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Patterns of Anxiety in Korean Families with Elementary School Children: Associations with Anxiety Control Beliefs and Parenting Behavior

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초등학교 고학년 아동을 둔 가족의 불안 패턴: 불안통제신념 및 양육행동과의 관계

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ABSTRACT

This study aims to identify whether unique anxiety profiles in school-age children and parents exist, and to determine whether these profiles differ from each other based on anxiety control beliefs (ACB) and parenting behavior. A total of 265 children (C) in grades 4 to 6 and their mother (M) and father (F) participated in this study. Latent profile analysis (LPA) revealed three anxiety profiles: (1) C high-MF mid profile, (2) CMF low profile, and (3) F high-CM mid profile. A multivariate analysis of variance (MANOVA) showed profile differences except for mother's negative behavior. It is suggested that children's cognitive vulnerability and parenting behaviors were likely to aggravate anxiety issues within a family contexts.

Keywords : Parental Anxiety, Child Anxiety, Anxiety Control Beliefs, Parenting Behavior, Latent Profile Analysis

Anxiety in school-aged children is the most prevalent form of psychopathology, leading to adverse effects such as impaired educational and social functioning(Schwartz et al., 2019). Puberty is a period during which even typically developing children may experience heightened anxiety. Since child anxiety during this period has an impact on learning, social interactions, and cognitive problem-solving(Asselmann & Beesdo-Baum, 2015), researchers have paid attention to identifying and addressing child's anxiety problems.

It is well known that a child's anxiety problem is closely related to anxiety in their parents. The inter-generational transmission of anxiety within families has been well-documented. Rapee(2001) proposed that anxiety disorders develop from the interaction of biological vulnerability and the environment focusing on family. Children whose parents have anxiety disorders tend to exhibit higher rates of anxiety disorders themselves(Murray et al., 2009). Parents of children with high anxiety showed an increased prevalence of anxiety-related problems compared to those of non-anxious children(Borelli et al., 2019; Cooper et al., 2006).

Within two-parent nuclear families, both parents may significantly influence children. However, previous studies on parents' anxiety have tended to focus more on the anxiety of the mother, who is often the primary caregiver, while paying relatively less attention to the anxiety of the father. Researchers suggest that mothers' and fathers' anxiety may be differentially associated with child's anxiety across development, with the father's role increasing over time(Weijers, et al., 2018). Evolutionary theory suggests that fathers encourage offspring to confront the external world, and children look more to fathers in threatening situations for clues on how to respond. Anxious fathers may not fulfill these roles, thereby influencing the development of child anxiety(Ahmadzadeh et al., 2019). Furthermore, as fathers typically adopt fewer caregiving responsibilities than mothers, they may be less susceptible to the emotional impact of offspring psychopathology(Weijers et al., 2018). Therefore, it is important to investigate the relationship of anxiety in fathers, as well as in mothers and their children.

It also needs to be considered that child's anxiety can be modeled and internalized from parental anxiety and interactions with parents. Conversely, parental anxiety can be also influenced by the anxiety of their children. Thus, the present study examined the pattern of family anxiety as a whole unit rather than solely individual characteristics considering how all three individuals influence one another's mental health.

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Recently, there has been a growing number of studies aiming to structurally describe and classify the psychopathological profiles of all family members(Norris et al., 2019). A person-centered approach, Latent Profile Analysis(LPA), is an analytical method that identifies populations into multiple subgroups based on individual profiles. Individuals in each subgroup exhibited similar response probabilities(Muthen & Muthen, 2000). This study employed LPA-based classification to reveal distinct co-occurrence patterns of anxiety within families.

In relation to child's anxiety, the belief system had a significant link with the level of anxiety. A perception of lack of control results in anxiety by reinforcing cognitive biases, which are characterized by exaggerated and negative anticipation of external threats to one's overall well-being (Pereira et al., 2012). On the contrary, experiences of having sufficient control may serve as a buffer against anxiety, instilling a cognitive style that promotes psychological confidence in various contexts. Children who report higher levels of anxiety control belief tend to display lower levels of anxiety and negative emotion(Muris et al., 2003; Weems et al., 2003).

Anxiety is also present in parenting behaviors. Although several parenting constructs, such as lack of autonomy granting, control, and overprotection, differ somewhat, there is meaningful overlap. For instance, the ultimate consequence of such parenting behavior is limited exposure for the child to anxiety-provoking situations and their resolution. Children who use adaptive coping skills to face feared situations are hypothesized to develop a sense of mastery and competence(Kendall et al., 2003).

