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PRESCRIPTION PRACTICES FOR BORDERLINE HYPEROPIA AMONG OPTOMETRISTS IN LAHORE.

Original Article (ID: 459)

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ABSTRACT

Background: Borderline hyperopia is frequently encountered in optometric practice, yet its management remains uncertain because refractive magnitude alone does not determine the need for correction. Symptoms, accommodative capacity, binocular vision, age, and visual demands may influence prescribing decisions. In settings where formal guidance is limited, practitioners may rely on personal experience and individual clinical judgement, producing inconsistent care. Evidence regarding these practices in Pakistan remains scarce, despite their relevance to patient comfort, visual performance, and outcomes.

Objective: To investigate prescribing practices for borderline hyperopia and identify factors influencing clinical decision-making among optometrists practising in Lahore, Pakistan.

Methods: A descriptive cross-sectional survey included 150 qualified optometrists recruited through convenience sampling from government hospitals, private eye clinics, ophthalmology departments, and optical centres in Lahore. A pre-tested structured questionnaire assessed demographic characteristics, clinical experience, refractive techniques, prescribing approaches, influential factors, management of asymptomatic patients, and views regarding clinical guidelines. Data were analysed in SPSS using frequencies, percentages, and chi-square tests, with statistical significance set at $p<0.05$. Ethical approval and informed consent were obtained.

Results: The mean participant age was 28.28 years; 51.3% were female, and 65.3% had 1–3 years of clinical experience. Borderline hyperopia was encountered frequently by 56.7% and regularly by 18.0%. Combined objective and subjective refraction was used by 56.0%. An integrated approach based on symptoms and refractive findings was reported by 42.0%. Symptoms were the leading prescribing determinant for 47.3%, followed by age for 28.7%, refractive magnitude for 17.3%, and occupational visual demands for 6.7%. For asymptomatic patients, 63.3% prescribed full correction, 20.0% partial correction, and 16.7% observation. Inconsistent guidance was reported by 86.7%, while 89.3% strongly supported standardized guidelines.

Conclusion: Prescribing practices varied substantially, particularly for asymptomatic patients. Evidence-based guidance incorporating symptoms, refractive findings, accommodation, binocular vision, age, and functional demands may improve consistency while preserving individualized clinical judgement.

Keywords: Clinical Decision-Making; Cross-Sectional Studies; Hyperopia; Optometrists; Pakistan; Refraction, Ocular; Surveys and Questionnaires

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INTRODUCTION

Hyperopia is a common refractive error in which the optical power of the eye is insufficient in relation to its axial length, causing incoming parallel light rays to focus behind the retina when accommodation is relaxed (1,2). It affects individuals across all age groups and represents an important cause of visual discomfort and reduced near-vision efficiency worldwide (3). Its clinical significance is particularly evident among children and young adults, who frequently undertake prolonged near-vision activities such as reading, studying, computer use, and viewing digital devices (1,4). Although accommodation may allow many individuals with low levels of hyperopia to maintain clear distance and near vision, sustained accommodative effort can place a considerable functional burden on the visual system (2,5). Low or mild degrees of hyperopia are often described clinically as borderline hyperopia. Unlike moderate or high hyperopia, for which optical correction is generally more clearly indicated, borderline hyperopia does not have a universally accepted prescribing threshold (1,6). Some patients can compensate for a small hyperopic refractive error without experiencing visual difficulty, particularly when accommodative reserves are adequate (5,7). Others may develop asthenopia, frontal headache, intermittent blurred vision, ocular fatigue, poor concentration, or reduced tolerance for sustained near work despite having relatively good unaided visual acuity (4,5,8). Consequently, the numerical value of the refractive error alone may not adequately determine whether spectacle correction is required.

Prescribing for borderline hyperopia therefore requires an individualized assessment of both refractive findings and functional visual demands. Important clinical considerations include age, accommodative capacity, binocular vision status, convergence function, visual acuity, symptom severity, working distance, occupation, educational demands, and the duration of near tasks (1–3). Children with uncorrected hyperopia may experience difficulties during schoolwork because of continuous accommodative demand, while young adults with a similar refractive error may remain asymptomatic because of stronger accommodative reserves (1,4). Conversely, even a small degree of hyperopia may become clinically important in individuals with accommodative insufficiency, binocular vision dysfunction, prolonged screen exposure, or occupations requiring sustained visual attention. The decision to prescribe may also be influenced by factors related to the practitioner and practice environment. Clinical experience, professional education, access to diagnostic facilities, patient expectations, consultation time, and preferred prescribing philosophy may affect whether an optometrist recommends full correction, partial correction, near-only correction, observation, or no optical intervention (9,10). In the absence of clearly defined and widely adopted guidelines, considerable variation may occur among practitioners managing patients with similar refractive findings (11). Such variability may contribute to unnecessary spectacle prescribing in asymptomatic individuals or, alternatively, to under-correction in patients whose symptoms and functional limitations could be relieved through appropriate optical management (11).

