EFFECT OF POSITIVE PSYCHOLOGICAL INTERVENTIONS ON MENTAL HEALTH OF THE PARENTS HAVING CHILDREN WITH INTELLECTUAL DISABILITY

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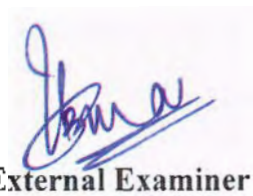

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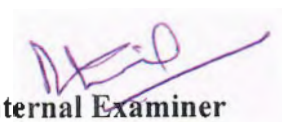

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I know that plagiarism is not allowed. It is unethical and against the professional code of conduct. Thus, the contribution of other authors has been acknowledged by citing their names and references both in the running text and in the reference list.

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CERTIFICATE

It is certified that PhD dissertation titled "The effect of positive psychological interventions on mental health of the parents having children with intellectual disability" prepared by Mr. Ghulam Murtaza Bodla is approved for submission to the Department of Psychology, International Islamic University Islamabad.

Professor Dr. Muhammad Tahir Khalily

Supervisor

Dedicated to:

My Parents and Family

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ABSTRACT

The present study is aimed to examine the effect of positive psychological interventions (rationality, optimism, interpersonal skills) on mental health (stress, well-being and quality of life) of the parents having children with intellectual disability. In the present study, the prediction level of stress, well-being, and quality of life among parents having children with intellectual disability is examined during pre/post interventions. In addition, effect of demographics is examined as well. The present study is based on the experimental (pre-test and posttest intervention) research design. A Sample of 30 parents having children diagnosed with intellectual disability are included to see the effect of interventions. The study was divided into three parts. Firstly, pre-testing and analysis was done during selection of the sample. Secondly, individual treatment sessions of positive psychology (rationality, optimism, and interpersonal skills) were given to the sample for improving their mental health (stress, well-being and quality of life). Thirdly, post-testing was also done to measure the effect of the treatment on sample. Fourthly, measuring scales; Depression Anxiety and Stress Scale (DASS), Ryff's Scale of Psychological Well-Being, Anxiety Symptoms Questionnaire, and WHO Quality of Life Scale were used to collect the data. Three scales of positive psychology; Positivity Scale, Rationality Scale, Interpersonal Skills Questionnaire were used on sample to measure the strengths of the parents for starting the therapeutic sessions. Both parents i.e., fathers and mothers were included in the study.

Various statistical tests were used to analyze the data. A paired sample t-test was used to ensure the effect of interventions within subjects. The study supported the main hypotheses. Results of paired sample t-test analysis revealed that therapy sessions of optimism, rationality and interpersonal skills have positive effect for improving the wellbeing and quality of life and lowering the mental stress. Findings of this result are significant. Results of an independent sample t-test revealed that there was no significant difference between fathers and mothers on stress, wellbeing and quality of life. Findings of an independent t-test showed that parents of urban and rural areas have no significant difference in terms of stress, wellbeing, and quality of life. Results on variable of younger and older age parents revealed non-significance on an independent t-test. Analysis on One-way ANOVA revealed non-significant difference on the socioeconomic demographic variables. Educational variables in terms of stress, wellbeing and

quality were also non-significant on One-way ANOVA test. Findings of standard multiple regression revealed that interventions can count and predict significant scores on measure of stress, well-being, and quality of life. Overall, the findings are valuable for the field of rehabilitation and clinical psychology.

EFFECT OF POSITIVE PSYCHOLOGICAL INTERVENTIONS ON MENTAL HEALTH OF THE PARENTS HAVING CHILDREN WITH INTELLECTUAL DISABILITY

CHAPTER I

INTRODUCTION

The focus in psychology over the last one hundred years has been on the understanding and treatment of mental health problems, relieving symptoms of distress and helping patients to improve their daily life functioning. This is the obvious trend in clinical psychology. On the other hand, some psychologists are interested in the new field of positive psychology, the field explains good and happy life; about human flourishing and ways to make life worth living. Different concepts have been developed for its better understanding and proper explanation, like the dark and the sunny side of life (James, 1958). Erikson (1959) stressed on positive characteristics of mental health as ways of long lasting growth and improvement. Rogers, (1961) emphasized on self-actualization, striving for fulfillment and enhancement as source of happiness in life. Individual's personal achievement was introduced by Buhler & Massarik, 1968. Maslow (1968) presented the theory about self-actualization and Diener (1984) gave the idea of happiness. Psychological well-being model of multidimensional was presented by Ryff (1989) and many more were introduced for positive psychological management of the human being.

Seligman (1998) founded a field of Positive Psychology, and this field has developed rapidly. The topic of interest and research methods of Positive Psychology is not new Currently, in academic psychology, there are studies on the components and mechanism of Positive Psychology. According to Seligman (1998) "positive emotions, traits, and institutions" are the strengths of individuals, which need to be improved to lessen mental stress; therefore, it is important that the use of one's own potential can help to humans live a meaningful and satisfying life. Still many questions are not yet answered like whether a sustainable and promising increase of happiness is permanent or these increases are temporary because of adjustment (Helson, 1964). The bad experiences of life are supposed to

be stronger as compared to good ones (Kahneman & Tversky, 1984). So, it is questionable that Positive Psychology would be able to stop bad experiences forever or it might be the placebo effect due to various observed interventions (Sheldon, 2008).

This empirical study refers to one specific issue in Positive Psychology that is an intervention can lead to a sustainable increase in wellbeing. Such intervention can address the main problems of an individual. According to Seligman everyone can build more and lasting positive emotion into his or her life. It has been shown empirically that positive emotions and happiness can be boosting for a short time through pleasurable activities (Lyubomirsky, 2007; Seligman, 2003). Unfortunately, sustainable increase in well-being cannot be achieved by boosting happiness alone, because the happiness level can bounce back after some time. Therefore, it was a challenge for Positive Psychology to develop interventions for long-term positive effects. So, many interventions for enhancing well-being have been developed after foundation of Positive Psychology. We are interested to change well-being and quality of life over time, and therefore, focusing on longitudinal intervention in this study. The current state of research is illustrated by the study of Seligman, Steen, Park, and Peterson (2005). This is one of the major studies comparing different Positive Psychological interventions.

The three most successful interventions of positive psychology are considered to apply in present study for strengthening and increasing the mental health of the sample in a new way. The researcher provided three positive interventions: optimism, rationality, and interpersonal skills (i.e. more focus on interpersonal relationships) to parents having children with intellectual disability. In the use of positive interventions, participants are being provided counseling in continuous sessions (Seligman, Steen, Park, & Peterson, 2005). After applying positive intervention, participants are instructed to express their feelings of positivity on valid questionnaires. These three interventions (optimism, rationality, and

interpersonal skills) were shown to have a significant effect on well-being and quality of life for a short period of time. Furthermore, they are simple, easy to apply, but require more time. However, sustainable (as opposed to temporary) effects can be achieved only by the using positive interventions for participants who continued with the instructions during the proper and long-term period of treatment (Seligman, Steen, Park, & Peterson, 2005).

There are several limitations that apply to most Positive Psychology interventions developed so far. Firstly, most longitudinal interventions cover a maximum time horizon of three or six months or more. It is questionable from a life-span-development perspective whether these time ranges are enough to identify the factors for sustainable change over the lifetime. One thing is also assumable that increasing of shaping factors, such as self-escalation or positive relation with others, might face tough situation for change, which can affect or decrease well-being and quality of life (Peterson, & Seligman, 2004). Secondly, most Positive Psychological interventions are simple, so it is still an open question whether treatment have better and lasting effects when these interventions are provided for a long duration of time (Seligman, Steen, Park, & Peterson, 2005). Thirdly, it might be challenging that most interventions focus on the output variable stress, well-being, and quality of life. According to Diener (1984), subjective well-being is an umbrella term which consists of happiness, life satisfaction, positive and negative effect. Ben-Shahar (2007), states that happiness is the ultimate cash of an individual by overcoming the stress. However, focusing only on well-being in the short term (up to six months) might lead to superficiality, and these interventions might reduce psychological issues momentarily; but on the other hand, this might be counterproductive for achieving long term happiness. Hence, one should consider that the interventions which might reduce the components of personal well-being in the short term, may have the potential for positive change in the long run (several years).

According to Parks & Biswas-Diener 2013, positive psychological intervention helps

to increase optimistic thoughts, feelings and actions which ultimately enhance the well-being of groups or individuals. Two essential components were defined for application of the interventions of positive psychology: (1) the goal of intervention; (2) the pathway of intervention. So, the same ways were followed on the sample of current study. The best approach for changing behavior of any individual is that the therapist should give already tried and proven examples to the clients (Schueller and Parks 2014).

Parks and Biswas-Diener 2013, presented broad range of therapies for helping individuals to eagerly chase the happiness after inspired by the studies. The introduced positive psychological interventions (PPIs) were explained as therapeutic techniques or treatment activities for refining positive acts, feelings and positive understandings (Sin and Lyubomirsky 2009, p. 468). Positive psychological interventions (PPIs) are distinct in interventional methods like gratitude lettering, acquiring forgiveness, and taking care of someone.

Schueller and Parks 2014 study, explained that traditional Positive psychological interventions(PPIs) needed one-to-one contact between therapist and client and these have good effectiveness for improving the mental health. Even this is one of the nice self-help treatment methods for those who require professional support as well.

Effect of Optimism on Stress, Well Being and Quality of Life

Optimism is a global opinion or mental approach that interprets situations and events as being best (optimization), so it means that in some ways the factors may not be fully comprehended, though the present moment is in an optimum state. The concept is normally used to include the thoughts of hope for future circumstances and relating best (Susan, 2000). Optimism is helpful directly or indirectly to reduce the stress and increase the quality of life and well-being. It was found by Vickers &Vogeltanz (2000) in some researches that optimism is negatively associated with depressive symptoms and it has more positive effect to increase the well-being and quality of life.

According to Scheier and Carver (1992), optimism leads as an important predictor for well-being of the stressful individuals. Optimistic persons feel more relaxed, rested and have good sleep. They are reported to be less likely to awakenings in early morning as compared to pessimistic. Optimists reported that their lives are interesting and diverse, free from pressures and annoyances as compared to pessimists. Optimists also reported greater satisfaction with their relationships as well as greater satisfaction from their jobs. Finally, their general quality of life remains higher as compared to pessimists.

Findings from guide of personal resources by Helgeson, Snyder and Seltman2004, predicted that optimism is indicator of well-being and quality of life and the same concept was also conceived by the conceptual framework of the same study. These effects of optimism were also seen with relevant demographics along with medical predictors and they remained significant even including after the further controls of earlier levels of well-being. In many studies of positive psychological treatment on breast cancer patients reflected, that long-term continuity of sessions resulted in high well-being and low level of stress (Diener, Suh, Lucas, & Smith, 1999).

Unfortunately, fewer researches have been carried out to recognize the details about cognitions and rationality with reference to well-being and quality of life. Ellis' (1962) conducted study to assess the life satisfaction and wellbeing in activating events. Applying post-test after 2 weeks of treatment and 6 weeks follow up, he found increase in wellbeing. In view with this, Lyubomirsky and Lepper (2000), investigated and found that logic effect on cognition is a predictor of well-being. A study by Shorkey and Reyes (1978) found a modest relationship between self-actualization and cognitions, which is the recognition of our abilities, talents and potentials (Maslow, 1954).

In a post-test treatment study by Lichter and colleagues (1980) it was found that the daily rehearsal of positive statements (e.g., I have confidence in my decisions) for 2 weeks led to significantly greater levels of happiness and less depression. Mental health practitioners usually focus on reducing dysfunctions without enhancing the optimism of the clients. Dysfunctional beliefs are also associated with negative effects of life events and these behavioral changes can be done for long lasting through development of positive psychological states along with other treatments i.e. subjective well-being, quality of life (Jahoda, 1958; Seligman &Csikszentmihalyi, 2000).

