Commentary

Longevity in dermatologists: why do so many dermatologists live so long?

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Abstract

Longevity refers to living a longer and healthier life than the average. Many dermatologists are characterized by not only longevity, but also superaging. The American Academy of Dermatology published the obituaries of 57 colleagues; 89% (51 of the 57 dermatologists) of the dermatologists were older than 80 years of age when they died. It is remarkable that so many dermatologists live so long. We propose that the longevity observed in dermatologists may not only be merely the result of chance. We hypothesize that dermatologist longevity is the result of the genetic predisposition, lifestyle (such as healthy diets, exercise, and rest), and specific career characteristics.

Introduction

The aging process is influenced by genetic and environmental factors.[1-18] There is a decline in physiological and cognitive functions during the aging process.[2] Longevity refers to living longer than the average life expectancy.[1-5]

There are many reasons why the authors chose to train and practice dermatology. When asked, one of the authors mentioned that the decision, in part, was based on the longevity of individuals in the field.[18] Although, the response is partially in jest, there is an element of sincerity to the answer.

The American Academy of Dermatology has 18,828 dermatologist members; 20.2% (3,801/18,828) are age 70 years or older (Table 1). Indeed, 12.4% (2,344/18,828) are between 70 to 79 years, 6.5% (1,225/18,828) are between 80 to 89 years, 1.2% (220/18,828) are between 90 to 99 years, and 0.1% (12/18,828) are older than 100 years (Table 1). Many of the practicing dermatologists continue to work beyond the age of 70 years; 7.8% (1,245/16,005) in their eighth decade and 1.0% (158/16,005) in their nineth decade.

At least since the mid-1980s, the American Academy of Dermatology has published the obituaries of members. The obituary is generally a single line acknowledging the individual, which lists their name, the city and state on record, the date of death, and the age at death.[6] What is amazing is the longevity of many of the dermatologists and the incredible number of superagers.[6-12]

Discussion

Obituaries

In the December 2024 issue of *DermWorld Weekly*, the American Academy of Dermatology published the obituaries of 57 members. The individuals had died from January 3, 2021, to October 5, 2024. The section mentioned that "obituaries are published quarterly in *DermWorld* after information is submitted to the American Academy of Dermatology."[6]

Summary of the data

During a period of 46 months, 53 men and four women died (Figure 1); the 57 individuals ranged from 63 years of age to 104 years of age (mean, 88 years). The men ranged from age 63 years to 104 years (mean, 88 years). The women ranged from 88 years to 91 years (mean, 90 years). A superager is someone over the age of 80 years[9]; 89% (51 of the 57 dermatologists) and 100% (four of the four women) were superagers.

Choices

Why do so many dermatologists live so long? Perhaps it is because they make the right choices. Specifically, they

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Table 1. *Practicing Versus Retired AAD Dermatology Members[a] by Selected Age Ranges[b].*

Age Ranges (y)	NET	In Practice	Percent in Practice	Retired	Percent Retired
All Ages	18,828	16,005	85%	2,823	15%
NET of 70+	3,801	1,403	37%	2,398	63%
70-79	2,344	1,245	53%	1,099	47%
80-89	1,225	158	13%	1,067	87%
90-99	220	0	0%	220	100%
100+	12	0	0%	12	100%

Abbreviations: AAD, American Academy of Dermatology; FAAD, fellow of the American Academy of Dermatology.
[a]Members include dermatologists located in the USA and non-USA dermatologists; however, dermatology residents and non-dermatologist members of the AAD are not included as members in the table. The member types included in the table are FAAD, Associate, International Fellow, International Associate, and Life; the number of AAD Life Members is 2,718.
[b]Data provided courtesy of the American Academy of Dermatology.

