DOI: 10.34056/aujef.1358026

Exploring Parenting Styles to Enhance Parental Involvement through Latent Profile Analysis: The Role of Reward and Praise

Örtük Profi Analizi ile Veli Katılımı için Ebeveyn Stillerinin İncelenmesi: Ödül ve Övgünün Rolü

Özgür BOLAT[1], Ergün KARA[2]

Article Type: Research Article

Application Date: 10.09.2023 **Accepted Date:** 19.10.2023

To Cite This Article: Bolat, Ö. & Kara, E. (2023). Exploring parenting styles to enhance parental involvement through Latent Profile Analysis: The role of reward and praise**.** *Anadolu University Journal of Education Faculty (AUJEF), 7*(4), 1159-1173.

ABSTRACT: The aim of this study is to explore different profiles of parents in terms of their use of reward and praise as well as psychological control by using latent profile analysis (LPA). The data were collected from a sample of 661 parents living across Turkey through an online platform in the Spring of 2023. An atemporal cross-sectional research design was used to explore latent profiles of parents. Parents completed three scales: the parent reward scale, the parent praise scale, and psychological control-disrespect scale. Parents were profiled, based on their use of these three parenting tools. As a result of the LPA, three profiles emerged. They were identified as "High Controllers", "Low Controllers" and "Autonomy Supporters". As predicted, "High Controllers" use all these three tools, reward, praise, psychological control to a great extent. Similarly, "Low Controllers" use all three tools but to lesser extent. "Autonomy Supporters" use these three tools the least. The difference among these three profiles were further validated with the acknowledgement-of-feelings scale and the threats to punish scale. ANOVA revealed a significant difference among three groups. "High Controllers" were more likely to threaten to punish their children than "Low Controllers" and "Autonomy Supporters". Similarly, Autonomy Supporters" were more likely to acknowledge their children's feelings than "High Controllers" and "Low Controllers." As predicted, these findings suggest that parents who use praise and reward are more likely to control their children psychologically, punish their children and less likely to acknowledge their children's feelings. School leaders could utilize these findings to profile parents and develop more effective parental involvement program to promote autonomy supportive parenting style that do not rely on praise or reward.

Keywords: Parental involvement, school leadership, reward, praise, psychological control, latent profile analysis

[1] Dr., International Final University, Faculty of Education, ozgurbolat@gmail.com, ORCID: 0000-0003-4420-1368

[2] Dr., Alanya Alaaddin Keykubat University, Faculty of Education, Antalya, ergunpdr@hotmail.com, ORCID: 0000-0002-6129-6787

ÖZET: Bu çalışmanın amacı, ödül ve övgü kullanımı ile psikolojik kontrol açısından farklı ebeveyn profillerini örtük profil analizi (ÖPA) kullanarak incelemektir. Veriler, 2023 baharında bir çevrimiçi platform aracılığıyla Türkiye'nin dört bir yanında görev yapan 661 ebeveyn örneğinden toplanmıştır. Ebeveynlerin örtük profillerini keşfetmek için kesitsel araştırma türü kullanılmıştır. Ebeveynler üç ölçek doldurmuştur: ebeveyn ödül ölçeği, ebeveyn övgü ölçeği ve psikolojik kontrol-saygısızlık ölçeği. Ebeveynler, bu üç ebeveynlik aracının kullanımına dayanarak profillendirilmiştir. ÖPA sonucunda üç profil bulunmuştur. Bunlar "Yüksek Kontrolcüler", "Düşük Kontrolcüler" ve "Özerklik Destekleyenler" olarak isimlendirilmiştir. Tahmin edildiği gibi, "Yüksek Kontrolcüler" bu üç davranışı (ödül, övgü, psikolojik kontrol) büyük ölçüde sergilemektedir. Benzer şekilde, "Düşük Kontrolcüler" bu üç davranılı daha az ölçüde göstermektedir. "Özerklik Destekçileri" bu üç davranışı en az seviyede göstermektedir. Bu üç profil arasındaki fark, duyguların kabul ölçeği ve cezalandırma tehdidi ölçeği ile daha da doğrulanmıştır. ANOVA, üç grup arasında anlamlı bir fark olduğunu ortaya koymuştur. "Yüksek Kontrolcüler", "Düşük Kontrolcüler" ve "Özerklik Destekleyenler"den daha çok çocuklarını cezalandırmakla tehdit etmektedir. Benzer şekilde, "Özerklik Destekleyenler", "Yüksek Kontrolcüler" ve "Düşük Kontrolcüler"den daha çok çocuklarının duygularını kabul etmektedir. Tahmin edildiği gibi, bu bulgular, övgü ve ödül kullanan ebeveynlerin daha çok psikolojik kontrol kullandığını, çocuklarını cezalandırdığını ve çocuklarının duygularını daha az kabul ettiğini göstermektedir. Okul liderleri, bu bulguları ebeveynleri profillendirmek ve övgü veya ödüle dayanmayan özerklik destekleyen ebeveynlik tarzını teşvik etmek için daha etkili bir ebeveyn katılım programı geliştirmek için kullanabilir.

Anahtar sözcükler: Ebeveyn katılımı, okul liderliği, ödül, övgü, psikolojik kontrol, gizli profil analizi

1. INTRODUCTION

Parents play an important role in children's psychosocial and cognitive development (Rowe, Ramani, & Pomerantz, 2016; Heatly and Votruba-Drzal 2017). It can even be argued that they have the most significant influence on children (Grolnick, 2009). Furthermore, a student's (mis)behavior in school is mostly a reflection of the family dynamics at home. For instance, Sönmez and Cemaloğlu (2021) argue that when there is domestic violence at home, children are affected negatively during distance education, which is now common after the COVID-19 pandemic. Research shows that parent–child conflict at home is positively correlated to bullying at school (Georgiou & Stavrinides, 2013). Children who have controlling parents (i.e., helicopter parenting) are more likely to develop anxiety and depression (Vigdal & Brønnick, 2022) and it is well established that anxiety and depression directly and negatively influence children's academic performance and mental health at school (Barbosa-Camacho et al., 2022). It is very difficult for educators to solve a behavior problem in schools without involving parents. Ertem and Gökalp (2020) found that parental involvement positively affects student outcomes. Effective schools and parental involvement are in a close relationship (Balcı, 2014). Therefore, schools and parents should collaborate to create an effective learning and teaching environment at schools (Şişman, 2013). It should be the responsibility of school leaders and teachers to directly involve parents in students' education for better student outcomes.

