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Prevalence of Helicopter Parenting and its Effect on Academic Performance and Oral Hygiene Status in Adolescents - A Cross-Sectional Study

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ABSTRACT

Background: The present study will help to understand the importance of the helicopter parenting style. The term is used to describe a phenomenon of a growing number of parents who pay too close attention and are obsessed with their children's success, particularly in areas of decision-making, academic studies, and social relationships.

Aim: This study aimed to evaluate the prevalence of helicopter parenting (HP) and its influence on adolescents' academic performance and oral hygiene status.

Materials and Methods: The study was carried out with 301 children aged 12-17yrs. HP's prevalence was assessed using the Helicopter parenting scale, and the children's academic performance was recorded from school records. Oral hygiene status using the oral hygiene index- simplified (OHI-S), and Frankl's behaviour rating was assessed during the examination. Data were analyzed using SPSS software (version 21.0, IBM Corp., Armonk, NY, USA). Independent student t-test and chi-square test were used to test the statistical significance (P<0.05 considered statistically significant).

Results: The study participants' mean age was 14.26 years; the prevalence of children with HP was 48%, with academic performance of 79.54 ± 10.98 compared to without HP (83.41 ± 9.40). There was a statistically significant difference between HP and the academic performance of children. The mean OHI-S scores in children with HP and without HP were 0.27 ± 0.51and 1.13 ± 0.74, respectively, with a statistically significant difference (p<0.001) was observed. Frankl's behaviour rating scale did not show any significant difference between children with HP and without HP (P= 0.766).

Conclusion: The prevalence of HP was about 48% and had a significant effect on academic performance as it influences children's capability. However, better oral hygiene was observed in children with HP. Frankl's behaviour-rating scale did not show any significant difference among children, as the examination was performed in a non-dental setting.

Key Words: Academic outcome, Frankl's behaviour rating, Helicopter parenting, Overparenting, Oral health, Parenting style

INTRODUCTION

Child-rearing in the modern world has gained utmost importance, with parents and educators focusing on various parenting styles.[1] Researchers have interrelated parenting styles directly to a child's social, physical, psychological development. Moreover, parenting styles play a pivotal role in building a child's character. [2, 3] Delving into the history of parenting styles, one discovers four main types of 'Parenting styles' as defined by Baumrind [4] and Maccoby [5] such as: Authoritative, Authoritarian, Permissive, and Neglectful. A new subgroup of these parenting styles is emerging rapidly in recent years, such as HP, little emperors, tiger moms, free rangers, and concentrated cultivation.

The most commonly knowledgeable parenting style is Helicopter Parenting (HP), also called cosseting parents or hovering parents. [6, 7]HP is a metaphor that describes a type of parenting where parents act as helicopters hovering or shadowing over their children.[8] The word hovering concerning parenting initially appeared in 1969 in a book called "Between Parent and Teenager" by Dr.Haim G. Ginott. Moreover, Foster Cline and Jim Fay coined the term 'Helicopter

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parenting' in 1990.

Helicopter parenting is also termed as over-involvement[2], intensive parenting,[9] over parenting,[10]overprotection,[11] intense parental support,[12]intrusiveParental involvement, black Hawk parent, and stealth missiles. [13]

The most popular press articles and books have suggested that parents are too involved in their children's lives and influence their behaviour.[14-17] HP has deleterious effects on the child's development.[18]Helicopter parents are in continuous contact with their children and the school administration, making children lack emotional resilience and independence. Furthermore, parents feel bad about themselves when their adult children do not perform well. [8]

HP in young children is also known to be responsible for anxiety, depression, and insecurity. Moreover, it is also related to narcissism, negative impact on Psychological well-being, lower academic success, lower self-efficacy, lower coping skills, neuroticism, and a higher sense of entitlement.[18, 19]

Aims and objectives

The present study aimed to evaluate the prevalence of HP and its effect on academic performance, oral hygiene status, and the behaviour assessed during the dental examination.

