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Abstract

This article reports the development and validation of a family strengths measure, the Chinese Family Strengths Measure [CFSM], used for family social service and practice interventions in a Chinese context. Both exploratory factor analysis and hierarchical-order confirmatory factor analysis verified the 28-item CFSM, which demonstrated adequate construct validity and convergent validity. In addition, the CFSM showed good internal consistency by Cronbach alpha and Guttman split-half reliability tests, and had adequate inter-correlation qualities for its respective dimensions by inter-item correlation and mean corrected item-total correlation tests. Implications for administration of this newly-constructed measure in family service setting are briefly suggested.

Keywords: family strengths; measures; validation; Chinese culture.

Introduction: A Recall of the Developing Family Strengths

A couple of decades ago, family and social work scholars began to realize the importance of looking into family interventions and therapies with less stigmatized, or even positive and optimistic emphases. Much of this paradigm transition was happened by the conversion from the "damage-deficit model" or the patho-

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logical perspective to the strengths thesis (Yeung & Chan, 2010; Yeung & Chan, 2011). Although a promotion of use of strengths-based orientation toward family clients has been extolled for years, theoretical and research works on this area are meager, especially in Chinese societies (Chan et al., 2008; Shek, 2006;). Tracing back as early as to a study by H. Otto (1963), that is the first research attempted to figure out traits of strong families, twelve major strengths of a strong family were identified, including the abilities to provide for the basic needs of the family, be sensitive to the needs of individual members, communicate effectively, provide support, security and encouragement, initiate and maintain growth producing relationships within and without the family, grow with children, provide self-help and seek help when needed, perform role flexibly, use crises as a means of growth, show respect for each other and concern for family royalty, unity, and cooperation.

In 1970s, Lewis et al. (1976) attempted to distinguish healthy families from those less strong families and found eight strength qualities, namely basic affinitive attitude, respect for subjective views, open and direct communications, firm parental coalition, appreciation for complex motivations, sense of spontaneity, active initiative toward the outside world, and a valuing of the unique, individual characteristics of family members. More than that, Barnhill (1979) also proposed eight dimensions of factors characteristic of family strengths. They are individualism, mutuality, flexibility, stability, clear perceptions, clear communications, role reciprocity, and generational boundaries. Interestingly, scholars commonly supported the interrelatedness/ inter-connectedness of these strength factors (DeFrain & Asay, 2007; Trivette & Dunst, 1990; Yoo, 2005). As such we can say that all strengths are found to be significant and no single thread can be disentangled from each others. In fact, all families should contain some of the factors with greater or lesser emphasis (Hanline & Daley, 1992; Wolin & Wolin, 1990).

More progressive, N. Stinnett and J. Defrain (1986), two major promoters of family-strengths model, emphasized six dimensions that should be important to do with delineating a strong family. These dimensions include commitment, appreciation, communication, time together, spiritual wellness, and the ability to cope with stress and crisis (resilience). By the efforts over the past years of thirties, they have found the similarities for these strengths among families cross-culturally and globally (DeFrain & Stinnett, 2002; Olson & Defrain, 2006).

However, research and direct service practices have been plagued by the paucity of related measures developed based on the strengths-based perspective (Shek, et al., 2004; Yeung & Chan, 2010). This situation is even more pronounced in Chinese societies, as scholars mainly emphasized on directly importing and translating family assessment measures from the West, which are focused on the dysfunctional and pathological sides of family functioning. For example, Shek has translated and validated the Self-Report Family Instrument (SFI), Family Awareness Scale (FAS), and Family Assessment Device (FAD), all of which are

the measures used to identify deficit or maladaptative dimensions of a family (Shek, 1998, Shek & Lai, 2001; Siu & Shek, 2005). Apparently, Shek (2006) realized the lack of validated instruments for assessing different dimensions of family functioning, and called for the need to construct more relevant family assessment tools. Manifestly, Phillips et al. (1998) stated that dearth of family assessment tools may severely obstacle development and delivery of family services (p. 105). As a result, the lack of available family measures for assessing family strengths would strain the further advance of research and frontline practice works. For this, Trivette and Dunst (1990) revealed:

"Although there are literally dozens of instruments available for assessing family needs, this is not the case regarding family strengths assessment tools, and early intervention practitioners are generally unfamiliar with such instruments. Furthermore, early intervention practitioners generally are unfamiliar with the family strengths literature because, until recently, early intervention practices have been primarily deficit oriented and reactive, rather than strength oriented and proactive (p. 16)."

Defining Family Strengths

Albeit, a step moved back is needed before any useful instruments that are developed for family assessment of functioning based on the strengths-based perspective, which means the paramountcy of defining family strengths. In the early work by Otto (1975), family strengths are "those forces and dynamic factors . . . which encourage the development of the personal resources and potentials of members of the family and which make family life deeply satisfying and fulfilling to family members (p. 16)." In addition, Williams and his colleagues (1985) referred family strengths as those relationship patterns, interpersonal skills and competencies, and social and psychological characteristics, which create a sense of positive family identity, promote satisfying and fulfilling interaction among family members, encourage the development of the potential of the family group and individual family members, and contribute to the family's ability to deal effectively with stress and crisis. Furthermore, DeFrain et al. (2006) thought a family with strengths should be identified as having values of commitment, appreciation and affection, positive communication among each others, enjoying time together, and commonly possessing a sense of spiritual well-being, as well as demonstrating the ability to cope with stress and crisis. More than that, Trivette and Dunst (1990) connoted that "family strengths are the competencies and capabilities of both various individual family members and the family unit that are used in response to crises and stress, to meet needs, and to promote, enhance, and strengthen the functioning of the family system.(p. 17)." Taken together, although scholars may be a little bit different rationale in portraying family

strengths, it commonly points out that a strong family should be characteristic of high commitment and efficient communication to each other in the family unit, provision of support and fulfilling needs of individual members, and upholding common values and beliefs spiritually, as well as encouragement of potential development of individual family members (Powell, 2006).