This issue is particularly relevant in Lahore, where optometric services are expanding in response to increasing public awareness, greater educational demands, and widespread digital-device use. Despite this growth, standardized protocols for the assessment and management of borderline hyperopia remain limited, and prescribing decisions may rely heavily on individual clinical judgment (12). Evidence concerning how optometrists in Pakistan approach borderline hyperopia is also scarce, as most available literature focuses on the prevalence, diagnosis, or general management of refractive errors rather than on the specific prescribing behaviour of practitioners (13,14). Understanding current practice is therefore necessary to identify areas of agreement, inconsistency, and potential need for professional guidance. The present study was designed to answer the research question: What prescribing practices are followed by optometrists for borderline hyperopia in Lahore, and which clinical and non-clinical factors influence their decisions? It was anticipated that prescribing approaches would vary according to patient symptoms, age, refractive magnitude, accommodative and binocular vision findings, near-vision demands, practitioner experience, and practice characteristics. Accordingly, the objective of the study was to investigate prescribing practices for borderline hyperopia among optometrists in Lahore and to determine the major factors associated with their clinical decision-making. The findings may help clarify existing variations in practice and support the future development of standardized, evidence-based recommendations for the management of borderline hyperopia.

METHODOLOGY

A descriptive cross-sectional study was conducted to examine prescribing practices and the clinical decision-making processes used by optometrists in the management of borderline hyperopia in Lahore, Pakistan. This design was selected because it permitted the assessment of current professional practices, attitudes, and factors associated with prescribing decisions at a specific point in time (15). The study was carried out across a range of optometric practice settings, including government hospitals, private eye clinics, ophthalmology departments, and optical centres. The inclusion of practitioners from different clinical environments was intended to provide broader representation of optometric practice within the city and to capture potential variation in prescribing behaviour across different healthcare settings (16,17). The target population consisted of qualified optometrists who were actively involved in clinical eye examinations, refractive assessment, and spectacle prescribing. A total of 150 eligible optometrists with completed questionnaires were included in the final analysis. Participants were recruited through a non-probability convenience sampling technique because a complete and centralized sampling frame of actively practising optometrists in Lahore was not available. Convenience sampling was considered appropriate for this exploratory survey of professional practice, although it limited the extent to which the findings could be generalized to all optometrists in Lahore or other regions (18).

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Optometrists were eligible to participate if they held a recognized professional qualification or valid certification in optometry, had at least one year of clinical experience, were actively involved in refractive examinations and spectacle prescribing, and voluntarily provided informed consent. Practitioners who were not actively engaged in optometric practice, students or interns who did not independently make prescribing decisions, and respondents who submitted incomplete questionnaires were excluded. These criteria were applied to ensure that the responses reflected independent clinical decisions made by practitioners with sufficient experience in routine refractive care (3). Data were collected using a structured questionnaire developed after reviewing relevant literature and consulting experts in optometry and vision science (19). The questionnaire was designed to obtain information regarding participants' demographic and professional characteristics, including age, gender, educational level, years of clinical experience, and type of practice setting. It also assessed the frequency with which respondents encountered borderline hyperopia, the refractive assessment methods they commonly used, and their preferred prescribing approaches. Methods of refractive assessment were categorized as objective, subjective, or a combination of both approaches. Additional questions examined the clinical and non-clinical factors that influenced prescribing decisions, including the magnitude of hyperopia, patient age, presenting symptoms, accommodative status, binocular vision findings, occupational or educational visual demands, and awareness of clinical guidelines.

