# Temperament & Character Trait Among Parents Of Children With And Without Behaviour Problems

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#### **Abstract**

Background: Parental character has a great impact on child rearing as well as behavioral problems in children (both internalizing and externalizing) were influenced by parental personality. Both temperament and character were interacting dynamically. Individual characteristics, family experience and social environment play an essential role child's development. Materials and Methods: A crosssectional study was conducted to assess the relationship between parental temperament and character trait among parents of children with and without behaviour problems. A sample of 60 parents [30 parents of children with behavioural problem and 30 parents of children without behavioural problem (30 males and 30 females)] were selected using purposive sampling method and were administered with "SocioDemographic Sheet" and "Temperament and Character Inventory". Results: There is a significant difference between mothers and fathers in temperament trait "reward dependence" and character trait "cooperativeness" and "self-transcendence". Character trait "selfdirectedness" was found higher in parents of children without behavioural problem than parents of children with behavioural problem. Conclusion: There was no significant relationship between parental temperaments like novelty seeking, harm avoidance, persistence, and behavioural problem of children. Similarly, there was no significant difference between parental character trait selfdirectedness and behaviour problems.

**Keywords**: Temperament, character trait, behavioural problem.

## Introduction

Parents are first teachers and guide in his or her family. Parents provide social, emotional, and physical support to children. Behaviour of child is largely depends on social, biological, and environmental factors. Both temperament and character were interacting dynamically. Temperament refers to automatic emotional response to experience that are moderately heritable and stable throughout life.1

Four measured temperament dimension includes, "novelty seeking, harm avoidance, reward dependence, and persistence". Novelty Seeking (NS) is a multifaceted higher order temperament trait consist of-exploratory excitability, impulsiveness, extravagance, and

disorderliness. Harm Avoidance (HA) is a multi-faceted temperament consists anticipatory worry, fear of uncertainty, shyness with strangers, and fatigability. Reward Dependence (RD) includes sentimentality, and openness, attachment, dependence. Persistence (PS) consists of eagerness, workhardened, determination, ambition. perfectionism.

Barnow et al (2006) reported that individual characteristics and family experience impact greatly on child development.2 Cloninger (2006) found temperament traits manifested earlier in life and it involves involuntary emotionally process. Socio cultural learning process poorly influenced in developing temperament. Family environment of childhood

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strongly related to strengthening psychological maturity and transferring parents to children.3

Character trait related to person's goals, values and relationships. Person's level of wellbeing and psychological strength were greatly influenced by character traits than temperament. When persons have same kind of temperamental traits, but differences in his or her character traits will influences rearing of their children, regulation of emotion and maturity. It can be changed by education, cultural traits, and social experience.4

Three type of character trait includes, "Self-directedness (SD), Cooperativeness (CO), and Selftranscendence (ST)". Self-directedness includes "responsibility, purposefulness, and resourcefulness". Cooperativeness includes "social acceptance, empathy, helpfulness, compassion, self-acceptance, and congruent". Self-transcendence includes "self-forgetfulness, transpersonal identification and spiritual acceptance".

Parental temperament and character will predict child internalizing and externalizing problems. Parental warmth related to better child self-regulation in children. In children mental, physical, and social well-being depends strongly on profiles of the character traits of cooperativeness (C), and self-transcendence (ST) and self-directedness (SD).5

High score of self-directedness (SD) leads to developing strong wellbeing & strong adaptive functioning.6 Low score of SD leads to depression & anxiety. Josefsson et al (2001) also found self-transcendence (ST) has strongest impact on personality change.6 As person grows older, its strength will vary and change such as dimensions like novelty seeking (NS) decreases with age and persistence (PS) will increases with age.5

According to Achenbach (1991), child's behavioural problems were categorized into two types such as externalizing and internalizing problems. Externalizing problems includes "attention deficit hyperactivity problems, oppositional defiant problems, and conduct problems". Internalizing problems includes "affective disorder, anxiety, and somatic problems".7

Most of the mental health problems were originally related to nature of parenting.

