

Family Communication Patterns Questionnaire: Development and Validation

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Abstract: Varied case studies and research was conducted to conceptualize the concept of Family Communication Patterns (FCP) and it was introduced first time in the year 1973. It is gaining lot of impetus these days as family structure, family style and communication pattern is altering. Family communication patterns indicate the interaction among family members to arrive at the common principles and decision. The aim of the current study was to simplify the construct of FCP by validating and developing family communication patterns scale in Indian context. For the study 300 respondents from different senior Secondary Schools from different districts of Punjab, India were selected by random sampling technique. Well-sustained and prominent scale development approach was adopted. The findings corroborated that Family Communication Patterns (FCP) can be disintegrated into two dimensions viz Conversational Orientation and Conformity orientation. Furthermore, family communication patterns questionnaire has requisite internal consistency indices that is Cronbach's alpha came out $\alpha=.869$, which indicates that questionnaire comprises the substantial psychometric features.

Index Terms: Family Communication Patterns, Scale Development, Secondary School Students, Factor Analysis

I. INTRODUCTION

Family Communication Patterns concept was introduced first time by Chaffee, McLeod and Wackman as a channel for investigating structure of family communication (Chaffee, McLeod, Wackman, 1973). Beliefs and perceptions of family members about family's communication patterns can be dissimilar, however family members live jointly in the similar family, (Ritchie, 1991). Each family member recognizes their family reality through their beliefs and perceptions. Interaction between the family members is influenced by his beliefs and perceptions.

Family members share norms, history and beliefs among themselves and this generate family communication patterns over a long period of time (Koerner & Fitzpatrick, 2002; Fitzpatrick, 2004; Baxter, Bylund, Imes, & Scheive, 2005). Baxter et al. (2005) emphasized that shared visions of family members give cognitive and social working models for family members, e.g. normative instructions given to the children about their behaviour in the family. Hence, the procedure or system adopted by family members do a pivotal function in the lives of children. Different family orientated children possess different characteristics of personality, different social behaviors (Fitzpatrick, Krcmar, Leutwiler & Marshall, 1996) and different styles of communication (Koesten, 2004; Avtgis, 2009; Elwood & Schrader, 1998; Kelly, et al. 2002; Hsu, 1998; Dumlao &

Botta, 2000; Zhang, 2007; Barbato, Graham, & Perse, 2003). Furthermore, cognitive processes of children effected by family communication patterns (Koesten & Anderson, 2004; Fitzpatrick & Vangelisti, 1995) that act as a feature for leadership potential improvement (Hackman & Johnson, 2004).

Family Communication Patterns direct youngsters to generate a cognitive mapping of external family situations which they take by their adulthood, these features can influence the techniques through which person rule others even at their later time of life. Huang (1999) investigated relationships among Family Communication Patterns and characteristics of personality involving desirability of control, self-monitoring, self-disclosure, sociability, self-esteem and shyness. Varied research studies indicated relationship between family communication patterns and styles of communication such as appreciation of communication (Hsu, 1998; Elwood & Schrader, 1998), competence of communication (Koesten, 2004) and styles of conflict (Zhang, 2007; Dumlao & Botta, 2000).

Family communication patterns perform a pivotal part in the lives of people since social behaviors, personality traits and communication styles originated in the family environments it will be remain retained till persons become mature (Saphir & Chaffee, 2002; Chaffee et al., 1971). The impact of family communication endured well toward adulthood; this seem to play a role in the creation of personality of individual which is sustained outside the home (Chaffee et al., 1971). There are particular variables which can become inspiring components in processes of leadership (Rosenfeld & Plax, 1975; Hackman & Johnson, 2004). Moreover, family communication patterns predicted a significant role in academic achievement among students. (Emamipour et al. 2014).

