

Analysis of Components of Positive Psychological Capital of Parents of Children with Disabilities in Special Education Centers Thailand a Mixed Method Original Research

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Abstract

The research on studying and enhancing positive psychological capital in parents of children with disabilities in special education centers across the country aimed 1) to analyze components of positive psychological capital in parents of children with disabilities, 2) to examine a measurement model of positive psychological capital in parents of children with disabilities. The population in the study was fathers or mothers whose children are persons with disabilities who are studying in 77 special education centers across the country. The sample was selected from a stratified random sampling method, consisting of 394 persons. The research instrument used for data collection was a positive psychological capital scale for parents of children with disabilities. The discrimination power of the instrument ranged from 0.213 to 0.755, the reliability was 0.919. Data analysis was performed by confirmatory factor analysis. The findings from the study revealed that the confirmatory factor analysis of the positive psychological capital measurement model for parents was consistent with the empirical data ($\chi^2=1.026$, $df = 308$, $p=0.364$, $GFI=0.95$, $AGFI=0.92$, $CFI=1.00$, $RMSEA=0.008$, $SRMR=0.032$). Factor loadings ranged from 0.86 to 0.94. All components were statistically significant at the level of 0.01. Structural reliability ranged from 0.00-0.64, showing that the developed positive psychological capital measurement could describe parents' positive psychological capital. Factor loadings could be arranged in an order as resilience, hope, optimism, and self-efficacy, respectively.

Keywords: Factor analysis, positive psychological capital, parents of children with disabilities.

Introduction

Children with disabilities need close care and continued support. It is very challenging for parents who raise their children to grow by age. They need to help restore physical ability and to cope with their children' emotions and behavior. Meanwhile, parents have to manage their own feelings including emotions and feelings of other family members as well as family economic status. Costs of caring children with disabilities are higher than usual. According to research studies conducted abroad, it was found that parents of special-needs children had more health problems than other people (Bekenkamp ;et al.: 2014) while they have to suffer from stress that they have never get before from the process of parenting children with special needs(Jambekar 2018), especially in children with multiple disabilities that make parents have problems related to children's health and emotional management, worsening physical and mental health of family members (Bradshaw ;et al. (2019).

A Unicep report (2021) identified that there were 240 million children with disabilities worldwide or one tenth of all children in the world. In Thailand, there are nearly 140,000 children with disabilities living in poor families. The number of children with disabilities increases while each child with disabilities has complex problems as well as problems from other surrounding factors. In this regard, the researcher is interested in studying assistance given to parents who are the key persons providing parenting and caring children with disabilities to have happiness and being able to stay with children with disabilities with positive psychology. Research studies in Thailand were

most likely conducted on the development of parents' ability to restore the ability of children with disabilities and on assistance given to parents struggling in earning a living and parenting children with disabilities (Tamala Boonyakarn. 2016; Kosin Aukkarungruang. 2016; Nachanok Sangduangmas. 2016) but research studies conducted on positive psychology perspectives have not been found.

Positive psychology is a new psychological perspective introduced in 1998 by Seligman, a psychologist and educator who is one of famous persons having the greatest influence and credited as "the father of positive psychology". Later, Luthans integrated and applied 4 components of positive psychology to improve organizational performance (Luthans; et al. 2012; 254), known as positive psychological capital or PsyCap. Its components are hope, self-efficacy, resilience, and optimism. Psychological capital then is a mental state full of self-efficacy in performing challenging tasks successfully, learning how to be optimistic with hope and resilience, being able to change methods to reach success as one expected while staying strong to be back to a normal or better state (Luthans; et al. 2012;542 as cited in Luthans; & Youssef. 2004).