Parenting is an overall climate of parent and child interaction. According to Baumrind (1967), there are three types of parenting style such as "authoritative, authoritarian, and permissive parenting". Authoritative parents more responsive, demanding, supportive. They outline the behaviour through shaping and give reason behind punishment. Children of authoritative parenting "cheerful, self-reliant, sharing, and cooperative with other peers". Authoritarian parents were low responsive and high demanding. This kind of authoritarian parent provide less warmth and have low trust towards children and also build rules without giving explanation. Children of authoritarian parents were "aimless, seems unhappy and they are easily annoyed". Permissive parents are highly responsive and low demanding. They do not set goals for his or her children and children of permissive parents were "impulsive and have low self-esteem".8

Behaviour problems in children internalizing and externalizing) were greatly influenced by parental character. Anthony et al (2005) found that parenting stress was most strongly related to children's competence. Parent's reports of expectations for their child's behaviour appear to weakly relationship the externalizing behaviour and parenting stress.9 There are shortages of study in India revealing whether temperament or character of the parents effects child's behavioural problems. So this study intends to focus on which aspect of parental temperament and character affects child's behaviour.

#### **MATERIALS AND METHODS**

A cross-sectional study was conducted in SRM University; Kattankulathur, which intends to compare the temperament and character trait among parents of children with and without behaviour problems. After obtaining ethical institution's "Scientific clearance from Committee" and "Ethical Committee", the study was conducted. The major objective of the study is to assess the parental temperament and character trait and its relationship with child's behavioural problem. A sample of 60 parents of children [30 behavioural problem and 30 parents of children without behavioural problem (30 males and 30 females)] were selected using purposive sampling method. The respondents who were under the age group of 25 to 50 years and who completed high school education were participated. The selected participants were administered with "Socio-Demographic Sheet" and "Temperament and Character Inventory".

#### **RESULTS**

Table 1 shows the frequency and percentage of socio-demographic variables.

| Study Variable    | 8164           | Study Group<br>behaviour p | p (children with<br>roblem) | Control Group (children without behaviour problem) |                |
|-------------------|----------------|----------------------------|-----------------------------|--|----------------|
|                   | Sub-Categories | Frequency                  | Percentage<br>(%)           | Frequency  | Percentage (%) |
|                   | Below 8 years  | 13                         | 43%                         | 12   | 40%            |
| Child Age         | Above 8 years  | 10                         | 34%                         | 10   | 33%            |
|                   | 8 Years        | 7                          | 23%                         | 8  | 27%            |
| True of family    | Joint          | 12                         | 40%                         | 13   | 43%            |
| Type of family    | Nuclear        | 18                         | 60%                         | 17   | 56%            |
| Daniela in adeast | Yes            | 17                         | 57%                         | 30   | 100%           |
| Regular in school | No             | 13                         | 43%                         | -  | -              |
| Decision Making   | Father         | 8                          | 27%                         | 7  | 23%            |
|                   | Mother         | 9                          | 30%                         | 4  | 13%            |
|                   | Both           | 13                         | 43%                         | 19   | 63%            |

Table 1 shows the frequency and percentage of socio-demographic variables. In a study group, most of the parents of children with behaviour problem having child with the age group of below 8 years old (43%) and from nuclear family (60%). Most of the participants' children were regular in school (57%) and decision making was reported by both mother and father (43%).

In a control group, most of the parents of children without behaviour problem having child with the age group of below 8 years old (40%) and from nuclear family (56%). In this group, all the participants' children were regular in school (100%) and decision making was reported by both mother and father (63%).