A piercing examination of family communication patterns recommends that a valid and reliable scale should be generated and the family communication patterns construct should be reanalyzed in each context. The existence of family communication patterns has various academic applications for policy makers and field experts. Moreover, the major task is how to measure family communication patterns in home environment wherein family environment is pervasive. Family communication patterns impact the family's different outcomes such as resolution of conflicts and clashes (Koerner and Fitzpatrick, 1996), romantic future relationships of children (Koerner and Fitzpatrick, 1997), speech act creation in families (Koerner, 1995), use of behavior of social withdrawal and self-discipline (Fitzpatrick, Marshall, Leuwiler & Krcmar, 1996), the

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family customs enactment (Baxter & Clark, 1996), the association between family communication and work place communication of parents (Ritchie, 1997). Hence, there is a dire need for the researchers to observe the way in which family communication patterns effect human resources development results. Thus, the foremost aim of this research is to overcome the gap and develop questionnaire that might carry adequate psychometric properties defining consistency and accuracy in the evaluation of family communication patterns.

II. LITERATURE REVIEW

From the varied studies on family communication investigator family communication is categorized into two dimensions that is in the form of styles and patterns (Orrego and Rodriguez, 2011). Shared opinion of family communication norms measured by topology of the family communication patterns tool, which was suggested by Chaffe and McLeod in 1972. Family Communication Patterns initial scale by Chaffe and McLeod was the collection of 10 questions, created to assess the family's concept and socio orientation degree. (Ritchie, 1991) deliberated that via socio-orientation harmonious interpersonal relationships on controversy ideas, debate and discussion on the theme of relations among the children and parents can be measured.

Revised family communication patterns tool was suggested by Ritchie in 1988, as cited in Ritchie, 1990. Original instrument of family communication patterns had socio orientation, according to which in the family environment parents used their power to force the conformity of child towards parents. In spite of emphasized relational harmony as initially Claimed, Ritchie observed that the questionnaire statement's face content proposed that parents rejected the competence of child, enforced their own power and want children's unquestioned conformity (Ritchie & Fitzpatrick, 1990). The item analysis of family communication patterns questionnaire suggested that concept orientation was focused on the open sharing of feelings and ideas, an idea of supportiveness and parent's motivation to open conversation (Ritchie & Fitzpatrick, 1990). Ritchie renamed concept orientation as conversation orientation and renamed socio-orientation as conformity orientation in the revised family communication patterns scale.

According to answers of the respondents towards questions of concept-orientation and socio-orientation, the family communication patterns instrument classified families into four distinct topologies. In the revised family communication patterns scale, Ritchie used the similar 4 topologies of families as employed in the family communication patterns scale to assess the conversation orientation and conformity orientation levels in the families (Fitzpatrick & Ritchie, 1994). Assenters achieving low score on conformity orientation but high score on conversation orientation were categorized as Pluralistic. Pluralistic families considered emotional supportiveness and open communication in the family (Ritchie & Fitzpatrick, 1990). Assenters achieving high score on conformity orientation and low score on conversation orientation were categorized as protective. Protective families avoiding open conflict by the compliance of parental authority, emphasizing

conformity and obedience (Ritchie & Fitzpatrick, 1990). Assenters achieving high score on both conformity and conversational orientation were categorized as consensual. Consensual families pressurized children to obey their decision while they motivated their children to express their feelings and to share ideas (Ritchie & Fitzpatrick, 1990). Families achieving low score on both conformity and conversation orientation were categorized as Laissez- Faire families. Laissez- Faire families had little interaction between children and parents and left their child free under the influence of external social settings (Ritchie & Fitzpatrick, 1990).

There existed some differences between revised family communication patterns and family communication patterns. First difference was that family communication patterns scale based on presumption that common vision of communication norms was shared by different members of family (Ritchie & Fitzpatrick, 1990). Instead of Family Communication Patterns, Revised Family Communication Patterns scales could measure only the perceptions of individual or analysis of family norms and behaviour shown in everyday communication (Ritchie & Fitzpatrick, 1991). Moreover, these family's perceptions might also differ from person to person, because all family members not always shared the common opinion of family norms communication behavior (Ritchie, 1991). Significant difference among Family Communication Patterns and revised Family Communication Patterns scale was that due to the extra statements added to the revised communication patterns scale, this scale was more reliable than the family communication patterns scale.