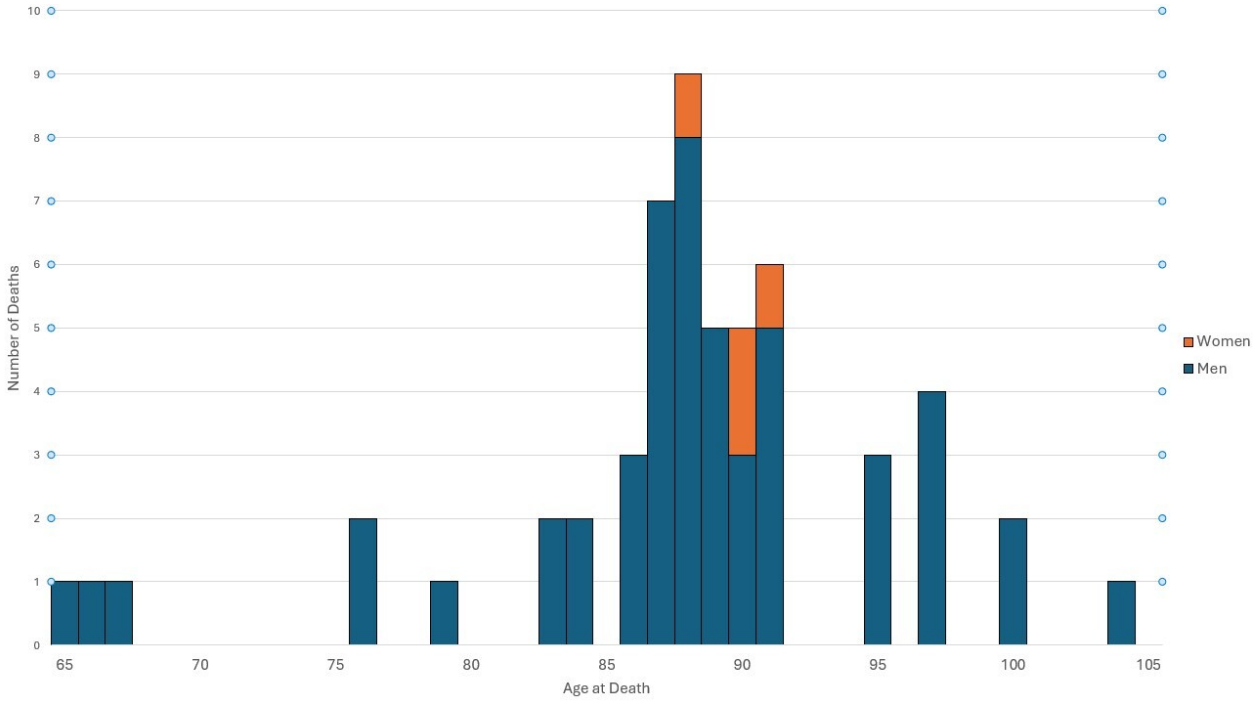

Figure 1. *The number of dermatologists dying at a specific age. From January 3, 2021, to October 5, 2024, 57 dermatologist (53 men and four women) who were members of the American Academy of Dermatology died. The x-axis is the age in years at death; the y-axis is the number of individuals at each age of death.*

choose the right parents, the right lifestyle, and the right career.

We do not really get to choose our parents. The best choice of parents are people who are genetically predisposed to longevity. These are individuals who are superagers and have long telomeres.[1-5,7-12]

Superagers

The definition of superager involves age and cognitive ability.[7,10] A superager is someone 80 or more years old; their memory capacity is at least equivalent to individuals in their 50s to 60s.[8,9,11,12] Indeed, biologic, genetic, slower brain atrophy, and psychosocial features differentiate superagers from those who are not.[9]

Superaging is more common in women.[11] The cingulate cortex, prefrontal cortex, and medial temporal lobe of superagers have youthful brain structures and brain functioning. Indeed, resting-state functional magnetic resonance imaging data can provide high accuracy for predicting superagers.[8] In addition, machine learning-based predictive models using gut-microbiome features can differentiate superagers from typical agers with a reasonable performance.[12]

Telomeres

Telomeres protect the chromosome ends from initiating a DNA damage response; they are a cap structure that consist of consecutive repeats of the 6-nucleotide se-

quence (TTAGGG). Telomerase is the enzyme that is responsible for telomere length maintenance. A third crucial component involved in the interaction of telomeres and telomerase is shelterin, which has an important role in preventing the activation of the DNA damage response and in safeguarding chromosome ends.[1-4]

Telomeres shorten with each cell division; telomere attrition is one of the 9 cellular and molecular hallmarks of aging-related changes. The others are cellular senescence, epigenetic alterations, genomic instability, intercellular communication alteration, mitochondrial dysfunction, nutrient sensing deregulation, proteostasis loss, and stem cell exhaustion. The shortening of telomeres with each cell division characterizes telomere attrition and has been associated with aging. Inflammation results in telomere dysfunction and accelerates telomere shortening.[1-4]

