

Recent Practice Patterns in Pediatric Myopia Control: Insights from a Nationwide Survey of South Korean Pediatric Ophthalmologists

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Purpose: To investigate the recent prescription patterns among South Korean pediatric ophthalmologists to control myopia progression.

Methods: An online survey was distributed to the members of the Korean Association of Pediatric Ophthalmology and Strabismus (KAPOS) between August 22 and 31, 2023. Respondents selected treatment modalities that they prescribed to slow myopia progression. Multiple responses were allowed, and prescribing patterns were analyzed by respondents' characteristics, including years since board certification, practice type, practice location, and average number of pediatric myopia patients seen per week.

Results: Of 167 active members, 119 (71.3%) completed the survey, and 118 provided full responses. Most respondents practiced in Seoul or metropolitan areas (75.4%), worked in hospitals (73.7%), had >10 years of clinical experience (68.9%), and treated >20 pediatric myopia patients weekly (62.2%). With multiple responses allowed, 0.125% atropine eye drops (75.6%) were most commonly prescribed, followed by orthokeratology lenses (57.1%). When grouped into mutually exclusive categories (topical atropine only, optical interventions only, both and neither), the largest proportion of respondents (63.0%) selected both pharmacological and optical treatments. Treatment patterns did not differ by experience or location, but significant differences were observed by practice type and weekly pediatric myopia patient volume. Private practitioners more often prescribed orthokeratology, dual-focus soft contact lenses, and selected both pharmacologic and optical treatments, whereas hospital practitioners more commonly selected topical atropine alone. Those treating a higher volume of pediatric myopia patients showed a greater tendency to select both pharmacologic and optical treatments.

Conclusions: In this survey of KAPOS members, topical atropine, particularly the 0.125% commercial formulation, was the

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most commonly prescribed single modality for myopia control. Topical atropine and optical interventions emerged as the most common treatment strategies, particularly in private clinics. These findings indicate a trend towards more proactive and multimodal approaches to myopia control compared with earlier practice patterns in South Korea.

Key Words: Atropine, Child, Myopia, Ophthalmologists, Orthokeratologic procedures

Myopia is a growing global health concern, with a particularly high and still increasing prevalence in East Asian countries [1,2]. Recent projections estimate that nearly half of the global population will have myopia by 2050, with East Asian countries such as South Korea expected to carry the highest burden [3]. The association between myopia, particularly high myopia, and vision-threatening complications, such as retinal detachment, myopic maculopathy, and glaucoma, makes this trend highly concerning [4,5]. The socioeconomic burden is also considerable, including healthcare costs, educational impact, and long-term productivity loss [6].

Recognizing this growing burden, researchers and clinicians have increasingly focused on developing active myopia control strategies to slow disease progression. Over the past decades, both randomized controlled trials and large cohort studies have established strong evidence to support the efficacy of pharmacological interventions (e.g., low-dose atropine) and optical approaches (e.g., orthokeratology [ortho-K], myopia-controlling spectacle lenses, and myopia-controlling soft contact lenses) in slowing the progression of myopia in children [7–10]. Alongside this growing evidence base, the availability of these intervention strategies in South Korea has expanded substantially.

Ortho-K lenses were first introduced in the early 1990s, with the third-generation “Dream Lens” product gaining popularity in the late 1990s. Lucid Korea subsequently launched a domestically manufactured lens in 2002. In December 2020, commercially manufactured 0.125% atropine eyedrops (Myoguard, Lite Pharm Tech) became widely accessible through clinics. New optical interventions were introduced during this period. These included dual-focus soft contact lenses such as MiSight 1 day (Cooper-Vision), which was first approved in the United States in 2019, and launched in South Korea in 2020 [11]. More recently, spectacle lenses utilizing defocus incorporated multiple segments (DIMS) technology, such as MiYOSMART (Hoya Vision Care), became available in South Korea in

April 2022 [11,12]. In addition, Essilor Stellest lenses (EssilorLuxottica), which incorporate highly aspherical lenslet target technology, were introduced in South Korea in October 2024 [13].

Earlier surveys in South Korea (2007–2009) indicated that active myopia control strategies have not been widely adopted by ophthalmologists [14,15]. Given the recent developments in clinical evidence, and the therapeutic availability of interventions against myopia progression in children, the Korean Association of Pediatric Ophthalmology and Strabismus (KAPOS) conducted a nationwide survey in 2023 to assess the current prescribing patterns for myopia control among KAPOS members, who represent most of the active South Korean pediatric ophthalmologists. We further analyzed the collected responses to elucidate the recent trends in myopia management among South Korean pediatric ophthalmologists.