Other than being used to improve organizational performance, positive psychology has been employed to enhance positive attitude and behavior, leading to desirable outcomes, such as positive problem management, enabling people to have both positive physical and mental health. Persons with high positive psychology tend to overcome problems and obstacles effectively (David. 2012:36-37 as cited in Luthans; et al. 2007). Based on research studies conducted domestically and abroad, it was found that the spouses had a significant relationship during their adaptation to a marriage life, including self-efficacy, optimism, and patience (Lolaki, Maryam; et al. 2016). Korean nurses having increased positive psychology capital would have less boredom and burnout (Minjeong, An.; et al. 2020). Undergraduate Chinese students having increased positive psychology capital gave contribution to a better family relationship and self-adaptation but it did not affect boredom in study (Jincong, Yu; et al. 2021), the enhancement of positive psychology capital by means of group consultation for learning achievement and future working (Patcharaporn Srisawat. 2015). Besides, a study on a consultation pilot project for enhancing positive psychology capital among Chinese patients with depression indicated that depression in patients in the experimental group was significantly better (Song; et al. 2019).

Studying relevant documents and research studies, the researcher was interested in investigating components of positive psychology in parents of children with disabilities according to Luthans' s concept (Luthans; et al. 2012; 254) and verifying a measurement model of positive psychology components, i.e. hope, self-efficacy, resilience, and optimism with the empirical data by developing a positive psychology measurement model for parents of children with disabilities to be consistent with the theory of positive psychology to encourage parents to be confident in their ability to raise their children with disabilities, be optimistic, have hope and resilience, making them to overcome problems and obstacles and stay with their children happily.

Objectives

1. To analyze positive psychology capital components of parents of children with disabilities.
2. To verify the consistency between the measurement model of positive psychology capital in parents of children with disabilities and the empirical data.

Significance of the research

1. To obtain a body of knowledge related positive psychology capital of parents of children with disabilities. In Thailand, studies on this matter have not been obvious that much. It will be useful for those who are interested in studying an issue related to positive psychology capital of parents of children with disabilities or a study in other different groups of population.
2. To obtain a measurement model of positive psychological capital of parents of children with disabilities that will help elevate the quality of life of family members of persons with disabilities for staying together happily.

Literature review

Documents relevant to positive psychology capital (Luthans;& Youssef.2004; Luthans; et al. 2007). Meanings were gathered and it can be concluded that positive psychological capital is considered an individual resource that

helps that person for being able to develop himself/herself to achieve a set goal. Positive psychological capital is a mental state full of self-efficacy for being able to manage challenging things successfully, optimism, hope, and resilience, helping persons to change a method to reach success as planned, persisting in going back to a former or better state. The researcher synthesized and summarized 4 components of positive psychological capital (Bandura.1997; Snyder. 2000; Seligman.2002; Werner. 1970; Masten.2001) as follow:

The 1st component – Self-efficacy is the belief in one’s ability to accomplish tasks. Persons with high confidence in their ability shall have a more option for working and are determined to perform challenging tasks. They become more motivated and have more attempts to accomplish tasks than persons with low self-efficacy. Persons with self-efficacy are always confident that if they try, they will succeed definitely.

The 2nd component – Hope is a positive motivational factor related to the feelings expressed about goal setting. A guideline and motivation are available for making that plan to achieve success, though a situation is filled with obstacles or difficulties but that person is full of hope.

The 3rd component - Optimism is the belief that success shall happen at present and in the future. It is an attribute showing positive attitudes to describe an event that happens to oneself under an ongoing situation.

The 4th component – Resilience is the capacity or ability to withstand or to recover quickly from difficulties, conflicts, failure without any long-term effects. Individuals have different levels of resilience, which can be changed according to their experiences and can be developed.

Methods

The research aimed at investigating the components of positive psychological capital of parents of children with disabilities was conducted on the basis of a quantitative research design. The process for implementing the research is shown below:

1. Population and sample

1.1 Population in the study was fathers or mothers having children with disabilities who are studying at one of 77 Special Education Centers across the country, 25,643 persons.

1.2 The sample consisted of fathers or mothers in the special education centers across the country, selected by stratified random sampling technique. The special education centers were divided into 6 regions, i.e. the north, the northeast, the central, the east, the west, and the south. Random sampling method was used to select provinces as representatives in 6 regions according to the proportion determined as follow: 1) The north is Lampang Special Education Center, 2) The northeast is Udon Thani Special Education Center, 3) The central is Central Special Education Center, Bangkok, 4) The east is Chachoengsao Special Education Center, 5) The west is Ratchaburi Special Education Center and 6) The south is Pattani Special Education Center and Phuket Special Education Center. The sample size was determined using Yamane formula for sample size. The sample consisted of 394 persons at 95% confidence level and 5% error.