The Present Study

Pragmatically, to make support and fortification of the practices of using a strengths-based approach in family services becomes a reality, only if the work of shift in paradigmatic perspective and construction of pertinent family strengths measures is done. Albeit there are limited available measures derived from the strengths-based perspective in the Western societies tapping certain sides of family strengths, they are considered unruly to directly import for use in Chinese context because of cultural and societal differences. Some of these measures include Family Strengths Scale (Olson et al., 1983) and Family Hardiness Index (Mc-Cubbin et al., 1987). As Yoo (2005) thought that most researchers modified and edited the means (*instruments*) used in other countries to measure the family strengths; however, the western scales reflected the western cultures and family life. Thus, such scales raised the problems of not properly reflecting the unique features of local culture. So as, the aim of the current study is to develop and validate a family strengths measure for use in a Chinese context.

For developing a culturally-accommodated measure for assessing family strengths, we first referred to the Family Strengths Model and the American Family Strengths Inventory constructed by DeFrain and Stinnet (2002), in which there are six dimensions commonly constituting the family strengths concept. They are Affection and Appreciation (AA, 15 items), Commitment (CM, 13 items), Enjoyable Time Together (ET, 15 items), Positive Communication (PC, 12 items), Resilience (RE, 15 items), Spiritual Well-being (SW, 14 items). In addition, in each dimension, we, as a research team consisting of three experienced service practitioners and one clinical psychologist in the field of family services, added another 4 items in the AA and CM dimensions, and 3 items in the ET and PC dimensions, and 5 items in the RE dimension, as well as 1 item in the SW dimension in order to make the content of each dimension reflective of family situations in Chinese societies more accurately. So that the total item pool for the development of a Chinese family strengths measure in the present study comprises of 100 items for subsequent measure construction and validation.

As previous literature reported the interrelatedness of respective dimensions of family strengths that are conglomerate in nature and may form a latent family strengths concept (Dunst et al., 1988; Olson, & DeFrain, 2006; Yoo, 2005), we would like to have the following hypotheses:

H1: *Items pertaining to the six dimensions of family strengths would commonly load on a latent construct of family strengths.*

H2: *Each dimension of family strengths would be interrelated in a substantial and reasonable way, such as $r_s \geq .40 \mid \leq .85$ (Johnson, & Wichern, 1998).*

H3: *Items pertaining to a specific dimension of family strengths would be correlated to each others in a sensible way, such as average inter-item correlations and item-total correlations $\geq .40 \mid \leq .85$ (Hutcheson, & Sofroniou, 1999).*

H4: *The latent family strengths construct and its respective six dimensions would have a good internal consistency, such as Cronbach alpha and Guttman split-half reliability coefficients $\geq .60$ (Cox, 2005).*

Method

Sample and Procedures

Participants of the current study were recruited from various agent sources from the Hong Kong Young Women's Christian Association (HKYWCA), which is one of the major NGOs in Hong Kong providing non-profit seeking social services to local residents. During July 2010, researchers invited different social service units operated by HKYWCA to help to recruit potential community participants, during which there were one Family Wellness Centre, nine Integrated Social Service Centers, five Non-Subvened Social Service Centers, three Elderly Centers and Kindergartens, as well as one School Social Work Team and Youth Outreach Center under the management of HKYWCA took part in the study.

Correspondent staff members in these social service units helped to recruit participants from clients and residents in their service bounds. Before filling the questionnaire, we sought agreement for participation by presenting them an agreement form to sign in for consensus. By August 2010, we successfully invited 1930 participants to take part in the current study. With the aim to construct a family strengths measure that shows good psychometric properties, three procedures were carried out to develop the measure. These procedures are namely face validity and item selection, exploratory factor analysis and item reduction, as well as reliability test and confirmatory factor analysis.

Results

Descriptives of Participants

In a total sample of 1930 Hong Kong Chinese participants, female participants shared 55.9% (1079 subjects), and 41.7% were male participants (805 subjects), and 46 participants did not reported their gender (2.4%). For age distribution, 19.4% of participants were aged between 12 and 18 years old (374 subjects), 33.7% of participants were aged between 19 and 39 years old (650 subjects). Another 32.5% of participants were aged between 40 and 59 yeas old (627 subjects), and the remaining 268 participants who were aged 60 years old or above shared 13.9%. Only 11 participants did not reveal their age status. Regarding participants' educational attainment, 13.1% of the participants reported having attained elementary school or below (253 subjects), 639 participants showed a educational level at junior secondary school (33.1%), another 585 participants had attained senior secondary school (30.3%), and 22.7% of the participants (438 subjects) had received college education. There were 0.8% of the participants having not reported their educational background.

Face Validity and Item Selection

In the procedure of face validity and item selection, we first aligned all the one-hundred items, in which some items were directly translated from the Family Strengths Model by DeFrain and his Colleagues (2002) and some were developed by the frontline family service practitioners in Hong Kong Young Women's Christian Association. All items that are under the six dimensions mentioned before are congruently composed of common theme of family strengths. Three criteria that guide our judgment to determine the selection of the most appropriate items to retain for sequent analyses. The first criterion is that the item content should be characteristic of family strengths in a Chinese context. Second, the items should be culturally appropriate to use for local families. Third, the language expression should be clear and easy to grasp its meaning for ordinary people. Finally, item meaning should not be connotatively overlapping. If two items appear to be similar or near in meaning, we would retain the one characteristic of Chinese culture and has more concise expression. For example, in the 'Communicating Effectively with Each Other' dimension of DeFrain's Family Strengths Model, the item, "We share jokes together", might not be proper in the Chinese context for strong families as parents in Chinese families might appear to be more solemn even if they have close and supportive relations with their children (Yeung & Chan, 2010).