Materials and Methods

Ethics statement

This study was approved by the Institutional Review Board of Kim’s Eye Hospital (No. 2025-07-010). Participation in the survey was voluntary, and no compensation was received. All participants gave online informed consent prior to participation in the survey. The study was conducted in accordance with the principles of the Declaration of Helsinki.

Study design and data collection

This study comprised a cross-sectional, anonymous survey, conducted among members of KAPOS. A structured online questionnaire was developed using Google Forms, and was distributed with response collected via email from all 167 active KAPOS members between August 22 and

31, 2023.

The survey comprised two sections. The first section collected demographic information on the responding KAPOS members, including the number of years since board certification (≤ 5 , 6–10, 11–15, >15 years), practice type (solo private clinic, group private clinic, eye hospital, or general hospital), practice location (Seoul, metropolitan cities excluding Seoul, small cities, or counties), and the average number of pediatric patients with myopia seen per week under routine (nonholiday) conditions (≤ 10 , 11–20, 21–30, >30 patients). The second section assessed the clinical practices related to myopia management. The respondents were asked to select all treatment modalities currently prescribed to slow myopia progression. The predefined response options included low-dose atropine, 0.125% atropine, ortho-K lenses, dual-focus soft contact lenses, and DIMS spectacle lenses. Multiple responses were obtained. An open-ended “other” field was also provided for additional comments. The respondents were further asked to report how they used low-dose atropine in clinical practice based on predefined response options, including combining 0.125% atropine with artificial tears, using 0.125% atropine alone, in-house compounding, and patient self-preparation by diluting 1% atropine with artificial tears.

To facilitate the subgroup analyses, responses were grouped according to the respondents’ characteristics: years since board certification (≤ 10 years vs. >10 years), practice type (general or eye hospital vs. solo or private clinic), practice location (Seoul/metropolitan areas vs. small cities/counties), and the average number of pediatric patients with myopia seen per week under routine (nonholiday) conditions (≤ 10 , 11–20, 21–30, >30 patients). To further analyze treatment patterns and management patterns were classified into four mutually exclusive categories as follows: (1) topical atropine only (respondents who selected low-dose atropine or 0.125% atropine, but not optical interventions); (2) optical intervention only (respondents who selected ortho-K lenses, dual-focus soft contact lenses, or DIMS spectacle lenses, but not topical atropine); (3) both (respondents who selected both topical atropine and optical interventions); and (4) neither (respondents who selected neither). It should be noted that the “both” group included respondents who selected both topical atropine and optical interventions in the survey; however, this does not imply that these modalities were always prescribed together for the same patient or during the same period. This categori-

zation indicated that the respondents reported prescribing topical atropine and/or optical interventions for myopia control.

Statistical analysis

Categorical variables were analyzed using the chi-square test. Additionally, Poisson regressions with robust standard errors were conducted to estimate adjusted prevalence ratios (aPRs) for each binary treatment modality and for the four mutually exclusive treatment categories, adjusting for years since board certification, practice type, practice location, and weekly pediatric myopia patient volume. All statistical analyses were performed using IBM SPSS ver. 25.0 (IBM Corp.), and $p < 0.05$ was considered statistically significant.

Results

Of the 167 active members, 119 (71.3%) completed the survey. Among these, 118 provided full responses to all questionnaire items; therefore, subgroup analyses of prescribing patterns and regression models were performed using data from these 118 respondents, whereas demographic characteristics were presented for all 119 participants. Among the surveyed pediatric ophthalmologists, most had been board-certified for >15 years (44.5%), followed by those certified for 11–15 years (24.4%), 6–10 years (21.9%), and ≤ 5 years (9.2%) (Table 1). The majority practiced in general hospitals (61.0%), whereas the rest worked in private clinics (14.4%), eye hospitals (12.7%), or private group clinics (11.9%). Most respondents were from metropolitan cities (39.0%) or Seoul (36.4%), with smaller proportions from small cities (23.7%) and counties (0.9%). In terms of patient volume, most respondents reported seeing >30 pediatric myopia patients per week (46.2%), followed by 11–20 patients (25.2%), 21–30 patients (16.0%), and ≤ 10 patients (12.6%).

