

# Habits related to eye examinations among the Spanish population

## Hábitos relacionados con las revisiones oculares en la población española

Nery García-Porta<sup>1,2\*</sup>, PhD; Irene Martínez-Alberquilla<sup>3,4</sup>, PhD; Sofia Rendo-González<sup>1,2</sup>, MSc; Justo Arines<sup>1,2,S</sup>,

*1Applied Physics Department (Optometry area), Optics and Optometry Faculty. University of Santiago de Compostela, 15782 Spain.*

*2Institute of Materials (iMATUS) of the University of Santiago de Compostela. Spain*

*3Department of Optometry and Vision, Optics and Optometry Faculty, Universidad Complutense de Madrid. Spain*

*4Clinical and Experimental Eye Research Group, Faculty of Optics and Optometry, Universidad Complutense de Madrid. Spain*

\*) E-mail: nery.garcia.porta@usc.es

S: SEDOPTICA member

Received: 18/11/2024

Accepted: 17/06/2025

DOI: 10.7149/OPA.58.2.51191

### ABSTRACT:

**Introduction:** regular eye exams are essential to detect refractive errors and sight-threatening conditions. In Spain, these eye exams can be performed by two different eye care professionals (ECPs), optometrists and ophthalmologists. The aim of this survey was assessing how regular the Spanish population usually do their eye exams, as well as the usual ECP selected to do them.

**Methods:** an anonymous online survey was distributed using Microsoft Forms. It included questions related to personal characteristics, information about how often and where respondents usually do eye exams, the usual place for acquiring spectacles, and where they usually fit and buy contact lenses.

**Results:** four hundred and twenty-three people completed the survey ( $42.8 \pm 16.5$  years old, 66% female). The majority reported doing regular exams every year or every 2 - 3 years, but 22.0 % of respondents do not usually do regular eye exams and 6.6% do them every 4 or more years. 50.8% of respondents reported doing their eye exams in a "optician centre or with the optometrist", 30.5% "with the ophthalmologist, in an ophthalmological clinic or hospital", and 13.2% "alternate the place". A few respondents reported going to university eye clinics or using apps or online software to test their vision. To acquire graduated spectacles, 97.0% of respondents usually go to an optician centre. Among those who reported using contact lenses, most said that they fit (88.5 %) and buy (87.6 %) them in optician centres.

**Conclusions:** An important number of adults do not check their eyes regularly, which highlight the need of campaigns to raise awareness among general population about the importance of checking their vision and ocular health.