Cognitive treatment deals not only with negative cognitions or maladaptive behaviors, it has basic role for some positive psychological interventions, because the optimism training has been empirically validated for effective treatment of depression and it is useful for increasing the happiness and well-being among patients as well (Seligman, 2000). In Some researches, it was found that cognitive exercise of counting one's blessings is strongly linked with life satisfaction, well-being and optimism (Emmons & McCullough, 2003; Froh, Sefick, & Emmons, 2006). It is pertinent to mention over here that positive psychological

interventions differ from traditional methods for restructuring of cognition and its treatments. More specifically, the positive psychologists focused on satisfaction of life through cognitive change by its techniques like forgiveness, mindfulness, counting one's blessings and optimism for the past, present, and future. They also target the well-being as well (Seligman, 2002). Therefore, in the present research rationality is selected as positive intervention to decrease stress of parents having children with intellectual disability and increase their well-being as well as quality of life.

Effect of Interpersonal Skills on Stress, Well Being and Quality of Life

Interpersonal skills are important for every individual and these can be valuable in any situation for anyone. Actually, interpersonal skills allow us to effectively communicate with each other, which ultimately make our life comfortable. If we have good interpersonal skills, we will be able to develop more social skills as well as social relations. We can effectively communicate with someone after using various techniques of social skills. Therefore, it has direct effects on individual's quality of life and well-being.

Developing interpersonal relationships is highly important for couples and their families for improving the mental health of their children. Positive psychologists are using the term "flourishing relationships" to describe interpersonal relationships that does not mean simply happy, but that have the meanings of intimacy, growth, and resilience. Research has derived that socialization and expending resources for maintaining and enhancing the social as well as interpersonal relationships are vital mechanism for improving the well-being and quality of life among persons. A study by Argyle (2001) explore that interpersonal relationships have an influential effect on cheerfulness and other aspects of well-being.

Literature of previous researches proved strong relationship between happiness, well-being and interpersonal relationships and showed that interpersonal relations have good

impact on mental health (Argyle, 2001; Diener& Seligman, 2002; Myers, 1999; Pinquart& So¨rensen, 2000). Results of another study revealed that those individuals have better physical, mental and emotional quality of life that have good relationships. Even they have shown more coping and adjustment responses toward stress of life (Myers, 1999). This research also reflected that, quality interpersonal relationships are the predictor of both, life satisfaction and good well-being. This study has allowed researchers to develop treatment approaches for couple's therapy and they are trying to improve positive aspects of relations which resolve their conflicts. Goals of therapy include development of social and interpersonal skills. Sharing appreciation and expressing gratitude with partner is the basic purpose for creating a positive relationship. Mindfulness is also emphasis of the positive marital counseling sessions like other components. Flourishing relationships can figure the positive future of the couples of premarital and marital counseling. Good intimacy of relationships between couples have more positive effect on mental health of their children and it helps for developing children's well-being (Snyder & Shane, 2007).

Effect of Demographic Variables on Study Variables

Demographic Variables like gender, age etc. also have significant effect on positive psychological capitals and stress. Optimism is a generalized strength and we can expect positive outcomes from this strength and it is an essential belief that good things will happen as compared to bad things with person's life through optimism (Scheier & Carver, 1993). Optimism has been identified as a factor for performing self-regulatory functions. Those individuals, who are engaged in positive thinking and performing optimism, can achieve their targets easily. Eventual success is expected through efforts and only those can make efforts, who are optimistic. Desired goals are strongly related to the favorable expectancies and every individual can reach there through positivity (Carver & Scheier, 1981). Previous

literature showed that women were high on stress and depression and low on optimism. Hagley, 1987 explored that the consistency of early socialization and interaction with others can be a factor for mental health management. The results of another study showed that expressing the negative emotions and feelings are useful for women (Reynolds, 1998). A study by Sinnott & Shifren, 2001 found that Women are also meeting with gender-specific and age role transition issues like unmarried-to-married and mother-to-grandmother. Females are also facing health related issues like increasing risk of breast and ovarian cancer, osteoporosis in their later life, which may preserve the gender gap.

Gender differences about well-being and quality of life can be seen all over the world and in different cultures (Helliwell, 2003). A study explained that gender belongings are largely dependent on the specific background and circumstances (Arku, 2008). Findings of another study explained that women are happier as compared to men in Scandinavian countries, but the situation in Soviet Union is opposite (Helliwell, 2003). Eastern countries are male dominating countries, and men have more advantages in decision making, politics and money earning, but females are used to do their household duties. So, the males have more freedom as compared to females and that's why, men are better on mental health, well-being and satisfaction of life as compared to females (Bodla & Shah, 2012; Riaz, 2012).

Inglehart (2002) analyzed the data of 65 countries about joint effects of gender and age on well-being and found high well-being in older adults as compared to the adolescents. A study conducted in Germany and United States by Westerh & Barrett (2005) showed that large number of older adults reported feelings of less stress as compared to younger adults, which showed positive association with their level of life satisfaction and good wellbeing. High economic status and social support prevent people from psychosocial problems and life stresses which make life healthy, purposeful and good in well-being (Riaz, 2012). Hagerty and Veenhoven (2003) also found that increased GDP was the strongest predictor of increases in

well-being. Inglehart, Foa, Peterson, and Weizel (2008) examined trends in happiness for fifty-two countries between 1981 and 2007 and found that increase of economic development, increasing social tolerance and democratization were significant predictors of increasing happiness in forty five out of the fifty-two countries.

LITERATURE REVIEW

Practice of positive psychology for management is contemplated as harmonizing plan for improving mental health. A meta-analysis study was conducted to determine the usefulness of positive psychological treatment for psychological issues on common and particular persons and it measured the outcomes of depression, psychological and subjective well-being through recent randomize control researches (2009-2012). Post-test effects of this long interventional study were analyzed in which optimism revealed encouraging results for managing depression along with other severe health care issues like cardiac diseases (Tindle et al. 2009).

Different researches explored that optimism performs important role for recovering of ailments and indicated that optimistic persons with life threatening cancer experienced low level of distress during their treatment for recovery (Carver et al., 1993; Schou, Ekeberg, Ruland, Sandvik &Hjermstad, 2005). Schouand colleagues (2005) uncovered that optimists showed better quality of life and less distress even after one year of surgery of breast cancer. Optimism also protects from social withdrawal and it is also helpful for maintaining less disruption in life due to chronic illnesses. It is evident that optimism can prevent from stress of severe chronic illnesses (Matthews, Raikkonen, Sutton-Tyrell, &Kuller, 2004).

Taylor and colleagues (1992) found that diagnosed HIV patients reproduced good emotional well-being and individual health through optimism. It is also seen that optimism reflects strong positive effect on immune system which helps to live with less stress in health issues.

Brissette, Scheier, & Carver, 2002, find that optimism is an important factor for coping with life troubles and it is related as ahealthier response to several problems. Optimism shows

caring role to assist people for surviving in unusual events of life (Zeidner& Hammer, 1992). Additionally, it was also found that optimism is clearly linked with life satisfaction and self-respect (Lucas, Diener, &Suh, 1996). A study conducted by the Segerstrom and Sephton (2010) for assessing the projective effect of optimism. Wonderfully the results were not negative in case of increase in the optimism, so it was clearly find out that optimism is outstandingly linked with positive effect on persons and optimists are capable to handle and manage their displeasures or distresses of life.

Optimistic people are more involved in problem resolving when facing difficulties and it is directly related to increase in the psychological well-being (e.g., Taylor et al., 1992). More optimistic people can be inclined to accept problematic conditions of reality and they are competent enough to frame them in the best light way (Carver et al., 1993).

Research show that care givers of loved ones for chronic illnesses or with their terminal stage can have worse negative effects on their mental health. However, optimism is a good way to help them to protect their mental health (Singh et al., 2004).

Gupta & Kaur (2010) studied stress among parents having children with intellectual disability and 102 parents having children with intellectual disability were taken as sample of the research. T test was also applied to assess the gender differences, stress, mental and physical stress. This study shows that majority parents with intellectual disability experience significantly stresses of mental and physical nature. Some of them showed lot of psychological disturbances like guilt feelings, denial, shock etc. Even children with intellectual disability cannot discover about their basic needs and desires as well. The impact of parenting stress, parental depression and marital kinship between disabled children's parents' vis-à-vis and developmentally normal children were observed during research conducted by Dumas, Wolf, Fisman, &Culligan (1991). The outcome of the study revealed

that parents of autistic children displayed considerably higher stress, depression and marital intimacy as compared to parents of children with Down syndrome.

The research conducted by Heller et.al (1997) showed that mothers of intellectually disabled children associated more of their time by looking after them, giving assistance, and regarded more caretaker responsibility than the fathers. Mothers as compared to fathers were influenced more with the health and conduct of the children.

Peshawaria, Menon, Ganguly, Roy, et.al (1998) described that in India, there were gender dissimilarities in easing and hampering factors that affected in dealing effectively with the parents of intellectually handicapped children. Mothers bear more burdens to equalize childcare essentials and domestic responsibilities. Physical assistance was breather to them.

A direct association was stated by Seshadri, Verma, Verma, &Pershad, (1983) among the degree of regarded burden, collective emotional burden, interruption of family day-to-day activities and distraction in domestic relations for women with mentally retarded children instead of men.

Self-comprehend health was analyzed by Hedov, Anneren, &Wikblad, (2000) among Swedish parents of children with Down syndrome. It was established that mothers of children with Down syndrome as compared to fathers of Down syndrome children and control group had considerably less advantageous points on self-recognized health.

In a research, Shin (2002) described the contentment of Korean and American mothers having children with intellectual disorder. In American mothers, the reason for stress was explicitly related to individual elements. The Korean mother's experience of stress was tightly connected with ethnic morals that carry societal influence.

While studying and analyzing the physical and mental health, Laurvick, Msall,

Silburn, S., Bower, de Klerk, & Leonard (2006) observed that following elements are associated with improved mental health of mothers taking care of children with Rett's Syndrome, like mothers having part-time or full-time job outside the home, the child since last two years did not have a serious injury, and living a successful marital life and less anxiety.

Kermanshahi, Vanaki, Ahmadi, Kazemnejad, Mordoch, &Azadfalah, (2008) in their research on comprehensions of creation with children with intellectual incapability discovered six crucial discussion points: stimulating the procedure of acceptance, agonizing psychological response, the inter-affinity of mother's health and child's contentment, grapples to handle oneself or the child, insufficient assistance from family and community, and the stress associated with child's ambiguous forthcoming.

Analysis of publications pointed out that those parents of children having intellectual incapability; more specifically the mothers would have high anxiety and poor health points. Contrary to that Mahoney (1988), recorded some optimistic outcomes. He observed that the handicapped child can have an integrative result by concentrating the family's strength in a distressed and affectionate way, thus curtailing few other daily issues. Some parents demonstrated a new admiration for life and conventional things they have been taking for granted.

The current research was formulated with the supposition that:

1. Parents of Children with intellectual disability (PCID) will encounter considerably more trauma in relation to Parents of Children without disability (PCND);
2. Parents of children with intellectual disability will experience notably greater psychological strain than physical strain;

3. Mothers of Children with intellectual disability (MCID) will face suggestively greater stress than fathers.

Farber& Kirk, (1959), evaluated that parent's initial anxiety seems connected with sex, which shifted with the passage of time. Mothers having intellectually challenged children, and neurotic children, suffer more traumatic experience than mothers of chronically ill or normal children. According to this research if the handicapped child needs maximum of his parent's attention, then bitterness and jealousy may develop in siblings, leaving short temper and intolerance in the others.

Jani (1967) analyzed in a research, the societal issues associated with the presence of an intellectually handicapped child. The outcome of research highlighted that stress about the future was noticeable in parental emotions. Moreover, pessimistic effects towards other siblings, emotional trauma, less socialization with neighbors and relatives, misapprehension among family, and monetary loss were noteworthy realities linked with the intellectual incapability in the family.