Parents' parenting style directly affects children's development. Ryan and Deci (2017) distinguish between two types of parental styles: autonomy-supportive and controlling. They argue that while autonomy-supportive parenting style supports healthy child development, controlling parenting style hinders children's development. According to Soenens and Vansteenkiste (2010), parents' controlling methods can be grouped into two: externally controlling and internally controlling methods. Internally controlling methods are often called as "psychological control" (Barber, 2002). Parental psychological control refers to using tactics or behaviors which intrude upon child's thoughts and feelings and invalidate child's sense of self (Soenens & Vansteenkiste, 2010). It is often used to encourage child's dependency on parents (Soenens, Vansteenkiste & Luyten, 2010). Love withdrawal, guilt induction, shaming, and conditional approval are some of the examples of parental psychological control tools (Barber, 1996). For instance, when a child fails a test, parent may stop talking to the child for a while. The child, in turn, may feel the pressure to be successful to regain the love of the parent. What makes a parental behavior psychologically controlling is pressure, intrusion, and domination (Grolnick & Pomerantz, 2009). The main purpose of the psychologically controlling tactics force children into compliance (Barber, 1996).

Externally controlling behavior, referred to as behavior control, aims to control child's behavior (Steinberg, 1990). Externally controlling methods may include using tools, such as forcing and punishment. While psychological control methods aim to control children's "thoughts and feelings", externally controlling methods aim to control children's "behaviors". For instance, a parent can control a child's eating behavior by punishing the child if the child does not eat his/her meal. Similarly, a parent may force his/her child to play piano to impress guests (Mageau et al., 2015). It is important to note that monitoring, setting boundaries or setting rules may not be externally controlling since their aim is not to control but to guide children (Grolnick & Pomerantz, 2009).

There is enough research evidence in the literature that psychological control leads to various negative child outcomes. When parents use psychological control tactics, the child is more likely to develop internalizing problems (Barber & Harmon, 2002; Stone et al., 2013) and externalizing problems

(Pettit, Laird, Dodge, Bates, & Criss, 2001). Stone et al (2013) found that psychological control leads to both internalizing and externalizing behaviors. Psychological control leads to negative outcomes because from the perspectives of Self-Determination Theory (SDT), when parents are psychologically controlling; conditional love harms relatedness, criticism harms competence and high dependence harms autonomy-connection balance (Scharf & Goldner, 2018).

Externally controlling techniques can also hinder development (Soenens & Vansteenkiste, 2010). One of these externally controlling techniques is "threats to punish" (Mageau, Ranger, Joussemet, Koestner, Moreau, & Forest, 2015). By threatening to punish, parents instill fear and anxiety in children so that they comply with parental wishes or requests (Soenens & Vansteenkiste, 2010). Although parents and scholars can easily agree that punishment or physical coercion can harm children, STD argues that reward and praise are also the tools of a controlling parenting style, and they are likely to lead to negative outcomes just as punishment and psychologically controlling methods (Ryan & Deci, 2017). While the behavioral school accepts them as positive, STD argues that reward and praise are often the tools of a controlling parenting style, which is discussed next.

Rewards and praise are often used by parents in socializing as well as motivating children. Praise is defined as a verbal reward or a social recognition (Bareket-Bojmel, Hochman, & Ariely, 2014) based on as a positive judgement on subjective criteria (Henderlong & Lepper, 2002). Reward is defined as offering something desirable on a contingency (Bolat, 2016). For instance, when a child helps with chores at home and if the mother says "Well done! Good Job!" it is a praise that judges the quality of help as good. If the mother says to a child, "I will let you play on the computer for an hour if you help me with a chore," it is a reward since access to the computer is based on the contingency of helping. There are different perspectives on the function and effectiveness of praise and reward in the literature.

According to SDT, reward and praise are tools of a controlling parenting style (Ryan & Deci, 2017). Deci, Koestner and Ryan (1999) claim that reward and praise are extrinsic motivators and fail to lead to internalization or intrinsic motivation. However, they also add that praise and reward have the potential to increase motivation when they are "informative" and decrease motivation when they are "controlling" (Ryan & Deci, 2017). It is called "the undermining effect" (Deci & Ryan, 1985). In an influential study, Ryan (1982) grouped students into two groups and asked them to complete puzzles. One group received informational feedback (e.g., "You completed three!") and the other group received evaluative feedback (in the form of praise) (e.g., "Good! You are doing as you should" or "Excellent! Keep up the good work"). Their interest and enjoyment were subsequently measured. The scores of the group who received evaluative feedback was much lower than that of the group. The reason for this is that informative feedback supports children's sense of competence (Deci et al., 2001). Competence-building is a basic human need according to SDT and thus when that need is met through an informational praise, people feel more motivated. When praise does not convey information, it is just evaluative and evaluation may harm people's sense of autonomy (Hewett & Conway, 2016), which is another basic human need (Deci, 1971). Deci, Koestner, and Ryan (1999) found that the more a reward is controlling, the more it decreases intrinsic motivation. Similarly, Hewett & Conway (2016) found that praise (i.e., verbal reward) increased external motivation but decreased intrinsic motivation. On the other hand, from the perspectives of the behavioral approach, rewards and praise increase the probability of desired behaviors and increase motivation (Kazdin, 2017). For instance, Cameron and Pierce (1994) and Eisenberger and Cameron (1996) in their meta-analysis concluded that rewards and praise lead to increased motivation. The reason for this discrepancy in findings is probably because they did not differentiate "the informational" aspect of praise and rewards from the "controlling" aspect. Also, reward

and praise may increase motivation, but children will exhibit the desired behavior not because they have integrated the desired values but because they would want to avoid feelings of guilt, shame, and anxiety (Soenens & Vansteenkiste, 2010). Furthermore, children may not exhibit the desired behavior when parents are not present to monitor their behavior (Soenens & Vansteenkiste, 2010).