Responses to the survey question “Which treatment modalities do you prescribe to control myopia progression? (multiple responses allowed)” indicated that 0.125% atropine ($n = 90$, 75.6%) was most commonly prescribed, followed by ortho-K lenses ($n = 68$, 57.1%), low-dose atropine ($n = 58$, 48.7%), dual-focus soft contact lenses ($n = 58$, 48.7%), and DIMS spectacle lenses ($n = 2$, 1.7%). These

Table 1. Demographic and practice characteristics of the survey respondents (n = 119)

Characteristic	No. of responses (%)
Years since board certification (n = 119)	
≤5	11 (9.2)
6–10	26 (21.8)
11–15	29 (24.4)
>15	53 (44.5)
Practice type (n = 118)	
General hospital	72 (61.0)
Eye hospital	15 (12.7)
Solo private clinic	17 (14.4)
Group private clinic	14 (11.9)
Practice location (n = 118)	
Seoul	43 (36.4)
Metropolitan cities (excluding Seoul)	46 (39.0)
Small city	28 (23.7)
County	1 (0.8)
Average no. of pediatric patients with myopia seen per week (n = 119)	
≤10	15 (12.6)
11–20	30 (25.2)
21–30	19 (16.0)
>30	55 (46.2)

Practice type and practice location data were available for 118 respondents (one missing response for each question).

percentages reflected the proportion of respondents who reported using each modality, with multiple selections allowed. Seven respondents did not select any predefined myopia control methods. Among them, five (4.2%) reported no active treatment, one (0.8%) mentioned outdoor activity, and one (0.8%) reported standard spectacles in the “other” open-response option. Because standard spectacles were not regarded as an active optical intervention, all seven respondents—including the one who reported prescribing standard spectacles—were subsequently classified as belonging to the “neither” category. When respondents were classified into four mutually exclusive categories (only topical atropine, only optical interventions, both, or neither), those who were prescribed both topical atropine and optical interventions comprised the largest group (n = 75, 63.0%), followed by those who were prescribed only topical atropine (n = 35, 29.4%) (Fig. 1A). Patients who were prescribed only optical interventions were rare (n = 2,

1.7%), as were those who did not use pharmacological or optical interventions (n = 7, 5.9%). In response to the survey question, “How do you administer low-dose atropine? (multiple responses allowed),” the most commonly used method was the combination of 0.125% atropine with artificial tears (n = 72, 60.5%), followed by using 0.125% atropine alone (n = 30, 25.2%) (Fig. 1B). Other methods included in-house compounding (n = 22, 18.5%) and patient self-preparation via the dilution of 1% atropine with artificial tears (n = 19, 16.0%).

Subgroup analyses of responses to the question, “Which treatment modalities do you prescribe to control myopia progression?” (multiple-response data) were conducted according to the respondents’ characteristics: years since board certification (≤10 years vs. >10 years), practice type (hospital vs. private clinic), practice location (Seoul/metropolitan areas vs. small cities/counties), and the average number of pediatric patients with myopia seen per week (≤10, 11–20, 21–30, >30 patients). Prescription patterns did not differ significantly by the year since board certification or practice location (Table 2). In contrast, significant differences in myopia control practices were observed when stratified according to practice type. Ortho-K lenses were prescribed more frequently in private clinics (96.8%) than in hospitals (43.7%) ($p < 0.001$). Similarly, dual-focus soft contact lenses were more commonly applied in private clinics (67.7%) than in hospitals (41.4%) ($p = 0.012$). Also, higher weekly myopia patient volume was significantly associated with use of dual-focus soft contact lenses ($p = 0.002$). Multivariate Poisson regression analysis confirmed the associations for the four primary modalities (low-dose atropine, 0.125% atropine, ortho-K lenses and dual-focus soft contact lenses) (Supplementary Table 1). Results for DIMS spectacle lenses (n = 2) and the “neither” group (n = 7) were not interpreted due to very small sample sizes, resulting in unstable coefficient estimates. Ortho-K lenses and dual-focus soft contact lenses continued to be prescribed significantly more often in private clinics than in hospitals ($p < 0.001$ and $p < 0.05$, respectively), consistent with the univariate findings. While weekly pediatric myopia patient volume remained significantly associated with dual-focus soft contact lens use in the primary model, this association was attenuated and no longer statistically significant in subsequent sensitivity analyses using alternative cutoff points, whereas the association with practice type remained statistically significant across all analyses.