Dupont (1967) noticed that mental health services frequently had a strategy for not serving a person having intellectual incapability. While evaluating a four-year caseload of a health center in a minor community,

Rationale of the Present Study

Numerous studies show that, parents having children with intellectual disability face many problems related to their mental health. They particularly face high level of stress, which directly and indirectly effect their well-being, as well as their quality of life (Glaun & Brown, 1999). A lot of research work in Pakistan focused and highlighted the problems of children with disabilities (Abbasi, 2012; Aqeel, 2012), but these researches had focused only on problems related to parents of children with disabilities. Parents facing lot of issues due to disability of their children which ultimately enhance their life stress so this research focused on the management of the psychological issues of parents and their mental health i.e. stress, poor well-being and poor quality of life. In the present study, positive intervention techniques were applied on parents of children with intellectual disability especially to those parents who would be high on stress and poor mental health. So, the present research was an attempt to bridge the gap regarding care of the caregiver.

Most of the past researches conducted in this area are based on cross-sectional survey research design, which had some limitations. In experimental research, the researcher has more control over the environment. Thus, in an experiment, investigators apply treatments to experimental units (people, animals, plots of land, etc.), and then proceed to observe the effect of the treatments on the experimental units--chances of error is low due to control conditions. Because of need and assumptions, the present research was also based on experimental research design, this research was also different by methodological context.

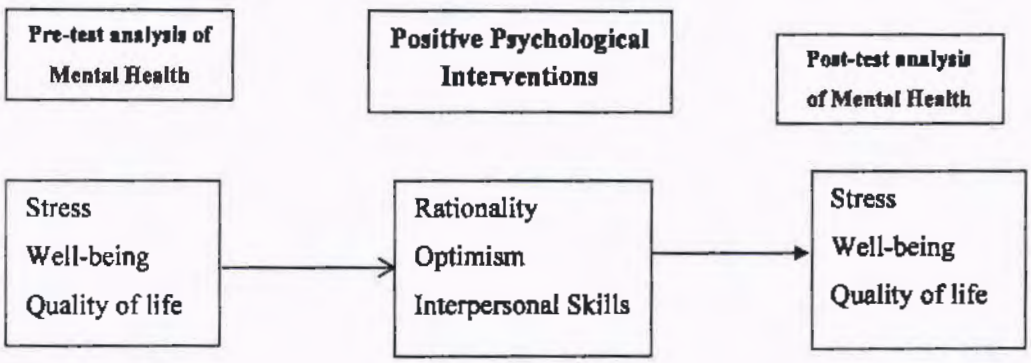
The positive psychological interventions were studied in the current research with different aspects of positive psychology, which showed great interest of the researcher in the recent decades (Riaz, 2012). Positive psychology concerns about wisdom, optimism, rationality, interpersonal skills, well-being, and quality of life. Positive psychological

interventions are also important components of positive psychology, because these are related to the positive strength of human beings (Seligman, 2002). Studies have shown that more optimism, rationality as well as interpersonal skills result in subjective well-being (Scheier, Carver, & Bridges, 2001) and quality of life (Deaton, 2010). The greater the optimism; the greater the well-being and quality of life (Affleck, Tennen, &Apter, 2001); and, the lower the stress. Positive psychological interventions are strongly related to positive outcomes i.e. well-being and quality of life. Therefore, the current research aimed at studying positive psychological interventions as therapeutic treatments for parents of intellectually disabled children.

Relatively less research has been conducted in this area. In the past, research was done on positive psychological interventions. Most of the research focused on the population that suffered from severe chronic illnesses, like obesity, HIV, cancer, diabetes, sexual transmission diseases etc., and other psychological and physical problems (Seligman, 2002). But those populations, who have internalizing psychological problems like stress, depression, poor mental health, and others issue were less focused. Therefore, there was a gap of research for mental health of the parents having children with disabilities.

Moreover, more than 20 years my professional experience with disabilities and psychological patients as well as observation created my interest and motivation to focus on the mental health of the caretakers of children with intellectual disability. This highlighted the need to see the effect of positive psychological interventions on internalizing psychological problems of the individuals, especially of parents having children with intellectual disabilities.

Conceptual Framework



METHOD

CHAPTER II

METHOD

Objectives

In the view of literature and empirical evidences the following objectives and hypothesis were formulated;

1. To explore the effect of positive psychological interventions (optimism, rationality, interpersonal skills) on stress, well-being and quality of life among parents having children with intellectual disability.
2. To compare the levels of stress, well-being and quality of life among parents having children with intellectual disability regarding pre/post interventions.
3. To determine the effect of demographic variables i.e. gender, age, rural and urban population, socioeconomic status, and education on all study variables.

Hypotheses of Study

H1. Positive psychological interventions are positively associated with mental health, more specifically;

a. Effect of rationality is negatively associated with stress but positively associated with well-being and quality of life of parents having children with intellectual disability.

b. Effect of optimism is negative on stress but positively associated with well-being and quality of life of parents having children with intellectual disability.

c. Effect of interpersonal skills is negatively associated on stress but positively associated with well-being and quality of life of parents having children with intellectual disability.

H2. The positive psychological interventions negatively predict stress but positively predict well-being and quality of life of parents having children with intellectual disability.

H3. Demographic factors affect stress, well-being and quality of life of parents having children with intellectual disability.

a. Mothers obtain high score on stress scale as compared to fathers.

b. Fathers score high on well-being and quality of life scale as compared to mothers.

c. Younger parents score high on stress scale and low on well-being and quality of life scale as compared to older parents.

d. Parents having high socio-economic status score high on well-being and quality of life and low on stress as compared to parents having low socio economic status.

e. Parents having high level of education obtain high score on well-being and quality of life and low on stress as compared to parents having low level education.

f. Parents belonging to rural areas obtain high score on stress scale and low score on well-being and quality of life as compared to urban areas.

Operational Definitions

Positive Psychological Interventions

In present study, the scores of the following three components of positive psychological interventions are tested.

Optimism

It is a mental approach or point of view that interprets situations and events as being best (Seligman, 1990). In the present study, optimism is operationally defined as scores on optimism subscale of the personal optimism subscale of Positivity Scale (Seligman, 1990). High scores on the scale indicate high optimism and vice versa.

Rationality

It is the characteristic of any act, faith or wish that makes its choice an essential (Hill, 1995). In the present study, rationality is operationally defined as scores on the Rationality/Emotional Defensiveness (R/ED) Scale (Spielbercer, 1988), High scores on the scale indicate high rationality and vice versa.

Interpersonal Skills

These are not considered only about our relationship with others: it is also our talent and ability to listen and understand the things. The abilities, like crisis-solving, decision-taking, and personal stress management are also considered interpersonal skills (Hill, 1995). In the present study, interpersonal skills are operationally defined as scores on the Interpersonal Skills Questionnaire (Hill, 1995). High scores on the scale indicate high interpersonal skills and vice versa.

Mental Health

In the present study, the scores of the following three components of mental health are considered.

Stress

Stress is a mental, physical or emotional response toward the tense situation. It can be of both types i.e. positive or negative. Stress can be a causal factor of diseases (Lovibond &Lovibond, 1995). In the present study, stress is measured through Stress subscale of

Depression Anxiety and Stress Scale (Lovibond & Lovibond, 1995). High scores on the scale indicate high stress and vice versa.

Well-Being

Well-being is a general term for the condition of an individual or group about its social, economic, psychological, spiritual or medical status. High well-being means that the individual or group's experience is positive about life events while low well-being is associated with negative experience (Ryff, 2005). In the present study, well-being is measured through Ryff's Scale of Psychological Well-Being, (Ryff, 2005) Mood and Anxiety Symptoms Questionnaire (Watson & Clark, 1995). High scores on the scale indicate high well-being and vice versa.

Quality of Life

Quality of Life means, that an individual has satisfaction in life spending goals and meeting with the suitable necessities of life as well as having adequate life direction (WHO, 1994b). In the present study, well-being is measured through WHO Quality of Life Scale (WHO, 1994b). High scores on the scale indicate high quality of life and vice versa.

Participants of study

Thirty parents having children with diagnosed intellectual disability were selected as participants in the present study from National Institute of Rehabilitation Medicines, Islamabad through purposive convenient sampling technique. Those parents were approached who were already getting treatment for their children from psychological services department of NIRM. Initially briefing about the purpose of study was given to participants and written informed consent was obtained from willing participants. All participants took part in study without financial incentive, they were more interested to learn about their stress level and how to improve their mental health condition. Initially 43 participants were included but only 30 participants continued the sessions. Purposive convenient sampling technique was applied.

A total of 30 participants having mean age 38 were selected for the study. Among them, 53 percent were male while 47 percent were female. Seventy percent belonged to urban areas, and majority of the participants (86%) were from middle class socioeconomic status. Education level of 33% of present sample was Matric, 27% Bachelors, and 30%, was Masters respectively. Pre-testing about mental health status of the sample was done during selection before applying the positive psychological interventions. Most of the participants were cooperative and participated on a regular basis in the treatment sessions, but few were difficult, and had to be approached repeatedly for follow up sessions. Dropout rate was very high as only 30 out of 43 participants continued sessions. Participants acted as self-control, because no control group was taken, as the study was longitudinal and sample of study was large. Individual therapy sessions were given to the participants so it was not possible to include control group due to limited resources.

Inclusion criteria

Only those participants were included who have shown high level stress on scales and low level on wellbeing and quality of life scales.

Control of Confounding Variables

It is important to control the confounding variables in an intervention or longitudinal study. Controlling confounding variables, help to reduce the negative impact of any trauma on results of sample. So, it was planned to apply the Impact of Event Scale-Revised on the sample during intervention, if anyone among the sample reported traumatic incident. Since no trauma or mishap was reported by the participants in follow up feedback sessions, therefore, the scale was not used as intended.

Instruments

Positivity Scale

Eleven items Personal Optimism subscale of Positivity Scale (Seligman, 1990), was used to measure optimism among participants. It is based on a 5-point Likert- scale, that presents a response option from always agree to never agree, and the participant selects the option which best describes them. The personal optimism has alpha reliability of .89.

Rationality Scale

The Rationality/Emotional Defensiveness (R/ED) Scale (Spielbercer, 1988), consists of 12 items to measure interpersonal skills among participants. It is based on a 5-point Likert- scale for each item (always agree to never agree). The scale has satisfactory alpha reliability of.91.

Interpersonal Skills Questionnaire

The Interpersonal Skills Questionnaire (Hill, 1995), consists of 15 items that measure interpersonal skills among participants. For each statement, the participants rate themselves on a scale of 1 to 10, a rating of 10 indicate that the statement is 'always true' for them, and a rating of 1 indicate that the statement is 'never true' for them. The scale has a satisfactory alpha reliability of .79.

Depression Anxiety and Stress Scale

Stress subscale of Depression Anxiety and Stress Scale (Lovibond & Lovibond, 1995), consisting of 7 items, is used to measure stress among participants. It is based on a 5-point Likert- scale, where 5 means 'always agree', and 1 means 'never agree'. The scale has alpha reliability of .88.

Riff's Psychological Well-Being Inventory

Ryff Psychological Well-Being Inventory (Ryff, 2005), consists of 54 items (medium form) to measure well-being among participants. The instrument consists of a series of statements

reflecting the six areas of psychological well-being: autonomy, environmental mastery, personal growth, positive relations with others, and purpose in life and self-acceptance. Respondents rate the statements on a scale of 1 to 6, with 1 indicating 'strong disagreement' and 6 indicating 'strong agreement'. The scale has satisfactory alpha reliability of .86.

WHO Quality of Life Scale

WHO Quality of Life Scale (WHO, 1994b), consists of 26 items to measure quality of life among participants. It is based on a 5-point Likert- scale. Each item is scored on a response choice of 5 points, 5 means always agree and 1 never agrees to the item. The scale has alpha reliability of .93.