**Key words:** eye exams, optometrist, ophthalmologist, contact lenses, spectacles, optician center

---

**REFERENCES AND LINKS**

- [1] National Health Service. How often can I have a free NHS sight test? <https://www.nhs.uk>
- [2] CNOO. Un tercio de los españoles no revisa su visión periódicamente a pesar de que en torno al 70% de la población tiene alguna disfunción visual. [www.cnoo.es](http://www.cnoo.es).
- [3] Eurydice. Spain - Population: demographic situation, languages and religions.
- [4] Statista. Median age of the population in Spain from 1950 to 2050. <https://www.statista.com/statistics/275398/median-age-of-the-population-in-spain/>.
- [5] GBD 2019 Blindness and Vision Impairment Collaborators, Vision Loss Expert Group of the Global Burden of Disease Study. "Causes of blindness and vision impairment in 2020 and trends over 30 years, and prevalence of avoidable blindness in relation to VISION 2020: the Right to Sight: an analysis for the Global Burden of Disease Study." *The Lancet*. Global health 9:e144-e160 (2021)
- [6] Ley 44/2003, de 21 de noviembre, de ordenación de las profesiones sanitarias <https://www.boe.es/eli/es/l/2003/11/21/44>.
- [7] Orden CIN/727/2009, de 18 de marzo, por la que se establecen los requisitos para la verificación de los títulos universitarios oficiales que habiliten para el ejercicio de la profesión de Óptico-Optometrista. <https://www.boe.es/eli/es/o/2009/03/18/cin727>.
- [8] Orden SAS/3072/2009, de 2 de noviembre, por la que se aprueba y publica el programa formativo de la especialidad de Oftalmología. [https://www.boe.es/diario\\_boe/txt.php?id=BOE-A-2009-18278](https://www.boe.es/diario_boe/txt.php?id=BOE-A-2009-18278).
- [9] Colegio de ópticos-optometristas de Castilla y León. INCORPORACIÓN DEL ÓPTICO-OPTOMETRISTA EN LA SANIDAD PÚBLICA DE CASTILLA Y LEÓN (2022)
- [10] Instituto Nacional de Estadística. Población por sexo, nacionalidad (española/extranjera) y tamaño de municipio <https://www.ine.es/jaxi/Datos.htm?tpx=55203#!tabs-tabla>.
- [11] Holden BA, Fricke TR, Wilson DA, *et al.* "Global Prevalence of Myopia and High Myopia and Temporal Trends from 2000 through 2050". *Ophthalmology* 123:1036-1042 (2016)
- [12] Sherwin JC, Khawaja AP, Broadway D, *et al.* "Uncorrected refractive error in older British adults: the EPIC-Norfolk Eye Study". *The British journal of ophthalmology* 96:991-996. (2012)
- [13] Consejo General de Colegios de Ópticos-Optometristas. Libro blanco de la salud visual en España 2022. (2022)
- [14] World report on vision. Geneva: World Health Organization (2019)
- [15] Deia. El óptico-optometrista, una figura necesaria y demandada dentro de la sanidad pública. <https://www.deia.eus/salud/2022/11/27/optico-optometrista-figura-necesaria-demandada-6261912.html>. (2022)
- [16] Pucker AD, Tichenor AA. "A Review of Contact Lens Dropout". *Clinical optometry* 12:85-94 (2020)
- [17] Morgan PB, Efron N, Woods CA, *et al.* "An international survey of contact lens prescribing for presbyopia". *Clinical & experimental optometry* 94:87-92 (2011)

## 1. Introduction

Regular eye exams are recommended for everybody, being their frequency dependent on age and personal characteristics. In general, adults up to 40, without risk of suffering a particular eye disease (e.g., diabetic retinopathy) or eye complication (e.g., retinal detachment), should test their eyes every two years [1, 2]. One of the reasons is that everybody can present a refractive error (i.e., myopia, hyperopia, or astigmatism), whose magnitude can change with time. Therefore, in order to enjoy clear vision, patients might need to change the optical prescription of their visual aids (e.g., spectacles). In addition, presbyopia is a refractive error that makes people have difficulties seeing sharply near objects, which is due to a deterioration in the accommodation system with ageing. Spain is a country with an increasingly ageing population. The median age of the Spanish population was 44 years old in 2022 [3], and it is expected to increase to 53 years old by 2050 [4]. Therefore, considering that presbyopia symptoms usually appear between 40 and 50 years, the number of people presenting vision problems in Spain is also increasing. Only this fact highlights the importance of doing regular eye exams but, after 40, the risk of suffering sight-threatening age-related conditions increases. According to the literature, the main causes of blindness and vision impairment in Spain include diabetic retinopathy, age-related macular degeneration, myopic retinopathy and glaucoma [5]. The economic burden and impact on quality of life due to the vision loss associated with these conditions can be significantly reduced with early detection and proper timely intervention. Some sight-threatening conditions are symptom-less in early stages (e.g., glaucoma), but with proper treatment, the vision can be preserved. Therefore, people older than 40 should do a yearly eye exam, which would help to maintain good vision and at a time that it will allow detecting age-related complications promptly. If a patient presents an eye disease, the frequency of eye exams might be higher, so patients should follow the recommendations of their eye care professional (ECP).