2. The variable in the study was positive psychological capital of parents of children with disabilities, consisting of 4 components, namely, self-efficacy, hope, resilience, and optimism.

3. Research instrument is a questionnaire about positive psychological capital of parents of children with disabilities. The procedures for making the questionnaire are as follow:

3.1 Documents and research studies relevant to positive psychological capital were studied. Luthans’ concept (Luthans. 2012) was employed as the research conceptual framework.

3.2 Indicators for the components of positive psychological capital were studied using an in-depth interview with 5 informants whose children are persons with disabilities. Data were analyzed using content analysis to learn about indicators for the components of positive psychological capital that showed characteristics of parents who have positive psychological capital.

3.3 A questionnaire about positive psychological capital of parents of children with disabilities was made to be compliant with the research objectives and the definition of terms. The questionnaire came in the form of a 5-point Likert scale, i.e. definitely true, somewhat true, moderately true, somewhat untrue, and very slightly true.

3.4 The made questionnaire with 60 items as submitted to research project advisor to examine appropriateness. The questionnaire was improved before submitting to experts for verifying the quality of the research instrument accordingly.

3.5 The questionnaire about positive psychological capital was submitted to 5 experts for verifying content congruence in accordance with the definition of terms. The index of item objective congruence (IOC) ranged from 0.60 to 1.00. Question items were improved to be more appropriate as advised by the experts and the questionnaire contained 40 question items.

3.6 The improved questionnaire about positive psychological capital of parents of children with disabilities was pretested with 30 parents having children with disabilities in the Central Special Education Center. The questionnaire was analyzed to find out the discrimination power of each question item. An item-total correlation test was performed to check the correlation between scores of each item and total score. The questions obtained were 30 items.

3.7 The reliability of the questionnaire about positive psychological capital of parents of children with disabilities was measured, as a whole and in each aspect, using Cronbach's Alpha coefficient. Question items having discrimination power ranging from 0.20 and above were selected. Therefore, the questionnaire had discrimination power ranging from -1.50 to 0.701 as a whole and the reliability was 0.919. However, there were 2 items below the 0.20 criterion, namely the item 4 and the item 5 (discrimination power = 0.150 and 0.025). The researcher considered the definition of the variable and maintained those items.

3.8 The improved and corrected questionnaire about positive psychological capital of parents of children with disabilities was actually used with fathers or mothers whose children are persons with disabilities in all special education centers of 6 regions, 8 provinces, i.e. Bangkok, Ratchaburi, Chachoengsao, Uttaradit, Lampang, Udon Thani, Phuket, and Pattani. Only completely answered questionnaire was selected, there were 394 copies. All of the questionnaire copies were analyzed basic statistical data and confirmatory factors.

3.9 The questionnaire about positive psychological capital of parents of children with disabilities was conducted confirmatory factor analysis to confirm whether or not the measurement model of positive psychological capital of parents of children with disabilities was consistent with the empirical data.

Results

The confirmatory factor analysis of the measurement model of positive psychological capital of parents of children with disabilities revealed that

1. The correlation matrix of all 30 observed variables was not an identity matrix. All 30 observed variables were sufficiently correlated in factor analysis (Bartlett Test: $\chi^2 = 5494.068$, $df = 435$, $p = 0.000$), KMO was 0.946, the correlation matrix showed the variables studied were correlated or this set of data was highly suitable for being used in factor analysis accordingly.

2. All 4 components of positive psychological capital of parents of children with disabilities had correlation coefficients ranging from 0.434 to 0.746 and had statistically significant correlation at the 0.01 level. Consideration of correlation coefficient in each aspect found that hope and resilience had the highest correlation coefficient at 0.746 while self-efficacy and optimism had the lowest correlation coefficient at 0.434. The range of sufficiency of sample selection (MSA) of all variables varied from 0.809 to 0.906, higher than 0.50, showing that all variables studied were sufficiently correlated for being used in factor analysis.