Impact of Event Scale-Revised

Impact of Event Scale (Weiss, 2007), consist of 22items is used to measure the impact of event on life of the participants. It is a 5- point Likert- scale for each item (not at all to extremely agree). It consists of three sub domains Intrusion Subscale (1, 2, 3, 6, 9, 14, 16, 20), Avoidance (5, 7, 8, 11, 12, 13, 17, 22) and hyper arousal (4, 10, 15, 18, 19, 21.). Alpha coefficient Reliability is satisfactory. The scale was not used because the need did not arise as none of the participants reported any trauma during the study.

Procedure

The parents of diagnosed intellectually disabled children were selected from National Institute of Rehabilitation Medicine, Islamabad. Approval was taken from the administration of the hospital for conducting the study. After briefing about study, written informed consent was obtained from the participants. A total of 30 participants, having mean age 38, were selected for the study. Among them, 53 percent were male while 47 percent were female. Seventy percent belonged to urban areas and majority of the participants (86%) were from middle class socioeconomic status. Education level of participants were: 33% Matric, 27%,

Bachelors and 30%, Masters respectively. The participants were given a pretest to determine a baseline data, as a basis on which the post test scores would be compared to see whether or not any differences were observed after the interventions were applied. Forty-three parents were included but dropout rate of sample was very high. Only 30 parents continued sessions for intervention. The Researcher explained all steps and protocols of study in very simple and local language to the participants. Pre-test analysis was done after selection of the sample. An interventional module of positive psychological interventions, session's record sheet and steps for treatment on sample were also prepared. Nine sessions (3 session of each intervention) were given to each participant in individual settings, and it took 09 months for completion of therapy on experimental group. Approximately 45-50 minutes were given to every session. The participants in experimental group acted as their own control.

Therapy sessions of the positive psychological interventions were provided to the sample. Each technique i.e. optimism, rationality, and interpersonal skills was applied one-by-one on the participants. The following stages and goals were formulated to see the effect of positive psychological interventions on mental health of the participants:

Stage 1

The goals of stage 1 were to prepare: manual of positive psychological interventions and therapeutic protocols; identification and approaching to study sample, briefing to the participants about study; written informed consent of the participants; and pre-testing of the sample.

Stage 2

The goals of stage 2 were to: understand the major stresses and concerns of the parents about disability of their child; insight of child's problems and their effect on parents; rapport building, verbal contract for positive psychological interventional sessions; and follow ups, and observation of behavior.

Stage 3

The goals of stage 3 were to: Share the pre-testing results with participants; rapport building; Psycho-education of participants regarding mental health issues and their children's problems; observation of interpersonal relations of parents and general behavior; and follow up appointment for interventional sessions.

Stage 4 (Positive psychological interventions)

The goals of stage 4 were to start therapy sessions of the positive psychological interventions on the sample and observe its effects on their mental health. Each therapeutic technique was applied one by one and turns wise on the participants. This stage was the major stage for the study.

1- **Optimism (3 sessions to each participant)**

The first intervention was optimism. The major goal of starting sessions of this intervention was to reduce the negative thoughts in participants of study due to intellectual disability in their children. In the sessions, it was focused on how participants can strengthen the optimistic approach in their personality?

Sessions for modifying the negative emotions were given to the sample. Exercises to help and focus on their strengths and enforce positive emotions were also given during sessions. Counseling for positive thinking about life aspects was also component of the sessions. Trainings regarding positive images of life, relaxations, and counting one's blessings were also given to the participants for strengthening the optimistic approaches of life in this intervention. Assistance for problem-solving thinking, focusing on life achievements, and maximum utilization of positive strengths were advised to the participants. Recommendations for trainings of the children in home activities were also given to the

parents. Developing and strengthening the hope and optimistic approaches towards life was the major focus in the personality of the participants during the sessions of this intervention.

2- **Rationality (3 sessions to each participant)**

Rationality was used as second intervention of the positive psychological intervention for improving the mental health of the parents of intellectually challenged children. Three sessions of this intervention were given to each participant of the study. The basic purpose and target of this intervention was to identify irrational thoughts and negative emotions in parents having children with intellectual disability, and to enhance the acceptance of issues and practical steps for intervention of problems.

In this intervention; sessions were given about understanding background and causes of intellectual disability. Expressing irrational thoughts and thoughts registration was also major focus of the rationality sessions, and it was also tried, that pattern of positive thinking and positive learning of participants should be increased. Behavioral training like relaxations, self-imaging in unpleasant and anxious situations was also given to participants for effectively coping with stresses of life. Recommendations for promoting rational thinking, problem solving, resolving of self-blaming and steps for rehabilitation of the child were also given for enhancing and strengthening the rationality component in their personality.

3- Interpersonal Skills (3 sessions to each participant)

Specifically, the goal of this intervention was to improve the interpersonal relations among parents and family having intellectually challenged children. Assistance was provided to the participants for resolving their personal conflicts among each other during different sessions of the intervention.

The focus of the counseling sessions was to change the personal attitudes and perceptions about satisfaction with family life and social support of the participants. It was stressed that

RESULTS

RESULTS

The present study was designed to determine the effect of positive psychological interventions, including optimism, rationality, and interpersonal skills on stress, well-being and quality of life. For parametric data, various statistical tests were used to analyze the data. A paired sample t-test was used to ensure the effect of interventions within subjects. An independent sample t-test was used to determine the difference between two groups. One-way ANOVA was used to assess the difference between groups. A standard multiple regression was used to assess, whether measures of intervention including optimism, rationality and interpersonal skills were able to predict scores on measure of stress, well-being, and quality of life. Preliminary analyses were conducted to ensure no violation of the assumptions of normality, homogeneity, linearity, multicollinearity, and independence of residuals.

Table 1

Socio-demographic Characteristics of Participants (n=30)

Variables	Categories	N	%
Gender			
	Male	16	53
	Female	14	47
Residential Status			
	Rural	9	30
	Urban	21	70
Socioeconomic Status			
	Lower Class	2	7
	Middle Class	26	86
	Upper Class	2	7
Education			
	Matric	10	33
	HSSC	2	7
	Bachelor	8	27
	Master	9	30
	Non-educated	1	3
Physical Illness			
	Yes	6	20
	No	24	80
Psychological Illness			
	Yes	10	33
	No	20	67

Age mean 38 (SD=9.32) Min 14 Max 60

A total of 30 participants mean age was 38, ±9.32, among them 53 percent were male while 47 percent were female, seventy percent belonged to urban areas, majority of the participants (86%) were from middle class socioeconomic status, education distribution was 33%, 27%, 30%, matric, bachelor, and master respectively. Twenty percent of them were suffering from physical illness, while 33% had psychological illness.

Table 2

Descriptive statistics and Alpha reliability coefficient of Study Major Variables

Measures	No. of items	A	Range		M	SD	Skew.	Kurt.
			Min	Max				
				Pre-test				
DASS (stress)	7	.82	16	35	26.10	4.99	-.159	-.738
WB	18	.86	37	66	50.60	7.48	.523	-.323
QOL	26	.93	63	111	82.33	13.32	.793	-.088
Optimism	11	.91	29	40	35.57	3.81	-1.29	2.65
Rationality	12	.91	26	60	39.93	8.89	.310	-6.31
IPS	15	.79	38	65	52.53	7.43	-.323	-.925

Note. DASS = Depression Anxiety Stress Scale; WB = Wellbeing; QOL = Quality of Life; IPS = Interpersonal Skill; Skew = Skewness; Kurt = Kurtosis.

Table 3

Paired sample t-test analysis between Pre-test (before using intervention) & Post-test (after using intervention), on variable of Stress, Well-being and Quality of Life

	Pre-test		*Post-test*				95% CI		
Variable	*M*	*SD*	*M*	*SD*	*t(29)*	*P*	LL	UL	Cohen's *d*
Stress	26.10	4.99	8.80	1.24	18.58	.000	15.39	19.20	6.90
Well-Being	50.60	7.47	62.20	2.45	-7.88	.000	-14.61	-8.59	2.98
Quality of Life	82.33	13.32	129.40	0.50	-19.32	.000	-52.05	-42.08	7.30

Note. M= Mean; SD= Standard Deviation; CI = Confidence Interval; LL = Lower Limit, UL = Upper Limit.

Table 3, Paired samples t-test indicated that after using intervention, stress post-test scores were significantly lower (M = 8.80, SD = 1.24) than pre-test (M =26.10, SD = 4.99), t (29) = 18.58, p <.01. Result also showed that after using intervention, well-being post-test scores were significantly higher (M = 62.20, SD = 2.45) than pre-test score (M =50.60, SD = 7.47), t (29) = -7.88, p <.01, and quality of life post-test scores were significantly higher (M = 129.40, SD = 0.50) than pre-test score (M =80.33, SD = 13.82), t (29) = -52.05, p <.01.

Table 4

Independent sample t-test analysis between Father & Mother, on variable of Stress, Well-being and Quality of Life

Variable	*Father Parents (n=16)*		*Mother Parents (n=14)*				95% CI		
	M	*SD*	*M*	*SD*	*t (28)*	P	LL	UL	Cohen's d
Stress	8.94	1.34	8.64	1.15	0.64	.527	-0.65	1.24	.24
Well-Being	62.50	2.85	61.86	1.96	0.71	.484	-1.21	2.49	.27
Quality of Life	129.44	0.51	129.36	0.49	0.43	.667	-0.30	0.46	.16

Note. M= Mean; SD= Standard Deviation; CI = Confidence Interval; LL = Lower Limit, UL = Upper Limit.

Table 4 an independent sample t-test indicated that there was no significant difference between male & female parents in terms of stress, well-being & quality of life.

Table 5

Independent sample t-test analysis between Rural & Urban, on variable of Stress, Well-being and Quality of Life

	Rural (*n=09*)		*Urban* (*n=21*)				95% CI		
Variable	*M*	*SD*	*M*	*SD*	*t(28)*	P	LL	UL	Cohen's d
Stress	9.00	0.87	8.71	1.38	0.57	.573	-0.74	1.31	.24
Well-Being	62.44	2.96	62.10	2.28	0.35	.728	-1.68	2.38	.14
Quality of Life	129.33	0.50	129.43	0.51	-0.47	.660	-0.51	0.32	.19

Note. M= Mean; SD= Standard Deviation; CI = Confidence Interval; LL = Lower Limit, UL = Upper Limit.

Table 5 an independent sample t-test indicated that there was no significant difference between rural & urban areas parents in terms of stress, well-being & quality of life.

Table 6

Independent sample t-test analysis between Below 40 years age & Above 40 years age, on variable of Stress, Well-being and Quality of Life

Variable	*Below 40 years (n=21)*		*Above 40 Years (n=09)*		*t(28)*	P	95% CI		Cohen's d
	M	*SD*	*M*	*SD*			LL	UL	
Stress	8.62	1.16	9.22	1.39	-1.23	.229	-1.61	0.40	.51
Well-Being	62.76	2.52	60.89	1.76	2.01	.054	-0.03	3.77	.83
Quality of Life	129.48	0.51	129.22	0.44	1.29	.206	-0.15	0.66	.53

Note. M= Mean; SD= Standard Deviation; CI = Confidence Interval; LL = Lower Limit, UL = Upper Limit.

Table 6 an independent sample t-test indicated that there was no significant difference between below forty years&above forty years parents in terms of stress, well-being& quality of life.

Table 7

One-way *ANOVA between groups of socioeconomic status on variable of Stress, Well-being and Quality of Life*

Variables	Lower class (*n* = 02)		Middle class (*n* = 26)		Upper class (*n* = 02)				
	M	*SD*	*M*	*SD*	*M*	*SD*	*F*	*P*	η^2
Stress	7.50	0.71	8.88	1.28	9.00	0.00	1.20	.318	.08
Well-Being	60.50	0.71	62.42	2.56	61.00	0.00	0.82	.453	.06
Quality of Life	129.50	0.71	129.48	0.50	129.50	0.71	0.09	.917	.00

Table7. ANOVA test indicates that groups regarding socioeconomic status, were not significantly different in terms of stress, F (4, 25) = 1.20, p = .318, well-being, F (4, 25) = 0.82, p = .453, and quality of life F (4, 25) = 0.09, p = .917.