As a result we finally retained 64 items for the further item selection process. Table 1 presents the retained items, in which 10 items from the Affection and Appreciation dimension (AA), 11 items from the Commitment dimension (CM), 11 items from the Enjoyable Time Together dimension (ET), 10 items from the Positive Communication dimension (PC), and 12 items from the Resilience dimension (RE), as well as 10 items from the Spiritual Well-Being Dimension (SW). Afterward, we run the correlation coefficients for all the retained items. In the correlation coefficients matrix, we inspected whether there were any correlation coefficients that were beyond .80 or non-significant, and dropped the targeted items if any of these cases occurred. The former is to avoid multi-collinearity and the later is to eschew uncorrelated indicator-factor loadings (Goruch, 2003). We then went through all the correlation coefficients, and only discovered one problematic item-to-item coefficient; it is a pair between AA04 and ET08, one item from the Affection and Appreciation dimension and one item from the Enjoyable Time Together dimension. After jurisdiction to retain which item in the item pool, we determined to drop ET08, "We feel strongly connected to each other", as it was thought not directly reflective of the dimension of Enjoyable Time Together.

In addition, we also conducted item-total correlation tests to investigate any items pertaining to their respective dimensions were not consistent with other items in the dimension, which is a good method to cleanse questionable items from the potential measure prior determining the factor structure. The item-total coefficients can be obtained by correlating the individual item with the composite scores of the remaining items that commonly form the scale. In this study, any item-total coefficients less than .45 were considered not discriminating the concept in measuring family strengths adequately, and the items would be dropped in subsequent analysis (Johnson & Wichern, 1998). However, we did not find any item-total correlation coefficients below .45. So as, the remaining 63 items were retained to do exploratory factor analysis.

Exploratory Factor Analysis and Item Reduction

The purpose of doing exploratory factor analysis was to identify the factor structure of the present family strengths measure through reducing those redundant items. EFA is a data-crunch procedure, which is a combination of the empirical results with the researcher's theoretical judgment to determine the final version of the potential measure. In this study, we adapted oblique rotation method by principal component analysis. This procedure would accommodate our expectation for correlated structure among the potential factors with a comparatively clear rotating result. Nowadays, other common rotation methods used in EFA include principal axis factor analysis and maximum likelihood analysis. However,

in initial EFA analysis principal component analysis rather than the aforementioned methods is preferred as it is a more clear-cut and reliable procedure to find out the factor structure from the analytical dataset. The reasons behind are that principal axis factor analysis would dampen the explanatory power of variance by its using estimates of communalities on diagonal in extraction process (Gorsuch, 2003; Hutcheson & Sofroniou, 1999), and maximum likelihood analysis for EFA is mostly like based on a clearer assumption of underlying structure of the items (Gorsuch, 2003), which can be achieved by some newly-established statistical programs, such as MPlus and NCSS.

Due to prefect reliability was not assumed in the initial EFA analysis, we conducted EFA with promax oblique rotation on four axes, with item loadings ≥ .40 were retained. The advantage of using promax than oblimin rotation is that it is more versatile in dealing with a large dataset. The result identified five factors with eigenvalues greater 1, accounting for 62.1% of the total variance. However, factor one substantially shared most part of the explained variance. It solely contributed to 53.2% of the total variance, and the remaining factors only shared little variance, factor two for 3.0%, factor three for 2.3%, factor four for 1.9%, and factor five for 1.6%. As such, the later four factors contributed only 8.8% of the explained variance accumulatively.

For factor one, there were 28 items with factor pattern coefficients ≥.40, 6 items coming from the dimension AA, 4 from the dimension CM, 7 from the dimension ET, 4 from the dimension PC, 3 from the dimension RE, and 4 from the dimension SW. Factor two consists of 11 items, factor three has 12 items, factor four is only with 1 item, and factor 5 has two items. Table 2 displays the items and their respective loadings pertaining to the five factors. There are two approaches to determine the number of extracted factors, parallel analysis with inspection to eigenvalues and Cattell's scree test. Although parallel analysis suggested five factors to be retained, scree plot shows a one-factor solution. This discrepancy is not uncommon in previous measure development and validation studies (Boujut & Bkuchoa-Schweitzer, 2009; Kashdan et al., 2009; Watkins et al., 2006). Given the suggestion from the scree plot, the predominant share of explained variance of factor one, and only few items loading on factor four and five, we considered a one-factor solution with factor one that represents the structure of the current Chinese Family Strengths Measure (CFSM).

The Kaiser-Meyer-Olkin (KMO) measure in this EFA analysis was .99, which is well beyond the required heuristic value of .70, indicating sampling adequacy for factor analysis, which denotes that the data were appropriate for the current analysis. Also, Bartlett's Test of Sphericity indicated that the correlation matrix was not random (X^2= 82010, df= 1953, p< .001).