	Self ef	Hope	Opti	Resi
Self ef	0.809			
Hope	0.659**	0.906		

Opti	0.434**	0.679**	0.830	
Resi	0.574**	0.746**	0.712**	0.878

** p <.01, (n = 394)

The values in the diagonal matrix is a measure of sampling adequacy (MSA)

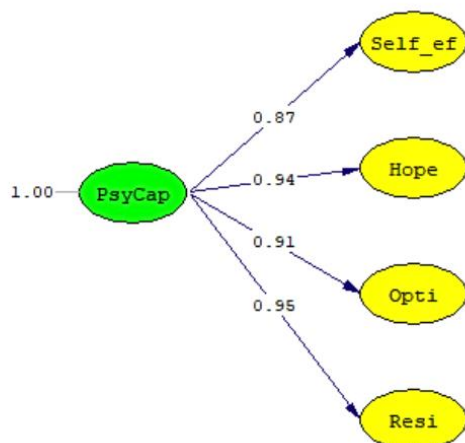
Table 1 – Correlation coefficient of positive psychological capital of parents of children with disabilities based on each component and sampling adequacy values in the confirmatory factor analysis.

3. The measurement model of positive psychological capital of parents of children with disabilities was consistent with the empirical data ($\chi^2=316.06$, $df=308$, $p=0.364$, $GFI=0.95$, $AGFI=0.92$, $CFI=1.00$, $RMSEA=0.008$, $SRMR=0.032$). Based on the consideration of each component, factor loadings ranged from 0.86 to 0.94. All components were statistically significant at the level of 0.01, structural reliability ranged from 0.76 to 0.89. As for each indicator, factor loadings ranged from -0.20 to 0.80. All indicators were statistically significant at the level of 0.01, structural reliability ranged from 0.00 to 0.64. It means that the developed model is able to describe positive psychological capital of parents of children with disabilities. The measurement model of positive psychological capital of parents of children with disabilities consisted of 4 components as arranged by the greatest factor loading, i.e. the factor loading of resilience was 0.80, followed by hope, optimism, and self-efficacy whose factor loadings were 0.78, 0.72 and 0.69 respectively, indicating that the developed measurement model is able to describe positive psychological capital of parents of children with disabilities.

Components of positive psychological capital	No. of items	Range B	Factor loading				C.R.
			B	SE	t	SC	
Self-efficacy (Self ef)	9	(-0.03)-0.59	0.86	0.08	10.32**	0.87	0.76
Hope (Hope)	8	0.41-0.59	0.93	0.07	13.77**	0.94	0.88
Optimism (Opti)	7	0.40-0.59	0.90	0.08	11.20**	0.91	0.83
Resilience (Resi)	6	0.49-0.58	0.94	0.06	16.15**	0.95	0.89

** with the statistical significance level of 0.01.

Table 2 – Confirmatory factor analysis results of the measurement model of positive psychological capital of parents of children with disabilities.



Chi-Square=316.06, df=308, P-value=0.36364, RMSEA=0.008

Illustration 1: Confirmatory factor analysis of the measurement model of positive psychological capital of parents of children with disabilities (standard score).

Conclusion and discussion

The confirmatory factor analysis of the measurement model of positive psychological capital of parents of children with disabilities. The researcher performed goodness of fit test of the model with the empirical data using the second order confirmatory factor analysis and measured construct validity of positive psychological capital. It was found that Chi-square (χ^2) was 316.06, df was 308, and the statistical significance level (p) was 0.364. It can be seen that Chi-square was not statistically significant, which can be interpreted that the empirical data was consistent with the developed measurement model. Poonpong Suksawang (2013:15-16) stated that a very low (close to 0) value of Chi-square means the model was consistent with the empirical data. Besides, the consideration of relative Chi-square, 1.026 less than 2.00, revealed that the measurement model was consistent with the empirical data at a satisfactory level. In addition, the data analysis results indicated that the goodness of fit index (GFI) was 0.95, the adjusted goodness of fit index (AGFI) was 0.92, and comparative fit index (CFI) was 1.00. When the values of GFI, AGFI and CFI are close to 1, it means that the model is consistent with the empirical data (Poonpong Suksawang (2013: 15-16). Root mean square error of approximation (RMSEA) was 0.008 and standardized root mean squared residual (SRMR) was 0.032, a very low value (close to 0), showing that the model was consistent with the empirical data. Poonpong Suksawang (2013: 15-16) stated that the more the values of RMSEA and SRMR were close to 0, the model was consistent with the empirical data. It can be seen that the developed measurement model of positive psychological capital was consistent with the empirical data. The measurement model of positive psychological capital of parents of children with disabilities had 4 components, namely, self-efficacy, hope, optimism, and resilience, consistent with what Luthans et al. (Luthans; et al. 2012:254) concluded that positive psychological capital consisted of self-efficacy, hope, optimism, and resilience.