MATERIALS AND METHODS

Study design and setting: This is a descriptive cross-sectional study conducted with children aged 12 to 17 years in two randomly selected Nellore district schools, Andhra Pradesh.

Sample size: A systematic sampling method was used to select the participants, and every third child took to a total sample size of 301. The sample size was calculated by using the following formula

$$N = \frac{z_{\alpha}^2 xpxq}{d^2}$$

It was estimated based on the pilot study, which revealed an estimated prevalence of 27% for helicopter parenting on academic performance at a marginal error of 5%. The estimated final sample was 301.

Duration of the study: The study was conducted between 21-8- 2019 to 28-10-2019.

Eligibility criteria:

Inclusion criteria: Children with,

- Age 12 -17 years of same geographic distribution.
- good general health condition
- acceptance for participation in the study and whose caregiver gave informed consent

Exclusion criteria: Children,

- With any systemic disease.
- Who was absent on the day of examination or who did not give consent.

Data collection

Informed consent was obtained from the school authorities, and forms were given to students to get consent from their parents. An appointment was made for children to examine; the only children who had their consent to participate in the survey were examined within their school premises. In this survey, a questionnaire was initially given to all the children, followed by a clinical examination.

Measures

Helicopter parenting

According to Padilla-Walker and Nelson HP scale,[8] HP's prevalence was assessed using a ten-item questionnaire. Children responded on a five-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree), which gives a score of 10 to 50. The highest score represents a high level of HP.

Each question was translated into the native language. The time given for completion of the questionnaires was 15–20 min. The children were instructed to read the statement carefully and choose the answer that best suited them. The academic performances of the children were collected from the school records.

Clinical examination

The children were examined using a mouth mirror, probe, and daylight as per the WHO survey recommendations. Each examination took about 10 to 15 minutes, and an Oral hygiene assessment was performed using the oral hygiene index simplified (OHI-S),[20]which can be interpreted as good, fair, poor. At the time of oral examination, the child's behaviour was assessed by employing the Frankl Behavior Rating Scale.[21]

Statistical analysis

Entries were double-checked to minimize the data entry errors. Data were collected on predefined case record sheets that were transferred into a Microsoft Excel spreadsheet and statistically evaluated using the SPSS software (version 21.0. by IBM Corporation). Descriptive statistics were presented in the form of frequency, mean, and standard deviation. Chi-square test and Independent standard 't' test was used to know the significant difference among categorical variables and continuous variables, respectively. The level of significance was set at $P<0.05$ for all tests.

RESULTS

Among the 301 children aged 12 -17 years analyzed, the percentage of males and females were 54.5% and 45.5%, respectively, and the mean age was 14.26 years. 28.9% (12-13 years) belonged to the VIII grade, 35.2% (14-15 years) belonged to the IX grade, and 35.9% (16-17 years) belonged to the X grade. (Table -1)

The prevalence of children with helicopter parents is about 48.8%, and without helicopter parents are about 51.2% (Table-2).

When intergroup comparison was made between mean values academic performance of children with HP and without HP using independent sample 't' test. The mean value of academic performance in children with helicopter parents is 79.54 ± 10.98, and in children without HP is 83.41 ± 9.40. A statistically significant reduction of academic performance in children with helicopter parents (p=0.001). Moreover, the mean debris, calculus index, and OHI-S scores are lower in children with HP than children without HP. Children with HP had better oral hygiene than those without HP; a statistically significant difference was observed (p<0.001) (Table-3).