Table 2 Shows the comparison of parental temperament on parents of children with and without behavioural problems.

| Study Variable          | Dimension         | Pearson<br>ChiSquare | Fisher's exact test<br>(Sig) |
|-------------------------|-------------------|----------------------|------------------------------|
| Parental<br>Temperament | Novelty Seeking   | 0.065                | 0.139                        |
|                         | Persistence       | 0.050                | 0.071                        |
|                         | Reward Dependence | 0.010                | 0.025                        |
|                         | Harm Avoidance    | 0.310                | 0.460                        |

Table 2shows the comparison of parental temperament on parents of children with and without behavioural problems. In novelty

seeking, the chi-square value of 0.065 and significant value of 0.139 indicated that there is no significant relationship between novelty seeking and behavioural problems. persistence, the chi-square value of 0.050 and significant value of 0.071 indicated that there is no significant association between persistence and behavioural problems. In reward dependence, the chi-square value of 0.010 and significant value of 0.025 revealed that there is a significant relationship between reward dependence and behaviour problems.

Table 3 Shows the comparison of character trait on parents of children with and without behavioural problems.

| Study Variable  | Dimension          | Pearson<br>ChiSquare | Fisher's exact to<br>(Sig) | est |
|-----------------|--------------------|----------------------|----------------------------|-----|
|                 | Self-Directedness  | 0.010                | 0.025                      |     |
| Character Trait | Cooperativeness    | 0.310                | 0.460                      |     |
|                 | Self-Transcendence | 0.431                | 0.484                      |     |

Table 3shows the comparison of character trait on parents of children with and without behavioural problems. In self-directedness, the chi-square value of 0.010 and significant value of 0.025 revealed that there is a significant relationship between self-directedness and behaviour problems. In cooperativeness, the chi-square value of 0.310 and significant value of 0.460 indicated that there is no significant relationship between cooperativeness and behaviour problems. In self-transcendence, the chi-square value of 0.431 and significant value of 0.484 indicated that there is no significant relationship between self-transcendence and behaviour problems.

Table 4 Shows the comparison of parental temperament on mothers and fathers of children with and without behavioural problems.

| Parental Temperament | Gender | Chi-Square | df | 'p' value |
|----------------------|--------|------------|----|-----------|
| Manufer Cardaina     | Male   | 0.476      | 1  | 0.713     |
| Novelty Seeking      | Female | 0.074      | 1  | 1         |
| TT Aid               | Male   | 1.035      | 1  | 0.460     |
| Harm Avoidance       | Female | 0.624      | 1  | 0.484     |
| Persistence          | Male   | 2.372      | 1  | 0.159     |
| Persistence          | Female | 2.372      | 1  | 0.159     |
| Daward Danandanas    | Male   | 5.336      | 1  | 0.033     |
| Reward Dependence    | Female | 1.035      | 1  | 0.260     |

Table 4shows the comparison of parental temperament on mothers and fathers of children with and without behavioural

problems. In novelty seeking, fathers and mothers chi-square value is

0.476 and 0.074 and 'p' value is 0.713 and 1 respectively. This reveals that there was no significant relationship between novelty seeking and mothers and fathers of children with and without behavioural problem. In harm avoidance, fathers and mothers chi-square value is 1.035 and 0.624 and 'p' value is 0.460 and 0.484 respectively. This reveals that there was no significant relationship between harm avoidance and mothers and fathers of children with and without behavioural problem.

In persistence, fathers and mothers chi-square value is 2.372 and 2.372 and 'p' value is 0.159 and 0.159 respectively. This reveals that there was no significant relationship between persistence and mothers and fathers of children with and without behavioural problem. In reward dependence, fathers and mothers chi-square value is 5.336 and 1.035 and 'p' value is 0.033 and 0.260 respectively. This reveals that there was a relationship between father's reward dependence and behavioural problem, but there is no association between mothers reward dependence and behavioural problem.

Table 5 Shows the comparison of character trait on mothers and fathers of children with and without behavioural problems.

| Character Trait    | Gender | Chi-Square | df    | 'p' value |
|--------------------|--------|------------|-------|-----------|
| Self-Directedness  | Male   | 0.136      | 1     | 1         |
| Sen-Directedness   | Female | 0.074      | 1     | 0.784     |
| Communication      | Male   | 0.136      | 1     | 1         |
| Cooperativeness    | Female | 11.876     | 1     | 0.003     |
| Self-Transcendence | Male   | 0.136      | 0.712 | 1         |
| Self-Transcendence | Female | 5.336      | 1     | 0.003     |

Table 5shows the comparison of character trait on mothers and fathers of children with and without behavioural problems. In self-directedness, fathers and mothers chi-square value is 0.136 and 0.074and 'p' value is 1 and 0.784, which indicates that there was no significant relationship between self-directedness and mothers and fathers of children with and without behavioural problem.