Before formal data collection, the questionnaire was pre-tested to assess the clarity, relevance, comprehensibility, and appropriateness of its items. Feedback obtained during pre-testing was used to identify ambiguous wording and improve the organization of the questionnaire before its administration to the main study sample. Pre-testing is recommended in questionnaire-based research because it improves content clarity and reduces the likelihood of misinterpretation by respondents (1,6). Participation was voluntary, and the questionnaire was completed only after informed consent had been obtained. The principal outcome variable was prescribing practice for borderline hyperopia, including whether correction was prescribed and the clinical approach used to reach that decision. Other dependent variables included the preferred method of refractive assessment and the relative importance assigned to factors such as symptoms, patient age, refractive findings, accommodative and binocular vision status, and near-vision demands. The main explanatory variables were age, gender, educational level, years of clinical experience, and practice setting. These variables were selected because demographic characteristics, professional experience, and workplace environment may influence clinical judgement and prescribing behaviour among healthcare professionals (2,6).

Completed questionnaires were reviewed for completeness before data entry and analysis. Data were analysed using the Statistical Package for the Social Sciences. Categorical variables were summarized using frequencies and percentages. The chi-square test of independence was used to examine associations between participants' demographic or professional characteristics and categorical variables related to refractive assessment, prescribing behaviour, and clinical decision-making. Statistical significance was defined as a p-value of less than 0.05. The findings were interpreted in relation to the study objectives and the limitations associated with the cross-sectional design and non-probability sampling method (1,7). Ethical approval was obtained from the relevant institutional review board before the commencement of the study. All eligible optometrists were informed about the purpose of the research and their right to decline participation before providing informed consent. Participation was voluntary, and the information obtained was used solely for research purposes. Ethical principles relating to participant autonomy, confidentiality, and responsible handling of survey data were observed throughout the study (1,2).

RESULTS

The analysis included 150 optometrists practising in Lahore. The mean age of the respondents was 28.28 years. Of the participants, 77 (51.3%) were female and 73 (48.7%) were male. Regarding academic qualifications, 74 (49.3%) participants held a Master of Science or Doctor of Optometry degree, 70 (46.7%) held a Bachelor of Science in Optometry degree, and 6 (4.0%) reported another equivalent or related qualification. Most respondents were at an early stage of their professional careers. Ninety-eight participants (65.3%) had 1–3 years of clinical experience, 28 (18.7%) had 4–6 years of experience, and 24 (16.0%) had seven or more years of clinical experience. Borderline hyperopia was commonly encountered in clinical practice. Eighty-five optometrists (56.7%) reported encountering such cases frequently, while 27 (18.0%) encountered them regularly. A further 25 respondents (16.7%) reported occasional encounters, whereas 13 (8.7%) rarely managed patients with borderline hyperopia.

A combination of objective and subjective refraction was the most frequently used assessment approach, reported by 84 participants (56.0%). Retinoscopy was used as the primary refractive technique by 23 respondents (15.3%), autorefractor-based assessment by 22 (14.7%), and subjective refraction alone by 21 (14.0%). Prescribing approaches varied among the respondents. An integrated or eclectic approach based on both refractive findings and patient-reported symptoms was used by 63 optometrists (42.0%). Thirty participants (20.0%) based their prescriptions primarily on refractive findings, while another 30 (20.0%) followed an individualized, case-by-case approach. Symptom-based prescribing was reported by 27 respondents (18.0%). Patient-reported symptoms were the most frequently identified factor influencing the decision to prescribe optical correction, as reported by 71 participants (47.3%). Patient age was the principal consideration for 43 respondents (28.7%), while 26 (17.3%) considered the magnitude of refractive error to be the main determinant. Occupational or near-vision demands were identified as the leading factor by 10 optometrists (6.7%).

For asymptomatic patients with borderline hyperopia, 95 respondents (63.3%) reported prescribing full optical correction. Partial correction was preferred by 30 optometrists (20.0%), whereas 25 (16.7%) favoured observation and periodic follow-up without an

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immediate prescription. A lack of consistent clinical guidance was reported by 130 participants (86.7%). In addition, 134 respondents (89.3%) strongly supported the development of standardized clinical guidelines for the assessment and management of borderline hyperopia. Although the study data indicated statistically significant findings on chi-square analysis at a significance level of $p<0.05$, the variables compared, chi-square statistics, degrees of freedom, and exact p-values were not available in the summarized dataset.