Revised family communication pattern scale (Fitzpatrick & Ritchie, 1994; Ritchie, 1991; Ritchie & Fitzpatrick, 1990, cited in Koerner & Fitzpatrick, 2002) had been used to measure the family communications patterns scale's comprising the dimensions i.e. conversation orientation and conformity orientation. This was a self-analyzed scale having 26 statements and respondents showed their agreement and disagreement on 5 point scale varied from "Totally Agree"(4) to "Totally Disagree"(0). This tool measured two dimensions i.e. conversation orientation and conformity orientation in which first 15 items measured conversation orientation and next 11 items measured conformity orientation. Reliability of this scale had been confirmed by various researches. The average value of Cranach's alpha was 0.79 for conformity and 0.89 for conversation (Koerner and Fitzpatrick, 2002). Kooroshnia revealed validity of both dimensions i.e. dialogue orientation and conformity orientation by applying factors analysis and internal consistency (Kooroshnia (2006)). Jowkar and Rahimi (2008) had reported reliability of this scale for the dialogue orientation 0.93 and 0.88 for conformity orientation by using Cronbach's Alpha.

Anvar et al. (2012) the reliability coefficient, cronbach's alpha for the dimensions of dialogue and conformity was 0.93 and 0.88 respectively. This scale had been utilized in a number of researches i.e. Hajizadeh et al. (2012), Osredkar



(2012), Prasitthipab (2008), Salehi1 et al. (2017), Davies (2014), Rousta, Bayat & Nia (2014). Khani, Fard and Boroomand (2015) used Family Communication Patterns scale given by Koerner and Fitzpatrick (2002). Traditional family communication patterns inventory (Tims & Masland, 1985) measured socio orientation having 5 items ($\alpha = .67$) and concept orientations having 5 items ($\alpha = .65$) on 4-point scales varied from 4 (*often*) to 1 (*never*). However it had vast applicability in the family communication patterns literature, none research had critically investigated the psychometric properties. Although, like the other questionnaire studied, no extra information was given about the validity of the items and factor structure of the scale.

Although various type of questionnaires of family communication patterns have been constructed but current research will bridge the gap as well as develop statements that have direct implications in Indian scenario. By using this scale investigators will know to recognize the different patterns of secondary school students in family communication because family communication has crucial role in student's lives. Multivariate statistical analysis can be used for precise predictions and better explanations and this can reduce the error through improving validity and reliability. It is necessary to re-evaluate the validity of the construct even if various effective scales are already involved (Hair, et al., 2010). This research directly investigates the family communication patterns among secondary school students by using extremely reliable as well as valid scale development process of Hinkin (1995) and Churchill (1979).

III. OBJECTIVE OF THE STUDY

To explore the Family Communication Patterns of secondary school students by using the highly valid and reliable scale development measures of Churchill (1979) and Hinkin (1995)

IV. METHOD

i. ITEM GENERATION PROCEDURE

As per our theoretical structure, items associated to family communication patterns were constructed. The scale items were developed to measure the family communication patterns of secondary school students. Likert (1932) summated assessment procedure was applied to construct this scale. Based on literature review it is found 41 statements associated to family communication patterns. Current scale is based on Likert format of 5 point; every item assessed on 5 points, (Strongly Agree (5), Agree (4), Neutral (3), Disagree (2) and Strongly Disagree (1)). The above immense review of literature directed us in constructing a scale having vigorous psychometric properties to assess the family communication patterns of secondary school students. These statements to be vigorous are more useful when applied in a Likert format (DeVellis, 2016).

ii. RESPONDENTS

The population used for this study is secondary school students of Punjab state (India). Simple random sampling

technique was used to select 300 secondary school students of Punjab state. Random sampling has been chosen for few advantages; involving easy to apply, show low sampling error and representation accuracy (Singh, 2008). Initially, out of twenty two districts of Punjab state, four districts were selected randomly i.e., Ludhiana, Jalandhar, Pathankot and Amritsar. In these districts, twelve schools were selected via using random technique. Number of students was selected conveniently from these schools which were participants of the study. Respondents were encouraged to accomplish the questionnaire with respectful request. Returned questionnaires filled by respondents were checked carefully for misplaced outliers, comprehensiveness, values and respondent detachment (Hair et al. 2010). The size of sample was appropriate for desirable approaches of EFA as well as CFA differently which is Heir et al. 2010 suggested.