In cooperativeness, fathers and mothers chisquare value is 0.1369 and 11.876 and 'p' value is 1 and 0.003. This reveals that there is an association between mothers' cooperativeness and behaviour problem, but there is no significant relationship between fathers' cooperativeness and behaviour problem. The cooperativeness dimension under character trait influencing child behaviour problem is 17 times higher among the mother study group as compared to father group.

In self-transcendence, fathers and mothers chisquare value is 0.136 and 5.336 and 'p' value is 1 and 0.003. This indicates that there is a relationship mothers between transcendence and behaviour problem, but there is no significant relationship between fathers' self-transcendence and behaviour problem. The self-transcendence dimension under character trait influencing behaviour problem is 6 times higher among the mother study group as compared to father group.

Table 6 shows the mean and standard deviation of fathers' temperament of children with and without behavioural problem.

| Temperament<br>Dimension | Study / Control<br>Group | N  | Mean  | Standard<br>Deviation | Standard<br>Error |
|--------------------------|--------------------------|----|-------|-----------------------|-------------------|
| Navalty Castrina         | Study group              | 15 | 18.07 | 3.474                 | 0.897             |
| Novelty Seeking          | Control group            | 15 | 16.20 | 4.739                 | 1.224             |
| Harm Avoidance           | Study group              | 15 | 17.07 | 2.764                 | 0.714             |
| Harm Avoidance           | Control group            | 15 | 13.20 | 4.601                 | 1.188             |
| Reward                   | Study group              | 15 | 15.00 | 2.699                 | 0.697             |
| Dependence               | Control group            | 15 | 11.73 | 4.284                 | 1.106             |
| Persistence              | Study group              | 15 | 5.33  | 1.543                 | 0.398             |
|                          | Control group            | 15 | 5.07  | 1.163                 | 0.300             |

Table 6 shows the mean and standard deviation of fathers' temperament of children with and without behavioural problem. In novelty seeking dimension, mean and standard deviation of study group is 18.07 and 3.474, and control group is 16.20 and 4.739 respectively. While considering harm avoidance dimension, mean and standard deviation of study group is 17.07 and 2.764 and control group is 13.20 and 4.601 respectively. In reward dependence, mean and standard deviation of study group is 15.00 and 2.699, and control group is 11.73 and 4.284 respectively. While concerning persistence dimension, mean and standard deviation of study group is 5.33 and 1.543, and control group is 5.07 and 1.163 respectively.

| Table 7 shows the mean and standard deviation |
|---|
| of mothers' temperament of children with and  |
| without behavioural problem.                  |

| Temperament<br>Dimension | Study / Control<br>Group | N  | Mean  | Standard<br>Deviation | Standard<br>Error |
|--------------------------|--------------------------|----|-------|-----------------------|-------------------|
| Novelty Seeking          | Study group              | 13 | 16.77 | 4.086                 | 1.133             |
|                          | Control group            | 17 | 17.18 | 4.419                 | 1.072             |
| Harm Avoidance           | Study group              | 13 | 19.54 | 3.017                 | 0.837             |
|                          | Control group            | 17 | 15.29 | 3.636                 | 0.882             |
| Reward<br>Dependence     | Study group              | 13 | 16.00 | 2.799                 | 0.776             |
| Dependence               | Control group            | 17 | 13.12 | 2.595                 | 0.629             |
| Persistence              | Study group              | 13 | 5.38  | 1.609                 | -                 |
|                          | Control group            | 17 | 4.24  | 2.016                 | 0.489             |

Table 7 shows the mean and standard deviation of mothers' temperament of children with and without behavioural problem. In novelty seeking dimension, mean and standard deviation of study group is 16.77 and 4.086, and control group is 17.18 and 4.419 respectively. While considering harm avoidance dimension, mean and standard deviation of study group is 19.54 and 3.017 and control group is 15.29 and 3.636 respectively. In reward dependence, mean and standard deviation of study group is 16.00 and 2.799, and control group is 13.12 and 2.595 respectively. While concerning persistence dimension, mean and standard deviation of study group is 5.38 and 1.609, and control group is 4.24 and 2.016 respectively.