Table 1: Participant characteristics

Characteristic	Category	Frequency, n	Percentage
Gender	Male	73	48.7%
	Female	77	51.3%
Academic qualification	MS/Doctor of Optometry	74	49.3%
	BS Optometry	70	46.7%
	Other equivalent qualification	6	4.0%
Clinical experience	1–3 years	98	65.3%
	4–6 years	28	18.7%
	≥7 years	24	16.0%

Mean age: 28.28 years.

Table 2: Clinical exposure and refractive assessment

Variable	Response	Frequency, n	Percentage
Frequency of encountering borderline hyperopia	Frequently	85	56.7%
	Regularly	27	18.0%
	Occasionally	25	16.7%
	Rarely	13	8.7%
Primary refraction technique	Combined objective and subjective refraction	84	56.0%
	Retinoscopy	23	15.3%
	Autorefractor-based assessment	22	14.7%
	Subjective refraction alone	21	14.0%

Table 3: Prescribing practices and clinical guidance

Variable	Response	Frequency, n	Percentage
Prescribing approach	Integrated refractive findings and symptoms	63	42.0%
	Primarily refractive findings	30	20.0%
	Individualized case-by-case approach	30	20.0%
	Primarily symptom-based	27	18.0%
Main factor influencing prescription	Patient symptoms	71	47.3%
	Patient age	43	28.7%
	Magnitude of refractive error	26	17.3%
	Occupational visual demands	10	6.7%
Management of asymptomatic patients	Full correction	95	63.3%
	Partial correction	30	20.0%

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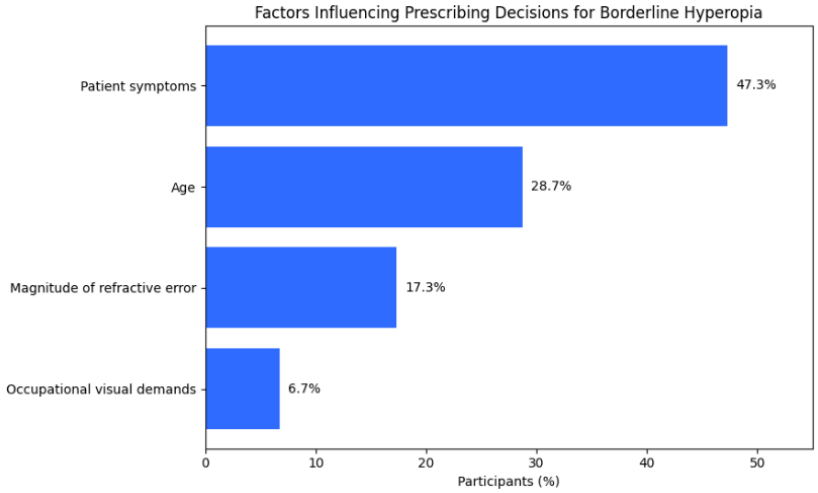
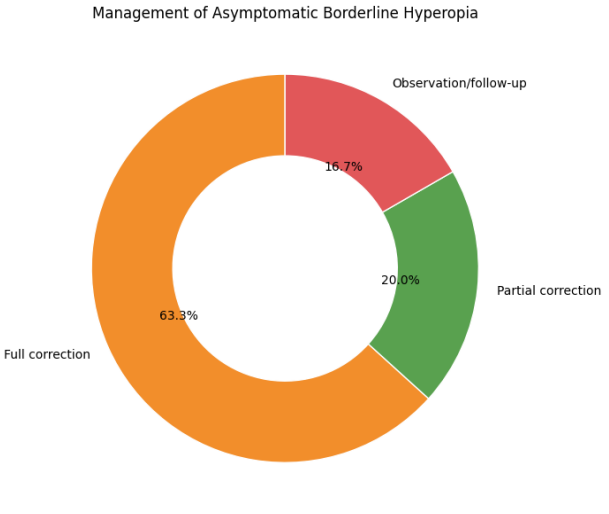
	Observation and follow-up	25	16.7%
Clinical guidance	Reported absence of consistent guidelines	130	86.7%
	Strongly supported standardized guidelines	134	89.3%