iii. CONTENT VALIDITY

Content validity was measured when initial draft of 41 items was critically reviewed by five experts The expert view is a general process of statement development (Netemeyer, Bearden, & Sharma, 2003; DeVellis, 2016). Each item's content was critically scrutinized by these experts to review the relevancy and suitability of these statements for the family communication patterns questionnaire. Second draft kept only those items which had minimum 75%-85% agreement of experts with respect to item relevancy. Opinion of experts was that 30 remaining items were absolutely acceptable and pertinent to assess the family communication patterns of secondary school students in Indian context, confirming the family communication patterns scale was an adequate valid questionnaire for piloting.

iv. EXPLORATORY FACTOR ANALYSIS

Exploratory factor analysis (EFA) is the next step in the stage of scale refinement. For the development and validation of psychological constructs, factor analysis procedure is most commonly used (Floyd & Widaman, 1995). The tests of Barlett Sphericity and Kaiser-Meyer-Olkin (KMO) were used to evaluate whether 30-statement questionnaire was suitable or not for factor analysis. Various iterative cycles used on set of items for factor analysis. Total variance was described after applying each iteration. Numbers of factors were extracted examined and low communalities factors were deleted that did not correlate. The main purpose was to improve the structure of factor with unambiguous loadings. Values are depicted in the table1:

Table 1: KMO and Bartlett's Test of Sphericity

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.893
Bartlett's Test of Sphericity	Approx. Chi-Square	3494.618
	Df	378
	Sig.	.000



As depicted in above table Value of Kaiser-Meyer-Olkin (KMO) was .893 and it is applied to ascertain either the data set and the size of sampling are appropriate as well as acceptable to the chosen investigation or not. Moreover, the Barlett Sphericity test is applied for evaluating either the data obtained from multi-variate normal distribution or not. Barlett Sphericity test was used as well as significant value was obtained (Chi-square=3494.618, $p < .01$). This is requisite that KMO value should be .60 or above, as well as the Barlett Sphericity test final result is significant statistically (.60 is the least acceptable coefficient, Tabachnick & Fidell, 1996). Factor analysis could be conducted was decided with the help of above mentioned results (Kothari and Garg, 2014).

Since the loading of factors reveals the association among statements planned to assessed and major structure, pertinent dimensions which occurred in consequence of the analysis of basic component and the factor

loading were scrutinized. Thereafter these procedures, final structure with 28 statements produced as the family communication patterns questionnaire. Varimax method was used to convert rotated component matrix and results acquired from EFA, is shown in Table No. 2. Varimax method is vertical rotating method, was selected so to make sure that the variances of factor with a few variables would have high value. Four factor structure revealed by factor analysis which explaining variance of 52.832% (Streiner, 1994) and items loading of all the statements is above 0.40 (Hair et al., 2010 cited that Item loading acceptable is 0.40). Conversational orientation associated first factor (nineteen items), Conformity orientation associated to second factor (six items), Social orientation associated third factor (three items). The Table 2 indicates statements of family communication patterns questionnaire and factor loading of each statement

Table 2: Statements related to Family Communication Patterns Scale and factor loadings of each statement

Items	Statements	Factor Loadings
Dimension One: Conversational Orientation		
Item 1	My parents often say that their decisions are always right and I should not challenge them	.561
Item 3	My parents encourage me to challenge their opinions at any platform.	.577
Item 4	My parents hear my opinion even when they don't like it.	.781
Item 7	I discuss everything with my parents without hesitation.	.497
Item 9	In our family, we often talk about our plans and hopes for the future.	.704
Item 10	My parents often get annoyed with me in front of others.	.552
Item 11	In our family, we often support each other.	.722
Item 12	My parents usually say that you should always review both sides	.714

	of a matter.	
Item 13	Disagreement are openly expressed in our family.	.748
Item 14	My family members strongly motivate each other to hold up for their rights.	.782
Item 15	In our family, we often discuss current issues at home.	.673
Item 16	My parents feel good when I ask various questions.	.590
Item 17	My parents always motivate me to be independent	.709
Item 18	My parents inspire me to share my feelings with them.	.680
Item 19	My parents praise me in front of others.	.738
Item 20	My parents have rigid thinking about what is right and wrong	.524
Item 21	I and my parents often discuss the activities that we have done during the day.	.675
Item 22	In my family, every member has equal right to take the decision.	.485
Item 23	My parents think that it is essential to be a leader.	.568

