	-5.43	3.12	.568
Length of time child taking	.05	-4.37	4.47	.981
medication				
Length of time in treatment	1.74	-4.24	7.72	.538
Distance from ACI	12	47	.22	.455
Number_sessions_attended	32	76	.12	.139

Factors associated with stress level difference (pre-post) in Mood (MO) /child domain.

Variable	Effect on stress	95% Confide	nce Interval	Sig.
	score	Lower	Upper	
	Pre-post	Bound	Bound	
Gender				
Female	2.16	78	5.10	.135
Male	0 ^b			
Level of education				
Elementary school	17	-9.63	9.29	.970
High school	.70	-4.58	5.97	.779
Some college(2y)	77	-6.60	5.06	.779
Bachelor's degree	75	-6.18	4.68	.769
Master's degree	0 ^b			
Employed				
yes	-1.11	-4.16	1.95	.445
No	0 ^b			
Gender of child				
Female	-1.13	-3.95	1.69	.400
Male	0 ^b			
Is the child receives ASD				
medication				
Yes	98	-8.08	6.12	.769
No	0^{b}			
Residence				
City	40	-4.7	3.92	.843
Village	.53	-4.41	5.46	.820
Camp	0 ^b			
Age of child when diagnosed	.98	-1.11	3.06	.329
with ASD				
Salary	.0003	0005	.001	.429
Age of parent	07	29	.15	.488
Age of child	-1.07	-3.14	.10	.281
Length of time child taking	.61	-1.53	2.76	.544
medication				
Length of time in treatment	1.18	-1.72	4.08	.392
Distance from ACI	11	28	.05	.167
Number_sessions_attended	004	22	.21	.963

Factors associated with stress level difference (pre-post) in Depression (DP) /Parent Domain

Variable	Effect on stress	95% Confidence Interval		Sig.
	score	Lower	Upper	
	Pre-post	Bound	Bound	
Gender				
Female	2.61	-1.27	6.49	.168
Male	0 ^b			
Level of education				
Elementary school	-2.47	-14.95	10.02	.674
High school	-4.07	-11.03	2.89	.226
Some college(2y)	-5.24	-12.92	2.44	.163
Bachelor's degree	-6.25	-13.41	.92	.082
Master's degree	0 ^b			
Employed				
yes	-1.05	-5.08	2.98	.580
No	0 ^b			
Gender of child				
Female	-1.17	-4.70	2.55	.505
Male	0 ^b			
Is the child receives ASD				
medication				
Yes	-3.81	-13.18	5.57	.394
No	0 ^b			
Residence				
City	56	-6.26	5.14	.834
Village	1.10	-5.41	7.61	.720
Camp	0 ^b			
Age of child when diagnosed	87	-3.62	1.89	.507
with ASD				
Salary	0002	0013	.0008	.630
Age of parent	.13	15	.42	.336
Age of child	.80	-1.94	3.53	.538
Length of time child taking	.88	-1.95	3.70	.513
medication				
Length of time in treatment	-1.01	-4.84	2.81	.574
Distance from ACI	005	22	.22	.965
Number_sessions_attended	19	47	.093	.171

Factors associated with stress level difference (pre-post) in Health (HE) /Parent Domain

Variable	Effect on stress	95% Confidence Interval		Sig.
	score	Lower	Upper	
	Pre-post	Bound	Bound	
Gender				
Female	2.10	-1.16	5.36	.185
Male	0 ^b			
Level of education				
Elementary school	3.31	-7.17	13.78	.505
High school	2.52	-3.33	8.36	.366
Some college(2y)	1.49	-4.96	7.94	.625
Bachelor's degree	45	-6.47	5.57	.873
Master's degree	0 ^b			
Employed				
yes	.26	-3.12	3.64	.870
No	0 ^b			
Gender of child				
Female	-1.67	-4.80	1.45	.266
Male	0 ^b			
Is the child receives ASD				
medication				
Yes	-4.95	-12.82	2.92	.195
No	0 ^b			
Residence				
City	.35	-4.43	5.13	.876
Village	.08	-5.39	5.54	.977
Camp	0 ^b			
Age of child when diagnosed	.14	-2.18	2.45	.899
with ASD				
Salary	.0002	0007	.001	.645
Age of parent	04	28	.21	.753
Age of child	.03	-2.26	2.33	.976
Length of time child taking	1.02	-1.35	3.39	.368
medication				
Length of time in treatment	061	-3.27	3.15	.967
Distance from ACI	02	20	.16	.816
Number_sessions_attended	.04	19	.28	.695