Table 8 shows the mean and standard deviation of fathers' character trait of children with and without behavioural problem.

| Character Trait<br>Dimension | Study / Control<br>Group | N  | Mean  | Standard<br>Deviation | Standard<br>Error |
|------------------------------|--------------------------|----|-------|-----------------------|-------------------|
| Self-Directedness            | Study group              | 14 | 22.93 | 5.091                 | 1.361             |
|                              | Control group            | 16 | 22.81 | 3.435                 | 0.859             |
| Cooperativeness              | Study group              | 14 | 27.00 | 3.351                 | 0.896             |
|                              | Control group            | 16 | 20.88 | 4.884                 | 1.221             |
| Self-<br>Transcendence       | Study group              | 14 | 23.64 | 5.415                 | 1.447             |
|                              | Control group            | 16 | 21.75 | 3.435                 | 0.983             |

Table 8 shows the mean and standard deviation of fathers' character trait of children with and without behavioural problem. In self-directedness, mean and standard deviation of study group is 22.93 and 5.091, and control

group is 22.81 and 3.435 respectively. While considering cooperativeness dimension, mean and standard deviation of study group is 27 and 3.351, and control group is 20.88 and 4.884 respectively. In self-transcendence dimension, mean and standard deviation of study group is 23.64 and 5.415, and control group is 21.75 and 3.435 respectively.

Table 9 shows the mean and standard deviation of mothers' character trait of children with and without behavioural problem.

| Character Trait<br>Dimension | Study / Control<br>Group | N  | Mean  | Standard<br>Deviation | Standard<br>Error |
|------------------------------|--------------------------|----|-------|-----------------------|-------------------|
| Calf Dissated                | Study group              | 12 | 24.33 | 6.065                 | 1.751             |
| Self-Directedness            | Control group            | 18 | 21.11 | 4.066                 | 0.958             |
| Cooperativeness              | Study group              | 12 | 25.92 | 4.144                 | 1.654             |
|                              | Control group            | 18 | 22.78 | 3.574                 | 0.842             |
| Self-                        | Study group              | 12 | 24.33 | 6.760                 | 1.751             |
| Transcendence                | Control group            | 18 | 20.50 | 5.404                 | 1.274             |

Table 9 shows the mean and standard deviation of mothers' character trait of children with and without behavioural problem. In self-directedness, mean and standard deviation of study group is 24.33 and 6.065, and control group is 21.11 and 4.066 respectively. While considering cooperativeness dimension, mean and standard deviation of study group is 25.92 and 4.144, and control group is 22.78 and 3.574 respectively. In self-transcendence dimension, mean and standard deviation of study group is 24.33 and 6.760, and control group is 20.50 and 5.404 respectively.

#### **DISCUSSION**

In the present study, around 60% of the children who have behaviour problems belong to nuclear family. A study by Hwang & Robert (1998) reported that children from extended family had lesser behavior problems compared to children from nuclear family. This study explained that the presence of grandparents help to increase resiliency by providing attachment, knowledge and affection.10

The present study result indicated that there is a significant relationship between reward dependence and behaviour problems. A study reported that individual who has high in reward dependence seems to be loving, warm,

sensitive, dependent, sociable, and they interact with other people and communicate openly. Major impact of reward dependence is that they are sensitive to social cues, which help to maintain warm relationship and understanding of others feelings. But, higher reward dependence also leads to loss of objectivity.1 Kithamura et al (2014) reported that fathers' high reward dependence and self-transcendence were a predictive factor for child's emotionality and sociability.11