In Spain, eye exams can be performed by two different ECPs: Optometrists (known as “ópticos optometristas”) and Ophthalmologists. Optometrists are health care professionals trained to, among other things, detect refractive errors, prescribe visual or optical aids (e.g., spectacles and contact lenses) and detect the main eye disorders in order to refer patients to the ophthalmologist, when needed [6, 7]. Ophthalmologists are medical doctors who did an extra four-years special training (known as “MIR”) to become ophthalmologists [8]. Because these two ECPs have different backgrounds and competencies, they work together in many private eye clinics and hospitals. In the public National Health System, the situation is different depending on the Spanish Region. Ophthalmologists are part of the National Health System in all regions in Spain, being in some of them the only ECP included in the public system. Optometrists are included in eleven out of seventeen regions, but, in total, less than 400 optometrists are part of the public health system in the whole country [9]. This leads that most optometrists in Spain work in private Opticians centres and, if they suspect that a patient presents (or they are at risk of suffering) an eye disease, the optometrist refers the patient to the ophthalmologist. Ophthalmologists are responsible for doing the eye disease diagnosis and providing proper treatment when needed.

Considering the information above, the aim of this survey was to assess the habits of doing regular eye exams by the Spanish population, assessing where they usually test their eyes and with which frequency. To our knowledge, there are no studies published recently with this information, nor regarding their habits of acquiring the most common visual aids (spectacles and contact lenses). The results of this study will let governments and professional bodies know whether it is necessary to carry out awareness campaigns on the importance of doing regular eye exams

## 2. Methods

### 2.a. Survey development and distribution

To find out where and how often the Spanish population usually do eye exams, assessing differences among age groups and personal characteristics (e.g., having an eye disease), a survey was distributed online in Spain. The aspects captured in the survey included: a) demographic information; b) information about when and where they usually do eye exams; c) information related to the use and place where people usually buy spectacles and contact lenses.

To develop the survey, first, one of the research members (NGP) provided a draft of the survey, which was reviewed by two other team members (JAP, IAM). After implementing minor changes, 5 naive people completed the initial survey and provided feedback. Considering the information provided, the final survey

was prepared. This study was conducted online using Microsoft Forms, which complies with the European General Data Protection Regulation. Before distributing the survey, the final Microsoft Forms survey was reviewed by the whole research team to ensure functionality. The survey was distributed online using social media and it was open from 24/04/2023 to 29/05/2023. Participants completed a minimum of 12 and a maximum of 19 questions, some questions appeared only if they were relevant depending on their answers. For instance, when participants reported suffering from an eye disease, they were then asked which eye disease they had diagnosed. All the questions were mandatory. At the end, participants had the option of providing additional information relevant to the content of the survey. A copy of the full survey can be requested by contacting the corresponding author.

## 2.b. Ethics approval and study design

Ethics approval was granted by the University of Santiago de Compostela Ethics Committee. The study followed the Tenets of the Declaration of Helsinki. Data was collected anonymously, without recording any personal data that would allow recognising the participants.

## 2.c. Data analysis

Responses to the survey were analysed using SPSS version 28.0 (SPSS Inc., Chicago, IL, USA). Statistical descriptive analysis was performed to assess the percentage of respondents with specific characteristics (e.g., suffering from an eye disease) or habits (e.g., frequency of doing regular eye exams). Pearson correlation was used to analyse the correlation between different parameters. The sample size needed, if 40 million people in Spain are older than 18 years old, for a level of confidence of 95% and an error margin of 5%, was 385. P-values < 0.05 were considered significant.

## 3. Results

### 3.a Demographic information and characteristics of respondents

A total of 423 participants with a mean age of  $42.8 \pm 16.5$  years old (range: 18 -79) completed the online survey. Almost half of the respondents (48.7%) were young adults with ages between 18 – 39; 29.3 % were adults with ages between 40 - 59; and 22% of participants were 60 years old or above. The majority of the respondents were females (66%). Most of the participants reported living in a city with at least 50.000 residents (70.2%). Responses were received from 13 different Spanish regions (see Table 1), but most of the respondents were based in Galicia (29.3 %) and Madrid (20.8%).

Table 1. Respondent's distribution across Spain.