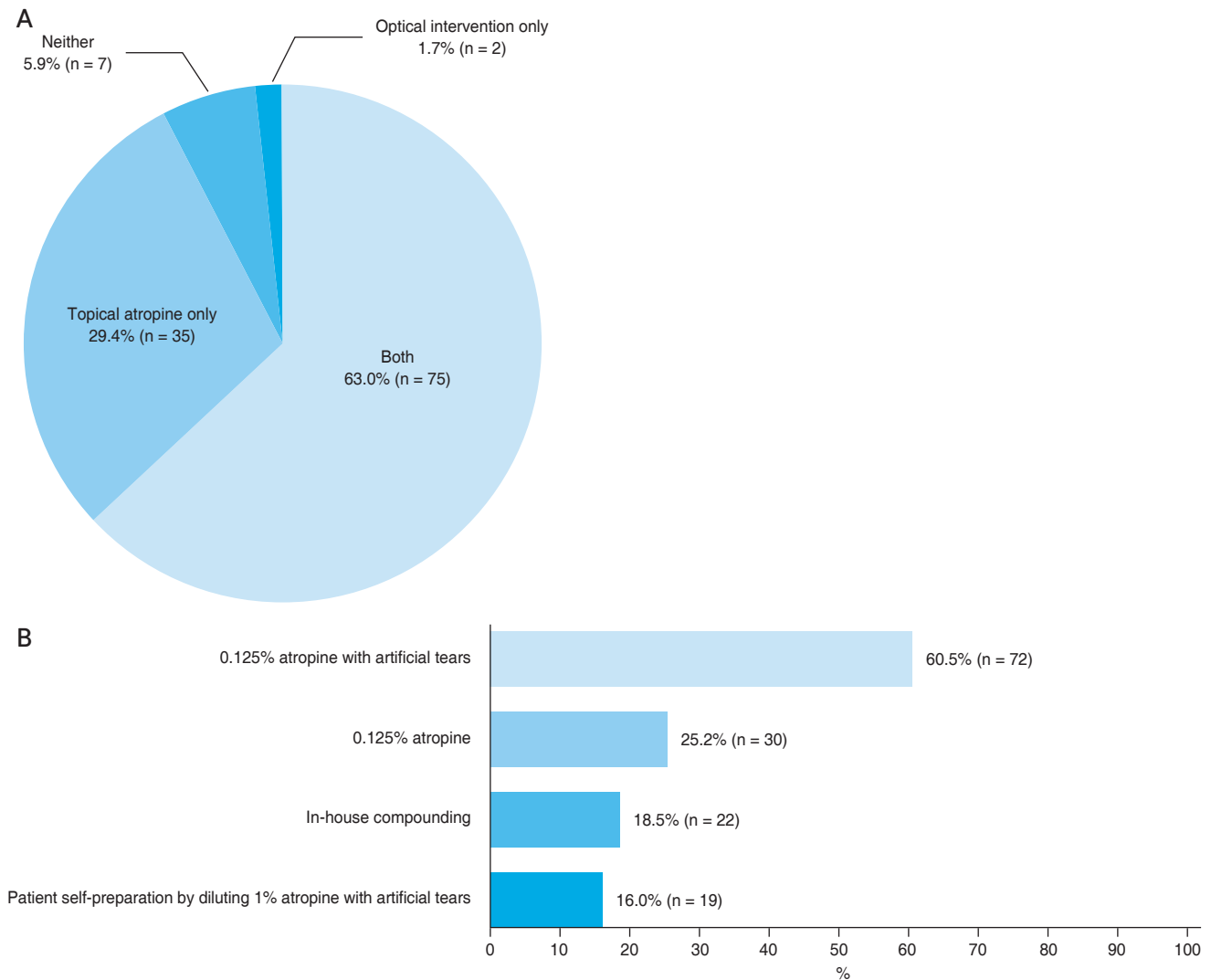


Fig. 1. Survey responses. (A) Proportion of respondents in mutually exclusive myopia control treatment categories for the overall cohort ($n = 119$). (B) Patterns of low-dose atropine use among survey respondents (multiple responses allowed).

Treatment strategies were classified into four mutually exclusive categories (only topical atropine, only optical interventions, both, and neither), which also varied according to the practice type (Table 3, Fig. 2A–2D). Those who prescribed both topical atropine and optical interventions predominantly worked in private clinics (93.6%), whereas hospitals had a lower proportion of respondents prescribing both modalities (51.7%) ($p < 0.001$). In contrast, those who prescribed only topical atropine were more common in hospitals (39.1%) than in private clinics (3.2%) ($p < 0.001$). Greater use of both treatment modalities was also

associated with a higher average number of pediatric myopia patients seen per week ($p = 0.022$). Multivariate Poisson regression analysis confirmed that these patterns persisted (Supplementary Table 2). Prescribing both topical atropine and optical interventions remained significantly more common in private clinics ($p < 0.001$), whereas prescribing only topical atropine continued to be significantly more frequent in hospitals ($p < 0.05$). Respondents seeing more than 30 pediatric patients per week were significantly more likely to use both treatment modalities than those seeing ≤ 10 patients per week ($p < 0.05$).