The literature is unclear with regard to whether parenting behaviors occur as a response to a stressful situation involving an anxious child or represent a parent's inability to tolerate their negative emotion. Several studies support the notion that anxious mothers displayed less autonomy granting and they were more likely to expect anxious behavior in their child than nonanxious mothers(Cobham et al., 1999; Hudson & Rapee, 2008). Perhaps children's expressions of negative affect create discomfort for anxious parents and the parents' attention becomes focused on decreasing the negative affect (Woodruff-Borden et al., 2002). In contrast, mothers of anxious children showed less warmth in situations where the child is distressed(Wood et al., 2003). This could suggest that the child's anxiety elicits more negative parenting from mothers.

Fathers are often not included in research involving family interactions of anxious children. The limited previous research

found that anxious fathers displayed lower levels of warmth and higher levels of overprotection than nonanxious fathers. However, Hudson et al(2008) reported that the father's parenting behavior unlike the mother's was not specific to the emotion the child was experiencing but occurred across situations. Mothers and fathers may play a differential role in the development and maintenance of childhood anxiety. Therefore, in the study, maternal and paternal variables were considered as separate units of analysis.

In summary, the two objectives of this study are proposed. The first objective is to verify the existence, by means of LPA, of the anxiety within families. Once the anxiety profiles have been identified, the second objective is to analyze whether there are statistically significant differences between the profiles with respect to child's anxiety control beliefs and parenting behaviors.

Method

Participants

The participants included a sample of 265 children(115 boys and 150 girls, M=11.87, SD=.73) in Grades 4-6 from six elementary schools, along with their fathers(M=44.66, SD=4.12) and mothers(M=42.18, SD=3.88) in

Korea. The participants in the study were recruited in metropolitan areas. About 42% of the children were firstborns in their families; the others were second or later-born children.

Measures

Child's anxiety

The Korean version of the State-Trait Anxiety Inventory for Children(K-version STAI-C; Cho & Choi, 1990) was employed to assess the child's anxiety. It comprises two 20-item self-report scales measuring trait anxiety(e.g., "I'm worried that I might make a mistake") and state anxiety(e.g., "I'm anxious"). Trait anxiety checks if anxiety is a part of the personality, while state anxiety reflects the severity of anxiety in response to a situation. Each item is assessed on a 3-point Likert scale ranging from 1(none) to 3(very much). Higher scores indicate higher levels of anxiety. Internal consistency of the child-report was high(=.88 for state anxiety and =.89 for trait anxiety).

Child's anxiety control belief

The Korean version of Anxiety Control Questionnaire Revised(K-version ACQ-R; Oh & Oh, 2009) was employed to assess perceived control over emotional reactions and external threats. It is a self-report measure of 15 items, which assessed two

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components: Internal reaction(10 items; e.g., "Even in stressful situations, I can breathe comfortably"), and external reaction(5 items; e.g., "I'm good at taking care of things that go wrong."). Children rated the degree to which each item is true for them on a 6-point Likert scale ranging from 0(Not at all like me) to 5(very much like me). The internal reaction score was obtained by summing the 10 items, and the external events score was computed by summing the 5 items. Lower score indicate less perceived control over internal anxiety reactions and external threatening events, respectively. This scale demonstrated good internal consistency(=.84 for external reactions and =.78 for internal reactions).

Parent's anxiety

The Korean version of the State-Trait Anxiety Inventory for Adults(K-version STAI, Cho & Choi, 1990) was employed to assess the parents' anxiety. This self-report scale consists of two 20-item measuring trait anxiety(e.g., "I tend to overthink everything") and state anxiety(e.g., "I'm confused"). Each item is assessed on a 4-point Likert scale ranging from 1(rarely) to 4(almost always). Higher scores indicate higher levels of anxiety. Each Internal consistency of parent reports was high($_{Mother}$ from .88 to .92, $_{Father}$ from .89 to .93).