Percentage of responses received from the different regions	Type of place of residence
Galicia: 29.3 % Madrid: 20.8 % Andalucía: 9.9 % Cataluña: 9.7 % Castilla la Mancha: 9.7 % Castilla y León: 7.6 % Valencia: 6.6 % Extremadura: 2.8 % Murcia: 0.7 % Asturias: 1.7 % Balears: 0.7 % Cantabria: 0.2 % La Rioja: 0.2 %	City with at least 50.000 residents: 70.2 %  Village with at least 5.000 residents: 21.5 %  Small village or rural area (less than 5.000 residents): 8.3 %

The majority of the respondents reported not suffering from any eye disease (89.1%). Considering those with an eye disease diagnosed, 46.2% of them were 60 years old or above. The most common eye diseases reported were pathological myopia (n=5), myopia with no clarification if pathological or not (n=6), cataract

(n=5), glaucoma (n=4), and dry eye (n=4). 1.7% of the respondents did not know if they had been diagnosed or not an eye disease.

Regarding refractive errors, the combination of myopia and astigmatism was the most common reported (24.3 %), followed by only presbyopia (14.9%) and only myopia (13.9%). 71.8 % of respondents who reported having myopia and astigmatism and 66.1% of those who reported presenting only myopia were young adults (between 18 – 39 years old).

An interesting data is that only 12.8% of respondents said that they did not have any refractive error, while 20.6% reported not having graduated spectacles. This means that 7.8 % of respondents had a refractive error with no spectacle correction. In addition, 2.4% of participants reported not having any idea if they had or not a refractive error. Therefore, it might be possible that some of them also had an uncorrected refractive error. Regarding contact lens wearers, all of them reported having graduated spectacles, although 7.1 % said that their prescription was not updated.

### 3.b Eye exam habits

Regarding the frequency of doing regular eye exams, most of the respondents usually do them every year (32.2%) or every 2 - 3 years (31.9%). However, 22.0% of respondents reported not doing regular eye exams and 6.6 % said that they usually do them every 4 or more years. Since regular eye exams are, in general, more important in older people, a further analysis was performed to assess the habits in three different age groups (young adults 18 – 39; middle-aged 40-59; old adults ≥ 60). The results showed that 16.1% of respondents older than 60 years check their eyes with a periodicity lower than one year, being the percentage of respondents selecting this option much lower in the middle-aged and young adults groups (see Table 2). Although the percentage of respondents who reported not doing regular eye exams was higher in the young adults group, 32.8 % of participants 40 years old or above also reported not checking their eyes regularly.

Table 2. Percentage of answers related to regular eye exams, frequency and place/professional, organised by age groups.

	18-39 years	40-59 years	> 60 years
<b>Frequency of doing regular eye exams</b>			
Less < 1 year (%)	4.9	4.8	16.1
Every 1 year (%)	31.6	38.7	24.7
Every 2-3 years (%)	31.1	28,2	38.7
Every 4-5 years (%)	3.4	5.6	8.6
Every > 5 years (%)	1.9	1.6	0.0
No regular eye exams (%)	27.2	21.0	11.8
<b>Usual place &amp; professional selected for regular eye exams</b>			
Optician centre or with the optometrist (%)	54.9	52.4	39.8
With the ophthalmologist, in an ophthalmological clinic or hospital (%)	21.4	32.3	48.4
University optometry eye clinic (%)	4.9	4.0	0.0
Alternating the place (%)	15.5	10.5	11.8
Apps or online software (%)	3.4	0.8	0.0

When assessing the habits of those who had been diagnosed with an eye disease, it was seen that 48.7 % usually do eye exams every less than one year, but 5.1 % reported not doing regular eye exams and 5.1% reported doing them every 4 or 5 years.

With regard to the place and professional selected for doing regular eye exams, most of the respondents (50.8%) selected the option “optician centre or with the optometrist”, and 30.5% selected the option “with the ophthalmologist, in an ophthalmological clinic or hospital”. Figure 1 shows the percentage of people who selected the different options. At the end of the survey, one respondent clarified that for full eye examinations usually goes to an ophthalmologist, but for ocular refraction trusts optometrists. Four participants clarified that they do their eye exams when they attend their company medical examination, but this option was not included in the survey. Two of them had selected “with the ophthalmologist, in an ophthalmological clinic or hospital”, one “apps or online platforms”, and one had selected the option of “alternating the place”.