Table 2. Prescribing patterns for myopia control treatments according to baseline characteristics of the respondents

Characteristic	No. of responses (%)					
	Low-dose atropine	0.125% atropine	Ortho-K lenses	Dual-focus soft contact lenses	DIMS spectacle lenses	Neither
Years since board certification						
≤10	21 (56.8)	27 (73.0)	23 (62.2)	20 (54.1)	0 (0)	1 (2.7)
>10	37 (45.7)	62 (76.5)	45 (55.6)	37 (45.7)	2 (2.5)	6 (7.4)
<i>p</i> -value	0.264	0.676	0.500	0.398	0.335	0.316
Practice type						
Hospital	45 (51.7)	62 (71.3)	38 (43.7)	36 (41.4)	1 (1.1)	7 (8.0)
Private clinic	13 (41.9)	27 (87.1)	30 (96.8)	21 (67.7)	1 (3.2)	0 (0)
<i>p</i> -value	0.349	0.079	<0.001*	0.012 [†]	0.442	0.103
Practice location						
Seoul/large metropolitan cities	46 (51.7)	69 (77.5)	54 (60.7)	45 (50.6)	1 (1.1)	4 (4.5)
Small cities/counties	12 (41.4)	20 (69.0)	14 (48.3)	12 (41.4)	1 (3.4)	3 (10.3)
<i>p</i> -value	0.335	0.352	0.241	0.390	0.400	0.247
Average no. of pediatric patients with myopia seen per week						
≤10	4 (26.7)	8 (53.3)	6 (40.0)	1 (6.7)	0 (0)	3 (20.0)
11–20	12 (41.4)	24 (82.8)	14 (48.3)	14 (48.3)	0 (0)	1 (3.4)
21–30	9 (47.4)	14 (73.7)	9 (47.4)	8 (42.1)	0 (0)	1 (5.3)
>30	33 (60.0)	43 (78.2)	39 (70.9)	34 (61.8)	2 (3.6)	2 (3.6)
<i>p</i> -value	0.096	0.168	0.052	0.002 [‡]	0.507	0.103

Ortho-K = orthokeratology; DIMS = defocus incorporated multiple segments.

Statistically significant (**p* < 0.001; [†]*p* < 0.05; [‡]*p* < 0.01).

Discussion

Overall, the results of this nationwide survey underscore the marked shift in the management of cases of pediatric myopia among South Korean ophthalmologists over the past decade. Earlier clinical surveys in South Korea have suggested that active myopia control strategies have not yet been widely adopted. In the 2007–2008 survey, 59.7% of the respondents agreed that ortho-K lenses could slow myopia progression, while 25.2% disagreed and 15.1% were uncertain [15]. In another survey reported in 2009, perspectives were more cautious overall, with only 6.6% strongly supporting the use of ortho-K lenses for myopia control, while 80.5% responding negatively to the use of topical atropine [14]. In contrast, the present study showed an increased adoption of evidence-based myopia control strategies. The most commonly prescribed treatment was the commercially available 0.125% atropine (75.6%), followed by ortho-K lenses (57.1%). Notably, 63.0% of respon-

dents used both approaches, whereas only 5.9% offered neither, indicating a growing consensus on proactive management.

This trend likely reflects the accumulation of robust clinical evidence supporting both pharmacological and optical interventions for myopia control. In recent years, key trials, such as the Atropine for the Treatment of Myopia 2 (ATOM2) and Low-Concentration Atropine for Myopia Progression studies, have demonstrated the efficacy and safety of low-dose atropine in slowing myopia progression [7,8,16,17]. In line with these findings, our survey revealed that, among respondents prescribing low-dose atropine, the most common method was combining commercially available 0.125% atropine with artificial tears (60.2%), which is likely to achieve lower concentrations. This preference may further reflect other practical factors. In South Korea, in-house compounding is generally performed only in a few large hospitals due to regulatory restrictions. Furthermore, the use of 1% atropine was temporarily suspended for several months around 2020. These factors likely con-

Table 3. Mutually exclusive myopia control treatment categories by respondent baseline characteristics

