

## Geriatric Vision Care – a New Look at the Old

World-wide, Optometry is expanding its scope of practice in many jurisdictions. The campaign to use therapeutic pharmaceutical agents (TPAs) is on-going in most countries and optometrists are increasingly becoming involved in co-managing glaucoma and the ocular complications of diabetes, interfacing with systemic and ophthalmic specialists. Optometrists continue to define their role as members of the healthcare team by serving as post-operative care specialists following refractive and cataract surgeries. In addition, Optometry continues to be a leader in pediatric eye care and pediatric eye research, including working with children with learning disabilities and children with special needs (multiple-challenges). While low vision, contact lenses and orthoptics (vision training/binocular vision) remain staples of the traditional domain, they should not be ignored at the expense of new growth. Even as we struggle, some ask, “is the time ripe for Optometry to begin to recognize its own subspecialties?” Although all optometrists graduate as primary eye care providers, as the profession expands special interest practitioners have laid claim to areas of expertise such as sports vision specialist, rehabilitation vision specialist, neuro-optometric specialty and so on. Just as medicine, and then ophthalmology before us, recognized sub-disciplines, should Optometry mature along a similar path?

Geriatric optometry is, perhaps, the newest subspecialty of Optometry. We do not need to remind readers of the aging of the population in most developed and developing countries and the increased eye care needs that will ensue. While a large proportion of the older population maintains an active and healthy life for many years, there is a percentage that requires more health care, including eye care. Eye care is still under-provided in nursing homes, and the rate of visual impairment is 3 to 30x higher compared to community-dwelling adults.<sup>1,2</sup> Fifty-seven percent of this population have visual impairment (VA <6/12)<sup>2</sup> and near acuity is often poorer than distance acuity (indicating that spectacle correction could be improved). As many as 94% of patients with dementia in nursing home settings require glasses for myopia or presbyopia, but only 31% of these may be using adequate spectacles.<sup>3</sup> Thus the frail elderly are a particular segment of this population who are slipping through the cracks. Yet many of the conditions found in this population are treatable.<sup>3,4</sup>

Visual impairment is associated with many negative consequences in the elderly. This includes poorer economic stand-

ing, poorer physical and mental health, more social isolation and less social support.<sup>5</sup> Age-related macular degeneration is associated with more visual stress and an increase in musculoskeletal complaints.<sup>6</sup> Poor vision is an important predictor of falls<sup>7</sup> with poor visual acuity, contrast sensitivity, stereopsis and visual impairment all increasing the frequency of lost balance<sup>8,9</sup> and the degeneration of coordination that results from decreased spatial orientation and awareness. Interestingly, the Morse Falls Scale Assessment,<sup>10</sup> which is a standardised instrument used for intake into some hospital settings, does not include any questions on vision. Falls in the elderly population are of great concern, as they result in an increased risk of morbidity, mortality, increased dependence, and increased cost to the health care system.<sup>11</sup> Vision assessment is recommended as a part of falls prevention programmes.<sup>12</sup>

This Special Issue of the Journal of Optometry covers topics of critical interest to those who are involved in research into vision in the elderly or in their clinical care; management of disease in the elderly,<sup>13</sup> glare testing,<sup>14</sup> gaze behavior and balance,<sup>15</sup> and quality of life.<sup>16</sup> We learn that cataract surgery can result in successful outcomes in the oldest segment of the elderly population and that this improvement in visual acuity translates into more activities of daily living.<sup>17</sup> The visual impact of Alzheimer’s disease is reviewed.<sup>18</sup> Although the optometrist would seldom be involved in the detection or diagnosis of Alzheimer’s disease, s/he should be vigilant for the visual deficits which may occur (e.g. difficulty with smooth pursuits and fixation, reduced contrast sensitivity and colour vision, difficulty with reading and object recognition) and suggest accommodations as necessary.

It is clear that there is need for more research on the elderly and vision (e.g. there are few studies that specifically consider the impact of disease management or surgery in the elderly) and there is much work to be done to improve the clinical eye care of elderly persons. While Optometry has an obvious and major role to play in the measurement and optimization of functional vision and in the treatment of many vision disorders in the elderly population, Optometry is also responsible for building the evidence base for the treatments we offer the elderly.

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