Parenting behavior

The Maternal Behavior Research Instrument (MBRI; Schaefer et al., 1959) is a 48-item questionnaire that assesses positive and negative parenting behaviors. Each item is rated on a 5-point Likert scale ranging from 1(not at all true) to 5(very true). Positive parenting contains 24 items that assess warm and autonomous parenting(e.g., "Would you encourage your child to do something challenging on their own if they are capable?") and negative parenting contains 24 items that assess reject and controlling parenting behaviors(e.g., "Do you think there is a lot to improve in your child's behavior?"). Each Internal consistency of parent reports was high($_{Mother}$ from .72 to .82, $_{Father}$ from .75 to .86).

Procedures

Firstly, Written consents were obtained from parents and children after providing them with written information. Secondly, Children and parents completed questionnaires at home. All children in the classroom, regardless of participation, received a small gift. This study was approved by the Institutional Review Board of Sungkyunkwan University 2018-09-001.

Data analysis

In the first place, LPA was performed to identify groups of anxious families by using the standardized z scores. The optimal number of latent profiles was determined by these fit indices: Akaike Information Criterion(AIC), Bayesian Information Criterion(BIC), Sample size-Adjusted BIC(aBIC) and statistical significance. The lower these values, the better the balance between the model accurately representing the data. Subsequently, we considered relative model fit, by evaluating the Bootstrap Likelihood Ratio Test(BLRT). LPA solutions with k profiles are compared to solutions with k-1 profiles and a significant p-value supports selection of the model with k profiles. Finally, we evaluated classification accuracy (endorsed by entropy values > .80), profile prevalence (no profiles with < 5% of cases), and substantive interpretability of the LPA solutions (Collins & Lanaza, 2010).

In the second place, multivariate analysis of variance(MANOVA) was used to examine profile differences on two sets of dependent variables: (a) child's anxiety control beliefs and (b) parenting behaviors. The partial eta-squared index and *post-hoc* tests (Bonferroni's method) were performed to identify among which groups had statistically significant differences. The effect size was calculated based on Cohen's *d*-values(Cohen, 1988), where values between .20 and .49, between .50 and .79, and above .80 represented small, medium, and large effect sizes, respectively. Data analysis was conducted using Mplus version 8 and SPSS version 21.

Results

Family anxiety profiles

Descriptive statistics for all variables are presented in Table 1. The average anxiety scores were highest for mothers, followed by fathers and children. Latent profile models containing between two and six classes were fit to the data. Table 2 shows the model fit indices for each LPA. The AIC, BIC, and aBIC values of each latent profile model decreased until the number of profiles reached 6, suggesting that models with more profiles were better. However, in terms of LMRT, the *p* value for the 4 and 6-profile models were not significant, indicating that these models were not superior to previous ones. On the other hand, for the *p* values of the BLRT, all were significant, suggesting that models with more profiles were better. The AIC, BIC and aBIC values decreased toward the 3-profile model and continued to decrease slightly thereafter. Furthermore, the values of Entropy were found to be satisfactory,

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Table 1. Descriptive statistics of the variables (*N*=265)

Variable	Mean	SD	Range	Skewness	Kurtosis
Child's anxiety					
1. Trait anxiety	1.47	.34	1.00–2.45	.79	−.04
2. State anxiety	1.52	.32	1.00–2.80	.77	.74
Child's anxiety control beliefs					
3. Internal reaction	3.00	.93	.30–5.00	.03	−.37
4. External reaction	3.57	1.05	.60–5.00	−.59	−.27
Mother's anxiety					
5. Trait anxiety	1.84	.45	1.05–3.75	.83	.97
6. State anxiety	1.88	.42	1.15–3.10	.57	−.16
Mother's parenting behavior					
7. Positive parenting	3.73	.54	1.00–5.00	−.91	4.82
8. Negative parenting	2.89	.48	1.67–4.58	−.35	.15
Father's anxiety					
9. Trait anxiety	1.79	.49	1.00–3.21	.71	.08
10. State anxiety	1.79	.45	1.00–3.30	.68	.14
Father's parenting behavior					
11. Positive parenting	3.61	.48	1.92–5.00	−.10	.46
12. Negative parenting	2.76	.57	1.08–4.50	−.09	−.21

Table 2. Criteria to assess model fit for LPA models

Models	AIC	BIC	aBIC	LMRT(*p*)	BLRT(*p*)	Entropy	Group ratio (%)				
							2	3	4	5	6
2	3820.11	3888.12	3827.88	.009	<.001	.76	.66	.34			
3	3670.82	3763.90	3681.46	.009	<.001	.79	.19	.56	.25		
4	3576.90	3695.03	3590.41	.247	<.001	.81	.47	.24	.18	.11	
5	3512.71	3655.90	3529.07	.038	<.001	.77	.31	.30	.14	.08	.17
6	3470.14	3638.39	3489.37	.395	<.001	.80	.33	.15	.26	.09	.08

ranging from .76 to .81, and the proportions of the models were at least 5%(Jung & Wickrama, 2008). In summary, the 3-profile model was ultimately selected as the final

model for its ease of profile interpretability and conceptual meaning.

