

Facts About Visual Impairments

Introduction

The following pages contain general information about visual impairment and about persons who have visual impairments. It describes the professional jargon and the demographics.

The Language

The persons who experience visual limitations are as diverse as are the members of the general population of which they are a relatively randomly selected subset. Although they share the commonality of limited vision, they share little else. Even their visual impairments do not make them one, because the causes and/or circumstances surrounding vision loss are infinitely varied. The resulting diversity of the population causes the need for numerous words to describe segments of the group. However, unlike descriptive words used in more scientific disciplines, they tend to be poorly defined and used indiscriminately. Terms like visually impaired, visually handicapped and blind are for example often used to describe the overall group. In addition, terms go in and out of vogue as the language of the general population changes. Whereas, "partially sighted" once described persons with useful but limited vision, the newer term "low vision" has now taken its place. Also, more recent publications generally address disabled persons in what is considered a more respectful and indeed a more accurate way. An individual once called a "blind person" is now commonly referred to as a "person who is blind". Adding to the problem is the misuse of adjectives as nouns. For example, it is common to hear practitioners say "the blind", rather than "blind persons" or "persons who are blind". The noun use of "blind" is more expedient from a language use standpoint, but is impersonal and inaccurate.

As a result of the terminology confusion, there is a tendency among recent writers to define terms more generically (Barraga, 1976; Scholl, 1986). Thus, there is also a tendency toward functional definitions and away from those containing arbitrarily chosen numeric boundaries. Although there is a trend toward functional definitions, there is one which is still expressed in objective

terms. It has survived because it is used by the federal VR system as the standard by which eligibility for service is determined. It is termed the "**legal definition of blindness**" and is based on visual acuity, visual field and type of corrective lenses worn during testing. Acuity is a measure of one's ability to recognize letters or other graphic symbols. It is expressed as a fraction, the numerator of which is the distance in feet at which the person being tested is able to identify the form being viewed, while the denominator is the distance at which the normal eye can discern the symbol. Therefore, an acuity expressed as 20/20 indicates that the person being tested has normal vision. Visual field is a measure of the angle of the cone of vision. As peripheral vision is lost the angle decreases, causing a "tunnel vision" effect. In order to be considered legally blind, a person must have a visual acuity of 20/200 or less in the better eye or the visual field must subtend an angle of 20 degrees or less in the better eye and the lenses being worn during the examination must be standard, i.e., of the type used to correct myopia, hyperopia or astigmatism (Koestler, 1976).

Obviously, the legal definition is an arbitrarily chosen parameter that does not relate to functional ability in a concrete way. In fact, persons who fall within the boundaries of the legal definition range in visual ability from having none to being able to read newspaper print. Perhaps more importantly, there are persons who are not legally blind, but experience significant functional limitations. Yet they do not qualify for VR services.

In order to understand the terms utilized in this text, it appears necessary to define them, so they are presented in Table 1.1. It should be noted that terms are generally defined functionally. In addition, some have generic meanings and others more specific ones. For example, "visually impaired persons" and "visually handicapped persons" are used synonymously in referring to the entire group, while "blind person" is limited to those with no functional vision.

Demographics

Persons who are served by the rehabilitation network generally fall under the large umbrella created by the legal definition of blindness, because it, for the most part, is required for service. Unfortunately, there are few good estimates of the number of persons who fall therein, because it is a monumental task to actually conduct a survey in which visual acuities are measured. As a result, alternative but less accurate means have been used to predict the population size. The most quoted figures have been derived from surveys conducted by the National Center for Health Statistics (1988), which are based on an interviewee's ability to read newsprint, rather than on the parameters of the legal definition. Regardless, the prevalence figures agree strongly with those produced by the "Binocular Acuity Study", an earlier survey in which actual acuity measures were taken (Scott, 1969). Thus, the 1.391 million persons reported to be unable to read newsprint in 1977 are considered a valid estimate.

The National Health Survey indicated that: (a) age, (b) gender, and (c) ethnicity are three population characteristics that determine the incidence of visual impairment in any given population. The effect of age is overwhelmingly stronger than the other two, the occurrence rate being some 44 times as great in the segment of the population over 65 years than in that below 45 years (See Table 1.2). In addition, some 7 out of every 10 persons with a visual impairment are over 65 years of age.

Visual impairments are also more frequent in the female segment of the population than in the male group; females comprising some 60%. Similarly, incidence is higher in the non-white segment (8.8/1000) than in that of the white subgroup (6.2/1000) (Scott, 1969). The leading cause of blindness is diabetes mellitus. The disease causes premature atherosclerosis, which results in the rupturing of tiny vessels in the retina. This condition is referred to as diabetic retinopathy (DR). DR not only affects the field of vision, but may also cause extreme acuity problems as a consequence of interocular bleeding. Blood components leak into the eye, blocking the course of light from cornea to retina. Therefore, the practical problems imposed by retinopathy fluctuate greatly and range from limitations in the accomplishment of near vision tasks to mobility difficulties.

In summary, Rehabilitation Teachers serve in a variety of roles teaching a variety of tasks to people whose needs, culture, and abilities are as individual as they are. Despite this diversity, their role is clearly defined as service providers whose emphasis is on providing rehabilitation services to persons who are visually impaired.