Dimension 2: Conformity orientation

Item 6	My parents often say that I will understand better when I grow up.	.406
Item 24	In our family, we usually find faults in each other.	.668
Item 25	My parents make the final decision.	.587
Item 28	There is more emphasis on obeying rules in our family.	.656
Item 29	My parents get irritated when I ask questions.	.642
Item 30	My parents often criticize my views.	.664

Dimension 3: Social Orientation

Item 1	My parents often give their own examples for working style.	-.482
Item 27	In our family, we do not take an action on our own.	.591
Item 26	My parents wish that I should not go against their will.	.682

v. **CONFIRMATORY FACTOR ANALYSIS**

Sorbom, & Joreskog (2004) given confirmatory factor analysis as a Structural Equation Modeling distinct instance that is known as the "linear structural relationship model." To give evidence of validity, CFA is a convenient procedure of statistics (Gerbing, & Hunter 1982), that is useful after evaluation of constructs along various statements, when there exist linear relationship between the questionnaire items and the questionnaire average or total, as well as

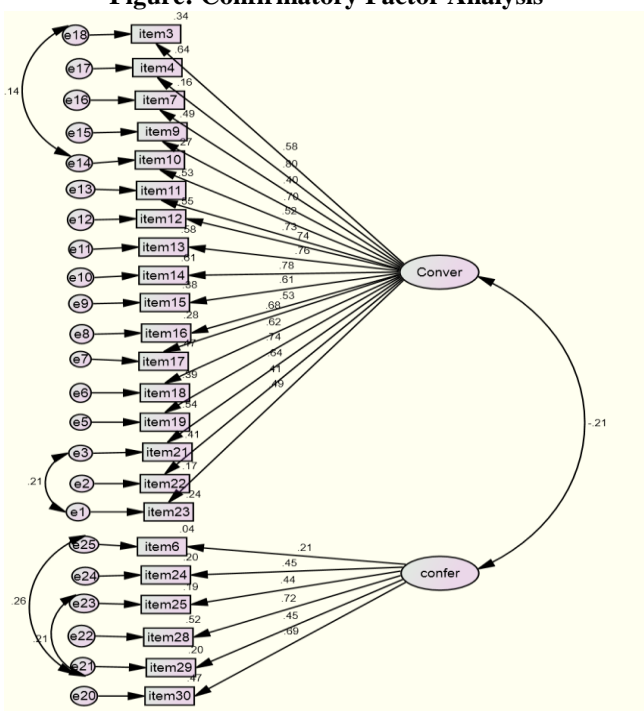


during the time a researcher has initial information about which constructs assess which item. It is a statistical procedure applied to a set of observed variables to confirm the factor structure. Confirmatory Factor Analysis enable the examiner to evaluate the hypothesis and the hypothesis states that there exists relationship between the quiescent constructs and underlying existed observed variables (Suhr, 2006).

CFA was processed on three factors obtained from EFA by using SPSS Amos 22 version. The model's indices were Comparative Fit Index (CFI) = 0.926, CMIN/DF= 2.362, Chi-square= 531. 468 (p>0.01), Adjusted Goodness Fit Index (AGFI) = 0.828, Root Mean Square of Approximation (RMSEA) = 0.067and Goodness Fit Index (GFI) ==0.918. The above good model fit indices were achieved only after correlating the error terms (e1 and e3, e14 and e18, e21 and e25, e21 and e23). Further, some items have shown very low factor loadings and were deleted as item 1 and item 20 on first dimension.

In addition, the third dimension of the construct has shown negative factor loading for one of its items item 8, and another item 27 was found disturbing the model fitness from modification indices. Therefore, these two items were deleted. According to Hair et al. (2010) dimensions with below the three items in number need not to be carried forward, therefore, this dimension having only one item has been deleted from further process. The model has been considered having only 23 items divided into two dimensions viz Conversational Orientation and Conformity orientation of the construct. As depicted in figure given below:

Figure: Confirmatory Factor Analysis



A. Reliability Statistics

Internal consistency of statements is assessed by using the Cronbach's alpha. Gliem & Gilem (2003) reported that the coefficient of reliability Alpha generally lie between 0 and 1. George & Mallery (2003) defined the thumb rule to

explain Cronbach's alpha which state that "greater than 0.80 is acceptable." Thus, Cronbach's alpha of family communication patterns ($\alpha = .869$) for the current scale, shows good internal reliability. Hence, our analysis of reliability recommends that family communication patterns scale is consistent internally. Reliability measurement is present in table 3.