Figure 1 illustrates the three-class solution model and includes the z-scores for anxiety. Profile 1 consisted of 19.37% of the sample (n=51). The children presented high scores, while their mother and father exhibited moderate scores in anxiety. It was referred to as 'C high-MF mid profile'. Profile 2 consisted of a total 148 samples who presented the lowest scores in anxiety and is identified as 'CMF low profile'. Finally, Class 3 consisted of 24.94% of the sample(n=66). The father presented high scores, while children and mother exhibited moderate scores in anxiety. It was labeled as 'F high-CM mid profile'.

Differences among anxiety profiles in child's anxiety control beliefs and parenting behaviors

MANOVA was used to examine differences among the three anxiety profiles on child's anxiety control beliefs and parenting behaviors. Statistically significant differences were found among the three profiles in all dimension except for mother's negative behavior [Wilks' lambda=.67, F=6.55; $p<.001$, $\eta^2_p=.18$]. The CMF low profile showed the highest average scores in anxiety control beliefs and positive parenting behaviors(see Table 3).

Table 4 presents the *post-hoc* comparisons with effect size values ranging from .44 to 1.39. The CMF low profile obtained
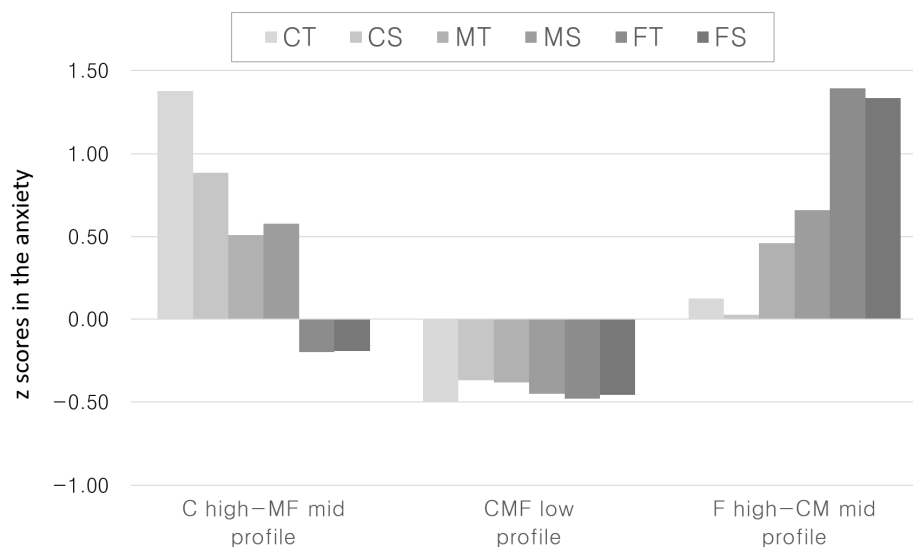
Note. CT=Child's Trait anxiety; CS=Child's State anxiety; MT=Mother's Trait anxiety; MS=Mother's State anxiety; FT=Father's Trait anxiety; FS=Father's State anxiety.
Figure 1. Parents' and child's anxiety across for the three identified profiles

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Table 3. Means and SD among anxiety control beliefs and parenting behaviors obtained by the anxiety profiles

		C high-MF mid profile		CMF low profile		F high-CM mid profile		Statistical significance	
		M	SD	M	SD	M	SD	F	η^2_p
Child's Anxiety Control Belief	ACB1	23.38	7.85	32.66	8.87	28.35	7.86	15.10***	.14
	ACB2	13.40	5.15	19.93	4.14	18.03	4.26	17.14***	.16
Parenting Behaviors	MPB1	85.53	15.63	91.80	12.49	86.63	8.06	6.54**	.07
	MPB2	68.87	13.01	67.95	9.73	72.04	8.42	1.19	.01
	FPB1	86.03	11.19	88.24	11.06	81.17	11.77	5.33**	.06
	FPB2	62.17	8.51	65.41	10.18	69.71	9.29	4.26*	.05

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

Note. ACB1=Internal reaction; ACB2=External reaction; MPB1=Mother's positive behavior; MPB2=Mother's negative behavior; FPB1=Father's positive behavior; FPB2=Father's negative behavior.