In the present study, there was no significant difference found between temperament traits such as harm avoidance, novelty seeking, persistence and parents of children with and without behavioural problem. However, studies reported that parental harm avoidance and novelty seeking leads to behaviour problems in children.12, 13 A study by Rettew (2006) reported that parental temperament trait like harm avoidance (HA) leads to child behaviour problem.14 Maternal temperament particularly harm avoidance producing both internalizing and externalizing problems in children.15

The findings of the research indicated that there is a significant difference between fathers and mothers' character trait cooperativeness and behaviour problems of children. Cloninger (1995) reported that people who were high in cooperativeness tend to accept others opinion and value and also they try to considerate other people feelings and leads to healthy wellbeing. In a current study, mothers of the study group found to be highly cooperative.16

The study findings indicated that mother's character trait selftranscendence was differ from significantly father's selftranscendence. Cloninger (1995) reported that self-transcended individuals are creative, selfless, patience and spiritual. In the present study, most of the mothers observed to be to very creative and they engaged in craft works and some mothers do not attend regular follow up and believed that spirituality helped to reduce behavioural problems beyond therapy and medicine.16 Similarly a study by Lee et al (2015) found that parent's high selftranscendence leads to behavioural problems in children.13 Morey & Caims (2013) reported that mother religiosity produce a positive out comes in the family and they explained that it would lead more behaviour control, less psychological adjustment distress, less

problems, and greater parent child attachment. In the present study, there was no significant relationship between parental character trait self-directedness and children's behavioural problems.17

Reward dependence was found to be higher among the fathers in the study group compared to fathers in the control group. According to Kithamura (2014) parents who have children with behaviour problems tend to be more sensitive and more receptive to social and emotional cues.11 Rettew et al (2006) explained that genetic influence and role of environment contributing to child behaviour problems. It was observed that high levels of reward dependence in parents can be associated with lack of attention towards environment which could leads to behavioural problems in children. It could be assumed that lack of attention towards child's behaviour could also contributed to the development behavioural problems in children.14

The study found that self- transcendence was reported to be higher in fathers of children with behavioural problems as compared to fathers of children without behavioural problems. Self-transcendence individual may tend to be more accepting, patience and able to tolerate the environment and his or her feelings or urges.1

The result revealed that self-transcendence was higher in mothers of the children with behaviour problems as compared to mothers of children without behavioural problems. The present study indicated that there was a high self-transcendence for both mothers and fathers of children with behavioural problems. Lee et al (2015) reported that mothers with high scores in self-transcendence and low in self-directedness lead to child's behavioural problems. This also explained that mothers' preoccupying fantasy and wishful thinking rather than being practical and may lead to child's behaviour problems. 13

Self-directedness of parents in control group was higher than parents of children with behaviour problems. According to Cloninger (1994), self-directedness is characterised by goal oriented, responsible, stable and effective to adapt his or her behaviour.1 This might explain to the findings that being more responsible to family may lessen the risk of behavioural problems in children.

Some studies reported that decreased self-directedness leads to behavioural problems.18, 19

#### **CONCLUSION**

The current study aimed to understand the relationship between parental temperament and character trait of parents of children with and without behaviour problems. The result showed that majority of children among the study group was found to be from nuclear family. There was a significant difference between fathers and mothers temperament dimension of reward dependence. High level of reward dependence among fathers may strengthen the child's behaviour problems. The study also found that mothers character trait dimension such as cooperativeness and self-transcendence were significantly higher than fathers in the study group. However, the present study found that self-directedness is higher in parents of children without behaviour problems than study group. This indicted that they are mature, strong. self-sufficient, constructive, integrative, and they also have better selfesteem and self- reliance. This revealed that character trait of self-directedness helps parents to rear his or her children without behaviour problems. The character dimension of 'selfdirectedness' score is comparatively low among the parents of children with behavioural problems. This might be due to immature, ineffective, blaming, and poorly integrated characteristics.

There was no significant relationship between parental temperaments like novelty seeking, harm avoidance, and persistence and behavioural problem. Similarly, there was no significant difference between parental character trait self-directedness and child behaviour problems.

## **Declaration of Conflicting Interest**

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Supplementary materials of the research are available online.