Rewards and praise not only decrease motivation when they are controlling, but also negatively affect children's prosocial behaviors, such as helping. For instance, Warneken and Tomasello (2014) found that when children were rewarded for helping, they were less likely to help in subsequent situations. Rewards even backfire with adults. For example, Newman and Shen (2012) found that when people were given rewards for their charitable giving, they were less likely to donate in the future. One of the most important goals of parents is socialization (Baumrind, 1998) and yet this study suggests when parents raise children with rewards, it affects their socialization negatively.

Although there are conflicting views about the effectiveness of reward and praise or whether praise and reward are the tools of an autonomy supportive parenting or a controlling parenting, in the Turkish context, Açıkgöz and Babaoğlan (2023) have found that reward is widely used by parents and teachers. Similarly, it could be argued that praise is also widely used. The purpose of this study is to explore whether praise and reward are part of a controlling parenting style or an autonomy supportive style through latent profile analysis. The researchers predicted that parents who use reward and praise the most would have a controlling parenting style and thus they would also be using psychological control the most. In contrast, parents who use reward and praise the least would also use psychological control the least.

2. METHOD

2.1. Design

An atemporal cross-sectional research design was used to explore latent profiles of parents on their use of reward, praise, and psychological control (i.e., disrespect). A cross-sectional study is a type of quantitative research design in which data are collected from different individuals at a single point in time (Rindfleisch et al., 2008). The researchers used three scales: the parent reward behavior scale, the parent praise scale, and psychological control-disrespect scale for investigation. After the investigation of latent profiles, the relationships among these profiles were examined in terms of their use of punishment threats and acknowledgement of feelings. Latent profile analysis was utilized to determine the number of profiles and reveal the characteristics of the identified profiles, and for each person, the probabilities of being a member of the profiles were estimated. Latent profile analysis provides six model solutions that fit the data. These models were evaluated, using various fit indices.

2.2. Participants and Sampling Procedure

A convenience sampling method was utilized. Parents were invited to take part in the study through a link provided on various social media platforms. Data collection took place in the spring of 2023 and the survey form was open to all participants over two days. Participants were voluntarily asked to participate in a study. Scales were completed via an online tool (using SurveyMonkey). A total of 667 parents accepted to take part in the study. 50 participants (7.49%) were male, while 617 participants (92.51%) were female. The average age was 27.78 (SD = 6.5), ranging from 20 to 55 years. In terms of

education level, 4 parents (.06%) graduated from primary school, 6 parents (.09%) graduated from secondary school, 42 parents (6%) graduated from high school, 446 parents (67%) had a bachelor's degree, and 154 parents (23 %) had a master or a PhD degree. Data from 15 participants (2%) were missing.

2.3. Research Instruments

Three different scales were used for latent profile analysis: the Parent Reward Behavior Scale, The Parent Behavior Praise, and the Psychological Control-Disrespect Scale. It should be noted that the Parent Reward Behavior Scale had two factors (motivation and control) and these two factors were used separately for the analysis. Therefore, there were four scales in the analysis. Two scales were used for validation of the profiles: "threatening to punish the child" and "acknowledgement of feelings" subscales of the Perceived Parental Autonomy Support Scale (P-PASS).

The Parent Reward Behavior Scale and The Parent Praise Behavior Scale were developed by Bolat (2023). The Parent Reward Behavior Scale consisted of a total of 8 items (∝=.85). It included two factors: control and motivation. The Control Subscale (4 items) measures the degree to which parents use rewards to control their children (∝=.82). Sample items are: "I use rewards to make my child do what I want." and "I use rewards to make my child do things I want." The Motivation Subscale (4 items) measures the degree to which parents use rewards to motivate their children (∝=.86). Sample items are: "I motivate my child with rewards." and "I use rewards to instill a sense of responsibility in my child. A five-Likert type was used. Two factors were used separately for the analysis. The researchers used confirmatory factor analysis to test the factorial structure of The Parent Reward Behavior Scale. The results of the goodness-of-fit indices; χ 2 (17, N = 667) = 62.484, p < .001; X2/df=3.6, GFI=0.98; CFI = 0.98; TLI = 0.97; SRMR = 0.03; RMSEA = 0.06.

The Parent Praise Behavior Scale is bi-factorial and consists of 7 items (∝=.78). It measures the degree to which parents use praise while raising their children. Sample items are: "I praise my child when they do a good job." and "I use praise to motivate my child." A five-Likert type was used. The researchers used confirmatory factor analysis to test the factorial structure of Parent Praise Behavior Scale was confirmed. The results of the goodness-of-fit indices; χ 2 (14, N = 667) = 49.318, p < .001; X2/df=3.5, GFI=0.99; CFI = 0.98; TLI = 0.97; SRMR = 0.02; RMSEA = 0.06.

The Psychological Control - Disrespect Scale was developed by Barber et al. (2012) and consists of 8 items (α=89). It was adapted into Turkish by Kara and Bolat (2023). Items originally developed for children were adapted for parents in this study. Two sample items are: " I compare my children with others" and "I expect too much of my child." A five-Likert type was used. The researchers used confirmatory factor analysis to test the factorial structure of The Psychological Control - Disrespect Scale was confirmed. The results of the goodness-of-fit indices; χ 2 (20, N = 667) = 23.532, p < .001; X2/df=1, GFI=0.99; CFI = 0.98; TLI = 0.99; SRMR = 0.02; RMSEA = 0.02.

The sub-scales of the Perceived Parental Autonomy Support Scale, called "threatening to punish the child" and "acknowledgement of feelings" were developed by Mageau et al. (2015). Items originally developed for children were adapted for parents in this study. It was adapted into Turkish by Kara and Bolat (2023). Threatening to Punish sub-scale consists of 4 items (α=82). Two sample items are: When my child refuses to do something, I threaten to take away certain privileges in order to him/her me do it." and "My child always has to do what I want him/her to do, if not, I threaten to take away privileges."