Table 4. Cohen's d value for *post-hoc* contrasts

	ACB1	ACB2	MPB1	MPB2	FPB1	FPB2
C high-MF mid vs. CMF low	−1.10	−1.39	−.44	−	−	−
C high-MF vs. F high-CM mid	−.63	−.97	−	−	−	−.85
CMF low vs. F high-CM mid	−	−	.49	−	.62	−

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

significantly higher scores than the C high-MF mid profile in two dimensions of child's anxiety control belief, with large effect sizes, and in mother's positive behavior, with a small effect size. In the same vein, it was observed that the F high-CM mid profile scored significantly higher than the C high-MF mid profile in two dimensions of child's anxiety control belief and only father's negative behavior. However, large effect sizes were identified in this case, except for internal reaction, where a moderate effect size was found. Lastly, the CMF low profile presented significantly higher scores than the F high-CM mid profile in mother's positive behavior, with a small effect size, and in father's positive behavior, with a moderate effect size.

Discussion

The purpose of this study was to identify the profiles of child's and parental anxiety within a family. Moreover, it seeks to determine whether there are statistically significant differences between the anxiety profiles with respect to child's anxiety control beliefs and parenting behaviors. We recruited 265 elementary school children in grades 4-6 and their parents. Findings of this study are discussed as follows.

With respect to the first objective, the LPA distinguished three anxiety profiles: C high-MF mid profile, CMF low profile, and F high-CM mid profile. The CMF low profile supports the etiology of anxiety, characterized by the interaction between genetics and shared environment in family members(Murray et al., 2009; Rapee, 2001). Indeed, more than 55% of cases were assigned to this profile, reflecting a possible tendency for indicators of family anxiety to converge. Despite the typical increase in anxiety during late childhood, most children remain within a non-clinically significant range. However, given reduced dependence on family support and various emotional challenges, early adolescents may have a particular need to regulate negative emotions and provide parental support.

The F high-CM mid profile was characterized by average levels of anxiety in mothers and children, but high levels of anxiety in fathers. These results align with previous studies that suggested a significant association between maternal and child anxiety only(Pereira et al., 2014). Mothers spend more time with children than fathers do and are more likely to be involved in communication about a child's social life, school, and problems(Asselmann & Beesdo-Baum, 2015). Such gender differences suggest that the child-mother relationship may be more salient for child adjustment than the child-father relationship. This also implies the presence of protective factors that prevent the child's anxiety level from increasing, even when a parent experiences heightened anxiety.

The C high-MF mid profile, characterized by high levels of child anxiety and the average level of parental anxiety, seemed somewhat independent from the influences of genetics. This finding is consistent with studies to date, where no evidence was found for genetic and shared environmental effects(Ahmadzadeh et al., 2019). Numerous studies have demonstrated that anxiety disorders run in families; however, some studies point out that the straightforward interpretation of genetic factors as grounded in strictly neurobiological mechanisms ignores environmental interactions. Indeed, Kendler(2001) suggested that up to 20% of the genetic influences in psychiatric

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disorders could be mediated by such indirect mechanisms. Within this subgroup, children exhibited the highest levels of trait anxiety regarded as a relatively stable personality disposition different from state anxiety. Trait anxiety of children was a strong predictor of their state anxiety when exposed to a stressful situation compared to a more relaxed situation(William & Lopez, 2005). This is because individuals who exhibit high trait anxiety tend to interpret a wider range of situations as dangerous or threatening. Given support for heterogeneity in family anxiety, further studies attempt to link the genetic predisposition toward anxiety disorders with specific genes and family environment.

Especially in C high-MF mid profile, given the adverse academic, social, and economic impact of anxiety disorders and the fact that many anxious youths seldom receive treatment(Merikangas et al., 2010), additional resources are needed to identify and implement preventive or early intervention programs for at-risk youths. These programs should be accessible and practical for youth and families within the health care system. These findings also emphasize the importance of providing behavioral guidelines to help parents understand and manage potential threats for children with inherently high levels of anxiety.