Interventions for preserving the length of telomeres involve telomere-targeting therapeutics, antioxidants, and anti-inflammatory agents. Therapeutics that target the telomere include telomerase activators (eg, telomerase activator-65, TA-65, and cycloastragenol, CAG), telomerase gene therapy, and tankyrase inhibitors. Reduction of oxidative stress and chronic inflammation may have a role in decelerating telomere attrition. Antioxidant (such as vitamin C and vitamin E, and polyphenols) and anti-inflammatory agents (such as omega-3 fatty acids, statins, and spermidine) may be useful interventions to slow telomere-related aging.[1-4]

Choice of lifestyle

Individuals are potentially capable of influencing their lifestyle. Lifestyle encompasses not only intrinsic factors that affect the body, but also extrinsic activities such as exercise.[1] Specifically, in comparison with a predominantly sedentary lifestyle, observational studies have shown significantly longer telomere length with exercise of moderate to vigorous intensity.[5] Mortality rates increase associated with chronic degenerative diseases in sedentary individuals who are obese and diabetic.[1]

Adopting a healthy diet can favorably influence one's lifestyle. Moderating alcohol consumption and abstaining from tobacco are key elements. Other dietary interventions include intake of water, fiber, fish, fruit and vegetables, protein, and vitamins.[13]

In addition to exercise, other healthy behaviors include hobbies, sleep, social networking, and spirituality.[13,14] Most medical students from Western Canada who were evaluated in a survey study reported not meeting multiple recommended health behaviors.[13] The largest barrier to adherence was time and their free time was spent on sleep.[13]

Dermatology residents from the United States may experience burnout during their training.[14,15] Like the medical student from Western Canada, it is possible that dermatology trainees in the United States may not have adequate time to establish and maintain a healthy lifestyle.[13] However, it is reasonable to speculate that established dermatologists have the time and opportunity to make appropriate decisions regarding their choice of lifestyle including healthy diets, exercise, and adequate rest.

Choice of career

Most dermatologists have a high degree of personal and professional satisfaction.[16] The field of dermatology potentially provides a varied mixture of patients and work opportunities. Patients can range from infants to elderly individuals, giving variety to a practice. The daily responsibilities can include medical dermatology, surgical interventions, pathological evaluation of tissue specimens, and cosmetic procedures.

The number of patients that each dermatologist treats daily is variable. Some dermatologists prefer to see a smaller number of patients. In contrast, other clinicians have incorporated medical scribes and physician assistants into their practice to maximize the number of individuals that are able to provide excellent care.

Character traits that are well suited for a dermatologist are empathy, respect, cultural competence, compassion, and curiosity.[16] Most of the situations encountered are non-acute. They are typically not life-threatening conditions that demand rapid decisions and urgent interventions.

Hence, many would consider the lifestyle of a dermatologist favorable compared to many other medical specialties. Dermatologists more often work regular office hours. In contrast to physicians from other specialties like surgery, internal medicine, or emergency medicine, dermatologists experience less on-call duty and have fewer emergency calls.

Indeed, the rates of burnout are lower in dermatology than in other specialties. However, in the United States and in France, the percentage of dermatologists who reported at least one symptom of burnout were 38% and 47.8%, respectively.[15,17] The three core dimensions of burnout syndrome include emotional exhaustion, depersonalization, and a diminished sense of personal accomplishment.[14,15] Exercise, sleep, and individual coping mechanism were the top methods that dermatologists used to cope with burnout. Other suggestions include maintaining a practice environment that fosters a culture of wellness, delivering high-quality care utilizing the person's unique skill set, promoting workplace efficiency (eg, reducing time spent on the electronic health record), strengthening personal resiliency to stress, and achieving professional fulfillment.[14,15]

In summary, many of the aspects of a dermatology practice provide individuals with a career that is accompanied by less stress. Most dermatologists enjoy interactions with their colleagues, staff, and patients. Indeed, many continue to embrace the opportunity to continue to work into their 70s and 80s by modifying their schedule to limit the hours and days that they treat patients.

Conclusion

The current issue of *DermWorld Weekly* reports on a phenomenon that is not an isolated incident. It is our impression that compared to physicians in other specialties, longevity is more than a mere coincidence in dermatologists. The answer to our question, "Why do so many dermatologists live so long?" is likely multifactorial. Some of the individuals have good genes and other people have made a concerted effort to maintain a healthy lifestyle. However, the expectations and responsibilities of practicing dermatology may not only influence the medical students who enter the field but also have more than a passive effect on the longevity of the clinicians who are dermatologists.

Potential conflicts of interest

The authors declare no conflicts of interest.

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