Reliability Test and Confirmatory Factor Analysis

Based on the results from EFA that identified a 28-item measure, which consists of various items from the six dimensions of family strengths aggregately contributing to the latent construct of the current Chinese Family Strengths Measure, for this, we would like to further confirm whether these items from the six dimensions consistently indicative of the common theme of the latent family strengths concept by doing a hierarchical-order confirmatory factor analysis. Stated succinctly, we would like to evidence whether these six dimensions converge on the higher order of family strengths and whether the specific items are validly load their respective dimensions. In the hierarchical-order confirmatory factor analysis, items pertaining to their respective dimensions were decomposed and forced to concurrently load on the common higher-order construct of family strengths. This would lend support to the structural consistency of the CFSM by attesting respective items adequately indicative of their pertinent dimensions, which are consistently related to the latent family construct.

Before doing it, we first checked on the correlations between the six dimensions of family strengths and internal consistency of the respective items pertaining to the six dimensions. Table 3 shows the correlation coefficients between the six dimensions of family strengths, in which the AA dimension and the ET dimension had the highest correlation coefficient, r= .850, and the RE dimension and SW dimension had the lowest correlation coefficient, r= .773. In all, the magnitude of the correlation coefficients among the six dimensions is within the acceptable level, $r_s \geq .40 \mid \leq .85$. *Table 4* presents the Cronbach's alpha coefficients, average inter-item correlations, and mean levels of corrected item-total correlations. Cronbach's alpha coefficients of respective dimensions have attained a desirable level, in which the AA dimension was .901, CM dimension was .879, ET dimension was .927, PC dimension was .863, RE dimension was .824 and SW dimension was .826. The results showed good internal consistency across all dimensions. Looking at the fourth column of Table 3, the range of inter-item correlation was also in a reasonable range, no extreme low ($r_s \leq .30$) or substantial high ($r_s \geq .80$) correlation coefficients within each dimension were observed.

In addition, the average inter-item correlation coefficients all showed an adequate level; no coefficients < .40 or > .85 were observed. On the other hand, the mean corrected item-total correlation coefficients were within the valid range, in which ET had the largest coefficient, r= .768, and SW had the smallest coefficient, r= .652. in the last column of *Table 4*, all Guttman Split-Half Coefficients exceeded .70, indicating their good reliability (DeVellis, 1991).

For confirmatory factor analysis, multiple model fit indexes are used to denote the adequacy of the model being tested. In order to manifest the good fit of the model, these fit indexes can generally classified into three families of good-of-fit

indexes, including the family of comparative fit indexes, e.g. Normed Fit Index (NFI; Bentler & Bonett, 1980) and Comparative Fit Index (CFI; Bentler, 1990), and the family of absolute fit indexes, e.g. McDonald Fit Index (MFI; McDonald, 1989) and Goodness-of-Fit Index (GFI; Jöreskog & Sörbom, 1984), as well as the family of badness-of-fit indexes (or alternatively termed as absolute misfit indexes), e.g. Standardized Root Mean Square Residual (SRMR; Hu & Bentler, 1995) and the Root Mean Square Error of Approximation (RMSEA; Steiger, 1998).

Stated generally, among these good fit indexes, CFI, GFI, and RMSEA are more precisely indicative of a model fit, in which CFI and GFI ≥ .90 means a good fit between theoretical model and the data, and the values of RMSEA less than .05 represent excellent fit of the model, values between .05 and .08 connote good fit of the model, and values ranging from .08 to .10 indicate mediocre fit, and those values greater .10 imply poor fit (MacCallum et al., 1996). However, in doing CFA, it would be too demanding for a model with 15 indicators or more based on a large sample (e.g. N< 400). For this, both CFI and GFI that attain .80 or above already indicate an adequacy of a model fit (Marsh et al., 2004; Mulaik et al., 1989). In addition, due to the X^2 and degrees of freedom are sensitive to large sample sizes (N > 400), a non-significant X^2 value is infeasible in confirmatory factor models with a large sample.