### Where do you usually do your regular eye exams?

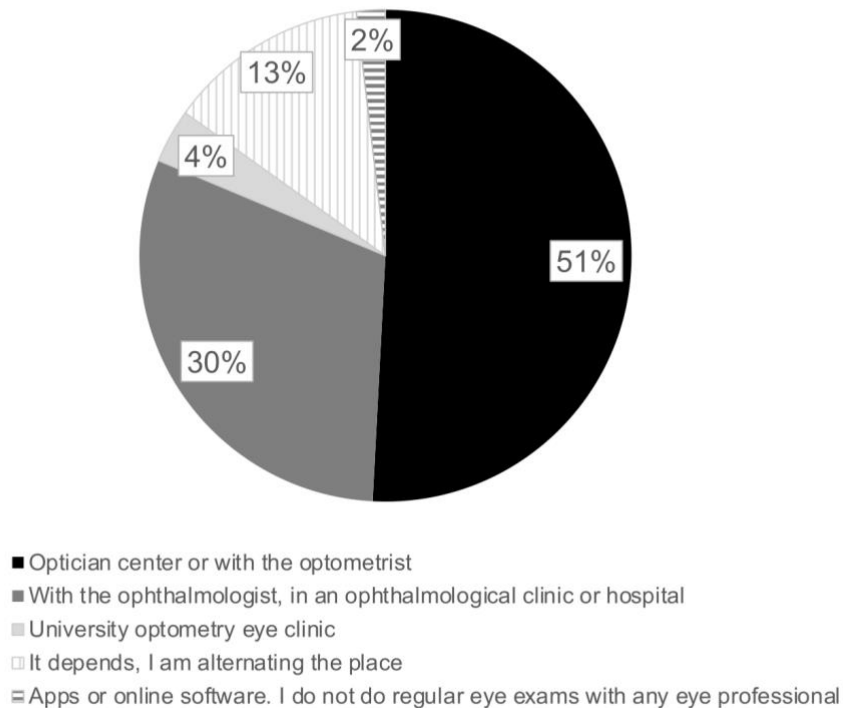


Figure 1. Place and eye care professional selected for regular eye exams.

The percentage of respondents in the different age groups who usually go to the different ECPs was also assessed. The results showed that within the older group (> 60 years old), the majority of respondents usually go to the ophthalmologist, while within the young adults and middle-aged groups, most participants reported doing their regular eye exams with optometrists (see Table 2).

It was also assessed if the preferred option for regular eye exams was dependent on the place of residence. The results showed that 45.8% of respondents living in a city selected the option of “optician centre or with the optometrist” for doing their regular eye exams, increasing this percentage up to 60% for participants living in “small villages or rural areas”. Also, almost 14% of people living in cities reported that they “alternate the place” where they usually do their eye exams (e.g., sometimes in an optician centre and others in a hospital). However, in small villages and rural areas, less than 5% of participants said that they “alternate the place” selected for regular eye exams (see Table 3).

Table 3. Place of eye examination depending on the place of residence.

	City	Village	Small villages or rural areas
Optician centre or with the optometrist (%)	45.8	63.7	60.0
With the ophthalmologist, in an ophthalmological clinic or hospital (%)	34.7	17.6	28.6
University optometry eye clinic (%)	3.4	3.3	5.7
Alternating the place (%)	13.8	14.3	5.7
Apps or online software (%)	2.3	1.1	0.0

The main reasons reported to do the eye exams in the “optician centres or with optometrists” were: “trusting the optician’s professionals” (31.8%), followed by “convenience” (20%) and because “it is the place where I fit my contact lenses” (14%) (see Figure 2). The main reasons reported to choose the option “with the ophthalmologist, in an ophthalmological clinic or hospital” were “trusting the ophthalmologists” (38.8%), followed by “because the eye examination is more extensive than in the optician centres” (24.8%) and “because it is where they do the follow up of my eye disease” (24.0%).