Variable	No. of responses (%)			
	Topical atropine only	Optical intervention only	Both	Neither
Years since board certification				
≤10	11 (29.7)	1 (2.7)	24 (64.9)	1 (2.7)
>10	24 (29.6)	1 (1.2)	50 (61.7)	6 (7.4)
<i>p</i> -value	0.991	0.567	0.744	0.316
Practice type				
Hospital	34 (39.1)	1 (1.1)	45 (51.7)	7 (8.0)
Private clinic	1 (3.2)	1 (3.2)	29 (93.5)	0 (0)
<i>p</i> -value	<0.001*	0.442	<0.001*	0.103
Practice location				
Seoul/large metropolitan cities	25 (28.1)	1 (1.1)	59 (66.3)	4 (4.5)
Small cities/counties	10 (34.5)	1 (3.4)	15 (51.7)	3 (10.3)
<i>p</i> -value	0.513	0.400	0.159	0.247
Average no. of pediatric patients with myopia seen per week				
≤10	6 (40.0)	1 (6.7)	5 (33.3)	3 (20.0)
11–20	10 (34.5)	0 (0)	18 (62.1)	1 (3.4)
21–30	8 (42.1)	0 (0)	10 (52.6)	1 (5.3)
>30	11 (20.0)	1 (1.8)	41 (74.5)	2 (3.6)
<i>p</i> -value	0.175	0.383	0.022 [†]	0.103

Statistically significant (* $p < 0.001$; [†] $p < 0.05$).

tributed to the widespread use of 0.125% atropine, marketed as Myoguard, the only locally available commercial formulation, as the base for preparing low-dose formulations. Optical interventions have further gained widespread support as effective strategies for controlling myopia. The Retardation of Myopia in Orthokeratology (ROMIO) study confirmed that ortho-K can significantly reduce axial elongation, reporting a 2-year reduction in axial elongation (0.36 ± 0.24 mm in the ortho-K lenses group vs. 0.63 ± 0.26 mm in the control group, $p < 0.01$) [10]. Subsequent studies, including a high myopia-targeted randomized controlled trial and a 12-year follow-up study, further reinforced the long-term efficacy and acceptable safety profile of ortho-K lenses [18,19]. In addition to ortho-K lenses, emerging evidence on dual-focus soft contact lenses and DIMS spectacle lenses reflect an expanding range of evidence-based optical interventions available for myopia management [20–23]. More recently, Essilor Stellest lenses (EssilorLuxottica) were introduced in South Korea in 2024, however these were not included in this 2023 survey because their availability postdated data collection.

Future surveys should assess whether the increasing availability of myopia-controlled spectacle lenses has influenced prescription patterns among South Korean ophthalmologists.

Beyond the accumulation of evidence, the active prescription patterns observed in the 2023 survey may reflect the high prevalence and rapid progression of myopia among South Korean children. Indeed, a nationwide survey from 2016–2017 reported that 65.4% of South Korean children aged 5 to 18 years were myopic, with 6.9% classified as having high myopia [24]. South Korean cohorts have also shown more rapid myopia progression under 0.01% atropine treatment compared with the rates observed in the ATOM2 trial (-0.49 diopters [D] over 2 years with 0.01%) [7]. For example, a university hospital study in South Korea reported a mean annualized progression of -0.84 D per year despite 0.01% atropine treatment [25]. Moreover, a study from a private clinic in South Korea found that 46% of children were classified as “poor responders” to 0.01% atropine, defined as having more than 0.50 D of progression over 12 months. Among these poor