Table 8

One-way *ANOVA between groups of Education on variable of Stress. Well-being and Quality of Life*

	Matric		HSSC		Bachelor		Master		Non-educated				
	(n = 10)		*(n = 02)*		*(n = 08)*		*(n = 09)*		*(n = 01)*				
Variables	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*F*	P	η^2
Stress	8.90	1.52	8.00	0.00	9.12	1.25	8.56	1.13	9.00	0.00	0.42	.795	.06
Well-Being	61.90	3.14	62.50	2.12	62.37	1.84	62.55	2.50	60.00	0.00	0.27	.893	.04
Quality of Life	129.50	0.53	129.00	0.00	129.37	0.52	129.33	0.50	130.00	0.00	0.81	.531	.11

Note. ***p*< .01, M = Mean, SD = Standard Deviation, CI = Confidence Interval, LL = Lower limit, Ulm= Upper limit

Table8. ANOVA test indicates that groups regarding education, were not significantly differentin terms of stress, F (4, 25) = 0.42, p = .795, well-being, F (4, 25) = 0.27, p = .893, and quality of life F (4, 25) = 0.81, p = .531.

Table 9

Standard Multiple Regression Predicting low level of Stress form Positive Psychological Interventions

Variables	*B*	*SE B*	*β*
Optimism	-0.38	0.14	-0.63*
Rationality	-0.33	0.16	-0.50*
Interpersonal Skills	-0.12	0.10	-0.22
Adjusted R^2		0.22	
F		3.68*	

*p<.05;

Table 9, shows that optimism, rationality & interpersonal skills were able to account for 22 % of the variance in lowering stress level, F (3, 26) = 3.68, p<.05. Optimism and rationality except interpersonal skills, made a significant contribution to the prediction of lowering stress level. Optimism, (Beta = .63, p<.05) and rationality (Beta = .50, p<.05) made a greater contribution than interpersonal skills (Beta = .22, p>.05).

Table 10

Standard Multiple Regression Predicting Well-Being from Positive Psychological Interventions

Variables	*B*	*SE B*	*B*
Optimism	0.23	0.23	0.24
Rationality	0.33	0.25	0.30
Interpersonal Skills	0.42	0.17	0.48*
Adjusted R^2		0.22	
F		3.73*	

*p<.05;

Table 10 shows that optimism, rationality & interpersonal skills were able to account for 22 % of the variance in well-being, F (3, 26) = 3.73, p<.05. Interpersonal skills except optimism and rationality, made a significant contribution to the prediction of well-being. Interpersonal skills (Beta = .48, p<.05) made a greater contribution than rationality (Beta = .30, p>.05) and optimism (Beta = .24, p>.05).

Table 11

Standard Multiple Regression Predicting Quality of Life from Positive Psychological Interventions

Variables	*B*	*SE B*	*B*
Optimism	0.07	0.04	0.29
Rationality	0.08	0.04	0.30*
Interpersonal Skills	0.10	0.03	0.43**
Adjusted R^2		0.69	
F		23.27***	

*p<.05; **p<.01; ***p<.001

Table 11 shows that optimism, rationality & interpersonal skills were able to account for 69 % of the variance in quality of life, F (3, 26) = 23.27, p<.001. Interpersonal skills and rationality except optimism, made a significant contribution to the prediction of quality of life. Interpersonal skills (Beta = .43, p<.01) made a greater contribution than rationality (Beta = .30, p<.05) and optimism (Beta = .29, p>.05).

DISCUSSION

CHAPTER IV

DISCUSSION

The present study was conducted to assess the effect of positive psychological interventions (optimism, rationality, interpersonal skills) on mental health (stress, well-being, quality of life) of parents having children with intellectual disability. This study was unique in the sense, that it was an effort to apply positive psychological treatment techniques for reducing the stress and enhancing the well-being and quality of the life of the parents of neglected community i.e. intellectually subnormal children. It was the first effort of its kind to apply the positive psychological interventions on mental health of the parents having children with intellectual disability in Pakistan, especially in the medical rehabilitation set up.

This study was based on the philosophy of Martin Seligman, former President of American psychological association (1998). Previously, positive psychological therapy was being used effectively with patients of chronic illnesses like cancer, HIV, obesity, diabetes, vaginal cancers and other psychological as well as physical health issues (Seligman 2002). The basic idea of positive psychology is to focus on the positive strengths of the individual in-spite of the weaknesses or mental illnesses and enhancement of strengths can help individuals to overcome psychological problems which lead to achieve a happy life (Seligman 2002).

In the present study, treatment effect of three positive psychological interventions (optimism, rationality, interpersonal skills) was measured on mental health (stress, well-being, quality of life) of the caretakers of intellectually challenged children. To achieve the study objectives, psychometrics properties of all the scales were computed before proceeding for further analysis of the posttest effects. Descriptive statistics and alpha reliability results were highly satisfactory for using the scales on the sample of the study. Reliability coefficient for all

scales varies but most of them were found more than .80 which confirmed that the scales were effective for applying on sample.

The first hypothesis "the effect of positive psychological interventions on mental health of parents having children with intellectual disability" was supported by the test results. The results showed significant difference between the pretest and posttest scores. More specifically, (a) the effect of rationality on stress, well-being and quality of life, (b) the effect of optimism on stress, well-being and quality of life and (c) the effect of interpersonal skills on stress, well-being and quality of life of parents having children with intellectual disability were likely to be significant. The results of current study also supported the outcomes. The main interest of the current study was to see the level of outcomes in which the optimism, rationality, and interpersonal skills affect the mental health of parents having children with intellectual disability. In this sample, the direct effect of the therapeutic techniques of positive psychology was observed in follow up sessions. Post-test interventional score on stress are significantly lower (M = 8.80, SD = 1.24) as compared to pre-test score (M =26.10, SD = 4.99). The Result also showed that after using intervention, the post-test score of well-being was significantly higher (M = 62.20, SD = 2.45) than pre-test score (M =50.60, SD = 7.47) and post-test score of quality of life was significantly higher (M = 129.40, SD = 0.50) than pre-test score (M =80.33, SD = 13.82).

Less research material is available in this area of present research, especially to observe the therapeutic effect on parents having children with developmental disabilities. Different studies by Baker et al., 2005; Hastings & Brown, 2002, Hastings & Taunt, 2002; Kausar, Jevne, &Sobsey 2003; MacDonald & Hasting (2010), revealed that parents attitude toward circumstances is more important for coping with psychological issues. Parents, who are more positive, optimistic, and hopeful in thoughts can adjust and cope effectively with stress.

Researchers believe that focus of the treatment should be, to develop the wellbeing, interpersonal relations. and health of individuals.

A study by Neff & Faso (2015), find out that personal characteristic of parents is important about getting and coping with stress. 51 parents were taken to examine relationship between self-compassion and wellbeing among parents of autistic children and results suggested that self-compassion is positively related with hope, life satisfaction and re-engagement. On the other hand, it is negatively associated with disappointment and stress of parents. A comparative study was conducted by Malhotra, Khan & Bhatia (2012) on 40 parents of intellectually disabled and autistic children with parents of normal children. Their result shows the impairment in all domains of quality of life and high mental stress among parents of disabled children. The researchers also suggested psychosocial interventional program for improving their quality of life with specific strategies. Past researches by Lyubomirsky (2008), Diener (1999), produced sufficient verifications that positive psychology can enhance and maintain the happiness of the people. In the present study, positive psychological interventions show effectiveness for improving the mental health of the parents having children with intellectual disability, and the results of first hypothesis of this study showed that positive psychological interventions have significant effect on mental health of parents having children with intellectual disability. These findings of hypothesis are also supported by the results of previous researches conducted on the relevant topics.

The second hypothesis "positive psychological interventions will significantly predict stress, well-being and quality of life", the results show that optimism, rationality & interpersonal skills were able to account for 22 % of the variance in lowering stress level. Optimism and rationality made a significant contribution to the prediction of lowering stress level, Optimism,

(Beta = .63, p<.05) and rationality (Beta = .50, p<.05). Interpersonal skills made a significant contribution to the prediction of well-being and Interpersonal skills (Beta = .48, p<.05). Overall optimism, rationality, and interpersonal skills accounted for 69 % of the variance in quality of life. Interpersonal skills and rationality also made a significant contribution to the prediction of quality of life and Interpersonal skills (Beta = .43, p<.01).

Positive psychology has focused on research and taken revolutionary steps, but still the literature related to the management of mental health of the parents of intellectually challenged children through positive psychological interventions is insufficient. Thus, latest researches in positive psychology focused on improving the wellbeing (Sin & Lyubomirsky, (2009); Vázquez, Hervás, Rahona, & Gómez (2009). Management of stress also gained a lot of attention in positive psychology (Scott, 2015). It is found that constructive and helping relationships among parents of disabilities can improve their mental health (Kersch and colleagues, 2006). Schueller and Parks (2014) explained that behavior of individual can be changed through already flourished good examples of other individuals. They further told that positive psychological interventions (PPIs) can be effectively provided in one-to-one contact between client and therapist, which will result in a good impact. Researchers have great concentration in measurement and conceptualization of family quality of life.

Most research in this area has focused on the well-being of individual family members, especially mothers. However, more recently there has been growing interest in the conceptualization and measurement of family quality life (Brown, Schalock, & Brown, 2009; Hu, Summers, Turnbull, &Zuna, 2011; Samuel, Rillotta, & Brown, 2012) and of family dynamics (Llewellyn et al., 2010). Baker et al., 2005; Hastings & Brown, 2002; Hastings & Taunt. 2002; Kausar, Jeven, &Sobsey, 2003; MacDonald et al., 2010 studies found that

positive reframing of thoughts, optimism, hope, and approach toward situation may be vital for coping of parents having children with disability. Literature of previous researches supported this hypothesis and the results of current study are also significant.

Third hypothesis "demographic factors will influence stress, well-being, and quality of life of parents having children with intellectual disability" mothers, fathers, younger and elder parents. socioeconomic status, educational status and living in urban and rural were included to assess the difference of effect on mental health of parents having children with intellectual disability. 30 participants were included in present research and their distribution range of socio-demographics were as under; Participants mean age was 38, among them 53 percent were fathers while 47 percent were mothers. 71percent belonged to urban areas as their access was high and 29 percent belonged to rural areas of the country. Majority of the participants (86%) were from middle class socioeconomic status. Education distribution was 33%, 27%, 30%, matric, bachelor, and master respectively. It is predicted that 1-2 percent population of world has intellectual disability and higher occurrence reported in low income countries (Maulik, Mascarenhas, Mathers, Dua, Child &Saxena, 2011). UNICEF (2011) study suggested that worldwide 1 in 20 and 1 in 50 families have children with intellectual disabilities.

Brandon &Hogan, 2004; Honberg, Kogan, Allen, Strickland, & Newacheck, 2009; Rosenberg, Zhang, & Robinson, 2008; Welterlin & LaRue, 2007, identified that several demographics like single parent, poverty, minority status etc. are possible risk factors for families of disability children to achieve the quality life. Thus, normative level of wellbeing was reported by the intellectually challenged children (Baker, Blacher, & Olsson, 2005; Glidden, Billings &Jobe, 2006; Glidden & Schoolcraft, 2003). The positive aspects were also found in

parenting of intellectual disabilities (Blacher& Baker, 2007; Green, 2007; Hastings & Taunt, 2002: Scorgic&Sobsey, 2000; Ylvén, Björck-Akesson, &Grandlund, 2006).