Acknowledgement of Feelings Subscale consists of 4 items (α=85). Two sample items are: "I can put myself in my child's shoe and understand his/her feelings. " and "I encouraged my child to be herself." A seven-Likert type was used. The researchers used confirmatory factor analysis to test the factorial structure of Perceived Parental Autonomy Support Scale and multi- factorial structure was like original scale. The results of the goodness-of-fit indices; χ 2 (19, N = 667) = 64.794, p < .001; X2/df=3.1, GFI=0.99; CFI = 0.98; TLI = 0.97; SRMR = 0.03; RMSEA = 0.06.

2.4. Data Analysis

Correlations and descriptive statistics were calculated first for all variables (Table 1). Multivariate normality, common method bias, and multicollinearity were checked. There were no multicollinearity issues indicated by VIF and Tolerance values. Harman's single factor score was reported to be under 50%, confirming that the assumption of Common Method Bias was met (Spector & Brannick, 2009).

Second, Latent Profile Analysis was conducted to describe patterns across parents, using four scales. The R program (v. 4.0.2) (R Core Team, 2021) and tidy LPA package (Rosenberg et al., 2019) were used to identify latent profiles of parents. In tidy LPA package, four different models (model 1, 2, 3 and 6) were identified, based on variance (varying or equal) and covariance (varying, zero, equal), and the numbers of parent profiles were explored. To determine the number of profiles, a combination of different statistical indexes was considered (Tofighi & Enders, 2008). Bootstrapped likelihood ratio test (BLRT) was used to determine the number of profiles. A p-value of lower than .05 indicates that k class model (more complex model) surpassed k-1 class model (simpler model) with a better model fit (Nylund et al., 2007).

Sample Adjusted Bayesian Information Criteria (SABIC), Bayesian Information Criterion (BIC), Akaike Information Criterion (AIC), and entropy indexes were used to determine the model selection. The model with lower values of AIC, BIC, and SABIC indicate a better model fit (Tofighi & Enders, 2007). Entropy value ranges between 0 to 1 and higher values indicate a clear differentiation of the profiles (Celeux & Soromenho, 1996). In addition to these fit indexes Classification Likelihood Criterion (CLC), Approximate Weight of Evidence (AWE) values were also considered to determine the number of profiles. Theoretical underpinnings were critical in the decision-making process. It is important that profiles selected make sense both statistically and theoretically (Marsh et al., 2009). Third, analyses of variance (ANOVA) were conducted to test whether there was a significant difference among three profiles in terms of their scores on threatening to punish and acknowledgement of feelings scales. These data were analyzed, using IBM SPSS 26.

3. FINDINGS

3.1. Correlations and Descriptive Statistics

The correlations of variables, means, standard deviation, skewness and kurtosis are presented in Table 1. As expected, all the latent profile variables were correlated and there was high and medium correlation among all scores.

Table 1: *Correlations, Means, Standard Derivations of Variables (N = 667).*

Variable	1	2	3	4	5	6
1. Parent Reward Behavior- motivation	—					
2. Parent Reward Behavior- control	.69***	—				
3. Parent Praise Behavior	.41***	.35***	—			
4. The Psychological Control-Disrespect	.28***	.35***	.18***	—		
5. Threatening to punish	.45***	.55***	.25***	.59***	—	
6. Acknowledgement of feeling	-.21***	-.34***	-.05	-.46***	-.41***	—
Mean	8.55	7.44	26.01	12.20	7.07	23.22
Std. Deviation	3.21	3.04	5.49	3.81	3.77	4.10
Skewness	0.50	0.96	-0.67	1.54	1.71	-0.85
Kurtosis	-0.36	0.49	0.35	3.11	3.24	0.44

* p < .05, ** p < .01, *** p < .001

Reward Behavior-motivation was positively correlated with reward behavior-control (.69 $p < 0.001$), praise behavior (.41 $p < 0.001$), and psychological control-disrespect (.28 $p < 0.001$). Similarly reward behavior-control had a positive correlation with praise behavior (.35 $p < 0.001$) and psychological control-disrespect (.35 $p < 0.001$). Lastly, praise behavior was positively related to psychological control-disrespect (.18 $p < 0.001$).

3.2. Latent Profile Analysis

Latent Profile Analysis was performed, and fit statistics for different latent profile structures are presented in Table 2. The solution with three latent profiles (model 1) was selected, based on a theoretical basis, and fit statistics [Entropy values (.80), AWE (14.114), BIC (13.944), CLC (13.829), KIC (13.884), AIC (10,084.40), SABIC (13.887), and BLRT ($p< 0.01$)]. For a three-profile solution, Entropy was reliable with a score ranging between .80 and 1.

Table 2: *Fit Statistics for Profile Structures*

The Number of Profiles	BIC	AIC	AWE	CLC	KIC	SABIC	Entropy	BLRTP	Profile size
1	14.575	14.539	14.649	14.525	14.550	14.549	-	-	667
2	14.064	14.006	14.186	13.982	14.022	14.023	0.85	p<0.01	427,240
3	13.944	13.863	14.114	13.829	13.884	13.887	0.80	p<0.01	113,441,107

Profile 1 consisted of 113 parents (17 % of the sample), Profile 2 consisted of 441 parents (67 % of the sample) and Profile 3 consisted of 107 parents (16 % of the sample). Parents in Profile 1 reported the highest scores across all four measures (praise behavior, reward behavior-motivation, reward behavior-control and psychological control-disrespect scales) were identified as “High Controllers” (Figure 1). Parents in Profile 2 reported the moderate scores across four measures and were identified as “Low Controllers”. Finally, Parents in Profile 3 reported the lowest scores across all four measures and

were identified as "Autonomy Supporters." Means and standard deviation of three profiles across all four scales presented in Table 2.