#### References

- [1] Cloninger CR, Przybeck TR, Svrakic DM, Wetzel RD. The Temperament and Character Inventory (TCI): A guide to its development and use.1994; 19-28.
- [2] Barnow S, Spitzer C, Grabe HJ, Kessler C, Freyberger HJ. Individual characteristics, familial experience, and psychopathology in children of mothers with borderline personality disorder. Journal of the American Academy of Child & Adolescent Psychiatry. 2006; 45(8):965-72.
- [3] Cloninger R. The science of well-being: An integrated approach to mental health and its disorders. Psychiatria Danubina. 2006; 18(3-4):218-24.
- [4] Kose S. A Psychological Model of Temperament and Character: TCI. Yeni Symposium. 2003; 41(2).
- [5] Cloninger CR. The Temperament and Character Inventory. Department of Psychiatry, St. Louis, MO, 63110: Washinton University School of Medicine. 2011; Available from PO Box 8134.
- [6] Josefsson A., Berg G., Nordin C., & Sydsjo G. Prevalence of depressive symptoms in late pregnancy and postpartum. Obstetrics & Gynaecology. 2001; 80(3): 251-255.
- [7] Achenbach, T. M. Manual for the Child Behavior Checklist/4-18 and 1991 profile. Burlington, VT: University of Vermont, Department of Psychiatry. (1991).
- [8] Baumrind D. Effects of authoritative parental control on child behavior. Child development. 1966: 887-907.
- [9] Anthony LG, Anthony BJ, Glanville DN, Naiman DQ, Waanders C, Shaffer S. The relationships between parenting stress, parenting behaviour and preschoolers' social competence and behaviour problems in the classroom. Infant and Child Development: An International Journal of Research and Practice. 2005; 14(2):133-54.
- [10] Hwang HJ, St James-Roberts I. Emotional and behavioural problems in primary

- school children from nuclear and extended families in Korea. The Journal of Child Psychology and Psychiatry and Allied Disciplines. 1998; 39(7):973-9.
- [11] Kitamura T, Ohashi Y, Murakami M, Goto Y. The mediation of parental personality on preschool children's temperament by parenting styles. 2014; 1(3):21-28.
- [12] Hu J., Hu S., Maisano J.R., Chao H.H., Zhang S., & Li C.R. Novelty Seeking, Harm Avoidance, and Cerebral Responses to Conflict Anticipation: An Exploratory Study. Frontiers in Human Neuroscience. 2016; 10:546. doi: 10.3389/fnhum.2016.00546.
- [13] Lee SJ, Cloninger CR, Park SH, Chae H. The association of parental temperament and character on their children's behavior problems. PeerJ. 2015; 3:e1464.
- [14] Rettew DC, Stanger C, McKee L, Doyle A, Hudziak JJ. Interactions between child and parent temperament and child behavior problems. Comprehensive psychiatry. 2006; 47(5):412-20.
- [15] Mantymaa M., Puura K., Luoma I., Latva Salmelin R.K., Tamminen Predicting internalizing and externalizing problems at five years by child and parental factors in infancy toddlerhood. Child Psychiatry Hum Dev. 2012 Apr; 43(2): 153-70. doi: 10.1007/s10578-011-0255-0. PMID: 21956275.
- [16] Cloninger C. The Psychological regulation of social cooperation. Nat Med. 1995;1, 623- 624. https://doi.org/10.1038/nm0795-623.
- [17] Lee S.J., Cloninger R., Chae H. The association of parental temperament and character on their children's behaviour problems. Peer Journal. 2015;3:e1464.
- [18] Ogundele O.M. Behavioural and emotional disorders in childhood: A brief overview for paediatricians. 2018 Feb 8; 7(1): 9-26.
- [19] Spinelli M., Lionetti F., Pastore M., Fasolo M. Parents stress and Children's Psychological Problems in families facing the COVID-19 Outbreak in Italy. Frontiers in Psychology. 03 July 2020. https://doi.org/10.3389/fpsyg.2020.01713.