It is generally observed that demographics variables of any study can also be assessed for further verifications of the results. So, in this study the hypothesis three (a) "mothers are likely to score high on stress as compared to fathers" was supported by the previous literature of researches. Blacher, Neece & Paczkowski, 2005; Gerstein, Crnic, Blacher, & Baker, 2009; Miodrag&Hodapp, 2010, explored that mothers of intellectually disable children have shown poor psychological and physical health in general as compared to parents of normal children. Malaysian study showed that mothers of Down syndrome children were also at high risk of parental stress (Norizan and Shamsuddin, 2010). However, the results of current study on hypothesis third (a) indicated non-significant difference of stress between fathers and mothers having children with intellectual disability.

Hypothesis third (b) "Fathers will score high on well-being and quality of life as compared to mothers" was supported by the previous empirical findings. Most of the empirical evidences proved that this hypothesis has significance, but the results of current study on the same hypothesis show that there were no significant differences among fathers and mothers in terms of stress, well-being & quality of life. In different previous studies, it was noted that majority mothers paid less attention to wellbeing as compared to fathers. On the other hand, evidence is available that low wellbeing of the parents of children with intellectual disability is less marked, and usually it was known as psychological distress (Emerson et al., 2010; Gerstein et al.2009; MacDonald & Hastings, 2010; Olsson & Hwang, 2001; Saloviita et al., 2003).

It was observed in many studies, that the majority of mothers and fathers of disability

children paid less attention to their psychological well-being. The available evidence suggests that the association between parenting a child with intellectual disability and lower well-being is much less marked among fathers. Particularly, fathers reported lower levels of psychological distress than their spouses (Emerson et al., 2010; Gerstein et al., 2009; MacDonald & Hastings, 2010; Olsson & Hwang, 2002). Saloviita et al., (2003), Davis et al., (2009), studied and found that giving quality care to children with long term functional limitations can impact the quality of life and overall health of the caregivers. Another study conducted by Davis et al., 2009, Gallagher et al., 2010, explored that, parents of children with disabilities shown poor sleep which was predictor of their stress. Dhar,2009; Nimbalkar et al., 2014, Mbugua et al. 2011, conducted study in Malaysia and found 52% mothers of children with developmental disabilities, acknowledged psychological health issues, 79% parents of intellectual disability were at depression risk in Kenya. Qualitative study showed; Caring of disability children affects the social wellbeing, marital relations, working capabilities, living independency, financial stability and overall physical wellbeing of the parents (Davis & Gavidia Payne (2009) & Myers et al., 2009; Nimbalkar et al (2014). Sufficient empirical evidence is available to support the hypothesis 3 (b) of current study but results of this research rejected this hypothesis.

Hypothesis third (c) "younger parents will score high on stress and low on well-being and quality of life as compared to older parents" result of this study indicated that there were no significant differences between below forty years & above forty years parents in terms of stress, well-being& quality of life. Lazarus and Folkman 1984, adaptation model explained that long exposure with stress can help the individual for more adaption with challenge. So, as per this model of stress, the older age parents of disability have more exposure and they must be able to manage stress and should have good mental health.

Another cumulative stress model, explained that long time and chronic exposure with stress of individual can be riskier as compared to shorter exposure with stress (Hoyert and Seltzer 1992; Deimling, Bass, Townsend &Noelker, (1989). According to this model, the mental health of long term experienced parents of disability can be more affected as compared to younger age or short term experienced parents' due to their exposure to disability. Cook et al. 1994 revealed that older age parents can show low distress as compared to younger age parents of children with behavioral problems, and experienced parents can also show more emotional stability. Research about caregiver's age and distress is indecisive. Substantial literature is available to find out relationship of mental health with age of the parents of intellectual disability children. In-spite of limited literature support, the results of present study rejected this hypothesis.

Hypothesis third "d" Parents having high socio-economic status was supposed to predict high on well-heing and quality of life and low on stress as compared to parents having low socio-economic status. Olsson & Hwang 2002; Oelofsen, & Richardson (2006) found, high socioeconomic families have good psychological wellbeing and low stress in their life. A study revealed that poor wellbeing of parents having children with intellectual disability can be aspect of exposure with low level of socioeconomic status and poor financial status. Poverty has main role on children with disabilities for getting rehabilitation facilities, which directly affect the parental wellbeing and quality of life. Hanvey (2002) revealed that low level income increased problems for family in managing the child of disability, which affects their mental health. Another study revealed that high income can be a source of good wellbeing and quality of life and less distress for parents of pervasive developmental disorders and Results were somewhat partly constant with Brown et al. 2006. Study by Emerson & Hatton, (2009) suggested that high

income is related to higher quality of life and well-being of the parents of children with autism. Higher income mothers, can get more services and handle stress of disability in a better way. In-spite of rich literature supporting this hypothesis, the results of this study were non-significant.

Hypothesis three "e" parents having high level of education were supposed to score high on wellbeing and quality of life and low on stress as compared to parents having low level of education. Rare research evidence is available regarding parental level of education of children with intellectual disability and their mental health. A study conducted by Davis-Kean, 2005; Dearing, McCartney, & Taylor, 2009; Duncan, Brooks-Gunn, & Klebanov, 1994; Haveman& Wolfe, 1995; Nagin & Tremblay, 2001; Smith, Brooks-Gunn, &Klebanov, 1997, revealed that education of the parents having children with disabilities is an important component for family inter relations, wellbeing and education of the children as well. A model of family process and research explained that education of parents and socioeconomic status is a predictor of quality family relations and outcomes of child behavior (Conger et al., 2010; McLoyd, 1998). Few findings of researches supported this hypothesis, but results of this study rejected the hypothesis and reflected that there is no difference of mental health due to high or low level of parental education.

Hypothesis three f. "parents belong to rural areas" were supposed to score high on stress and low on well-being and quality of life as compared to parents of urban area. Various factors played role for stress of parents having children with disabilities. Study by Datta, Russell, Swamidas, Gopala Krishna & Seetha (2002) find out that parents of mentally retarded children living in rural areas, low income and less educated have more psychological problems as compared to parents living in urban areas. Literature of previous researches indicated that access to proper support services, resources for rehabilitation and helpful information can help to reduce

the stress of caregivers, which improve the wellbeing and quality of life of parents of intellectually challenged children (Chan &Sigafoos, 2001; Donelan et al., 2002; Fisman, Wolf, Ellison, & Freeman, 2000). Another study conducted by Darling and Gallagher (2004) examined availability of support services for families having children with disabilities living in rural and urban areas. It was found that parents having children with disability and living in rural areas have limited support services like transportation, health, and early intervention as well as income resources as compared to those parents of disability children, who reside in urban areas. Urban families of children with disability have better opportunities for availing the assistive services, which directly improve their wellbeing and quality of life. In-spite of sufficient support by literature, the results of the current study for this hypothesis are non-significant and there was no difference found between parents of intellectual disability living in rural and urban areas in terms of stress, well-being and quality of life.

Keeping in view the results, demographics variables are non-significant but the results of main hypothesis of study are significant and having sufficient support by the existing literature as well. Overall the present study is a valuable addition in the relevant literature of positive psychological interventions for improvement of the mental health issues of parents having children with intellectual disability.

Limitations and Suggestions; Implications and Conclusion

Limitation and Suggestions

1. The current study was based on experimental design and sample of this study acted itself as control group, because it was difficult to continue individual sessions of another group in the limited resources but in future it is suggested that control group may be taken in this type of experimental study which will enhance the validity of this type of therapeutic studies.
2. The present study was conducted on the sample of one rehabilitation Centre of Islamabad; however, replication of the findings will help to enhance reliability and validity of intervention study of positive psychology.
3. In this study, the statements of the instruments and treatment manual were explained by the researcher to sample in local language for getting their response, so it would be better that the scales and therapeutic manual may be translated in national language (Urdu) for getting more reliable results of interventional studies.
4. Dropout rate of the parents included in present study was high and extra efforts were made to re-select the sample because no financial incentive was given to them. So, proper funding may be made available to avoid any discontinuity of the sample during study in future. The sample size of study was also small and it was selected from one rehabilitation setup of Islamabad, so the findings cannot be generalized.
5. In the present study, only parents of intellectual disability were included for their mental health treatment through positive psychological interventions, so caretakers and parents of other disabilities as well as psychological patients may also be included for assessing further effects of this intervention on mental health.

6. In the present study, positive psychological interventional techniques were used for the first time for improving the parental mental health in rehabilitation settings of Pakistan and it is a new field for working clinical psychologists so in future the researchers should get first proper training for conducting more effective studies in this field. Besides all mentioned limitations, the present study is not only a valuable addition to the existing research but equally important for practicing clinical psychologists.

Implications

This study has theoretical as well as applied value;

1. The present study has tested the therapeutic techniques of positive psychological interventions for improving the mental health of the parents having children with intellectual disability, which is purely new field in disability rehabilitation. So, it has been proved that model of positive psychology by Seligman 1998 can also be helpful and useful for management of psychological health of parents having children with disability like psychological management of patients of chronic illnesses. So, findings of this research are directly beneficial for practicing clinical psychologists of Pakistan and they can apply these interventions for care of the caretakers of children with disabilities.
2. The present study tested the effectiveness of positive psychology model for improving the mental health issues. The results of the present study reveal the need for educational institutions or universities to add training programs of positive psychological interventions for clinical and rehabilitation psychologists of Pakistan. In such programs, new field of psychology can be promoted for better care of mental health issues in the country.

3. The present study confirmed that parents of intellectually challenged children require psychological care for their mental stress, wellbeing and quality of life so working rehabilitation professionals and institutions may also focus on mental health of the parents, which can be helpful for quality psychological rehabilitation of the person with disabilities.
4. A follow up session need to be conducted after 6 months or a year to determine whether or not the parents continue to feel satisfied and continue to use the interventions learned during their therapy sessions or are reverted back to their previous status. Follow up sessions will reinforce the use of therapeutic techniques and help them with their wellbeing and quality of life.
5. Present study findings can be helpful for those NGOs and INGOs which are working for mental health care in country. Moreover, the psychology students of universities can also initiate more researches.
6. Findings of present study predicted about lowering the stress and improving the quality of life as well as wellbeing of sample. So, the government policy makers may design comprehensive policy about mental health care of the caretakers of disabled children. Mental health professionals can add this emerging field of positive psychology along with existing intervention methods and can provide better mental health care to patients of the country. Overall this study has theoretical and clinical implications in the field of psycho social rehabilitation.

CONCLUSION

The present study was conducted to see the effect of positive psychological interventions on mental health of the parents having children with intellectual disability in local cultural context of Pakistan. Sample of 30 numbers of parents having diagnosed children with intellectual disability were taken for treatment. All participants participated voluntarily without taking any financial incentives. Three techniques of positive psychology i.e. optimism, rationality and interpersonal skills (specifically interpersonal relations) were used to reduce the stress and enhance the psychological wellbeing and quality of participant's lives in different therapeutic sessions. Pre-testing and post testing model was applied to determine the effect of this intervention. Nine sessions were given to each parent within nine months of time. The study also examined the predictability of the mental health through positive psychological interventions. Demographic variables (i.e. male and female parents, education level of parents, socio economic status, rural and urban parents) were also examined in this study. Various statistical tests were applied to analyze the data. A paired sample t-test was used to ensure the effect of interventions within subjects. An independent sample t-test was used to determine the difference between two groups. One-way ANOVA was also used to assess the difference between groups. A standard multiple regression was used to assess whether measures of intervention including optimism, rationality and interpersonal skills were able to predict scores on measure of stress, well-being and quality of life. The present study targeted mental health care of the caretakers of children with intellectual disability and introduces new intervention in the field of psychological rehabilitation. Study results showed that intervention has positive effect on mental health and the main hypotheses were significant on results. Analysis of demographics variables shows non-significant results of this study. Overall objectives of the study were achieved and interventions

predicted positive effect for mental health of the sample except demographics, so this study has theoretical and clinical significance.

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ANNEXURES

Annexure-I

DEPARTMENT OF PSYCHOLOGY

INTERNATIONAL ISLAMIC UNIVERSITY ISLAMABAD

Informed Consent Form

I am a student of Ph.D. Psychology in International Islamic University, Islamabad, conducting a research to investigate "effect of positive psychological interventions on mental health of parents of children with intellectual disability". Your views will help me in understanding interventional effects on parents of children of intellectual disability in the context of Pakistan. All information will be used purely for purpose of the scientific research and your support will help us to understand the phenomenon.