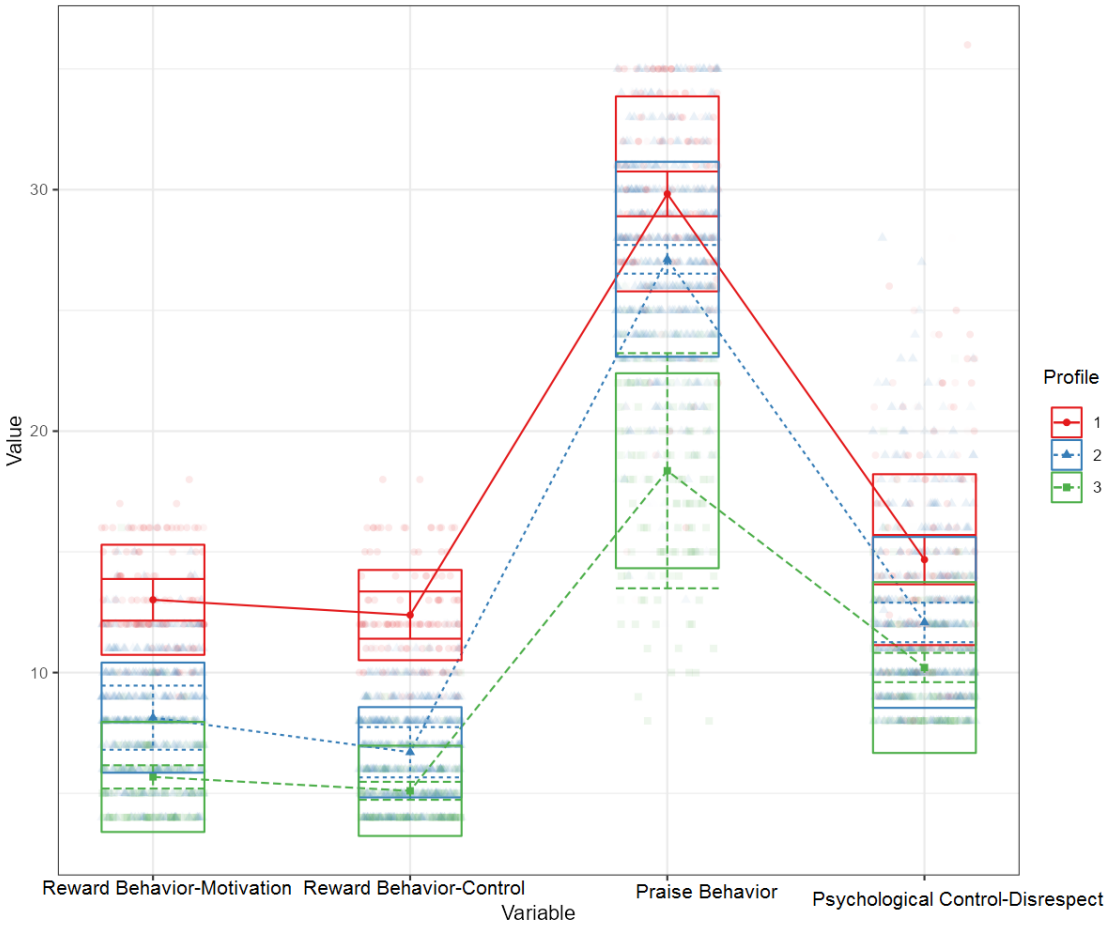

Figure 1: *Three Latent Profiles of Parent Behaviors (n= 661).*

Table 3: *Means and Standard Deviation of Three Profiles*

Variable	Parent Reward Behavior- motivation			Parent Reward Behavior- control			Parent Praise Behavior			The Psychological Control-Disrespect		
Profile	1	2	3	1	2	3	1	2	3	1	2	3
Mean	13.2	8.1	5.4	12.5	6.6	4.9	29.8	27.1	17.3	14.5	12.1	9.9
Std. D.	2.1	2.3	1.8	2.1	1.8	1.3	3.9	3.7	4.1	4.6	3.5	1.9
Minimum		4			4			8			8	
Maximum		18			18			35			36	

A. High Controllers: Parents in this profile use reward and praise the most and as expected, they psychologically control their children the most.

B. Low Controllers: Parents in this profile use reward and praise at a moderate level and they psychologically control their children to a medium extent.

C. Autonomy Supporters: These parents use reward and praise the least and as expected, they do not psychologically control their children.

3.3. The Univariate Analysis of Threatening to Punish and Acknowledgement of Feelings.

One-way ANOVA was employed to examine whether there were differences among the identified profiles in terms of their scores on the threatening to punish and the acknowledgement of feeling scales (Table 3).

Table 4: *ANOVA Results*

Profile	Mean	Std. D.	Mean Square	F	Sig.	Partial Eta Squared
Threatening to punish						
High Controllers	11.07	4.83				
Low Controllers	6.54	3	1223.350	117.021	0.001	0.26
Autonomy Supporters	4.86	1.64				
Acknowledgement of feeling						
High Controllers	21.22	4.26				
Low Controllers	23.37	3.96	387.859	24.978	0.001	0.07
Autonomy Supporters	24.93	3.43				

One-way ANOVA revealed a significant difference in threatening to punish $F(2,558) = 117.021$, $p < .001$, $p\eta^2 = 0.26$ and acknowledgement of feeling $F(2,558) = 24.978$, $p < .001$, $p\eta^2 = 0.07$. Post-hoc (Scheffe) results revealed that the Profile 1 (High Controllers) had higher scores on the threatening to punish scale than Profile 2 (Low Controllers) ($p < .001$) and Profile 3 (Autonomy Supporters) ($p < .001$). Similarly, Profile 2 (Low Controllers) had higher scores on the threatening to punish scale than Profile 3 (Autonomy Supporters) ($p < .001$). Similarly, as expected, Profile 3 (Autonomy Supporters) had higher scores on the acknowledgement of feeling scale than Profile 1 (High Controllers) ($p < .001$) and Profile 2 (Low Controllers) ($p < .001$). Also Profile 2 (Low Controllers) had higher scores on the acknowledgement of feeling scale than Profile 1 (High Controllers) ($p < .001$).

4. DISCUSSION and RESULT

The current study aimed to explore different profiles of parents, based on their parenting behaviors through latent profile analysis. Parents' four parenting behaviors were measured: reward as control, reward as motivation, praise, and psychological control as disrespect. Firstly, correlations among these scales were measured. Secondly, as a result of LPA, three distinct profiles of parents emerged from the data in relation to four parenting behaviors. The differences among these profiles were further validated, using two other scales: threats to punish and acknowledgement of feelings. The research is unique not only in the national literature but also in the international literature that to the best of our knowledge it is the first study which profiled parents in terms of their use of praise, reward, and psychological control.