The percentage of children with HP shows 51.7% were positive, 67% were positive, 2.7% were negative and zero percent were negative. Comparative assessment of children's behaviour using Frankl behaviour rating scale in children with HP and without HP. A statistically non-significant difference was observed (p= 0.776) (Table - 4)

DISCUSSION

The current study is one of the studies to evaluate HP's prevalence and its association with academic performance and oral hygiene status in children. Helicopter parents are defined as parents who continually "hover" over their children, and in times of emergency, parents "swoop down" to rescue their children. After the emergency has been rectified, the parents will be hovering over their children until the next emergency arises. [22, 23]

In the present study, the prevalence of children with HP is 48.8%, and academic performance was reduced due to excessive involvement in their lives. The self-determination theory outlines three innate needs for healthy development and functioning in all human beings.[24-26]The first and most crucial constituent of self-determination theory is making independent decisions or the basic need for autonomy. [24]The second constituent is the basic need for competence or confidence in one's capabilities and achievements.[26]Relatedness is the third component; it involves feeling that one is part of a genuinely caring relationship.[25]According to this theory, 'HP' Behaviors may impinge on the offspring's autonomy and competence. The decrease in autonomy and competence could be detrimental to the offspring because two of her/his basic psychological needs did not meet. [27, 28]

HP has been associated with a child's maladaptive problem, correlated with dependency on others and ineffective coping skills. [8]This study result is similar to Allan *et al*. [29] which also affirms that intrusive parenting negatively influences adolescents' academic performance. The same study also states that an increase in the sense of entitlement of adolescents may also result in low academic performance.

HP has been associated with decreased school engagement[8, 29]and academic achievement. [30, 31]Embedding maladaptive perfectionism in children can also result in high anxiety and unsatisfying academic Performance.[32]Highly involved parents who continuously pressurize the child to perform well make the child feel incapable of learning. According to Schiffrin and Liss (2017) [33], helicopter parents continuously try to eliminate their child's life obstacles to ensure their academic success. However, the study discovers that involved or intrusive parenting negatively influences adolescent's academic performance. Parent's intrusion disrupts the normal process of learning in children and inclines them to achieve outstanding results, resulting in unsatisfactory academic performance. [34, 35]

In the current study, when debris index scores (Mean ± SD) were compared children with HP and without HP shows 0.44 ± 0.49, 0.57 ± 0.53 respectively, found that less mean value in children with HP than children without HP and a statistically significant difference was observed(P= 0.025).

When calculus index scores (Mean ± SD) were compared, children with HP showed that 0.10 ± 0.26 and without HP 0.29 ± 0.36 reduced mean value scores in children with HP than children without HP and a statistically significant difference was found.

OHI – S index scores were compared with children with HP mean score was 0.27 ± 0.51, children, without HP 1.13 ± 0.74 respectively. It was found that children with HP have significant OHI-S scores. It may be attributed to parents' attention to these children's oral health, demonstration of the right tooth brushing techniques, and oral hygiene instructions. The practice of oral hygiene involves keeping the mouth clean through regular tooth brushing and dental floss to clean between the teeth and maintaining good oral hygiene like rinsing the mouth after food, brushing twice a day, and correct tongue cleaning. Another explanation is that parents make their children maintain good oral hygiene with their over-involvement in their daily activities.

A comparative assessment of children's behaviour using the Frankl behaviour rating scale in children with HP revealed that positive, positive, definitely negative, negative was 51.7%, 45.6%, zero per cent, and 2.7%, respectively.

Whereas in children without HP were 52.6%, 44.8%, 0.6%, 1.9% respectively. Frankl scores showed no statistically significant difference (p= 0.766), which might be due to the examination of oral hygiene in a non-dental setting.