I assure you that information given by you will be treated as strictly confidential and will be used only for research purpose. Your help/support and honest participation will be highly appreciated.

I am willing to participate in the study.

Signature:

Thank you for your participation in the research.

Annexure II

Demographic Information Sheet

Gender: _____

Age: _____

Education: _____

Residence: Rural/Urban

Socio economic status: Low/Middle/High

Previous history of physical illness: Yes/No

Previous history of psychological illness: Yes/No

Annexure-III

Depression Anxiety and Stress Scale (Short Version)

(Lovibond & Lovibond, 1995)

Session No # (Before/After), (DASS)

No	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	No
1	I find it hard to wind down.	1	2	3	4	5	1
2	I tended to overreact in the situations.	1	2	3	4	5	2
3	I felt that I was using a lot of nervous energy.	1	2	3	4	5	3
4	I found myself getting g agitated.	1	2	3	4	5	4
5	I found it difficult to relax.	1	2	3	4	5	5
6	I was intolerant of anything that kept me from getting on with what I was doing.	1	2	3	4	5	6
7	I felt that I was rather touchy.	1	2	3	4	5	7

Annexure-IV

Ryff's Scale of Psychological Well-Being (Ryff, 2005)

Session No # (Before/After), (RPWS)

No	Statements	Strongly Disagree	Disagree	Agree	Strongly Agree
1	I tend to be influenced by people with strong opinions.	1	2	3	4
2	In general, I feel I am in charge of the situation in which I live.	1	2	3	4
3	I think it is important to have new experiences that challenge how you think about yourself and the world.	1	2	3	4
4	Maintaining close relationships has been difficult and frustrating for me.	1	2	3	4
5	I live life one day at a time and don't really think about the future.	1	2	3	4
6	When I look at the story of my life, I am pleased with how things have turned out.	1	2	3	4
7	I have confidence in my opinions, even if they are contrary to the general consensus.	1	2	3	4
8	The demands of everyday life often get me down.	1	2	3	4
9	For me, life has been a continuous process of learning, changing and growth.	1	2	3	4
10	People would describe me as a giving person, willing to share my time with others.	1	2	3	4
11	Some people wander aimlessly through life, but I am not one of them.	1	2	3	4
12	12. I like most aspects of my personality.	1	2	3	4
13	I judge myself by what I think is important, not by the values of what others think is important.	1	2	3	4
14	I am quite good at managing the many responsibilities of my daily life.	1	2	3	4
15	I gave up trying to make a big improvements or changes in my life a long time ago.	1	2	3	4
16	I have not experienced many warm and trusting relationships with others.	1	2	3	4
17	I sometimes feel as if I've done all there is to do in life.	1	2	3	4
18	In many ways, I feel disappointed about my achievements in life.	1	2	3	4

Annexure-V

WHO Quality of Life Scale (WHO, 1994b)

Session No # (Before/After), (QOL)

No	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	How would you rate your quality of life?	1	2	3	4	5
2	How satisfied are you with your health?	1	2	3	4	5
3	To what extent do you feel that physical pain prevents you from doing what you need to do?	1	2	3	4	5
4	How much do you need any medical treatment to function in your daily life?	1	2	3	4	5
5	How much do you enjoy life?	1	2	3	4	5
6	To what extent do you feel your life to be meaningful?	1	2	3	4	5
7	How well are you able to concentrate?	1	2	3	4	5
8	How safe do you feel in your daily life?	1	2	3	4	5
9	How healthy is your physical environment?	1	2	3	4	5
10	Do you have enough energy for everyday life?	1	2	3	4	5
11	Are you able to accept your bodily appearance?	1	2	3	4	5
12	Have you enough money to meet your needs?	1	2	3	4	5
13	How available to you is the information that you need in your day-to-day life?	1	2	3	4	5
14	To what extent do you have the opportunity for leisure activities?	1	2	3	4	5
15	How well are you able to get around?	1	2	3	4	5
16	How satisfied are you with your sleep?	1	2	3	4	5
17	How satisfied are you with your ability to perform your daily living activities?	1	2	3	4	5
18	How satisfied are you with your capacity for work?	1	2	3	4	5
19	How satisfied are you with yourself?	1	2	3	4	5
20	How satisfied are you with your personal relationships?	1	2	3	4	5
21	How satisfied are you with your sex life?	1	2	3	4	5
22	How satisfied are you with the support you get from your friends?	1	2	3	4	5
23	How satisfied are you with the conditions of your living place?	1	2	3	4	5
24	How satisfied are you with your access to health services?	1	2	3	4	5
25	How satisfied are you with your transport?	1	2	3	4	5
26	How often do you have negative feelings such as blue mood, despair, anxiety, depression?	1	2	3	4	5

Annexure-VI

Positivity Scale (Seligman, 1990)

Session No # (Before/After), (PS)

No	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I have important goals for my life.	1	2	3	4	5
2	I believe I can reach my goals.	1	2	3	4	5
3	I believe I have what it takes to succeed in my life.	1	2	3	4	5
4	I believe that somebody will take care of me when I am old.	1	2	3	4	5
5	America is a good place to live.	1	2	3	4	5
6	I believe that my future will work out.	1	2	3	4	5
7	I believe that if you work hard enough, you can accomplish anything.	1	2	3	4	5
8	I have people in my life I can turn to for advice or help.	1	2	3	4	5
9	I believe that I will always have a home.	1	2	3	4	5
10	I believe that I will always have food to eat.	1	2	3	4	5
11	How likely do you think it is that you will find the opportunities you need to meet your life goals?	1	2	3	4	5

Annexure VII

Rationality Scale (Hill, 1995)

Session No # , (Before/After), (RS)

No	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I try to do what is sensible and logical.	1	2	3	4	5
2	I try to understand people and their behavior.	1	2	3	4	5
3	I try to behave reasonably in my relations with others.	1	2	3	4	5
4	I use intelligence and reason to overcome conflicts or disagreements with other people.	1	2	3	4	5
5	When I am in a situation in which I strongly disagree with other people, I try not to show my emotions.	1	2	3	4	5
6	If someone deeply hurts my feelings, I still try to treat them reasonably and to understand their behavior.	1	2	3	4	5
7	I try to understand other people even if I do not like them	1	2	3	4	5
8	I succeed in avoiding arguments with others by using reason and logic(often contrary to my feelings).	1	2	3	4	5
9	If someone acts against my needs and desires, I still try to understand him/her.	1	2	3	4	5
10	My behavior in most life situations is logical and reasonable, and not influenced by my emotions.	1	2	3	4	5
11	If someone deeply hurts my feelings, I may attack them or respond purely emotionally.	1	2	3	4	5
12	My use of reason and logic prevents me from attacking others, even if there are good reasons for doing so.	1	2	3	4	5

Annexure VIII

Interpersonal Skill Questionnaire (Hill, 1995)

Session No # (Before/After), (ISQ)

No	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I always say please and thank you when I ask someone for something.	1	2	3	4	5
2	The clothes I wear would never offend another person.	1	2	3	4	5
3	If something bad happens to someone I don't like, I tell my friends and laugh about it when that person is not around.	1	2	3	4	5
4	I never curse or use offensive language in public places.	1	2	3	4	5
5	My hair is clean and well groomed.	1	2	3	4	5
6	People who know me would describe me as cheerful and friendly.	1	2	3	4	5
7	I always have good posture.	1	2	3	4	5
8	When I talk with someone, I look them in the eyes.	1	2	3	4	5
9	I keep my fingernails clean and nicely trimmed.	1	2	3	4	5
10	I usually become angry and lose my temper when things don't go the way I want them to.	1	2	3	4	5
11	When other people do something different from the way I would do it, I avoid being critical of them.	1	2	3	4	5
12	I don't bite my fingernails.	1	2	3	4	5
13	When I sneeze or cough, I always cover my mouth.	1	2	3	4	5
14	My table manners are very good.	1	2	3	4	5
15	If someone gives me a gift or does me a favor, I send them a thank you note.	1	2	3	4	5

Annexure IX

IMPACT OF EVENT SCALE – REVISED

No.		Not at all 0	A little bit 1	Moderately 2	Quite a bit 3	Extremely 4
1	Any reminder brought back feelings about it.					
2	I had trouble staying asleep					
3	Other things kept making me think about it.					
4	I felt irritable and angry					
5	I avoided letting myself get upset when I thought about it or was reminded of it.					
6	I thought about it when I didn't mean to					
7	I felt as if it hadn't happened or wasn't real					
8	I stayed away from reminders about it					
9	Pictures about it popped into my mind					
10	I was jumpy and easily startled					
11	I tried not to think about it					
12	I was aware that I still had a lot of feelings about it, but I didn't deal with them.					
13	My feelings about it were kind of numb.					
14	I found myself acting or feeling like I was back at that time.					
15	I had trouble falling asleep					
16	I had waves of strong feelings about it					
17	I tried to remove it from my					

	memory					
18	I had trouble concentrating					
19	Reminders of it caused me to have physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart					
20	I had dreams about it					
21	I felt watchful and on guard					
22	I tried not to talk about it					

Annexure X

EFFECT OF POSITIVE PSYCHOLOGICAL INTERVENTIONS ON MENTAL HEALTH OF THE PARENTS HAVING CHILDREN WITH INTELLECTUAL DISABILITY:

THERAPEUTIC MANUAL/ PLANFOR STUDY

The present aim was to investigate the effect of positive psychology therapy on mental health of the parents of children with intellectual disability. This study was an interventional and longitudinal. It was based on pre-test and post-test experimental design. This study was divided into three parts (pre-testing, intervention, post testing). After selection of the sample pretest analysis was done. An interventional module of positive psychological interventional techniques along with session record sheet and steps for applying the treatment on sample were developed. Following steps and goals were prepared for conducting the sessions of the sample to achieve the objectives of study and to see the effect of positive psychology interventions on mental health of parents having children with intellectual disability.

Hospital Card No:

Sample was included in study after completion of the pretesting and then following interventional plan was implemented. After that post testing was done to see effect of treatment.

Step 1-Goals.

- Psychological intake session
- Insight of child's problem
- Rapport building

Step 2-Goals.

- Identification of major concerns of parents for child
- Psycho education of the parents
- Rapport building.

Step 3-Goals.

- Sharing of the psychological measuring
- Awareness about mental health issues
- Observation of interpersonal relations of parents
- Follow up plan and verbal contract for positive psychological interventions

Step 4- Positive psychological interventions sessions.

1- Optimism (3 sessions)

Goals

Reduction of negativity of parents' due to disability, enhance the positive strength, hope.

Pathways

Parents were taught ways to modify negative emotions and were given exercises to help them focus on their strengths and enforce positive emotions, positive thinking, Positive images of life, count blessings, catharsis, assistance for problem solving thinking, focusing on life achievements, maximum utilization of positive strengths, homework assignments, child's training for different skill areas, hope.

2- Rationality (3 sessions)

Goals

Resolving of the irrational thoughts, negative emotions

SESSIONS RECORD SHEET
Feedback

Date:

Patient Id:

Card No.

Stage 1
Psychological Intake Session:

Insight of the Child's Problem:

Stage 2
Psychoeducation Regarding Child Issue:

Stage 3
Therapeutic sessions and counselling:

Optimism.

Rationality.

Interpersonal Skills.

Referral plan.

Termination of sessions.