Figure 1 shows the results of our model (model one). Various model fit indexes connote a good fit between the theoretical model and the data, CFI= .938, GFI= .874, RMSEA= .066, 95% CI_{RMSEA}= .064 to .068. More than that, Hoelter's (1983) "critical N' for a significance level of .05 was greater than the threshold of 200 (HOELTERâ 231, p< .05), which corroborates the sample size is well ample for the current model results. In this model, the factor loadings were significantly regressed on their respective first-order unobservable dimensions, in which the loadings of dimension AA ranged from .64 to .84, the loadings of dimension CM ranged from .77 to .84, the loadings of dimension ET ranged from .71 to 88, the loadings of dimension PC ranged from .75 to .77, and the loadings of dimension RE ranged from .72 to .84, as well as the loadings of dimension SW ranged from .68 to .76. These loadings are all beyond the threshold of .40 in doing CFA (Cox, 2005; Gorsuch, 2003). Furthermore, those six unobservable dimensions of family strengths were all well adequately loaded on the higher-order latent CFSM construct. The dimensions of AA, CM, RE, and SW had a full loading on the latent concept of CFSM, and the dimensions of ET and PC also had loadings of .98 and .99 on the latent construct.
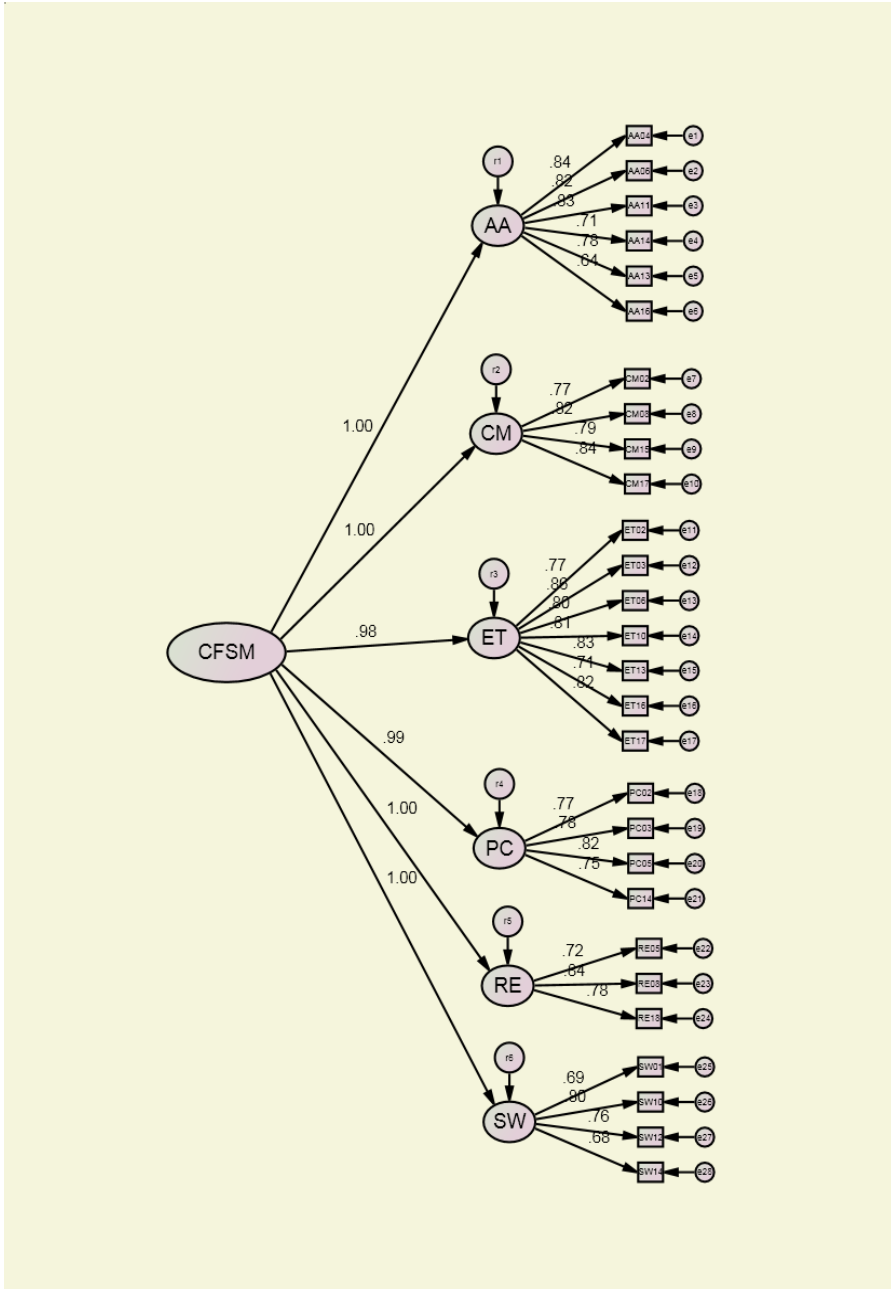
Figure 1: *Hierarchical-Order Confirmatory Factor Model (Model 1)*

X^2= 3251.76, df= 344, p< .05

CFI= .938, GFI= .874, RMSEA= .066, 95% CI_{RMSEA}= .064 to .068

On the other hand, regarding to the Modification Index, it suggests setting free the correlation between error term 2 and 8 to see whether the new model (model two) would have a significantly better fit than model one. Model two shows a better fit than model one, $\Delta X^2(df)= 221.20$ (1), $p< .01$ (*Table 4*), in which the good fit indexes have attained a better off level, CFI= .942, GFI= .883, RMSEA= .064, 95% $CI_{RMSEA}= .062$ to .066. Moreover, the Modification Index further indicates to set free the correlations between error terms 17 and 26, as well as error terms between 19 and 27. In fact, the practice to set error terms free to be correlated is common in conducting CFA modeling when there is theoretical justification and rationale of some unknown variance that would commonly explain the relationship between the residuals of two indicators in the model (Bollen, 1989; Kline, 2005). Model three that allows the correlations between the above-indicated error terms significantly showed a better fit than model two, $\Delta X^2(df)= 355.44(2)$, $p< .01$, with more excellent fit indexes, CFI= .950, GFI= .896, RMSEA= .060, 95% $CI_{RMSEA}= .057$ to .062.