The study revealed significant findings in terms of both practice and theory. These findings can help school leaders and teachers design better parental involvement programmes and help researchers to better understand the roles of praise and reward in parenting. Firstly, the interrelationships among six scales clearly demonstrated that reward and praise were positively correlated with psychological control and threats to punish the child. This finding suggests that parents who reward and praise their children are more likely to psychologically control, disrespect and threaten to punish them. Similarly, reward and praise were negatively correlated with acknowledgement of children's feelings. That is, parents who reward and praise their children are less likely to acknowledgement their feelings. These findings are in line with the arguments of SDT that praise and reward are mostly the tools of a controlling parenting style (Ryan & Deci, 2017). The study also demonstrated that psychological control and threats to punish were positively correlated. This finding shows that parents who use behavioral control methods (e.i., punishment) also use external controlling methods (e.i., psychological control) to a great extent (see Soenens & Vansteenkiste, 2010).

Three distinct profiles of parents emerged as a result of latent profile analysis. The profiles clearly differed from each other in terms of four parenting behaviors: reward as control, reward as motivation, praise, and psychological control as disrespect. High Controllers use reward both to control and motivate their children, and praise and psychologically control them. These groups scored the highest on all four measures. That is, they are using all tools available to control their children. Low Controllers are similar to High Controllers in that they use all four parenting methods but to a lesser degree. Autonomy Supporters score the least on all four measures. That is, they use reward, praise, and psychological control with their children the least.

When these profiles were compared in terms of their use of threats to punish and acknowledgment of children's feelings, a clear picture emerged. As expected, High Controllers use threats to punish the most, Autonomy Supporters use it the least, and Low controllers fall in the middle. Similarly, Autonomy Supporters acknowledge their children's feelings the most, and High Controllers acknowledge their children's feelings the least. Again, Low controllers fall in-between. This finding is again in line with the arguments of STD that controlling parents are less autonomy-supportive (Soenens, Vansteenkiste & Sierens, 2009), they are not acknowledging their children's feelings. This profile is located on the high control - low autonomy axis. Autonomy Supporters are on the low control - high autonomy axis.

This study provides further evidence for the arguments of SDT. Meta-analyses by Deci, Koestner and Ryan (1999) and Deci, Ryan and Koestner (2001) have shown that tangible and verbal rewards undermine intrinsic motivation. Similarly, when children feel controlled by their parents, they are more likely to develop depression (Vansteenkiste et al., 2005) and low self-esteem (Givertz & Segrin, 2014). Furthermore, the children of controlling parents have lower grades in schools (Merlin et al, 2013). It could easily be argued that reward and praise which are widely used by High Controllers, who also psychologically control their children, can lead to low achievement in schools. School leaders need to identify parents in this profile and need to offer them various parenting programmes so that they can adopt an autonomy-supportive parenting style. In the Turkish context, Aykol and Yıldırım (2020) have found that parental involvement is at a moderate level and it needs to be increased. Similarly, Memduhoglu and Karataş (2017) have found teachers believe school-family partnership in their schools to be ineffective. Furthermore, Dinc (2017) has found that the more parents are involved in children's school, the better grades children receive. There are different styles of parental involvement. It is important that parental involvement needs to be in autonomy-supportive style. For instance, Dumont et al. (2012) have found that when parents help children with their homework in a controlling way, it leads

to negative educational outcomes; when they support their autonomy, it leads to achievement. Similarly, Karbach et al. (2013) found that parental control was negatively related with academic achievement. Therefore, school leaders need to promote parental involvement, but parental involvement in a controlling style could be detrimental. They need to teach parents how to be autonomy-supportive.

Certain suggestions can be put forward for future studies. Since this study aims to help school leaders and teachers to enhance their parental involvement programme, interventional studies need to be designed to test whether parents can be trained to shift from a controlling mindset to an autonomy supportive mindset. The study revealed that praise and reward are more likely to be used by parents with a controlling mindset. These parents do not acknowledge their children's feelings, which is a characteristic of autonomy-supportive parents. Further studies need to validate this profile with other autonomy-supportive parenting methods, such as offering choices or providing the rationale for rules (Mageau et al., 2015). Furthermore, these profiles need to be validated with other controlling parenting methods, such as love withdrawal, shaming, guild induction (Nelson, Yang, Coyne, Olsen, & Hart, 2013) as well as invalidating feelings and constraining verbal expression (Barber, 2012). Several parenting contexts may affect whether parents have a controlling or autonomy supportive mindset (Grolnick, 2002). These studies did not include or control for these parental contexts. Future studies need to include more parental variables into analysis.

The current study had certain limitations. First of all, female participants were over-represented while males were under-represented. Further studies need to be carried out with a sample with an equal distribution of genders. Males and females could differ from each other. The data were collected online, and a similar study can be carried out in a face-to-face setting. The study was based on an cross-sectional design. Findings could be a snapshot of a parenting and may not reflect the real nature of parenting. These findings need to be validated with data from other sources such as observation or in-depth interview carried out over a longer period.

School leaders can utilize these findings to design more effective parental programmes. When parents are high controllers, this reflects negatively on student behavior at school. School leaders can teach parents negative effects of reward and praise and design interventions to help parents adopt a more autonomy-supportive style that dooes not depend on reward or praise. They can also teach parents the tools of an autonomy-supportive style such as acknowledging feelings, or giving choices. When school leaders or teachers engage parents in such a parental involvement programme, parents are more likely to support autonomy, and this will reflect positively on student motivation, engagement, and behaviors at school.

Author Contributions

The first author conceived the research idea, collected data, structured and written the introduction and discussion section. The second author analyzed the data and written the methodology section. Both authors edited the final manuscript and made comments on the final version

Conflict of Interest

The authors declare that they have no conflict of interest.

REFERENCES

Açıkgöz, B., & Babaoğlan, E. (2023). Öğrencilere verilen ödüllerin etkililiğine ilişkin öğretmen ve veli görüşleri. [Views of teachers and parents regarding the effectiveness of rewards given to students.], *Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi* (65), 330-360.