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REFERENCES

1. Joseph MV, John J. Impact of parenting styles on child development. Glob Academic Soc Jour: Soc Sci Ins. 2008;1:16-25.
2. Givertz M, Segrin C. The association between overinvolved parenting and young adults' self-efficacy, psychological entitlement, and family communication. Commun. Res. 2014;41:1111-36.
3. Segrin C, Woszidlo A, Givertz M, Bauer A, Taylor Murphy M. The association between overparenting, parent-child communication, and entitlement and adaptive traits in adult children. Fam Relat. 2012;61:237-52.
4. Baumrind D. Child care practices anteceding three patterns of preschool behavior. Genet Psychol Monogr. 1967.
5. McCoby EE. Socialization in the context of the family: Parent-child interaction. Hand Child Psych. 1983; 4:1-01.
6. Janssen I. Hyper-parenting is negatively associated with physical activity among 7–12 year olds. Prev Med. 2015; 73:55-9.
7. Van Ingen DJ, Freiheit SR, Steinfeldt JA, Moore LL, Wimer DJ, Knutt AD, Scapinello S, Roberts A. Helicopter parenting the effect of an overbearing caregiving style on peer attachment and self-efficacy. J Coll Couns. 2015;18:7-20.
8. Padilla-Walker LM, Nelson LJ. Black hawk down? Establishing helicopter parenting as a distinct construct from other forms of parental control during emerging adulthood. J Adolesc. 2012;35 :1177-90.
9. Schiffrin HH, Godfrey H, Liss M, Erchull MJ. Intensive parenting: Does it have the desired impact on child outcomes? J Child Fam Stud. 2015; 24:2322-31.
10. Kouros CD, Pruitt MM, Ekas NV, Kiriaki R, Sunderland M. Helicopter parenting, autonomy support, and college students' mental health and well-being: The moderating role of sex and ethnicity. J Child Fam Stud. 2017; 26:939-49.
11. Leung JT, Shek DT. Validation of the perceived Chinese overparenting scale in emerging adults in Hong Kong. J Child Fam Stud. 2018; 27:103-17.
12. Fingerman KL, Cheng YP, Wesselmann ED, Zarit S, Furstenberg F, Birditt KS. Helicopter parents and landing pad kids: Intense parental support of grown children. J Marriage Fam. 2012; 74:880-96.
13. Wartman KL, Savage M. Parental Involvement in Higher Education: Understanding the Relationship among Students, Parents, and the Institution. ASHE Higher Edu. ASHE Higher Edu Rep. 2008; 33:1-25.
14. Lease SH, Dahlbeck DT. Parental influences, career decision-making attributions, and self-efficacy: Differences for men and women?. J Career Dev. 2009; 36:95-113.
15. O'Bryan ST, Jomills Henry Braddock II, Dawkins MP. An examination of the effects of school-based varsity sport participation and parental involvement on male academic behaviors. Challenge Onlin. 2008; 14:1-27.
16. Brussoni M, Olsen LL, Pike I, Sleet DA. Risky play and children's safety: Balancing priorities for optimal child development. Intj Envt Res Public Health. 2012; 9:3134-48.
17. Schiffrin HH, Liss M, Miles-McLean H, Geary KA, Erchull MJ, Tashner T. Helping or hovering? The effects of helicopter parenting on college students' well-being. J Child Fam Stud. 2014; 23:548-57.
18. Segrin C, Givertz M, Swaitkowski P, Montgomery N. Overparenting is associated with child problems and a critical family environment. J Child and fam Stud; 24:470-9.
19. Segrin C, Woszidlo A, Givertz M, Montgomery N. Parent and child traits associated with overparenting. J Soc Clin Psychol. 2013; 32:569-95.
20. Greene JC, Vermillion JR. The oral hygiene index: a method for classifying oral hygiene status. J Am Dent Assoc. 1960 1; 6:172-9.
21. Frankl SN. Should the parent remain with the child in the dental operatory? J. Dent. Child. 1962; 29:150-63.
22. Finkenauer C, Engels R, Baumeister R. Parenting behaviour and adolescent behavioural and emotional problems: The role of self-control. Int J Behav Dev. 2005; 29:58-69.
23. Bradley-Geist JC, Olson-Buchanan JB. Helicopter parents: An examination of the correlates of over-parenting of college students. Education+ Training. 2014 - 6.
24. Deci, E., & Ryan, R. (2008). Facilitating Optimal Motivation and Psychological Well- Being Across Life's Domains. *Can Psychol. 49*:14-23.
25. Ryan, R. M., &Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *Ame psychol. 55*: 68–78.
26. Vansteenkiste M, Niemiec CP, Soenens B. The development of the five mini-theories of self-determination theory: An historical overview, emerging trends, and future directions. In The decade ahead: Theoretical perspectives on motivation and achievement 2010: 12.
27. Wei M, Shaffer PA, Young SK, Zakalik RA. Adult attachment, shame, depression, and loneliness: The mediation role of basic psychological needs satisfaction. J counsel psychol. 2005; 52:591.
28. Mills JS, Blankstein KR. Perfectionism, intrinsic vs extrinsic motivation, and motivated strategies for learning: A multidimensional analysis of university students. Person individ differ. 2000; 29:1191-204.
29. Bernardo AB. Perceived legitimacy of parental control over academic behaviors and adolescent students' academic adjustment. Eur jour psychol. 2012; 27:557-71.
30. Nelson LJ, Padilla-Walker LM, Nielson MG. Is hovering smothering or loving? An examination of parental warmth as a moderator of relations between helicopter parenting and emerging adults' indices of adjustment. Emerging Adulthood. 2015; 3:282-5.
31. Kim SY, Wang Y, Orozco-Lapray D, Shen Y, Murtuza M. Does "tiger parenting" exist? Parenting profiles of Chinese Americans and adolescent developmental outcomes. Asian Am jour psychol. 2013; 4:7.
32. Shoup, R., Gonyea, R.M. and Kuh, G.D., 2009, June. Helicopter parents: Examining the impact of highly involved parents on student engagement and educational outcomes. In *49th Annual Forum of the Association for Institutional Research, Atlanta, Georgia.*