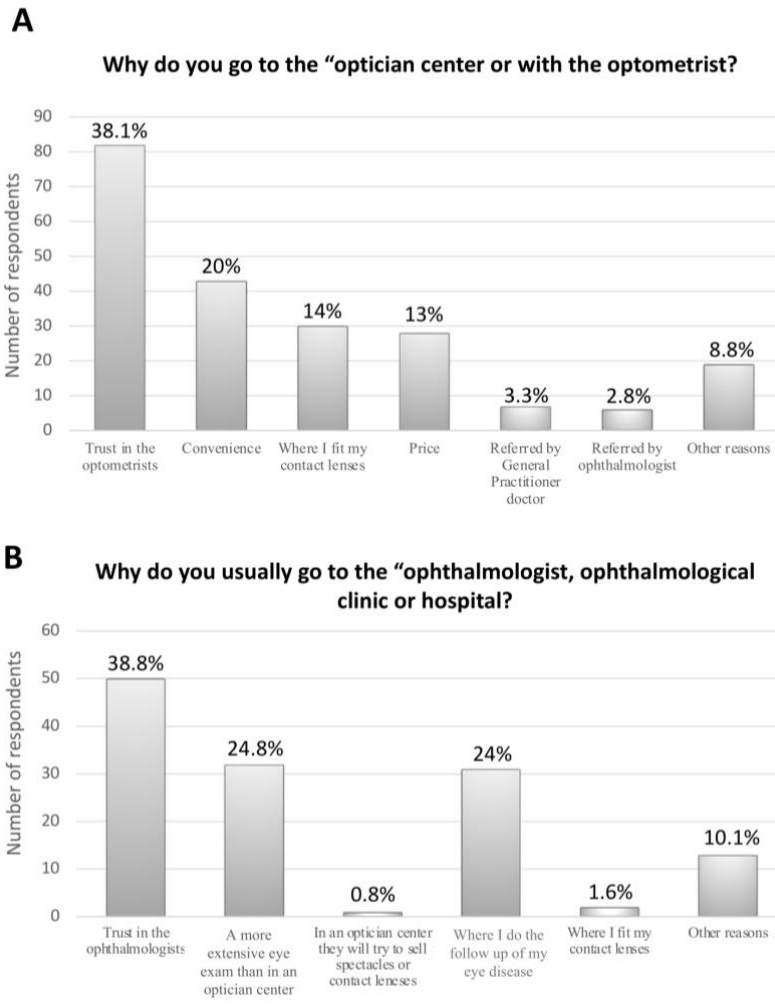


Figure 2. Reasons reported to do the regular eye exams in an “optician centre or with the optometrist” (A) or “with the ophthalmologist, in an ophthalmological clinic or hospital” (B).

### 3.c. Places for buying spectacles.

The place selected for buying spectacles was dependent on the type of spectacle. The vast majority of respondents reported buying their graduated spectacles in optician centres (97.0 %), and only 3% of participants selected the option of “in a pharmacy” (no other options were selected).

Regarding sunglasses, 87.7 % of respondents reported using sunglasses, including people who usually use them regularly and occasionally. Among respondents who reported having sunglasses, 81.9% said that they usually buy them in optician centres, 8.9% in fashion stores, 6.5% online, and just a few respondents selected the options of pharmacies (1.6%) and market streets (0.5%).

### 3.d Places for buying contact lenses.

The final section of the survey was focused on contact lenses. Only 14.9% of respondents reported using them on a regular basis of two or more days per week, 11.8% reported using them occasionally (e.g., when they have an event), and 14.9% reported that they had used CLs in the past, but they have dropped out their use. The rest of the respondents said that they had not used CLs ever. There was a clear correlation between age and the use of contact lenses ( $p < 0.01$ ). Among contact lens wearers (including regular and occasional use), 68.1 % were young adults (18 – 39 years old), 24.8% were middle-aged adults (40 – 59 years old) and just 7.1% were 60 years old or above.

Among those who currently use their contact lenses, 88.5 % fitted them in an optician centre, 6.2 % in an ophthalmological clinic or hospital, and 1.8 % in a university eye clinic. 2.7 % reported not having done any contact lens fit with any ECP.

Most contact lens wearers reported buying their lenses in optician centres (87.6 %), 6.2 % usually buy them online, 2.7 % reported buying them in ophthalmological eye clinics or hospitals, and 2.7 % said that they select the place depending on price.