Aykol, B. G., & Yıldırım, B. (2020). Öğretmen ve veli görüşlerine göre ailenin eğitime katılımı. [Family involvement in education according to the views of teachers and parents.], *Yıldız Journal of Educational Research, 5*(1), 89-118.

Balcı, A. (2014). *Etkili okul, okul geliştirme kuram uygulama ve araştırma* (7. Baskı). [Effective school: Theory, practice, and research in school improvement.], Ankara: Pegem A. Yayıncılık.

Barber, B. K. (1996). Parental psychological control: Revisiting a neglected construct. *Child Development, 67*(6), 3296-3319.

Barber, B. K. (2002). *Intrusive parenting: How psychological control affects children and adolescents* (pp. xv-309). American Psychological Association.

Barber, B. K., & Harmon, E. L. (2002). Violating the self: Parental psychological control of children and adolescents. In B. K. Barber (Ed.), *Intrusive parenting: How psychological control affects children and adolescents* (pp. 15–52). Washington, DC: APA.

Barber, B. K., Xia, M., Olsen, J. A., McNeely, C. A., & Bose, K. (2012). Feeling disrespected by parents: Refining the measurement and understanding of psychological control. *Journal of Adolescence, 35*(2), 273-287.

Barbosa-Camacho, F. J., Romero-Limón, O. M., Ibarrola-Peña, J. C., Almanza-Mena, Y. L., Pintor-Belmontes, K. J., Sánchez-López, V. A., ... & González-Ojeda, A. (2022). Depression, anxiety, and academic performance in COVID-19: a cross-sectional study. *BMC Psychiatry, 22*(1), 443.

Bareket-Bojmel, L., Hochman, G., & Ariely, D. (2014). It's (not) all about the Jacksons: Testing different types of short-term bonuses in the field. *Journal of Management, 43*(2), 534-554

Baumrind, D. (1998). Reflections on character and competence. In A. Colby, J. James, and D. Hart (Eds.), Explorations in the development of competence and character through life (pp.1–28). Chicago:University of Chicago Press.

Cameron, J., & Pierce, W. D. (1994). Reinforcement, reward, and intrinsic motivation: A meta-analysis. *Review of Educational Research, 64*(3), 363-423.

Celeux, G., & Soromenho, G. (1996). An entropy criterion for assessing the number of clusters in a mixture model. *Journal of Classification, 13*, 195-212.

Deci, E. & Ryan, R. (1985). *Intrinsic Motivation and Self-determination in Human Behavior.* Springer.

Deci, E. L., Koestner, R., & Ryan, R. M. (1999). A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. *Psychological Bulletin, 125*(6), 627.

Deci, E. L., Ryan, R. M., Gagné, M., Leone, D. R., Usunov, J., & Kornazheva, B. P. (2001). Need satisfaction, motivation, and well-being in the work organizations of a former eastern bloc country: A cross-cultural study of self-determination. *Personality and Social Psychology Bulletin, 27*(8), 930-942.

Deci, E. L., Koestner, R., & Ryan, R. M. (1999). A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. *Psychological Bulletin, 125*(6), 627. https://psycnet.apa.org/doi/10.1037/0033-2909.125.6.627

Deci, E. L., Ryan, R. M., & Koestner, R. (2001). The pervasive negative effects of rewards on intrinsic motivation: response to. *Review of Educational Research, 71*(1), 43-51. https://doi.org/10.3102/00346543071001043

Dinç, F. (2017). *Velilerin eğitime katılım düzeyleri ile öğrenci başarısı arasındaki ilişki.* Yüksek Lisans Tezi, Pamukkale Üniversitesi Eğitim Bilimleri Enstitüsü, Denizli.

Dumont, H., Trautwein, U., Lüdtke, O., Neumann, M., Niggli, A., & Schnyder, I. (2012). Does parental homework involvement mediate the relationship between family background and educational outcomes?. *Contemporary Educational Psychology, 37*(1), 55-69.

Eisenberger, R., & Cameron, J. (1996). Detrimental effects of reward: Reality or myth?. *American Psychologist, 51*(11), 1153.

Elliot (Eds.), *At the threshold: The developing adolescent* (pp. 255–276). Harvard University Press.

Ertem, H. Y., & Gökalp, G. (2020). Velilerin okul iklimi ve veli katılımı algılarının velilerin eğitim durumu ve çocuklarının öğrenim kademesine göre incelenmesi. [An examination of parents' perceptions of school climate and parental involvement based on the parents' educational status and their children's grades.], *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi,* 35(1), 78-91. doi: 10.16986/HUJE.2018040670

Georgiou, S. N., & Stavrinides, P. (2013). Parenting at home and bullying at school. *Social Psychology of Education, 16*, 165-179.

Givertz, M., & Segrin, C. (2014). The association between overinvolved parenting and young adults' self-efficacy, psychological entitlement, and family communication. *Communication Research, 41*(8), 1111-1136.

Grolnick, W. S. (2002). *The psychology of parental control: How well-meant parenting backfires.* Psychology Press.

Grolnick, W. S. (2009). The role of parents in facilitating autonomous self-regulation for education. *Theory and Research in Education, 7*(2), 164– 173

Grolnick, W. S., & Pomerantz, E. M. (2009). Issues and challenges in studying parental control: Toward a new conceptualization. *Child Development Perspectives, 3*(3), 165-170.

Heatly, M. C., & Votruba-Drzal, E. (2017). Parent- and teacher-child relationships and engagement at school entry: Mediating, interactive, and transactional associations across contexts. *Developmental Psychology, 53*(6), 1042–1062.

Henderlong, J., & Lepper, M. R. (2002). The effects of praise on children's intrinsic motivation: a review and synthesis. *Psychological Bulletin, 128*(5), 774.

Hewett, R., & Conway, N. (2016). The undermining effect revisited: The salience of everyday verbal rewards and self-determined motivation. *Journal of Organizational Behavior, 37*(3), 436-455.

Karbach, J., Gottschling, J., Spengler, M., Hegewald, K., & Spinath, F. M. (2013). Parental involvement and general cognitive ability as predictors of domain-specific academic achievement in early adolescence. *Learning and Instruction, 23*, 43-51.