DISCUSSION

The present study examined prescribing practices for borderline hyperopia among optometrists in Lahore and demonstrated substantial variation in refractive assessment, prescribing philosophy, and management of asymptomatic patients. The findings indicated that decisions were not based solely on the measured refractive error but were influenced by patient symptoms, age, clinical findings, and visual demands. This pattern was consistent with the broader understanding that low hyperopia represents a clinically complex condition in which refractive magnitude may not correspond directly with functional visual difficulty (1–4). The variability observed in the study also appeared to reflect the absence of consistently applied clinical guidance, as most respondents reported a lack of standardized guidelines and strongly supported their development. The study population consisted predominantly of relatively young and early-career practitioners, with a mean age of 28.28 years and nearly two-thirds of respondents having between one and three years of clinical experience. Almost equal proportions held undergraduate and postgraduate or professional doctoral qualifications. This distribution was important when interpreting the findings because professional training and duration of clinical exposure may shape confidence, prescribing preferences, and the extent to which practitioners rely on symptoms or refractive measurements. Previous investigations of clinical decision-making have similarly suggested that educational preparation and experience may affect refractive prescribing behaviour, particularly when formal recommendations are limited or inconsistently followed (1–3). However, the available results did not provide detailed subgroup comparisons between experience, qualification, and prescribing approach. It could therefore not be concluded that less experienced or more highly qualified optometrists followed a particular prescribing pattern without additional stratified analysis (20).

Borderline hyperopia was frequently encountered by the respondents, with more than half reporting frequent exposure and a further proportion reporting regular encounters. This finding confirmed that low hyperopic refractive errors constituted a routine part of optometric practice in Lahore rather than an uncommon clinical presentation. Frequent exposure to such cases increased the importance of consistent assessment and management because even small differences in prescribing thresholds could affect a considerable number of patients. The finding was also consistent with reports that hyperopia is commonly identified in primary eye care and may remain under-recognized when patients retain adequate visual acuity through accommodation (1,4). In this context, clinical management required attention not only to refractive findings but also to symptoms, binocular function, accommodative capacity, and the patient's visual environment (12,21). A combined objective and subjective approach was the most commonly reported method of refraction. This finding supported current clinical practice principles, as objective techniques such as retinoscopy and autorefraction provide an estimate of refractive status, whereas subjective refraction determines the correction that produces the most acceptable visual response for the patient (1,2). In hyperopia, objective findings may be particularly important because accommodation can conceal part of the refractive error, especially among children and young adults. At the same time, objective measurements alone may overestimate the correction that a patient can comfortably tolerate in habitual conditions. The use of both approaches therefore allowed the refractive findings to be refined according to the patient's responses and visual requirements (23,24).

Nevertheless, 44% of respondents relied primarily on retinoscopy, autorefraction, or subjective refraction rather than reporting a combined approach. This variation may have reflected differences in available equipment, training, consultation time, preferred clinical

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methods, or patient characteristics. Retinoscopy remains particularly valuable in younger patients and in cases where accommodation is active, while autorefraction offers speed and reproducibility but may be affected by instrument accommodation. Subjective refraction provides direct information about visual preference but may be less reliable when accommodative responses fluctuate. These differences highlighted the need for a structured refractive protocol in which objective and subjective findings are interpreted together rather than treated as interchangeable measurements (24,25). The most commonly reported prescribing philosophy integrated refractive findings with patient symptoms. This approach was clinically reasonable because the functional effect of borderline hyperopia varies considerably between individuals. A patient with a small hyperopic error and adequate accommodative reserve may remain comfortable without correction, whereas another patient with a similar refractive finding may experience headaches, ocular fatigue, intermittent blur, or reduced tolerance for near work. Earlier literature has similarly emphasized that prescribing for low hyperopia should be guided by the interaction between refractive status, accommodative effort, binocular vision, symptoms, and daily visual demands rather than by refractive magnitude alone (25).

Patient symptoms were identified as the principal factor influencing prescribing decisions, followed by age and the magnitude of refractive error. The predominance of symptom-based considerations suggested that respondents generally adopted a function-oriented approach to management. Symptoms such as frontal headache, visual fatigue, intermittent blurring, ocular discomfort, and difficulty sustaining concentration during near work may develop when accommodation is repeatedly used to compensate for hyperopia (1–4). Although such symptoms are not specific to hyperopia and may also occur with accommodative, binocular, ocular surface, or environmental problems, their presence can indicate that the patient is no longer compensating comfortably. Appropriate assessment should therefore distinguish symptoms associated with refractive demand from those caused by other ocular or systemic conditions (26,27). Age was the second most frequently reported determinant of prescribing. This finding was expected because accommodation changes substantially across the lifespan. Children and young adults usually possess greater accommodative reserves and may compensate for low hyperopia while maintaining clear visual acuity. However, this compensation may still produce symptoms during sustained reading, study, or digital-device use (1,2,4). With increasing age, accommodative ability gradually declines, and previously compensated hyperopia may become clinically apparent. A low refractive error that was tolerated earlier may therefore produce blur or asthenopia later in life. The importance assigned to age by the respondents was consistent with the need to interpret refractive findings according to accommodative capacity rather than applying a single prescribing threshold to all patients (23–13).