Factors associated with stress level difference (pre-post) in Isolation (IS) /Parent Domain

Variable	Effect on stress	95% Confidence Interval		Sig.
	score	Lower	Upper	
	Pre-post	Bound	Bound	
Gender				
Female	.04	-3.32	3.40	.979
Male	0 ^b			
Level of education				
Elementary school	-10.41	-21.21	.39	.059
High school	-4.06	-10.08	1.96	.181
Some college(2y)	-2.39	-9.04	4.26	.473
Bachelor's degree	-5.44	-11.64	.77	.084
Master's degree	0 ^b			
Employed				
yes	-3.31	-6.80	.18	.063
No	0 ^b			
Gender of child				
Female	1.10	-2.12	4.32	.496
Male	0 ^b			
Is the child receives ASD				
medication				
Yes	2.16	-5.96	10.27	.594
No	0 ^b			
Residence				
City	-4.30	-9.23	.638	.086
Village	-5.39	-11.03	.24	.060
Camp	0 ^b			
Age of child when	10	-3.38	1.39	.404
diagnosed with ASD				
Salary	5.715668E-005	0009	.001	.905
Age of parent	.002	25	.25	.985
Age of child	1.20	-1.17	3.56	.312
Length of time child taking	-1.26	-3.78	1.18	.304
medication				
Length of time in treatment	1.55	-1.76	4.86	.349
Distance from ACI	01	20	.18	.903
Number_sessions_attended	23	47	.01	.065

158 Appendix 12 PSI T-Test Total Stress (TS)/ Domain

Factors associated with stress level difference (pre-post) in Total Stress (TS)/ Domain

Variable	Effect on stress	95% Confide	nce Interval	Sig.
	score	Lower	Upper	
	Pre-post	Bound	Bound	
Gender				
Female	19.66	-15.091465	54.412238	.241
Male	O ^b			
Level of education				
Elementary school	-51.87	-163.62	59.89	.332
High school	-39.34	-101.66	22.97	.194
Some college(2y)	-33.63	-102.43	35.17	.308
Bachelor's degree	-55.86	-120.02	8.30	.082
Master's degree	0 ^b			
Employed				
yes	-25.91	-62.005	10.19	.144
No	0^{b}			
Gender of child				
Female	-8.10	-42.32	24.32	.567
Male	0 ^b			
Is the child receives ASD				
medication				
Yes	-39.61	-123.55	44.34	.324
No	0 ^b			
Residence				
City	-32.90	-83.91	18.10	.185
Village	-25.82	-84.11	32.46	.353
Camp	0 ^b			
Age of child when diagnosed	2.96	-21.70	27.63	.798
with ASD				
Salary	.002	01	.01	.629
Age of parent	.035	-2.53	2.60	.976
Age of child	-3.40	-27.87	21.06	.767
Length of time child taking	6.11	-19.19	31.40	.608
medication				
Length of time in treatment	6.01	-28.21	40.23	.709
Distance from ACI	63	-2.60	1.34	.498
Number_sessions_attended	-1.43	-3.93	1.07	.236





جامعة النجاح الوطنية كلية الدراسات العليا

نموذج دعوة

برنامج سنوات لا تصدق لآباء وامهات الاطفال المصابين بطيف التوحد



حول برنامج سنوات لا تصدق:

- لقد تم تنفيذ هذا البرنامج في معظم انحاء العالم بنجاح كبير. ولقد فازت برامج سنوات لا تصدق ل الإباء و أمهات ، الاطفال، والمعلمين بالعديد من الجوائز الوطنية والدولية
- لدى القائمين على البرنامج 30 سنة من البحث تبين النتائج الناجحة للسكان الذين يعملون معهم
 - برنامج سنوات لا تصدق الأساسي ل اباء وامهات الأطفال المضطربين بشدة تم بالفعل تطبيقه في الضفة الغربية في منطقة بيت لحم وقد تخرجت 3 مجموعات. وكانت ردود الفعل للأمهات المتخرجات إيجابية بشكل ساحق
 - أطفال طيف التوحد هو أحدث برامج سنوات مذهلة وتشير نتائج الأبحاث الأولية الى نجاح اخر!