33. Schiffrin HH, Liss M. The effects of helicopter parenting on academic motivation. J Child Fam Stud. 2017; 26:1472-80.
34. Schiffrin HH, Godfrey H, Liss M, Erchull MJ. Intensive parenting: Does it have the desired impact on child outcomes? J Child Fam Stud. 2015; 24:2322-31.
35. Garst BA, Gagnon RJ. Exploring overparenting within the context of youth development programs. J Youth Devel. 2015; 10:5-18.

Table 1: Distribution of participants according to gender

Gender	Participants	
	N	%
Males	164	54.5
Females	137	45.5
Total	301	100

Table 2: Prevalence of children with Helicopter parents and without HP

Groups	N	%
Children without Helicopter parents	154	51.2
Helicopter parents	147	48.8
Total	301	100

Table 3: Comparative distribution of mean values of children academic performance and oral hygiene index scores

Parameters	Mean ± SD	t Value	P-value
Academic Performance			
Children with HP	79.54 ± 10.98	3.283	0.001*
Children without HP	83.41 ± 9.40		
Debris Index			
Children with HP	0.44 ± 0.49	2.255	0.025*
Children without HP	0.57 ± 0.53		
Calculus Index			
Children with HP	0.10 ± 0.26	5.273	<0.001*
Children without HP	0.29 ± 0.36		
OHI-S Index			
Children with HP	0.27 ± 0.51	11.588	<0.001*
Children without HP	1.13 ± 0.74		

Independent Sample't' Test: *P < 0.05 (significant), **p > 0.05 (Not significant)

Table 4: Comparative assessment of the behavior of children using Frankl behavior rating scale in children with HP and without HP

Frankl Scale	Children with HP	Children without HP	Significant difference	
	(N) (%)	(N) (%)	X^2	p
Definitely Positive	76 (51.7%)	81 (52.6%)		
Positive	67 (45.6%)	69 (44.8%)		
Definitely Negative	0	1 (0.6%)	1.146	0.766**
Negative	4 (2.7%)	3 (1.9%)		
Total	147 (100%)	154 (100%)		

Chi Square Test, *P < 0.05 (Significant), **p > 0.05 (Not significant)