Looking at the item contents pertaining to the error-term correlations, AA06 ("We have a high regard for each") and CM08 ("We like to be kind to each") for the first error-term correlation (e2 and e8) commonly manifest to give appreciation and honor to other members in the family. The item PC03 ("We like talking openly with each other") and SW12 ("We share our spiritual values and beliefs") for the error-term correlation between e17 and e26 purport mental and spiritual communion among family members. The items SW10 ("We believe love is a powerful force that helps us together") and ET17 ("We feel contentment when spending time together") entail a sense of togetherness bound by love in the family. Apparently, model three is the best-fitting model, in which factor loadings did not show substantially different from that of model one and two (*Figure 2*).
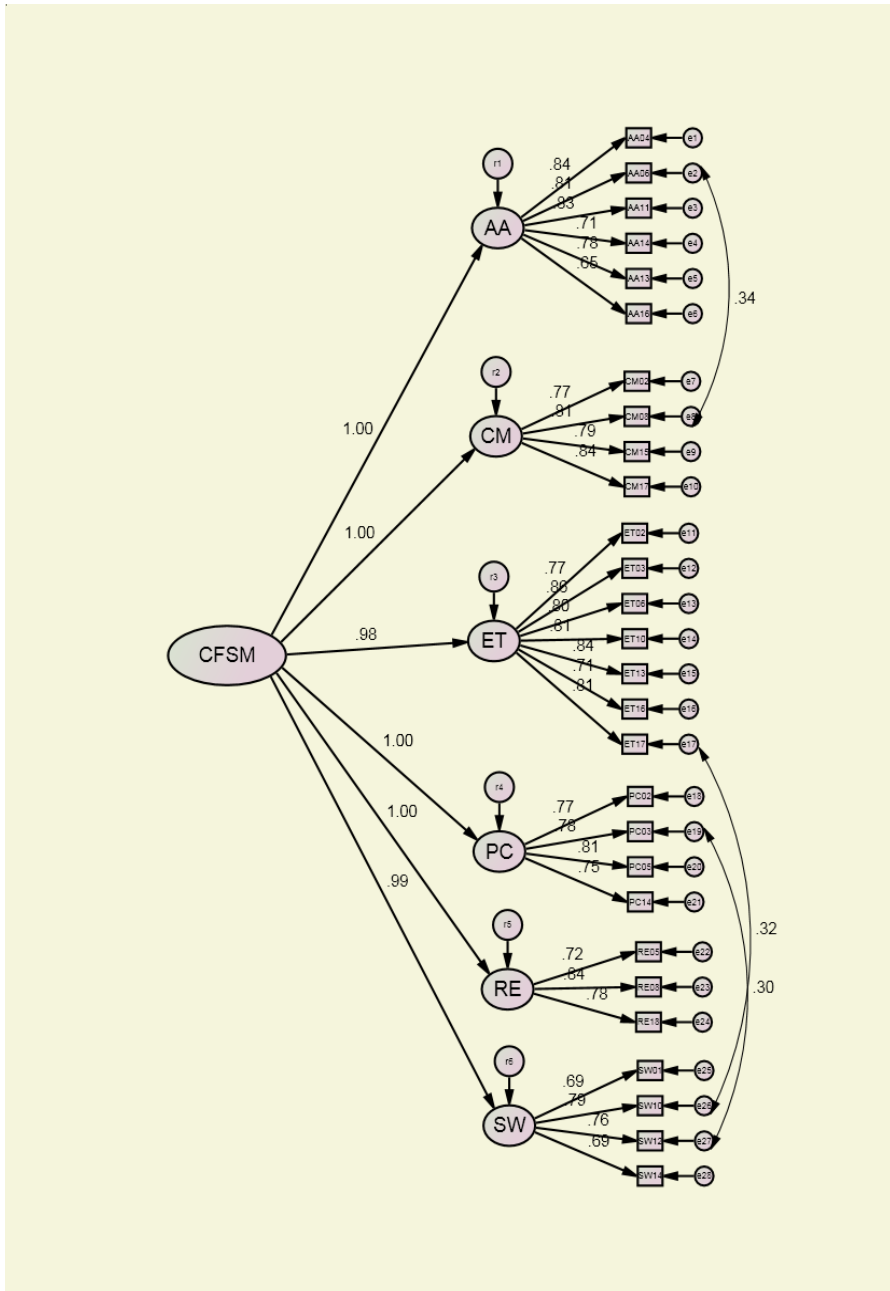
Figure 2: *Hierarchical-Order Confirmatory Factor Model with Error-Term Correlations (Model 3)*

X^2= 2675.12, df= 341, p< .05

CFI= .950, GFI= .896, RMSEA= .060, 95% CI_{RMSEA}= .057 to .062

Discussion

As Shek (2005) stated that "healthy family functioning has been a key area of interest among helping professionals who provide family interventions. With the rapid development of family therapy and interventions in China, there has been sin increasing need for a standardized assessment tool of family functioning in Chinese populations (p. 817)." The present study developed and validated a Chinese Family Strengths Measure for both research and service practices usage. This newly-established measure is both incorporating the blossoming foundations of strengths-based model from the West and accumulative experiences from indigenous culture. The need for more indigenously-established family measures is that all along scholars and frontline practitioners have assessed family functioning in Chinese populations by using directly translated family instruments. However, prior literature pointed out that there were manifest differences in factor structures when Western measures were directly used in different cultures (Foster, & Robin, 1989; Shek & Cheung, 2008). As such, it is a need to articulate cultural and ideological differences in family functioning and necessarily to develop indigenous family measures.

Results of the current study showed that the newly-developed CFSM has good psychometric properties evidenced by its adequate construct validity from EFA procedure and a desirable level of convergent validity from the hierarchical-order CFA procedure, which support hypothesis 1, the correlation coefficients between the six dimensions of CFSM were within the acceptable range, which makes hypothesis 2 supportive. Internal consistency tests also demonstrated the reliability of the measure, which corroborate both hypothesis 3 and 4 tenable.

This new measure can be employed as a quick screening tool for assessing family functioning for enhancing a practitioner's cognizance of the strengths and characteristics a strong family assumes in the Chinese context. Before adopting this newly-established measure, practitioners should bear in mind about the paradigmatic conversion in viewing family in a more malleable and approbatory way. Some tenets should steer our practices with strengths-based perspective (Chan et al., 2008; Powell, 2006), in which we should believe that: (1) All families have love; (2) All families have their unique strengths and possess potentials in developing other kinds of potencies; (3) The weakness of a particular family or a member in this family does not assume that the whole deficit occurs within the family system, without considering the larger outside societal system from a structuralist-functional perspective; (4) The approach of intervention is stimulating and expediting family functioning in nature and aims to enhance those malleable strengths within the family in order to enhance their coping capabilities as a whole; (5) Practitioners are never an expert in doing with families with less

strengths, they should learn and savor from the angles of the family and experiences of its individual members, acting as catalyst for better; (6) Followed from point four, provision of services and programs should do with developmental and exploring models instead of therapeutic and chastising models (7) Valuing individual differences and acceptance of differential courses of individual progresses are imperative in practices.