Another aim of the study was to examine profile differences in anxiety control beliefs and parenting behaviors. It was found that children in C high-MF mid profile had the lowest scores for anxiety control beliefs compared to the other two profiles, with effects sizes being high or moderate. The results support the notion that a perceived lack of control over external threats and control over negative internal emotional and bodily reactions is important to the experience of anxiety in youth(Weems et al., 2003). Low anxiety control beliefs in children indicate that they feel incapable of handling their internal and external threats, leading to anxiety even in seemingly minor threatening situations. Moreover, these beliefs can trigger anxiety even in the absence of environmental cues that provoke anxiety (Pereira et al., 2012). Thus it would be expected for children with high levels of anxiety to indicate lower feelings of control in day-to-day life. Children with more pervasive anxiety are more likely to perceive less control in situations, which could account for the differences in reported control beliefs between anxiety profiles. These findings underscore the crucial role of cognitive abilities in children's emotional stability, emphasizing the importance of cognitive approaches to strengthen children's anxiety beliefs.

Regarding the differences among the

anxious profiles in parenting behaviors, the positive parenting of both mothers and fathers in the CMF low profile showed significantly higher levels than in the C high-MF mid and F high-CM mid profiles. These results align with previous studies that found non-anxious parents granted more autonomy, displayed more warmth, and engage in less criticism than anxious parents(Woodruff-Borden et al., 2002). Inversely, parents of anxious children were less likely to respond with warmth to the child's distress.

Positive parenting alleviate anxiety by promoting the child's perceptions of themselves as more worthy or competent and the environment as warm and reassuring. This finding suggests that interventions targeting positive parenting behaviors are critical for maintaining low levels of family anxiety. Emotion socialization theorists have proposed that parents' response to children's expression of emotion is fundamental to the shaping of children's long-term emotional style. Furthermore, several studies indicate that heightened levels of anxiety in children are associated with family environment(Peleg-Popko, 2002). Anxious children were dissatisfied with their family environment, describing their families as less supportive and autonomy. Thus, It is important to consider the family context for intervention of anxious children. The interventions aim to encourage children and improve open communication skills to serve as a buffer in various stressful situations.

Interestingly, the negative parenting in F high-CM mid profile showed significantly higher levels than in the C high-MF mid profile, but this difference was observed only in fathers, not mothers. This result supports previous research examining father-child interaction, which found that anxious fathers report lower levels of warmth and higher levels of overprotection than nonanxious fathers(Hudson et al., 2008). Unlike mothers, this negative parenting behavior was not specific to the emotion the child was experiencing but occurred across situations. Mothers and fathers may play a differential role in the socialization of emotions. For example, Garside and Klimes-Dougan(2002) reported that mothers were more involved in socializing negative affect than were fathers, and father-child interactions may be more affected than mother-child interactions by the quality of father-mother relationship. Although our study was not designed to do so, future work would do well to examine the context of the marital relationship when studying relationship with familial anxiety and parenting behaviors. Given the limited previous research, the interaction between paternal anxiety and child anxiety needs to be replicated in future research.

Overall, this study included familial anxiety

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indicators, given a paucity of father research. A person-centered approach generated empirically-derived profiles of anxiety. Furthermore, the examination of differences in control belief and parenting behaviors between profiles, with implications for family-focused prevention and early intervention efforts. Nevertheless, study limitations should also be considered. This first limitation is the reliance on a single informant for the assessment. Future research may benefit from utilizing multiple informants to gather information. Second, this study does not inform us regarding whether child's anxiety control belief and parenting behaviors are prospectively predictive or just concurrently associated with anxiety. Longitudinal research is needed to examine relations to the development of anxiety.

Conflict of Interest

No potential conflict of interest relevant to this article was reported.

Reference

Ahmadzadeh, Y. I., Eley, T. C., Leve, L. D., Shaw, D. S., Natsuaki, M. N., Reiss, D., ... McAdams, T. A. (2019). Anxiety in the family: A genetically informed analysis of transactional associations between mother, father and child anxiety symptoms. *Journal of Child Psychology and Psychiatry, 60*(12), 1269-1277. https://doi.org/10.1111/jcpp.13068

Asselmann, E., & Beesdo-Baum, K. (2015). Predictors of the course of anxiety disorders in adolescents and young adults. *Current Psychiatry Reports*, *17*(7), 1-8. https://doi.org/10.1007/s11920-014-0543-z

Borelli, J. L., Froidevaux, N. M., Yunusova, A., & Sbarra, D. A. (2019). Attachment anxiety and trauma history uniquely and interactively predict adjustment during and following deployment among military partners. *Journal of Family Psychology, 33*(2), 226-233. https://doi.org/10.1037/fam0000480

Cho, S. C., & Choi, J. S. (1989). Development of the Korean form of the state-trait anxiety inventory for children. *Seoul Journal of Psychiatry*, *14*(3), 150-157.