لماذا يجب على حضور هذه المجموعة ؟

 سوف تتعلم مهارات معينة ملموسة لمساعدة طفلك على تنمية المهارات الاجتماعية والعاطفية بالإضافة لتطوير اللغة لديه

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- سوف تتعلم كيفية خفض مستويات التوتر لديك
- سيكون لديك الفرصة لتلقي وعرض الدعم ل اباء/أمهات اخرين يعانون من نفس الصعوبات
 - سوف تكون مذهلة وممتعة.



للمزيد من المعلومات حول المجموعة وللتسجيل:

- يرجى حضور الاجتماع التوجيهي لمدة ساعة واحدة، 9 فبراير، 12:30 حتى 13:30
 - في مركز تنمية الطفل جامعة النجاح





جامعة النجاح الوطنية

كلية الدر اسات العليا

نموذج موافقة للمشاركة في بحث العلمي

انا محمد محمود وهدان طالب في برنامج ماجستير تمريض الصحة النفسية المجتمعية بجامعة
النجاح الوطنية، أقوم بعمل بحث علمي من اجل الاطروحة للماجستير بعنوان : فعالية برنامج
"سنوات لا تصدق لأولياء أمور الأطفال المصابين باضطراب طيف التوحد في الضفة الغربية.
وذلك بإشراف الدكتورة سابرينا رسو و الدكتورة دينيس بيرت
ادعوك اخي/اختي الكريم/ة للمشاركة الطوعية في هذا البحث
انا،، ولي امر
الطفل/ة
إني أسجل للمشاركة كعضو في مجموعة برنامج سنوات لا تصدق للآباء والأمهات
وانا على علم بما يلي:
1– ان هذا البرنامج هو منهج موحد دوليا ل اباء وامهات الأطفال المصابين بطيف التوحد
وان معهد النجاح للطفولة مع برنامج سنوات لا تصدق يقوم بالتحقق من صحة وفاعلية
هذا المنهج عربيا للآباء والأمهات في فلسطين وان هذه دراسة بحثية
2- مشاركتي طوعية باختياري ولن تؤثر على الخدمات التي يتلقاها طفلي من معهد النجاح
للطفولة بأي شكل من الأشكال
3- سوف اتلقى جلسة لجمع المعلومات بطرح أسئلة عن طفلي وعن ممارسة الابوة/
الامومة، وعن شعوري بالأبوة/الامومة في بداية ونهاية الجلسات

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الفوائد المتوقعة من مشاركتي هي ما يلي:

1- إذا قرر أي شخص أنه لا يمكن أن يستمر مع التزامه بالمشاركة سيتم خروجه من الدراسة دون مضاعفات

2- إذا شعر أي شخص بعدم الارتياح او أصبح مكروبا (مهموما) بسبب المشاركة سيتم تزويده مباشرة بالدعم من قبل المختص بالصحة النفسية والتوصية لاستمرار خدمات الصحة النفسية حسب الضرورة 3- إذا قام أي عضو في المجموعة بخرق سرية المجموعة عمدا سيتم خروجه من المجموعة

انا مدرك للنقاط السابقة وانا أوافق طواعية للمشاركة في برنامج سنوات لا تصدق. وأستطيع سحب موافقتي في أي وقت.

	الأسم:
	التوقيع:

التاريخ: _____

جامعة النجاح الوطنية كلية الدارسات العليا

فعالية برنامج "سنوات لا تصدق لأولياء أمور الأطفال المصابين باضطراب طيف التوحد في الضفة الغربية

اعداد

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إشراف

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د. دینیس بیرت

قدمت هذه الاطروحة استكمالاً لمتطلبات الحصول على درجة الماجستير في برنامج تمريض الصحة النفسية المجتمعية، كلية الدراسات العليا، جامعة النجاح الوطنية، نابلس-فلسطين 2018 فعالية برنامج "سنوات لا تصدق لأولياء أمور الأطفال المصابين باضطراب طيف التوحد في الضفة الغربية محمد محمود و هدان بإشراف د. سابرينا رسو د. دينيس بيرت الملخص