Annexure II

Demographic Information Sheet

Gender: _____

Age: _____

Education: _____

Residence: Rural/Urban

Socio economic status: Low/Middle/High

Previous history of physical illness: Yes/No

Previous history of psychological illness: Yes/No

Annexure-III

Depression Anxiety and Stress Scale (Short Version)

(Lovibond & Lovibond, 1995)

Session No # (Before/After), (DASS)

No	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	No
1	I find it hard to wind down.	1	2	3	4	5	1
2	I tended to overreact in the situations.	1	2	3	4	5	2
3	I felt that I was using a lot of nervous energy.	1	2	3	4	5	3
4	I found myself getting g agitated.	1	2	3	4	5	4
5	I found it difficult to relax.	1	2	3	4	5	5
6	I was intolerant of anything that kept me from getting on with what I was doing.	1	2	3	4	5	6
7	I felt that I was rather touchy.	1	2	3	4	5	7

Annexure-IV

Ryff's Scale of Psychological Well-Being (Ryff, 2005)

Session No # (Before/After), (RPWS)

No	Statements	Strongly Disagree	Disagree	Agree	Strongly Agree
1	I tend to be influenced by people with strong opinions.	1	2	3	4
2	In general, I feel I am in charge of the situation in which I live.	1	2	3	4
3	I think it is important to have new experiences that challenge how you think about yourself and the world.	1	2	3	4
4	Maintaining close relationships has been difficult and frustrating for me.	1	2	3	4
5	I live life one day at a time and don't really think about the future.	1	2	3	4
6	When I look at the story of my life, I am pleased with how things have turned out.	1	2	3	4
7	I have confidence in my opinions, even if they are contrary to the general consensus.	1	2	3	4
8	The demands of everyday life often get me down.	1	2	3	4
9	For me, life has been a continuous process of learning, changing and growth.	1	2	3	4
10	People would describe me as a giving person, willing to share my time with others.	1	2	3	4
11	Some people wander aimlessly through life, but I am not one of them.	1	2	3	4
12	12. I like most aspects of my personality.	1	2	3	4
13	I judge myself by what I think is important, not by the values of what others think is important.	1	2	3	4
14	I am quite good at managing the many responsibilities of my daily life.	1	2	3	4
15	I gave up trying to make a big improvements or changes in my life a long time ago.	1	2	3	4
16	I have not experienced many warm and trusting relationships with others.	1	2	3	4
17	I sometimes feel as if I've done all there is to do in life.	1	2	3	4
18	In many ways, I feel disappointed about my achievements in life.	1	2	3	4

Annexure-V

WHO Quality of Life Scale (WHO, 1994b)

Session No # (Before/After), (QOL)

No	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	How would you rate your quality of life?	1	2	3	4	5
2	How satisfied are you with your health?	1	2	3	4	5
3	To what extent do you feel that physical pain prevents you from doing what you need to do?	1	2	3	4	5
4	How much do you need any medical treatment to function in your daily life?	1	2	3	4	5
5	How much do you enjoy life?	1	2	3	4	5
6	To what extent do you feel your life to be meaningful?	1	2	3	4	5
7	How well are you able to concentrate?	1	2	3	4	5
8	How safe do you feel in your daily life?	1	2	3	4	5
9	How healthy is your physical environment?	1	2	3	4	5
10	Do you have enough energy for everyday life?	1	2	3	4	5
11	Are you able to accept your bodily appearance?	1	2	3	4	5
12	Have you enough money to meet your needs?	1	2	3	4	5
13	How available to you is the information that you need in your day-to-day life?	1	2	3	4	5
14	To what extent do you have the opportunity for leisure activities?	1	2	3	4	5
15	How well are you able to get around?	1	2	3	4	5
16	How satisfied are you with your sleep?	1	2	3	4	5
17	How satisfied are you with your ability to perform your daily living activities?	1	2	3	4	5
18	How satisfied are you with your capacity for work?	1	2	3	4	5
19	How satisfied are you with yourself?	1	2	3	4	5
20	How satisfied are you with your personal relationships?	1	2	3	4	5
21	How satisfied are you with your sex life?	1	2	3	4	5
22	How satisfied are you with the support you get from your friends?	1	2	3	4	5
23	How satisfied are you with the conditions of your living place?	1	2	3	4	5
24	How satisfied are you with your access to health services?	1	2	3	4	5
25	How satisfied are you with your transport?	1	2	3	4	5
26	How often do you have negative feelings such as blue mood, despair, anxiety, depression?	1	2	3	4	5

Annexure-VI

Positivity Scale (Seligman, 1990)

Session No # (Before/After), (PS)

No	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I have important goals for my life.	1	2	3	4	5
2	I believe I can reach my goals.	1	2	3	4	5
3	I believe I have what it takes to succeed in my life.	1	2	3	4	5
4	I believe that somebody will take care of me when I am old.	1	2	3	4	5
5	America is a good place to live.	1	2	3	4	5
6	I believe that my future will work out.	1	2	3	4	5
7	I believe that if you work hard enough, you can accomplish anything.	1	2	3	4	5
8	I have people in my life I can turn to for advice or help.	1	2	3	4	5
9	I believe that I will always have a home.	1	2	3	4	5
10	I believe that I will always have food to eat.	1	2	3	4	5
11	How likely do you think it is that you will find the opportunities you need to meet your life goals?	1	2	3	4	5

Annexure VII

Rationality Scale (Hill, 1995)

Session No # , (Before/After), (RS)

No	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I try to do what is sensible and logical.	1	2	3	4	5
2	I try to understand people and their behavior.	1	2	3	4	5
3	I try to behave reasonably in my relations with others.	1	2	3	4	5
4	I use intelligence and reason to overcome conflicts or disagreements with other people.	1	2	3	4	5
5	When I am in a situation in which I strongly disagree with other people, I try not to show my emotions.	1	2	3	4	5
6	If someone deeply hurts my feelings, I still try to treat them reasonably and to understand their behavior.	1	2	3	4	5
7	I try to understand other people even if I do not like them	1	2	3	4	5
8	I succeed in avoiding arguments with others by using reason and logic(often contrary to my feelings).	1	2	3	4	5
9	If someone acts against my needs and desires, I still try to understand him/her.	1	2	3	4	5
10	My behavior in most life situations is logical and reasonable, and not influenced by my emotions.	1	2	3	4	5
11	If someone deeply hurts my feelings, I may attack them or respond purely emotionally.	1	2	3	4	5
12	My use of reason and logic prevents me from attacking others, even if there are good reasons for doing so.	1	2	3	4	5

Annexure VIII

Interpersonal Skill Questionnaire (Hill, 1995)

Session No # (Before/After), (ISQ)

No	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I always say please and thank you when I ask someone for something.	1	2	3	4	5
2	The clothes I wear would never offend another person.	1	2	3	4	5
3	If something bad happens to someone I don't like, I tell my friends and laugh about it when that person is not around.	1	2	3	4	5
4	I never curse or use offensive language in public places.	1	2	3	4	5
5	My hair is clean and well groomed.	1	2	3	4	5
6	People who know me would describe me as cheerful and friendly.	1	2	3	4	5
7	I always have good posture.	1	2	3	4	5
8	When I talk with someone, I look them in the eyes.	1	2	3	4	5
9	I keep my fingernails clean and nicely trimmed.	1	2	3	4	5
10	I usually become angry and lose my temper when things don't go the way I want them to.	1	2	3	4	5
11	When other people do something different from the way I would do it, I avoid being critical of them.	1	2	3	4	5
12	I don't bite my fingernails.	1	2	3	4	5
13	When I sneeze or cough, I always cover my mouth.	1	2	3	4	5
14	My table manners are very good.	1	2	3	4	5
15	If someone gives me a gift or does me a favor, I send them a thank you note.	1	2	3	4	5

Annexure IX

IMPACT OF EVENT SCALE – REVISED

No.		Not at all 0	A little bit 1	Moderately 2	Quite a bit 3	Extremely 4
1	Any reminder brought back feelings about it.					
2	I had trouble staying asleep					
3	Other things kept making me think about it.					
4	I felt irritable and angry					
5	I avoided letting myself get upset when I thought about it or was reminded of it.					
6	I thought about it when I didn't mean to					
7	I felt as if it hadn't happened or wasn't real					
8	I stayed away from reminders about it					
9	Pictures about it popped into my mind					
10	I was jumpy and easily startled					
11	I tried not to think about it					
12	I was aware that I still had a lot of feelings about it, but I didn't deal with them.					
13	My feelings about it were kind of numb.					
14	I found myself acting or feeling like I was back at that time.					
15	I had trouble falling asleep					
16	I had waves of strong feelings about it					
17	I tried to remove it from my					

	memory					
18	I had trouble concentrating					
19	Reminders of it caused me to have physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart					
20	I had dreams about it					
21	I felt watchful and on guard					
22	I tried not to talk about it					

Annexure X

EFFECT OF POSITIVE PSYCHOLOGICAL INTERVENTIONS ON MENTAL HEALTH OF THE PARENTS HAVING CHILDREN WITH INTELLECTUAL DISABILITY:

THERAPEUTIC MANUAL/ PLANFOR STUDY

The present aim was to investigate the effect of positive psychology therapy on mental health of the parents of children with intellectual disability. This study was an interventional and longitudinal. It was based on pre-test and post-test experimental design. This study was divided into three parts (pre-testing, intervention, post testing). After selection of the sample pretest analysis was done. An interventional module of positive psychological interventional techniques along with session record sheet and steps for applying the treatment on sample were developed. Following steps and goals were prepared for conducting the sessions of the sample to achieve the objectives of study and to see the effect of positive psychology interventions on mental health of parents having children with intellectual disability.

Hospital Card No:

Sample was included in study after completion of the pretesting and then following interventional plan was implemented. After that post testing was done to see effect of treatment.

Step 1-Goals.

- Psychological intake session
- Insight of child's problem
- Rapport building

Step 2-Goals.

- Identification of major concerns of parents for child
- Psycho education of the parents
- Rapport building.

Step 3-Goals.

- Sharing of the psychological measuring
- Awareness about mental health issues
- Observation of interpersonal relations of parents
- Follow up plan and verbal contract for positive psychological interventions

Step 4- Positive psychological interventions sessions.

1- Optimism (3 sessions)

Goals

Reduction of negativity of parents' due to disability, enhance the positive strength, hope.

Pathways

Parents were taught ways to modify negative emotions and were given exercises to help them focus on their strengths and enforce positive emotions, positive thinking, Positive images of life, count blessings, catharsis, assistance for problem solving thinking, focusing on life achievements, maximum utilization of positive strengths, homework assignments, child's training for different skill areas, hope.

2- Rationality (3 sessions)

Goals

Resolving of the irrational thoughts, negative emotions

Pathways

The sessions include background and causes of disability, expressing irrational thoughts, thought registration, positive thinking, positive learning, relaxation, acceptance of reality, home works, self-imaging in unpleasant and anxious situations, recommendation on how to keep and promote rational thinking, problem solving, resolving of self-blaming, steps toward rehabilitation of the child, thoughts registration in diary.

3- Interpersonal Skills (more specifically interpersonal relations)-3sessions

Goals

Resolving inter personal conflicts, improving the relations within family

Pathways

This technique focus was personal attitudes and perceptions, satisfaction with family and social support, thinking about personal responsibilities, relaxations training for stress, understanding emotions of others, understanding about limitations of spouse and other family members, positive behavior to unpleasant issues of family, exploring possible resources for rehabilitation of the child, gratitude and kindness, self-response assessment, linkages with professionals and rehabilitation network, self-care , hope.

S.5.Post-test

Post testing was done for after completing the nine sessions of positive psychological interventions to assess the effect of treatment on mental health of each participant of sample.

The participants in experimental group acted itself as their own control. Therapeutic techniques were applied to experimental group in individual settings for reducing their stress and improving their well-being and quality of life in continuous nine sessions within nine months. Time of each session was approximately 45-50 minutes.

SESSIONS RECORD SHEET
Feedback

Date:

Patient Id:

Card No.

Stage 1
Psychological Intake Session:

Insight of the Child's Problem:

Stage 2
Psychoeducation Regarding Child Issue:

Stage 3
Therapeutic sessions and counselling:

Optimism.

Rationality.

Interpersonal Skills.

Referral plan.

Termination of sessions.