The magnitude of refractive error was less frequently selected as the principal determinant than symptoms or age. This finding suggested that most respondents did not regard the numerical refractive result as sufficient by itself. Such an approach was appropriate because refractive magnitude does not fully represent the visual burden experienced by the patient. However, refractive power remained an essential part of the clinical decision, particularly when hyperopia was associated with reduced acuity, accommodative dysfunction, esophoria, strabismus, or a risk of amblyopia. The relatively lower emphasis placed on refractive magnitude should therefore not be interpreted as indicating that the measurement was unimportant, but rather that it was considered alongside other clinical information (11–24). Occupational visual demand was selected as the principal factor by a relatively small proportion of participants. Although this was the least frequently reported determinant, its clinical relevance should not be underestimated. Students, office workers, teachers, computer users, and individuals involved in prolonged close work may experience greater accommodative stress than those with limited near-vision requirements. A correction that is unnecessary for an asymptomatic patient with low near demand may improve comfort and performance in another patient performing sustained visual tasks (1,4,5). The comparatively low proportion of practitioners prioritizing occupational demands may indicate that these factors were incorporated within broader symptom-based or individualized decisions rather than considered separately. It may also suggest a need for greater emphasis on visual task analysis during refractive assessment (22).

One of the most notable findings was that almost two-thirds of respondents reported prescribing full correction for asymptomatic borderline hyperopia. This result indicated a strong tendency toward active optical management even in the absence of reported visual complaints. Full correction may reduce accommodative demand and may be justified when latent hyperopia, binocular dysfunction, reduced visual efficiency, or a risk of strabismus or amblyopia is present (1–3). It may also be appropriate when symptoms are under-reported or when the patient has difficulty recognizing visual strain. However, the routine use of full correction for all asymptomatic patients remains debatable because low hyperopia can often be compensated comfortably, particularly in young individuals with normal accommodative and binocular function (18). Partial correction or observation with follow-up was preferred by a smaller proportion of respondents. These approaches may be suitable when visual acuity is satisfactory, symptoms are absent, accommodative and binocular findings are normal, and the refractive error is stable. Observation avoids unnecessary intervention while allowing changes in symptoms, acuity, alignment, or visual demand to be identified over time (1,3,5). Partial correction may provide a balance between reducing accommodative burden and maintaining adaptation to habitual visual conditions. The choice between full correction, partial correction, and observation should therefore depend on the patient's age, cycloplegic and manifest refractive findings, visual acuity, accommodative function, binocular status, symptoms, and risk factors rather than on refractive power alone (19).

The high proportion of respondents prescribing full correction to asymptomatic patients also raised questions about how borderline hyperopia had been operationally defined and whether cycloplegic refraction, latent hyperopia, binocular findings, or paediatric risk factors were considered in these decisions. Without a clearly defined refractive range and standardized clinical scenario, respondents

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may have interpreted the term "borderline hyperopia" differently. Some may have considered very low refractive errors in adults, whereas others may have included clinically important hyperopia in children. This possible variation in interpretation may have contributed to the observed differences in management and should be addressed in future questionnaire-based studies (9). The reported absence of consistent guidelines was acknowledged by most participants, and an even larger proportion strongly supported the development of standardized clinical recommendations. This finding represented an important professional concern. In the absence of agreed guidance, optometrists may rely on personal training, workplace practices, previous experience, or individual prescribing philosophies. Such reliance may produce acceptable individualized care in experienced hands, but it can also result in inconsistent management of patients with comparable clinical findings (3–5). Standardized recommendations could provide a common framework for evaluating refractive magnitude, symptoms, accommodation, binocular vision, age, visual demands, and follow-up requirements (21).