الخلفية: اضطراب طيف التوحد هو اضطراب في النمو (التطور) العصبي. ويعرف بأوجه القصور في التواصل والتنشئة الاجتماعية، ووجود اهتمامات محددة وسلوكيات متكررة نمطية. ان اباء وامهات الأطفال اللذين لديهم طيف التوحد لديهم مستويات عالية من الضغط النفسي، والتي ترتبط، إلى حد ما، مع إدارة سلوكيات الأطفال الصعبة ذات الصلة بطيف التوحد. ويمكن خفض هذا الضغط النفسي عن طريق استخدام برامج التدخل المبكر للأطفال الذين يعانون من اضراب طيف التوحد، وهذا أيضا يحسن مهارات إدارة السلوك للأمهات والاباء. ان برنامج سنوات لا تصدق لطيف التوحد والتأخر اللغوي برنامج للآباء والأمهات الذين لديهم أطفال ما قبل المدرسة ، هو برنامج موحد ومعتمد دوليا لتدريس الأبوة والأمومة وتقنيات الإدارة السلوكية لأولياء أمور الأطفال ذوي الإعاقات الشديدة بما في ذلك طيف التوحد.

الهدف: ان الهدف من هذه الدراسة هو اختبار فعالية برنامج سنوات لا تصدق في الحد من الضغط النفسي العائلي، وزيادة مهارات الأبوة والأمومة في التواصل، التنشئة الاجتماعية، حل المشاكل، والحد من السلوكيات الأبوية السلبية تجاه أطفالهم المصابين بطيف التوحد، في المجتمع الفلسطيني.

المشاركين وطريقة البحث: تم تطبيق دراسة تداخلية باستخدام منهج الاختبار القبلي-البعدي. أجري البحث في معهد النجاح للطفولة في نابلس. وقد استوفى واحد وثلاثون اب و ام المعايير
اللازمة وشاركوا في البرامج، بالنسبة لعدد الأمهات (61.3 في المائة، العدد = 19)، اما الآباء (38.7 في المائة؛ العدد = 12). وقد أكمل البرنامج واحد وعشرون آب و ام (68٪)؛ في حين انسحب عشرة أولياء الأمور من البرنامج قبل الانتهاء من الدراسة.

النتائج: مؤشر الضغط النفسي انخفض عند الاباء والأمهات بعد البرنامج بمتوسط فرق قدره 11.1، ذات دلالة احصائية (95٪ CI 4.3 CI (95)) (200. = p). وبالمثل، انخفض مؤشر الضغط النفسي المرتبط بمجموع فروع المجال الأبوي بشكل ملحوظ وذات دلالة احصائية (95٪ CI 1 CI 71؛ 000 = p)، في حين انخفض متوسط مؤشر الضغط النفسي المتعلق بالضغط النفسي الكلي من 310 قبل البدء بالبرنامج إلى 288 بعد نهاية البرنامج مع فارق في المتوسط النفسي الكلي من 310 قبل البدء بالبرنامج الى 288 بعد نهاية البرنامج مع فارق في المتوسط مؤشر ضبط وتأديب الأمهات لأطفالهن القبلي–البعدي بعد المشاركة بالبرنامج أعلى بنسبة 0.9 مؤشر ضبط وتأديب الأمهات لأطفالهن القبلي–البعدي بعد المشاركة بالبرنامج أعلى بنسبة 0.9

الخلاصة: بصفة عامة، قدمت النتائج الإيجابية الدعم الأولي لفرضية أن برنامج سنوات لا تصدق يمكن أن يقلل من الضغط النفسي لدى أولياء أمور الأطفال المصابين بطيف التوحد في فلسطين، فضلا عن تحسين مهارات إدارة السلوك للآباء والامهات المشاركين. بشكل عام، سجلت الأمهات درجات أعلى في العدوانية والتأديب البدني تجاه أطفالهن من الآباء. وقد سجلت الأسر ذات الموارد الاقتصادية الأقل انخفاضا اكثر في مستويات العدوانية مقارنة بالأسر ذات الدخل المادي الأعلى.

كلمات دلالية: اضطراب طيف التوحد، برنامج سنوات لا تصدق، تدريب الاباء والأمهات، الضغط النفسي للأمهات والاباء