Table3. Reliability Statistics of Family Communication Patterns Scale

Sr. No.	Construct	Cronbach's Alpha	Number of Items
1	Conversational Orientation	.921	17
2	Conformity Orientation	.711	6
3	Family communication patterns Scale	.869	23

1. Construct validity of family communication patterns scale

To establish construct validity includes experimental assessment of validity and reliability (discriminant and convergent). Average Variance Extracted (AVE) and Composite reliability (CR) measures are applied to assess convergent validity. Internal consistency measurement of the scale's construct is the Composite Reliability, although Average variance extracted is the variable's variance extent that is described by quiescent construct. After constrains are reached for creating convergent validity; Composite reliability should be more than 0.7, Average Variance Extracted should be more than 0.5, and composite reliability should be more than Average Variance Extracted, in every construct dimension. For both dimensions of the construct CR value is greater than 0.7, AVE value is greater than 0.5 and Composite reliability is more than Average Variance Extracted. So, Convergent validity for this construct created. Maximum shared variance (MSV), average shared variance (ASV) and average variance extracted (AVE) measures of scale's construct used to measure discriminant validity. Afterwards CFA model good fit attained, certain conditions should be followed to confirm discriminant validity and these conditions are: Average variance extracted (AVE) should be more than Maximum shared variance (MSV), Average variance extracted (AVE) should be more than average shared variance (ASV) and Average variance extracted should be more than 0.5 for every scale's dimension.

For both the dimensions above Average Variance Extracted (AVE) was more than Maximum Shared Variance (MSV), Average Variance Extracted (AVE) was more than Average Shared Variance (ASV) and Average variance extracted was more than 0.5. Hence, discriminant validity is achieved. In this way both convergent and discriminant validity of the scale is established

Validity Measures calculated by Microsoft Excel-based validity concerns toolkit

Dimensions	Composite Reliability	Average Variance Extracted	Maximum Shared Variance	Average Shared Variance
Conversational Orientation	0.767	0.573	0.043	0.021
Conformity Orientation	0.921	0.615	0.060	0.021

V. DISCUSSION AND CONCLUSION

The questionnaire established in current study can assess the family communication patterns of secondary school students. Foremost aim of this paper was to validate and create a scale which would produce reliable and valid outcomes in family communication patterns of the secondary school students. This research obtained on a wide literature review of researches assessing family communication patterns within a span of family environment. Current paper has introduced the meticulous methodological process to accomplish quantitatively validate and develop a scale assessing family communication patterns of Indian secondary school students. In consideration of the expert opinion, the whole group of 41 items was proposed. Expert were requested to give the suggestion for statement of the scale on the basis of some particular parameter i.e. ambiguity, vagueness, or dual meaning. Opinions of expert were collected to assess the face validity and content validity. Initially made 11 statements were deleted from the statement pool. Hence, 30 items were retained in final draft. It is a Likert 5 point scale format. The ranges of the score lie between 1 and 5. One for strongly agree and five for strongly disagree. EFA and CFA was use to analyze scale structural validity. After EFA, twenty eight statements were kept from the scale and three factors structure was obtained. The values of factor loading ranged between .401 to .801 of the items and explained 52.832% of the total variance.

EFA concluded that family communication patterns can be conceptualized or decomposed in three factors consisting of conversational orientation (19 statements), conformity orientation (06 statements) and social orientation (03 statements) respectively. Likewise, to measure the factor structure of the family communication patterns scale, confirmatory factor analysis was applied. Following factors which were acquired through EFA were checked with CFA. In CFA, good model fit indices were achieved only after correlating the error terms (e1 and e3, e14 and e18, e21 and e25, e21 and e23). Further, some items had shown very low factor loadings and were deleted as item 1, and item 20 on first dimension. In addition, the third dimension of the construct has shown negative factor loading for one of its items item 8, and another item 27 was found disturbing the model fitness from modification indices. According to Hair et al. (2010) dimensions with below the number of three items need not to be carried forward, therefore, this dimension having only one item each were deleted for further process. Another reason found for deletion of this

dimension is the very low values generated for CR (0.339) and AVE (0.309).