Kazdin, A. E. (2017). Addressing the treatment gap: A key challenge for extending evidence-based psychosocial interventions. *Behaviour Research and Therapy, 88*, 7-18. DOI: https://doi.org/10.1016/j.brat.2016.06.004

Mageau, G. A., Ranger, F., Joussemet, M., Koestner, R., Moreau, E., & Forest, J. (2015). Validation of the perceived parental autonomy support scale (P-PASS). *Canadian Journal of Behavioural Science/Revue Canadienne Des Sciences Du Comportement, 47*(3), 251.

Marsh, H. W., Lüdtke, O., Trautwein, U., & Morin, A. J. (2009). Classical latent profile analysis of academic self-concept dimensions: Synergy of person-and variable-centered approaches to theoretical models of self-concept. *Structural Equation Modeling: A Multidisciplinary Journal, 16*(2), 191-225.

McLachlan, G. J., Lee, S. X., & Rathnayake, S. I. (2019). Finite mixture models. *Annual Review of Statistics and Its Application, 6*, 355-378.

Merlin, C., Okerson, J. R., & Hess, P. (2013). How parenting style influences children: a review of controlling, guiding, and permitting parenting styles on children's behavior, risk-taking, mental health, and academic achievement. *The William & Mary Educational Review*, *2*(1), 14.

Memduhoğlu, H. B., & Karataş, E. (2017). Öğretmenlere göre çalıştıkları okullar ne kadar etkili. [How effective are the schools they work at according to teachers?], *Eğitim Bilimleri Araştırma Dergisi,* 7(2),2017

Nelson, D. A., Yang, C., Coyne, S. M., Olsen, J. A., & Hart, C. H. (2013). Parental psychological control dimensions: Connections with Russian preschoolers' physical and relational aggression. *Journal of Applied Developmental Psychology, 34*(1), 1-8.

Newman, G. E., & Shen, Y. J. (2012). The counterintuitive effects of thank-you gifts on charitable giving. *Journal of Economic Psychology, 33*(5), 973-983.

Nylund, K. L., Asparouhov, T., & Muthén, B. O. (2007). Deciding on the number of classes in latent class analysis and growth mixture modeling: A Monte Carlo simulation study. *Structural Equation Modeling: A Multidisciplinary Journal, 14*(4), 535-569.

Pettit, G. S., Laird, R. D., Dodge, K. A., Bates, J. E., & Criss, M. M. (2001). Antecedents and behavior-problem outcomes of parental monitoring and psychological control in early adolescence. *Child Development, 72*(2), 583-598.

R Core Team (2021). R: A language and environment for statistical computing. Published online 2020. *Supplemental Information References S*, 1, 371-78.

Rindfleisch, A., Malter, A. J., Ganesan, S., & Moorman, C. (2008). Cross-sectional versus longitudinal survey research: Concepts, findings, and guidelines. *Journal of marketing research, 45*(3), 261-279.

Rosenberg, J. M., Beymer, P. N., Anderson, D. J., Van Lissa, C. J., & Schmidt, J. A. (2019). tidyLPA: An R package to easily carry out latent profile analysis (LPA) using open-source or commercial software. *Journal of Open Source Software, 3*(30), 978.

Rowe, M. L., Ramani, G. B., & Pomerantz, E. M. (2016). Parental involvement and children's motivation and achievement. *Handbook of Motivation at School*, 459.

Ryan, R. M. (1982). Control and information in the intrapersonal sphere: An extension of cognitive evaluation theory. *Journal of Personality and Social Psychology, 43*(3), 450.

Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness.* Guilford Publications.

Scharf, M., & Goldner, L. (2018). "If you really love me, you will do/be…": Parental psychological control and its implications for children's adjustment. *Developmental Review, 49*, 16-30.

Soenens, B., Vansteenkiste, M., & Sierens, E. (2009). How are parental psychological control and autonomy-support related? A cluster-analytic approach. *Journal of Marriage and Family, 71*(1), 187-202.

Soenens, B., Vansteenkiste, M., & Luyten, P. (2010). Toward a domain-specific approach to the study of parental psychological control: Distinguishing between dependency-oriented and achievement-oriented psychological control. *Journal of Personality, 78*(1), 217-256.

Soenens, B., Vansteenkiste, M., Luyten, P., Duriez, B., & Goossens, L. (2005). Maladaptive perfectionistic self-representations: The mediational link between psychological control and adjustment. *Personality and Individual Differences, 38*(2), 487-498.

Sönmez, E. D., & Cemaloğlu, N. (2021). Okullaşma sürecinde uzaktan evde eğitime geçiş. ["Transition from distance education to home education during the process of schooling."], *İnsan ve İnsan*, *8*(27), 63-82.

Spector, P. E., & Brannick, M. T. (2009). Common method variance or measurement bias? The problem and possible solutions. The Sage handbook of organizational research methods, 346-362.

Steinberg, L. (1990). Interdependency in the family: Autonomy, conflict, and harmony in the parent-adolescent relationship. In Feldman, S. S., & Elliott, G. R. (Eds.). *At the threshold: The developing adolescent.* Harvard University Press, 255-276.

Stone, L. L., Otten, R., Janssens, J. M., Soenens, B., Kuntsche, E., & Engels, R. C. (2013). Does parental psychological control relate to internalizing and externalizing problems in early childhood? An examination using the Berkeley puppet interview. *International Journal of Behavioral Development, 37*(4), 309-318.

Şişman, M. (2013). *Eğitimde mükemmellik arayışı etkili okullar* (4. Baskı). [Pursuit of excellence in education: Effective schools.], Ankara: Pegem A. Yayıncılık.

Tofighi, D., & Enders, C. K. (2008). Identifying the correct number of classes in growth mixture models. *Advances In Latent Variable Mixture Models, 2007*(1), 317.

Vigdal, J. S., & Brønnick, K. K. (2022). A systematic review of "helicopter parenting" and its relationship with anxiety and depression. *Frontiers in Psychology, 13*, 872981.

Warneken, F., & Tomasello, M. (2008). Extrinsic rewards undermine altruistic tendencies in 20-month-olds. *Developmental Psychology, 44*(6), 1785.