R. Buckley
Professor of Orthopaedic Trauma, University of Calgary, Calgary, Canada.
buckclin@ucalgary.ca

The retirement conundrum: planning the end game and retiring gracefully

My orthopaedic colleagues are generally 'concrete-thinking' and grounded in simplicity and common sense. I remember being attracted to orthopaedics as a young student, because a patient with a problem was usually treated by a carefully planned procedure. When good results were obtained by a patient intervention, the results were gratifying for all. We live in this world of carefully planned 'concrete and simple' interventions every day, yet when it comes to our own lives, many surgeons have a hard time planning their own retirement. Why is it so hard for us to believe that after about 50 years of age, we start going downhill with cognitive and psychomotor skill deterioration and other effects of ageing? Do we think that we are not like the rest of humanity? Are we immune from the effects of ageing? I was faced with this conundrum as my practice was getting on in years and my 35th medical class reunion came to be. My wife (a family physician) and I had been planning retirement for a number of years but it was noticed by many that I had not made my planned retirement date of 'freedom age 55'. These retirement questions started to become more and more acute as I had bragged to colleagues that I was going to retire 'on top' and not be a bad example to others. Could I not pull myself away from the trap of orthopaedic practice until I was no longer an asset to the hospital?

To put all of this topic into perspective, 25 years ago, D. H. Powell, a prominent Harvard psychologist and Director of Research in Behavioral Science, wrote that humans will start to demonstrate all or some of the below listed traits by their late 40s:[1] 1) impaired health and general function; 2) diminished hearing and sight; 3) loss of muscular mass and strength; 4) decreased endurance and stamina; 5) impaired reaction time; 6) neurocognitive decline; and 7) diminished memory and attention span.

These are very general and nonspecific statements, but why should they apply to me? I could manage to keep up with my residents going down the ski hill – why not in the operating theatre? Well, in 2008, Boom-Saad et al[2] reported an interesting study where they compared medical students and surgeons performing a series of neuropsychological tests *versus* normative age-matched controls. Medical students performed the best and all surgeons showed decline in function with age, but were better than their normative age-matched controls.[2] This decline starts at about 45 to 50 years of age. Knowledge and experience are maintained the longest but the first physiological asset to go is strength (starting in the mid-30s), then eyesight (at around 45 years of age), then dexterity, and finally cognition (around 60 years of age).[3] Personally, I thought that my patients and operative cases were doing well and were not showing up weekly on the morbidity and mortality lists. But what was it that was keeping me functioning at a high enough level to be an academic orthopaedic trauma surgeon? Was my 30 years of experience the only attribute keeping me in the game at a high level? My physical attributes were slowing eroding, but maybe I was making better day-to-day decisions around my patient's wellbeing.

So, to summarize so far, these papers – and many more with the same information[4-6] – state that notwithstanding innate and acquired technical and cognitive skills, surgeons experience age-related psychomotor and neurocognitive decline. Besides the fact that we are terrible at self-assessment, – as a *JAMA* article puts it, we tend to suffer from "Superman syndrome"[7] – time marches along and, unbeknown to us, is stealing our very mental and physical talents. Our ability to self-assess is a real hindrance, as we see things through a fading lens that we do not get regularly changed to keep in sharp focus. Mental acuity will make up for a lot but, at some point, it becomes obvious that we are not what we used to be. We all have seen the elderly surgeon coming in for rounds and sitting in their office (doing God knows what). But what quality of work is being done by this elderly surgeon? Are they safe? Who, if anybody, is checking on their work?

Rovit[8] has put forth three reasons why surgeons resist retiring: 1) lack of self-esteem; 2) fear of death; and 3) resistance to change. The bravado that is a part of surgeons' everyday life, as they interact with their patients and their families, becomes a part of one's character. And the statement that "surgery is for patients but not surgeons" makes retirement look like the surgeon is giving up on life as they take on a more pedestrian role.[3] Giving up on surgery is a large change – the surgeon is unsure if they can tolerate the new circumstances and is aware

Fig. 1 The stages of life.