Conclusions

With the help of this new family strengths measure suitable for use in Chinese context, frontline family social workers and counselors could grasp the profile of a family from the strengths-based perspective to be conversant with the needs of the family and intervene with more targeting strategies. However, again, the employment of this or other family strengths measures should accompany with shift in philosophical orientations by doing away of the damage-deficit view to a more empowering and strengths perspective. A paradigm shift and a change in perspective on family are called. A new culture in family service hoped to be created in family social service.

Along with the intensification of market-economic globalization and materialistic-value orientation of contemporary societies, Chinese culture has been compromised for its prominent emphasis on the functioning of family, and the significant role of family in contemporary China has also been shriveling. A paradigmatic shift to strengths-based practices with the availability of various family strengths measures is impending (Shek, 2006; Yeung & Chan, 2010). This study is a tentative work to construct a family strengths measure catering for the characteristics of families in a Chinese context. Further research is needed to fortify this newly-constructed measure, and more studies are encouraged to develop other indigenized and useful family strengths measures.

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No.	Item Content	Item Code
Table 1. The Selected Sixty-four Items under their Respective Dimensions		
Affection and Appreciation [AA]		
1	We appreciate each other and let each other know this.	AA01
2	We like to show affection.	AA04
3	We feel close to each other.	AA05
4	We like to be kind to each other.	AA06
5	We wait for each other without complaining.	AA08
6	We are able to forgive each other.	AA10
7	We grow stronger because we love each others.	AA11
8	We greet one another.	AA13
9	We express love and concern with body language, such as hugs and shoulder taps.	AA14
10	We send gifts to one another.	AA16
Commitment [CM]		
1	Responsibilities are shared fairly.	CM01
2	Everyone goes their say in making decisions.	CM02
3	We allow each other to be ourselves.	CM04
4	We like to do things for each other that make us feel good about ourselves.	CM06
5	We have reasonable expectations of each other.	CM07
6	We have a high regard for each other.	CM08
7	We respect the roles each of us plays in the family.	CM09
8	We accept that each of us has different ways of doing things.	CM11
9	We are willing to give unconditionally to our family.	CM14
10	We are willing to bear family responsibilities.	CM15
11	We save time for the family.	CM17

Enjoyable Time Together [ET]		
1	We like to have fun together.	ET02
2	We feel comfortable with each other.	ET03
3	We enjoy simple family activities.	ET06
4	We feel strongly connected with each other.	ET08*
5	We have lots of good times together.	ET10
6	We often laugh with each other.	ET11
7	We enjoy sharing our memories with each other.	ET13
8	We enjoy having unplanned, spontaneous activities.	ET14
9	We spend special days, such as birthdays and holidays, together.	ET16
10	We feel contentment when spending time together.	ET17
11	We feel happy when spending time with together, no matter what we do.	ET18
Positive Communication [PC]		
1	It is easy to cue into each other's feelings.	PC02
2	We like talking openly with each other.	PC03
3	We listen to each other.	PC04
4	We respect to each other's point of view.	PC05
5	Talking through issues is important to us.	PC06
6	We give each other a chance to explain ourselves.	PC07
7	We enjoy our family discussions.	PC08
8	Putdowns are rare.	PC10
9	We share everything with my family.	PC14
10	We find constructive ways to express dissatisfaction with our family.	PC15

Resilience [RE]		
1	We can work together to solve very difficult family problems.	RE04
2	A crisis helps make our relationships strong.	RE05
3	We are able to face daily issues confidently.	RE07
4	We like to support each other.	RE08
5	Our friends are there when we need them.	RE09
6	We always find something good comes from a crisis.	RE10
7	We find it easy to make changes in our plans to meet changing circumstances.	RE11
8	My family and I can deal with crises and difficulties in optimistic ways.	RE15
9	We know how to adjust ourselves in the face of controllable circumstances.	RE16
10	We can tolerate difficulties.	RE17
11	We share one another's at times of difficulty.	RE18
12	At critical times, we can make good use of external resources, such as friends and community assistance.	RE19
Spiritual Well-being [SW]		
1	We have a hopeful attitude toward life.	SW01
2	We have a strong sense of belongings.	SW03
3	We enjoy learning about our family history.	SW04
4	We feel strong connections with our ancestors.	SW05
5	There is a feeling of safety and security.	SW06
6	There is a sense of peace among us.	SW09
7	We believe love is a powerful force that keeps us together.	SW10
8	It is easy to share our spiritual values and beliefs.	SW12
9	Our personal religious beliefs are compatible with each other.	SW13
10	We have common principles of life.	SW14
Note. ET08 was deleted from the item pool as it was strongly correlated with AA04, $r_s \geq .80$, and not directly reflective of the dimension of Enjoyable Time Together.		