## 4. Discussion

Visual exams are key in maintaining good ocular health and early detecting signs or symptoms of eye diseases. Given the different options available in Spain to perform these eye exams, either related to the ECP (optometrist or ophthalmologist) or related to the place (optician centres, hospitals, or private ophthalmological clinics), it is crucial to analyse this information. Thus, this study aimed to assess the habits of the Spanish population in doing eye exams, along with the place and frequency of those exams.

### 4.a Demographic information and characteristics of respondents

The 423 survey respondents were part of the Spanish population and corresponded to an age range of 18 to 79 years. Most of them lived in cities with at least 50000 residents, followed by villages and rural areas, a representative feature of the Spanish population [10]. Although about 50% of them were based in Galicia or Madrid, the survey grouped residents from 13 different regions around the country, including inland and coast regions.

Of the respondents, just a few presented eye diseases, which can be explained by the fact that most of the participants in this survey were young adults (48.7%). In this regard, the results of this study might be slightly biased towards the habits of the younger generations, which is a result of the methodology followed (younger people are, in general, more active on social media than elderly people).

Regarding refractive errors, the combination of myopia and astigmatism was the most frequently reported. In this study was seen that the prevalence of myopia (including only myopia and the combination of myopia and astigmatism) is higher in the group of young adults. Currently, there is no information published on the prevalence of the different refractive errors among adults in Spain, but these results are in alignment with the trend of increasing the incidence and prevalence of myopia among young generations worldwide [11].

Among those with any refractive error, 7.8% reported not wearing spectacles, which means a spectacle coverage of 92.2 %. This percentage of uncorrected refractive error is considerably high when compared with data from other European countries. For instance, in a study performed in the United Kingdom, only 1.9% of older adults presented an uncorrected refractive error [12]. This difference could be, in part, due to the fact that the British National Health Systems covers graduated spectacles while the Spanish one does not do it. Further studies are needed to confirm this data.

#### 4.b Eye exam habits

Regarding the frequency of eye exams, most of the respondents usually check their eyes yearly and every 2-3 years. These results are similar to those obtained in the “White Paper of visual health in Spain 2022”, in which 800 people were randomly phone called and interviewed about their visual habits [13]. They found that the vast majority of interviewees who regularly checked their vision, do it once a year (56% in 2021), followed by who do it every 2 years (26%). However, the results of this phone survey showed that a significant number of people do not follow the recommendations of doing regular eye exams every one-two years, which agrees with the results found in the present study [13].

In the present work was seen that an important percentage of respondents 40 years old or above reported not doing eye exams regularly or doing them every 4 or 5 years. This fact should be taken into consideration given that the older population is more prone to develop age-related eye diseases, such as age-related macular degeneration, diabetic retinopathy, glaucoma, or dry eye disease, which need specific monitoring and treatment. In addition, some of these diseases (e.g., glaucoma) do not show symptoms until patients have lost a significant amount of vision, which highlights the importance of doing regular eye exams. These results highlight the importance of increasing awareness about eye care needs, promoting regular eye exams among the general population, which is also one of the recommendations of the World Health Organization (WHO) [14].

Concerning the place of these exams, the Spanish population seems to trust optometrists although they are not in the national health system in several Spanish regions [9]. These findings agree with the “White Paper of visual health in Spain 2022”, which found that the main place where people went to check their vision was the optician centre (47%), followed by the ophthalmologist (27%) [13]. It is important to note that some respondents do their visual exams in the optician centre because of the price, even though public health in Spain is free. This could mean that long waiting lists in the public health system make people choose between paying for a private ophthalmological clinic or going to an optician centre [15]. Further studies are needed to assess this aspect.

When analysing the effect of the place of residence (number of residents) on the place and ECP selected for performing eye exams, people living in villages or rural areas choose the optician centre to a greater extent than those living in cities. This finding could probably be explained because hospitals or private clinics are usually located in cities, being less accessible for those who do not live there. Considering that one of the recommendations of the WHO 2019 World Report on Vision was implementing integrated people-centred eye care into the health systems [14], a potential improvement could be following the example of the United Kingdom, where patients have access to optometric eye exams in their communities, being the costs of the visits covered by the national health system [1].