Cobham, V. E., & Dadds, M. R. (1999). Anxious children and their parents: What do they expect?. *Journal of Clinical Child Psychology, 28*(2), 220-231. https://doi.org/10.1207/s15374424jccp2802_9

Cooper, P. J., Fearn, V., Willetts, L., Seabrook, H., & Parkinson, M. (2006). Affective disorder in the parents of a clinic sample of children with anxiety

disorders. *Journal of Affective Disorders, 93*(1-3), 205-212.
https://doi.org/10.1016/j.jad.2006.03.017

Garside, R. B., & Klimes-Dougan, B. (2002). Socialization of discrete negative emotions: Gender differences and links with psychological distress. *Sex Roles, 47*, 115-128.
https://doi.org/10.1023/A:1021090904785

Hudson, J. L., Comer, J. S., & Kendall, P. C. (2008). Parental responses to positive and negative emotions in anxious and nonanxious children. *Journal of Clinical Child and Adolescent Psychology, 37*(2), 303-313.
https://doi.org/10.1080/15374410801955839

Jung, T., & Wickrama, K. A. (2008). An introduction to latent class growth analysis and growth mixture modeling. *Social and Personality Psychology Compass, 2*(1), 302-317.
https://doi.org/10.1111/j.1751-9004.2007.00054.x

Kendall, P. C., Aschenbrand, S. G., & Hudson, J. L. (2003). Child-focused treatment of anxiety. In A. E. Kazdin & J. R. Weisz (Eds.), *Evidence-based psychotherapies for children and adolescents* (pp. 81-100). New York: Guilford Press.

Kendler, K. S. (2001). Twin studies of psychiatric illness: An update. *Archives of General Psychiatry, 58*(11), 1005-1014.
https://doi.org/10.1001/archpsyc.58.11.1005

Merikangas, K. R., He, J. P., Brody, D., Fisher, P. W., Bourdon, K., & Koretz, D. S. (2010). Prevalence and treatment of mental disorders among US children in the 2001-2004 NHANES. *Pediatrics, 125*(1), 75-81.
https://doi.org/10.1542/peds.2008-2598

Muris, P., Schouten, E., Meesters, C., & Gijsbers, H. (2003). Contingency-competence-control-related beliefs and symptoms of anxiety and depression in a young adolescent sample. *Child Psychiatry and Human Development, 33*(4), 325-339.
https://doi.org/10.1023/a:1023040430308

Murray, L., Creswell, C., & Cooper, P. J. (2009). The development of anxiety disorders in childhood: An integrative review. *Psychological Medicine, 39*(9), 1413-1423.
https://doi.org/10.1017/S0033291709005157

Muthén, B., & Muthén, L. K. (2000). Integrating person centered and variable centered analyses: Growth mixture modeling with latent trajectory classes. *Alcoholism, Clinical and Experimental Research, 24*(6), 882-891.
https://doi.org/10.1111/j.1530-0277.2000.tb02070.x

Norris, L. A., Olino, T. M., Gosch, E. A., Compton, S. N., Piacentini, J., Ginsburg, G. S., Albano, A. M., Walkup, J. T., Birmaher, B. B., & Kendall, P. C. (2019). Person-centered profiles among

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Associations with Anxiety Control Beliefs and Parenting Behavior

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treatment-seeking children and adolescents with anxiety disorders. *Journal of Clinical Child & Adolescent Psychology*, *49*(5), 626-638. https://doi.org/10.1080/15374416.2019.1602839

Oh, Y., & Oh, K.-S. (2009). Confirmatory factor analysis of the revised Korean version of the anxiety control questionnaire: Testing configural and metric invariance across clinical and non-clinical samples. *The Korean Journal of Clinical Psychology*, *28*(4), 995-1010.