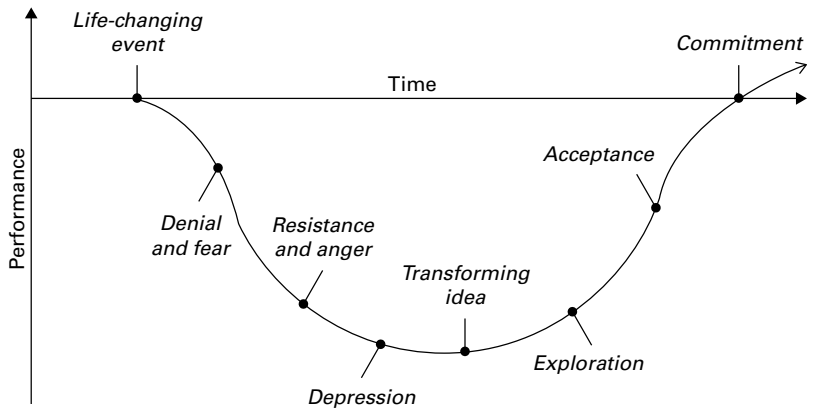

Fig. 2 The stages experienced following a life-changing event, such as transition from active clinical practice into a different 'reinvented' environment.

that the decision to retire is irrevocable.[5] To be a functioning part of a major polytrauma case one day and then retired the next day, sitting on the porch, is a huge transition. Arguably, only astronauts have a more dramatic change following retirement compared with surgeons. We are confronted every day with mammoth excitement and responsibility as we perform our surgical speciality. It can be a tough change to go from something so acute to a very quiet existence unless retirement has been planned carefully. Perhaps we think that we can put off dying if we keep working!

The stages of personal change that occur when one moves from an active surgical career into a more leisurely time in their life can be likened to the stages experienced after other life-changing events (Fig. 2), such as losing a loved one.

Often, there is some sadness and a bit of anger that it is time to leave an active practice, but with the passage of time, the discovery of a "new self" with different personal goals and meaning creates a new purpose and inner direction for a retiree or someone transitioning into retirement.[9] This is different for each person, as everyone has a different pathway through this time of one's life. Surgeons that purposefully plan this personal transition are invariably more gently placed onto the other side of this chasm after leaving the surgical suite for good.

Kelly[10] stated that it was more important to have intrinsic features pushing a surgeon than extrinsic features. Extrinsic features such as income and positive adulation have been found to be less sustaining and associated with less fulfillment, lower vitality, and even physical symptoms. Intrinsic features such as personal worth, purpose, and service are much more sustaining in the long run. Purpose can be injected into one's life by simply measuring each activity's contribution towards a goal that we believe is worthy or fulfilling.[10] Finding purpose and meaning requires an act of will; it is something we must decide to pursue and create. Examples of these goals can be found in every area of human endeavour: from travelling to mission work; from starting a new part-time career to going back to school to pursue another degree.

Lillis and Milligan,[11] in 2017, stated that while doctors display higher than average performance on tests of cognition and start at a higher baseline level, decline in cognitive function with age parallels that of age-matched controls. And because doctors are more prone than the general population to depression (1 in 5 doctors), suicide, and drug and alcohol abuse, we must be vigilant in having a plan in place in relation to a retirement strategy that provides financial stability, self-worth, and respect. Tuli[12] stated that there are some long-known predictors of life satisfaction. These include: 1) good mental, physical, and spiritual health; 2) financial security; 3) good family relationships; and 4) healthy retirement activities, such as volunteering, travel, sport, and personal studies.[12] Pannor Silver and Easty[13] found that most academic physicians would like to retire gradually rather than stopping suddenly. The "drop off of the cliff" was very hard to accept and a more gradual diminishment of workload resulted in a better personal outcome.[13] This study also found that many barriers existed to retirement planning, including poor financial management and static professional norms (professional culture favoured work over all other aspects of life).[13] Surgeons stated that constant hard work limited time to plan for retirement and to develop hobbies and other interests. There were also many poor surgeon role models, none of whom were retiring easily. Mentors were needed who had successfully passed through this life phase.

When surveyed as to what they would have done to make retirement better, retirees would have: 1) retired earlier as it was equal or better than expected (89%); 2) planned for retirement earlier and better (financial planning and personal hobbies); and 3) spent more time with family.[14] Solutions to the barriers to planning for retirement all involved more careful financial management such as limiting spending, avoiding divorce, and securing help in money matters at an early age.[14]

Professional norms all pointed towards surgeons having a difficult time with adjusting to loss of prestige in the hospital setting and personal self-esteem issues and insecurity. The lifelong pursuit of hobbies and personal interests helped surgeons transition into their "new self".[9] This transition was a delicate phase after the surgeon decided to slow down from normal clinical work. The stages of this transition are similar to the phases of a life-changing event (Fig. 2), such as a significant loss or death. They involved the reinventing of oneself upon a different idea or concept and then committing to this ideal. During the "redirection" phase, retirees develop a "new self".[9] This "new self" is happy to be away from tight scheduling, patient problems, and onerous hospital committee work, and is free to instead pursue more leisure time or more pleasant academic work. There is more time for family pursuits, especially as grandchildren come along. The transition from busy clinician to retiree should be gradual and allows for a personal shift of self-worth, and at the same time provides more time for mentoring/teaching young surgeons. Personal health can be enhanced as one adjusts to age restrictions with time available for more sleep, fitness, and seeing family.[13]