#### 4.c. Places for buying spectacles.

It is comforting to observe that 97% of the respondents buy their graduated spectacles in optician centres, as graduated spectacles are considered medical devices in Spain. Although there are some websites that offer graduated spectacles (e.g., <https://www.gafas.es/>), this alternative does not seem to be successful in Spain, and people choose to purchase them in specialised centres. Regarding sunglasses, a small percentage of people reported buying them in fashion stores, online, pharmacies and on street markets. Given that sunglasses are considered protective material (whereas they do not have graduated lenses) instead of medical devices, these alternatives are valid as long as the sunglasses meet quality standards.

#### 4.d. Habits related to contact lenses.

Regarding contact lens wear, it should be noted that the number of people who wear contact lenses on a regular basis was like those who had dropped out of their use (14.9% each). The percentage of dropouts is similar to the one found in other studies [16]. The results of this survey also showed that contact lens wear decreases with age, which was also found in an international survey published in 2011 [17]. The authors explained it by the lack of a “perfect” contact lens that provides satisfactory comfort during wear without compromising presbyopic visual demands. Thus, it would be interesting to investigate this fact further to compensate for the under-prescription of presbyopia-correcting contact lenses.

To fit contact lenses, the vast majority of respondents trust optometrists to do it (88.54%). It is important to highlight that, although most of the respondents of this survey had fitted their contact lenses with an ECP (either optometrist or ophthalmologist), a small percentage of wearers reported not having done any

contact lens adaptation. Because a comfortable contact lens does not ensure an adequate lens fit (e.g., ensuring an alignment fit, right total diameter and suitable material for the desired wearing time), it is important that professional bodies organise campaigns to reinforce the importance of fitting contact lenses with ECPs. In addition, 6.2% of respondents reported that they buy their contact lenses online. This fact arises the question of whether a contact lens purchase should be accompanied by a lens prescription, which should have an expired date. It is possible that some contact lens wearers are ordering online lenses fitted by ECPs several years ago, since when their eye shape and refractive error could change. Hence, requiring an updated lens prescription to allow dispensing contact lenses could be interesting, something that is already implemented in other European countries (e.g., the United Kingdom).

Additionally, there is a significant percentage of respondents with a refractive error who have never tried contact lenses. This could be due, among other reasons, to either a low interest of the Spanish population in wearing contact lenses or to a not active attitude in offering this option from ECPs. The results of this survey show that the contact lens market in Spain has still a margin to grow up.

## 5. Conclusions

An important percentage of respondents, including people older than 40 years, reported not doing regular eye exams or doing them every 4 or 5 years. For contact lens fitting, most respondents reported fitting their lenses with optometrists, but still a small percentage (2.7%) of respondents reported not having done any contact lens fitting with any ECP. Therefore, awareness campaigns promoting regular eye exams are needed. Regular eye exams allow detecting and preventing sight-threatening eye diseases, avoidable vision impairment conditions (e.g., un-corrected or miss-corrected refractive errors) and contact lens related complications.

Among those who usually do regular eye exams, the ECP (optometrist or ophthalmologist) and place (optician center, hospital or ophthalmological clinic) selected are dependent on the age and place of residence. The percentage of young people who usually go to the optometrist/optician center is higher than among older people. The same happens with people living in small villages and rural areas compared to people living in cities. Further studies assessing the accessibility to specialized eye care (ophthalmology eye care) in rural areas in Spain are needed.

## Acknowledgements

This work has been partially funded by Ministerio de Ciencia e Innovación PID2020-115909RB-I00, and by Consellería de Cultura, Educación e Ordenación Universitaria, Xunta de Galicia (ED431B 2023/07). Nery Garcia-Porta was supported financially by a Maria Zambrano contract at USC under the grants call for the requalification of the Spanish university system 2021-2023, funded by the European Union—NextGenerationEU. Irene Martínez-Alberquilla holded a fellowship from Universidad Complutense de Madrid and Banco Santander, Spain (CT63/19-CT64/19). Sofía Rendo-González holds a FPU predoctoral fellowship from Ministerio de de Ciencia, Innovación y Universidades, Spain.