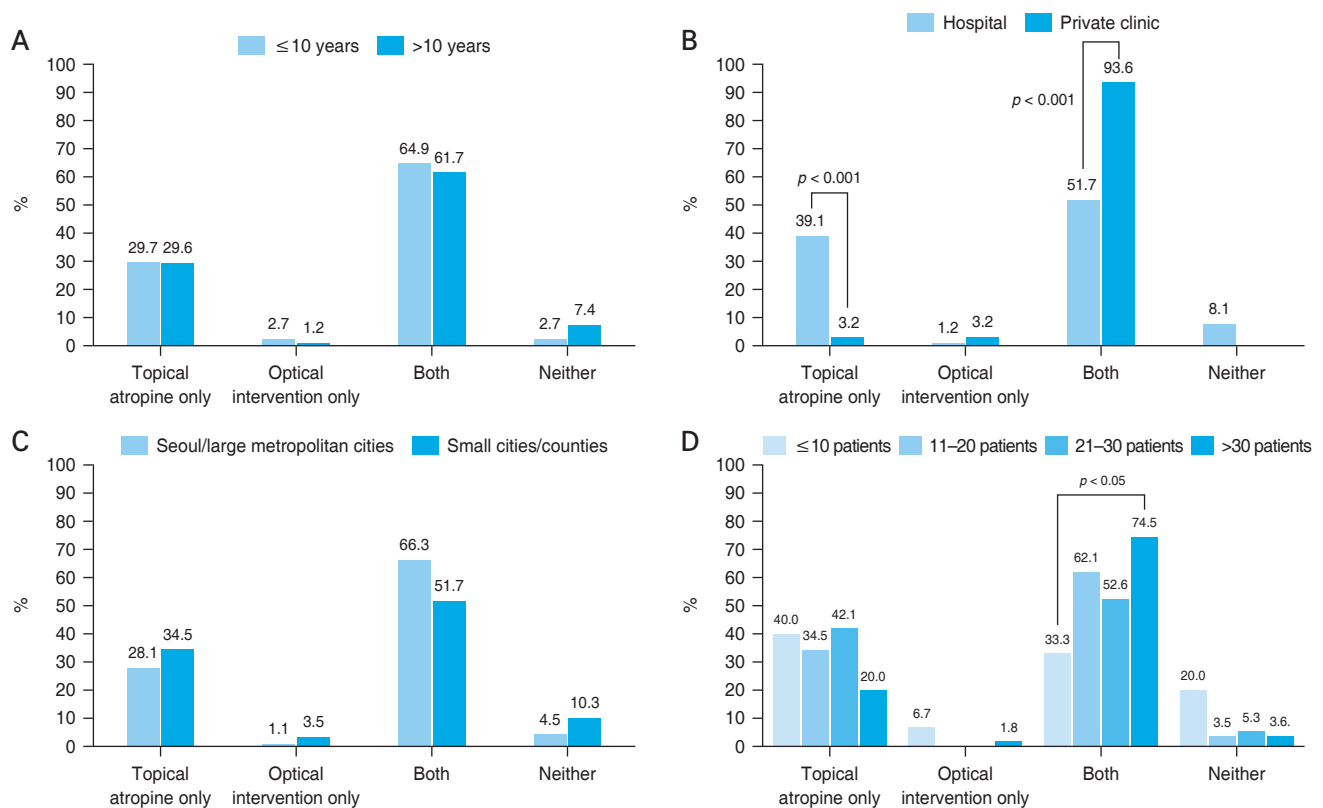


Fig. 2. Proportion of respondents prescribing mutually exclusive myopia control treatment categories, stratified by (A) years since board certification, (B) practice type, (C) practice location, and (D) average number of pediatric myopia patients seen per week.

responders, the mean progression rate was -0.90 D per year [26]. These findings indicate that South Korean children with myopia may experience more rapid myopia progression, despite receiving the same low-dose atropine treatment. Additionally, the COVID-19 pandemic may have further contributed to the accelerated progression of myopia in South Korean children. A 2021 study reported significantly faster myopic progression in the post-pandemic period among children undergoing low-dose atropine treatment (0.05% and 0.025%, respectively), which is likely related to increased screen time and decreased outdoor activity [27].

The clinical setting of the survey respondents may have contributed to the high rates of active myopia control observed in the present study. All respondents were members of KAPOs, with most practicing in general or specialized eye hospitals (73.7%), treating >20 pediatric myopia patients weekly (62.2%), and predominantly located in Seoul or other metropolitan areas (75.4%). These settings are more likely to encounter children with severe or rapidly progressing myopia, which may have driven the greater

adoption of active interventions. In line with this observation, our survey showed that ophthalmologists seeing more pediatric myopia patients per week tended to adopt more proactive, multimodal treatment strategies. Compared with those seeing ≤ 10 patients, respondents managing >10 patients were more likely to prescribe both topical atropine and optical interventions, and this difference reached statistical significance among those seeing >30 patients. This pattern suggests that clinicians with higher pediatric myopia caseloads may be more inclined to employ multiple evidence-based modalities, whereas those with fewer pediatric myopia patients may approach myopia management more conservatively. In addition to patient volume, differences in treatment patterns were observed between hospitals and private clinics. Ortho-K lenses and dual-focus soft contact lenses were more frequently prescribed in private clinics, whereas hospital respondents more often selected only topical atropine. These patterns may reflect logistical factors, as ortho-K lenses fitting and follow-up require more frequent visits, which may be more feasible in private clinical settings. In addition, private practitioners may

have greater flexibility in tailoring treatment approaches according to patient preferences and follow-up schedules. However, the specific types or brands of ortho-K lenses used were not captured in this survey, thus limiting the interpretation of treatment variability within this category.

Overall, this study focused on pharmacological (topical atropine) and optical interventions, which were the primary treatment modalities identified in the survey. However, environmental strategies, such as increasing the time spent outdoors and improving classroom light levels, are increasingly being recognized as key components of myopia prevention in high-prevalence regions, such as Taiwan, Singapore, and China, and have been implemented through school policies in some cases [28–33]. For example, Taiwan's Tian-Tian 120 program, first introduced in 2010, encouraged school children to spend 120 minutes outdoors daily, achieving reductions in the prevalence of reduced visual acuity [28]. Future research could further explore whether South Korean pediatric ophthalmologists are adopting such approaches and assess trends in integrating environmental measures into myopia management. Another limitation of this study is the small number of respondents in certain treatment categories. In particular, the DIMS spectacle lens group ($n = 2$) and the “neither” group ($n = 7$), as well as the mutually exclusive “optical interventions only” group ($n = 2$) had very limited sample sizes, which resulted in unstable regression estimates and restricted the interpretability of these categories. Future surveys with larger overall sample sizes would improve the representation of these less frequently used modalities and allow more reliable multivariate analyses.