The model has been considered having only 23 items divided into two dimensions viz Conversational Orientation and Conformity orientation of the construct. The model's indices were Comparative Fit Index (CFI) = 0.926, CMIN/DF= 2.362, Chi-square=531. 468 (p>0.01), Adjusted Goodness Fit Index (AGFI) = 0.828, Root Mean Square of Approximation (RMSEA) =0.067 and Goodness Fit Index (GFI) =0.918. Furthermore, coefficient of reliability was calculated which showed internal consistency with high degree ($\alpha=0.869$) that was better as accepted by George & Mallery (2003). Current study fulfills whole standards i.e. reliability, construct validity and structural validity.

The scale has ample theoretical reinforcement and also has adequate statistical support. The major previous empirical support for the factors of the scale were retained in the scale after applying EFA and CFA. The factor/domain conversational orientation was used in prior studies (Ritchie & Fitzpatrick 1990, Koerner & Fitzpatrick, 2002, Fitzpatrick & Ritchie, 1994, Hajizadeh et al., 2012, Osredkar, P. 2012, Prasitthipab, S. 2008, Salehi1 et al. 2017, Davies, J.J. 2014, Rousta,Z., Bayat, D.E. & Nia, A.A.2014). Similarly, various studies used Conformity orientation like (Anvari et al. 2012, Hajizadeh et al., 2012, Osredkar, P. 2012, Prasitthipab, S. 2008, Salehi1 et al. 2017, Davies, J.J. 2014, Rousta,Z., Bayat, D.E. & Nia, A.A.2014, Khani, F., Fard, M.S., Boroomand, R., 2015). The combination of these two orientations given four family communication patterns: consensual, pluralistic, laissez-faire and protective families. There was less conformity orientation and greater conversational orientation in Pluralistic family. There was low in conversational and high conformity orientation in Protective family. Consensual family has high conformity and conversational orientation. There was low conformity and conversational orientation in Laissez-Faire family. Lastly, the evidence which was provided from previous studies proposed that current questionnaire had strong psychometric properties to assess family communication of secondary school students. At last, this was inferred that the scale obtained reliable and valid outcomes, and can be applied to assess family communication patterns of secondary school students.

Communication quality of family members was the prominent behavior factor and it appeared that interaction of family members had enormous affect in capability of children to face numerous outside circumstances e.g. social affairs and other activities. Hence, it was proposed that through organizing educational meeting, affective and proper communication pattern should be instructed to parents in school. This is of most significant that the features of secondary school curriculum which associate with child development and growth along with the family communication patterns should be enhanced and parents should follow such family communication pattern that enhance healthy positive cognitive development and self-esteem. Teachers should be known about the fact that



students belongs to distinct family background and having distinct family communication patterns. This information will help teachers to establish a congenial relationship among students. It will tremendously create high level of confidence among students and their academic performance will also be improved.

VI. LIMITATIONS

In current study, investigator has applied extremely reliable as well as valid scale development processes, still this have few drawbacks. The foremost drawback is that exploratory and confirmatory factor analysis procedures used for the scale rectification are completely based on specific sample-size. Current research has a complete literature support and rationale for using these procedures, however to achieve best outcomes a large size of sample is recommended. The research assesses two dimensions of family communication patterns, and this scale based on Likert 5-point varies from strongly agree to strongly disagree. More investigation is required to measure the concurrent as well as discriminant validity. The major problem of this current scale development is the complication related with producing scores which are reliable and valid. These results give support for organizing advanced investigation of psychometric properties on the family communication patterns questionnaire.

VII. SUGGESTIONS FOR FURTHER RESEARCH

Due to prevalent Family communication patterns in India, Further study must pursue to ascertain this scale's appropriateness for application with another population of family communication patterns. To measure the different family communication patterns an approach of triangulation can be applied. Also, multi-institutions research should be organized to measure the perception of parents as well as students towards family communication patterns. Further study can be organized to ascertain the association of family communication patterns with the academic achievement of students

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