Clinical guidelines should not replace professional judgement or impose a rigid refractive threshold. Borderline hyperopia is inherently dependent on patient-specific factors, and a single numerical cut-off would be unlikely to address all clinical situations. A more useful framework would classify patients according to age, symptoms, visual acuity, cycloplegic findings, accommodative and binocular status, near-work demands, and risk of amblyopia or strabismus. Such guidance could outline when full correction, partial correction, task-specific correction, observation, or referral should be considered. This approach could reduce unwarranted variation while preserving individualized care (1–5). The findings also had implications for optometric education and continuing professional development in Pakistan. Training programmes could place greater emphasis on the assessment of accommodation, vergence, symptom patterns, cycloplegic refraction, and visual task requirements in patients with low hyperopia. Continuing education may be particularly valuable for early-career practitioners, who represented the majority of the study sample. Case-based teaching and consensus-driven prescribing scenarios could improve confidence and consistency without discouraging clinical judgement (11).

The study had several strengths. It included 150 practising optometrists from a range of clinical environments in Lahore and focused on a clinically relevant issue that has received limited attention in the local literature. The inclusion of practitioners involved directly in refraction and spectacle prescribing improved the practical relevance of the findings. The study also examined several components of practice, including refractive techniques, prescribing approaches, influential factors, management of asymptomatic patients, and perceptions of clinical guidelines. These findings provided an initial overview of how borderline hyperopia was managed within a major urban optometric setting (4). Several limitations should also be considered. The cross-sectional design described practices at a single point in time and could not determine how prescribing behaviour changed with experience or professional training. Convenience sampling increased the possibility of selection bias and limited the generalizability of the results to all optometrists in Lahore, other regions of Pakistan, or different healthcare systems. The relatively young and early-career composition of the sample may also have influenced the overall distribution of prescribing preferences (19).

The findings were based on self-reported practices rather than direct observation, chart review, or standardized clinical cases. Responses may therefore have been affected by recall bias, social desirability, or differences between reported and actual behaviour. The questionnaire's reliability statistics, validation procedure, pilot sample size, and operational definition of borderline hyperopia were not available, which limited assessment of measurement quality. In addition, important clinical variables such as cycloplegic refraction, accommodative amplitude, accommodative facility, binocular vision findings, visual acuity, patient age groups, and the actual refractive thresholds used for prescribing were not reported (12). The statistical findings also required cautious interpretation. Although statistically significant chi-square results were reported, the specific variables compared, chi-square values, degrees of freedom, effect sizes, and exact p-values were not presented. Consequently, it was not possible to determine which demographic or professional characteristics were associated with particular prescribing decisions or how strong those associations were. Statements attributing prescribing behaviour to experience, qualification, or practice setting could not therefore be confirmed from the available results. Future analyses should provide complete cross-tabulations and report exact test statistics, p-values, and measures of association (21,25).

Future research should employ probability-based or stratified sampling and include practitioners from multiple cities, rural areas, and different levels of eye-care services. Standardized clinical vignettes could be used to determine how prescribing decisions change according to age, symptoms, refractive magnitude, cycloplegic findings, accommodative status, binocular function, and occupational demand. Qualitative interviews could further explore why optometrists prefer full correction, partial correction, or observation. Prospective studies comparing these strategies would also help determine their effects on symptoms, visual performance, spectacle adaptation, binocular function, quality of life, and patient satisfaction. Overall, the study demonstrated that prescribing for borderline hyperopia among optometrists in Lahore varied considerably and was influenced mainly by patient symptoms, age, and refractive findings. Combined objective and subjective refraction was the most commonly reported assessment approach, while full correction was frequently prescribed even for asymptomatic patients. The strong perceived need for standardized guidelines suggested that practitioners recognized the limitations of inconsistent prescribing practices. The findings supported the development of evidence-informed, patient-centred guidance that incorporated refractive, accommodative, binocular, symptomatic, and functional considerations while allowing appropriate clinical judgement.

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CONCLUSION

The study concluded that prescribing practices for borderline hyperopia among optometrists in Lahore varied considerably and were shaped by patient symptoms, age, refractive findings, accommodative and binocular vision status, and visual demands. Although combined objective and subjective assessment was commonly preferred, differences remained in the choice between full correction, partial correction, and observation, particularly for asymptomatic patients. These findings highlighted the need for standardized, evidence-based prescribing guidance that supports consistent yet individualized clinical decision-making. The development of such guidance, together with continuing professional education and further outcome-based research, could improve the quality, uniformity, and patient-centred delivery of refractive care in Pakistan.

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