In addition, the study on the measurement model of positive psychological capital in each component indicated that resilience had the greatest factor loading, 0.95, because parents had experiences in confronting problems related to raising and caring children as well as self-adaptation, making them have the highest resilience. This is consistent with what Masten (Masten. 2001) said that resilience is mental characteristics. It is not something people were born with or without. People have different levels of resilience, more or less, which can be developed and changed by individual's experiences. Glicken (Glicken, 2006) defined resilience as the capacity for being patient and recovered from problems in life. It is an important thing that helps people being able to confront problems efficiently. Resilience is an ability that can be developed by individuals' experiences.

The factor loading of hope was 0.94. The reason it was considered as the number two since a high level of resilience enables parents to recover to a normal state and be able to spend their lives in the way they wish without hopelessness. This is consistent with what Luthans (Luthans. 2007) said that hope is strong will and determination to achieve success without hopelessness. Charles Richard Snyder (Charles Richard Snyder. 1991) described hope theory that people shall keep hope when they have a goal, way, and motivation to make a plan to reach success though they are in a situation full of obstacles or difficulties.

The factor loading of optimism was 0.91. It was considered as the number three. Most of the parents being research participants came from poor or moderate income families. They finished education at Matthayomsuksa level or received vocational certificate and they are employees, making them have no life experiences that promote them to have positive attitudes. Seligman (Seligman. 1998) described that people shall be optimistic or pessimistic depending on 3 major factors, namely, 1) strong physical health, 2) parenting in childhood and 3) social experiences. Optimism is an attribute showing positive attitudes in describing an event that an individual confront under different situations.

The factor loading of self-efficacy was at the lowest, 0.87. Parents need to have successful experience to make them feel confident before perceiving their own ability. Bandura (Bandura. 1986) stated that past success would be a factor having an influence on perceived self-efficacy the most as it is a successful experience generated directly from one's action. The success obtained shall enable people to get satisfied and have higher perceived self-efficacy.

According to the discussion mentioned earlier, it can be concluded that positive psychological capital of parents of children with disabilities consisted of 4 components, i.e. self-efficacy, hope, optimism, and resilience.

Suggestions

Suggestions for implications

1. Based on the research results, the components of positive psychological capital of parents of children with disabilities, as arranged from descending to ascending order, are resilience, hope, optimism, and self-efficacy, respectively. Therefore, the development of positive psychological capital components of parents of children with disabilities should start from developing the components having the highest factor loading to the lowest factor loading. The component with the highest factor loading shall enable parents to access the context of the component development more easily than the components with lower factor loadings.

2. Group counseling service should be provided for the development of parents of children with disabilities to have positive psychological capital in all special education centers across the country. It will help enhance positive psychological capital and build a good relationship in groups of parents of children with disabilities, allowing them talk, share their experiences, and encourage each other.

Suggestions for future research

1. A test of consistency with the empirical data should be given with other groups of parents, such as new parents, parents of LGBTQ children, teen parents, single mothers, single fathers, etc. to confirm universality of parents' positive psychology capital and to adopt the research results obtained as a guideline to promote and develop parents to have positive psychological capital for practicing positive parenting accordingly.

2. A comparison should be made between measurement models of positive psychological capital of parents of children with disabilities together with organizing group activities and training so as to open a chance for enhancing positive psychological capital of parents of children with disabilities using a variety of methods more and more.

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