Item Code	Item Content	F1		F2		F3		F4		F5	
		P	S	P	S	P	S	P	S	P	S
ET13	We enjoy sharing our memories with each other.	.847	.833								
ET06	We enjoy simple family activities.	.843	.805								
ET10	We have lots of good times together.	.816	.822								
CM08	We have a high regard for each other.	.810	.833								
CM17	We save time for the family.	.806	.838								
ET03	We feel comfortable with each other.	.777	.855								
AA11	We grow stronger because we love each others.	.704	.828								
RE08	We like to support each other.	.701	.848								
AA04	We like to show affection.	.696	.845								
AA14	We express love and concern with body language, such as hugs and shoulder taps.	.689	.735								
ET02	We like to have fun together.	.685	.771								
PC02	It is easy to cue into each other's feelings.	.682	.787								
AA06	We like to be kind to each other.	.677	.823								
AA13	We greet one another.	.674	.790								
CM02	Everyone goes their say in making decisions.	.672	.784								
PC05	We respect to each other's point of view.	.671	.824								
CM15	We are willing to bear family responsibilities.	.655	.788								
SW10	We believe love is a powerful force that keeps us together.	.597	.785								
RE05	A crisis helps make our relationships strong.	.597	.739								
SW01	We have a hopeful attitude toward life.	.545	.725								
AA16	We send gifts to one another.	.532	.666								
ET17	We feel contentment when spending time together.	.526	.795								
PC14	We share everything with my family.	.515	.750								
RE18	We share one another's at times of difficulty.	.490	.771								
PC03	We like talking openly with each other.	.488	.761								
SW12	It is easy to share our spiritual values and beliefs.	.475	.750								
ET16	We spend special days, such as birthdays and holidays, together.	.450	.694	.							
SW14	We have common principles of life.	.446	.683								
SW06	There is a feeling of safety and security.			.731	.778						
ET18	We feel happy when spending time with together, no matter what we do.			.683	.767						
AA05	We feel close to each other.			.666	.776						
PC04	We listen to each other.			.644	.700						

Table 2. Factor Structure and Loadings by Exploratory Factor Analysis

Table 2. Factor Structure and Loadings by Exploratory Factor Analysis (Cont'd)

Item Code	Item Content	F1		F2		F3		F4		F5	
		P	S	P	S	P	S	P	S	P	S
CM06	We like to do things for each other that make us feel good about ourselves.			.618	.777						
CM14	We are willing to give unconditionally to our family.			.608	.772						
PC07	We give each other a chance to explain ourselves.			.583	.726						
AA10	We are able to forgive each other.			.575	.784						
SW03	We have a strong sense of belongings.			.541	.783						
ET11	We often laugh with each other.			.511	.681						
RE04	We can work together to solve very difficult family problems.			.413	.731						
RE17	We can tolerate difficulties.					.756	.794				
AA08	We wait for each other without complaining.					.722	.763				
RE16	We know how to adjust ourselves in the face of controllable circumstances.					.719	.784				
SW05	We feel strong connections with our ancestors.					.552	.639				
PC10	Putdowns are rare.					.536	.613				
SW13	Our personal religious beliefs are compatible with each other.					.507	.538				
CM07	We have reasonable expectations of each other.					.473	.718				
RE15	My family and I can deal with crises and difficulties in optimistic ways.					.457	.738				
RE10	We always find something good comes from a crisis.					.453	.687				
RE07	We are able to face daily issues confidently.					.432	.726				
CM11	We accept that each of us has different ways of doing things.					.411	.697				
CM01	Responsibilities are shared fairly.					.408	.727				
ET14	We enjoy having unplanned, spontaneous activities.							.681	.678		
RE09	Our friends are there when we need them.									.868	.854
RE19	At critical times, we can make good use of external resources, such as friends and community assistance.									.518	.654
Eigenvalue		33.52		1.91		1.44		1.23		1.04	
Explained Variance %		53.20		3.01		2.30		1.91		1.61	

Note.
Only Factor Loadings ≥ .40 were retained.
KMO= .99, Bartlett's Test of Sphericity: X^2= 82010, *df*= 1953, *p*< .001
P= Pattern Coefficient, S= Structure Coefficient

Table 3. Correlation Coefficients Between The Six Dimensions Of Family Strengths							
	Dimension	AA	CM	ET	PC	RE	SW
1	AA	--					
2	CM	.845*	--				
3	ET	.850*	.845*	--			
4	PC	.825*	.804*	.812*	--		
5	RE	.807*	.782*	.783*	.775*	--	
6	SW	.817*	.792*	.795*	.806*	.773*	--

Note. AA= Affection and Appreciation, CM= Commitment, ET= Enjoyable Time Together, PC= Positive Communication, RE= Resilience, SW= Spiritual Well-Being.
*p< .001

Table 4. Cronbach Alpha, Average Inter-Item Correlation, Range of Average Inter-Item Correlation, Mean Correlated Item-Total Correlation and Guttman Split-Half Coefficients of CFSM Dimensions

Dimension	Cronbach Alpha	Average Inter-Item Correlation	Range Inter-Item Correlation	Mean Corrected Item-Total Correlation	Guttman Split-Half Coefficients
AA	.901	.603	.502-.694	.727	.870
CM	.879	.642	.590-.704	.737	.890
ET	.927	.645	.571-.768	.768	.913
PC	.863	.611	.582-.623	.709	.880
RE	.824	.609	.581-.627	.674	.750
SW	.826	.543	.486-.591	.652	.800

Note. AA= Affection and Appreciation, CM= Commitment, ET= Enjoyable Time Together, PC= Positive Communication, RE= Resilience, SW= Spiritual Well-Being.

Table 5. Model Fit Indexes And Model Comparison For The Confirmatory Models

Model	X^2 (df)	CFI	GFI	RMSEA	95% CIRMSEA	HOELTER	ΔX^2(df)
Model 1	3251.76 (344)*	.938	.874	.066	.064 to .068	231*	--
Model 2	3030.56 (343)*	.942	.883	.064	.062 to .066	247*	ΔX^2(df)= 221.20 (1)**
Model 3	2675.12 (341)*	.950	.896	.060	.057 to .062.	278*	ΔX^2(df)= 355.44(2)**
*p< .05, **p<01							