Peleg-Popko, O., & Klingman, A. (2002). Family environment, discrepancies between perceived actual and desirable environment, and children's test and trait anxiety. *British Journal of Guidance and Counselling, 30*(4), 451-466. https://doi.org/10.1080/0306988021000025646

Pereira, A. I., Barros, L., & Mendonça, D. (2012). Perceived control and anxiety in Portuguese children. *The Spanish Journal of Psychology*, *15*(2), 631-637. https://doi.org/10.5209/rev_sjop.2012.v15.n2.38874

Pereira, A. I., Barros, L., Mendonça, D., & Muris, P. (2014). The relationships among parental anxiety, parenting, and children's anxiety: The mediating effects of children's cognitive vulnerabilities. *Journal of Child and Family Studies*,

23(2), 399-409. https://doi.org/10.1007/s10826-013-9767-5

Rapee, R. M. (2001). The development of generalized anxiety. In M.W. Vasey and M.R. Dadds (Eds.), *The Developmental Psychopathology of Anxiety* (pp. 481-504). New York: Oxford University Press.

Schaefer, E. S., Bell, R. Q., & Bayley, N. (1959). Development of a maternal behavior research instrument. *The Journal of Genetic Psychology*, *95*(1), 83-104. https://doi.org/10.1080/00221325.1959.10534247

Schwartz, C., Barican, J. L., Yung, D., Zheng, Y., & Waddell, C. (2019). Six decades of preventing and treating childhood anxiety disorders: A systematic review and meta-analysis to inform policy and practice. *BMJ Ment Health*, *22*(3), 103-110. https://doi.org/10.1136/ebmental-2019-300096

Weems, C. F., Silverman, W. K., Rapee, R. M., & Pina, A. A. (2003). The role of control in childhood anxiety disorders. *Cognitive Therapy and Research*, *27*(5), 557-568. https://doi.org/10.1023/A:1026307121386

Weijers, D., Van Steensel, F. J. A., & Bögels, S. M. (2018). Associations between psychopathology in mothers, fathers and their children: A structural modeling approach. *Journal of Child and Family Studies, 27*, 1992-2003.

https://doi.org/10.1007/s10826-018-1024-5

William Li, H. C., & Lopez, V. (2005). Do trait anxiety and age predict state anxiety of school age children?. *Journal of Clinical Nursing, 14*(9), 1083-1089. https://doi.org/10.1111/j.1365-2702.2005.01223.x

Wood, J. J., McLeod, B. D., Sigman, M., Hwang, W. C., & Chu, B. C. (2003). Parenting and childhood anxiety: Theory, empirical findings, and future directions. *Journal of Child Psychology and Psychiatry, 44*(1), 134-151. https://doi.org/10.1111/1469-7610.00106

Woodruff-Borden, J., Morrow, C., Bourland, S., & Cambron, S. (2002). The behavior of anxious parents: Examining mechanisms of transmission of anxiety from parent to child. *Journal of Clinical Child and Adolescent Psychology, 31*(3), 364-374. https://doi.org/10.1207/153744202760082621

초등학교 고학년 아동을 둔 가족의 불안 패턴:
불안통제신념 및 양육행동과의 관계

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　본 연구에서는 학령기 아동과 부모의 불안에 대한 잠재프로파일을 확인하고, 도출된 프로파일 유형에 따른 아동의 불안통제신념과 부모 양육행동의 영향을 알아보고자 하였다. 이를 위하여 전국 초등학교에 재학 중인 4, 5, 6학년 아동 265명과 그들의 부모가 연구에 참여하였으며 분석 결과는 다음과 같다. 첫째, 아동과 부모의 불안의 잠재프로파일은 '아동 고(高)-부모 중(中)집단'(51명, 19.37%), '아동-부모 저(低)수준 집단'(148명, 55.69%), '부 고(高)-모자 중(中)집단'(66명, 24.94%)의 세 유형으로 분류되었다. 둘째, 불안 프로파일 간의 불안통제신념 및 부모양육행동 점수 차이는 유의한 것으로 나타났다. 본 연구는 학령기 아동의 인지적 취약성과 부모의 부정적 양육행동이 아동의 정서적 안정성에 불리하게 작용하는 것을 확인함으로써 불안통제신념을 촉진하는 인지적 접근과 가족 단위의 통합적 개입이 필요함을 시사한다.

주요어 : 부모 불안, 아동 불안, 불안통제신념, 양육행동, 잠재프로파일 분석