In conclusion, South Korean ophthalmologists are increasingly adopting proactive, evidence-based approaches for myopia control. Ongoing research and nationwide surveys are essential to track evolving prescription trends and optimize myopia management in South Korean children.

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Supplementary Materials

Supplementary Table 1. Multivariable Poisson regression analysis with robust standard errors of prescribing patterns

for myopia control treatments

Supplementary Table 2. Multivariable Poisson regression analysis with robust standard errors of prescribing patterns for mutually exclusive myopia control treatment categories. Supplementary materials are available from <https://doi.org/10.3341/kjo.2025.0158>.

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Supplementary Table 1. Multivariable Poisson regression analysis with robust standard errors of prescribing patterns for myopia control treatments

Variables	Adjusted prevalence ratio (95% CI)					
	Low-dose atropine	0.125% atropine	Ortho-K lenses	Dual-focus soft contact lenses	DIMS spectacle lenses	Neither
Years since board certification						
≤10	1	1	1	1	1	1
>10	0.81 (0.57–1.15)	1.04 (0.83–1.29)	0.91 (0.69–1.2)	0.83 (0.58–1.18)	-	3.06 (0.32–29.01)
Practice type						
Hospital	1	1	1	1	1	1
Private clinic	0.74 (0.47–1.19)	1.21 (0.99–1.48)	2.12 (1.66–2.7)*	1.48 (1.06–2.06) [†]	1.15 (0.14–9.35)	-
Practice location						
Seoul/large metropolitan cities	1	1	1	1	1	1
Small cities/counties	0.83 (0.52–1.31)	0.88 (0.68–1.13)	0.76 (0.53–1.07)	0.8 (0.52–1.22)	3.46 (0.43–28.04)	2.43 (0.44–13.47)
Average no. of pediatric patients with myopia seen per week						
≤10	1	1	1	1	1	1
11–20	1.63 (0.63–4.18)	1.53 (0.92–2.52)	1.16 (0.6–2.24)	7.23 (1.08–48.38) [†]	0.78 (0.31–1.97)	0.18 (0.02–1.62)
21–30	1.76 (0.67–4.61)	1.36 (0.79–2.33)	1.09 (0.54–2.18)	5.97 (0.85–42.04)	1.37 (0.44–4.29)	0.38 (0.03–4.08)
>30	2.36 (0.99–5.65)	1.4 (0.85–2.31)	1.49 (0.83–2.68)	8.51 (1.29–56.21) [†]	-	0.3 (0.04–2.30)

CI = confidence interval; Ortho-K = orthokeratology; DIMS = defocus incorporated multiple segments.

Statistically significant (* $p < 0.001$; [†] $p < 0.05$).

Supplementary Table 2. Multivariable Poisson regression analysis with robust standard errors of prescribing patterns for mutually exclusive myopia control treatment categories

Variable	Adjusted prevalence ratio (95% CI)			
	Topical atropine only	Optical treatment only	Both	Neither
Years since board certification				
≤10	1	1	1	1
>10	1 (0.57–1.74)	0.44 (0.03–7.27)	0.95 (0.73–1.23)	3.06 (0.32–29.01)
Practice type				
Hospital	1	1	1	1
Private clinic	0.09 (0.01–0.61)*	4.33 (1.22–15.45)*	1.73 (1.38–2.16) [†]	-
Practice location				
Seoul/large metropolitan cities	1	1	1	1
Small cities/counties	1.3 (0.74–2.29)	3.73 (0.16–88.13)	0.75 (0.53–1.05)	2.43 (0.44–13.47)
Average no. of pediatric patients with myopia seen per week				
≤10	1	1	1	1
11–20	0.94 (0.44–2.04)	-	1.81 (0.89–3.67)	0.18 (0.02–1.62)
21–30	1.18 (0.55–2.52)	-	1.48 (0.69–3.18)	0.38 (0.03–4.08)
>30	0.66 (0.30–1.43)	0.17 (0.01–2.12)	1.97 (1.00–3.86)*	0.30 (0.04–2.30)

CI = confidence interval.

Statistically significant (* $p < 0.05$; [†] $p < 0.001$).