In another recent article, Silver et al[15] carried out a systematic review that suggested there are many possible successful means to aid physician retirement planning. These included having group knowledge of retirement plans, promoting physician retirement mentorship programmes, guidance around career financial planning, and providing physician part-time work such as teaching, sabbaticals, and flexibility around retirement. Less on-call time and less case-mix complexity was also imperative to a fruitful transition out of clinical work for older physicians, but also gave opportunities for new highly trained young surgeons.[15] Physicians express concern over the decision to retire due to the fear of losing their primary identity or purpose, and an escape route must be planned for everyone that provides flexibility for individual needs. Many surgeons have a desire to do something productive, to have a place in society, and to be part of a group. Many older surgeons know that the satisfactions derived from working cannot be taken for granted. Retirement resource toolkits are thought to be a useful adjunct to other aforementioned suggestions to assist surgeons in a successful transition to working less.[15] Reinventing or reconstructing oneself takes energy and creativity. It is a time-intensive process and should not be presumed to be easy.

Being a surgeon is perhaps the most privileged of all occupations.[3] It may be one of the reasons why surgeons do not want to give up their craft as their skills are deteriorating, because there is no such activity as rewarding. Surveys show that surgeons are happy with retirement once they have slowed down,[10,12,14] but an alarmingly high number of senior surgeons (11%) had no plans to retire at all.[14] Interestingly, retired surgeons who had taken up post-retirement activities outside of medicine were more likely to be satisfied than those who remained in medicine in some nonsurgical capacity.[3]

If this editorial is to assist anyone, it must drive home three points: 1) skills and cognition fail over time and we can't see it in ourselves; 2) planning makes retirement quite acceptable to most surgeons; and 3) retirement means the redirection and reinvention of one's self, and this decision is an active, energy-consuming process.

My message can be summarized by the words of a 64-year-old surgeon who had been retired for three years. He said one needs three things for successful retirement: 1) enough money; 2) outside interests; and 3) knowing in one's heart that one's self-worth is not dependent upon being a doctor.[16] So, go away and think about this editorial. Are you planning sufficiently for your retirement and are you prepared for a significant life's change?

REFERENCES

1. **Powell DH.** *Profiles in Cognitive Aging*. Boston, Massachusetts: Harvard University Press, 1994.
2. **Boom-Saad Z, Langenecker SA, Bieliauskas LA, et al.** Surgeons outperform controls on neuropsychologic tests but age-related decay of skills persist. *Am J Surg* 2008;195:205-209.
3. **Blasier RB.** The problem of the aging surgeon: when surgeon age becomes a surgical risk factor. *Clin Orthop Relat Res* 2009;467:402-411.
4. **Billingsley KG, Morris AM, Green P, et al.** Does surgeon case volume influence nonfatal adverse outcomes after rectal cancer resection? *J Am Coll Surg* 2008;206:1167-1177.
5. **Duclos A, Peix JL, Colin C, et al.** Influence of experience on performance of individual surgeons in thyroid surgery: prospective cross sectional multicentre study. *BMJ* 2012;344:d8041.
6. **Grace ES, Wenghofer EF, Korinek EJ.** Predictors of physician performance on competence assessment: Findings from CPEP, the Center for Personalized Education for Physicians. *Acad Med* 2014;89:912-919.
7. **Davis DA, Mazmanian PE, Fordis M, et al.** Accuracy of physician self-assessment compared with observed measures of competence: a systematic review. *JAMA* 2006;296:1094-1102.
8. **Rovit RL.** To everything there is a season and a time to every purpose: retirement and the neurosurgeon. *J Neurosurg* 2004;100:1123-1129.
9. **Cook SL.** Redirection: an extension of career during retirement. *Gerontologist* 2015;55:360-373.
10. **Kelly JD 4th.** Your best life: what motivates you? *Clin Orthop Relat Res* 2019;477:509-511.
11. **Lillis S, Milligan E.** Ageing doctors. *Australas J Ageing* 2017;36:14-18.
12. **Tuli SM.** The art of retirement for orthopedic surgeons. *Indian J Orthop* 2009;43:225-227.
13. **Pannor Silver M, Easty LK.** Planning for retirement from medicine: a mixed-methods study. *CMAJ Open* 2017;5:E123-E129.
14. **Miscall BG, Tompkins RK, Greenfield LJ.** ACS survey explores retirement and the surgeon. *Bull Am Coll Surg* 1996;81:18-25.
15. **Silver MP, Hamilton AD, Biswas A, Warrick NI.** A systematic review of physician retirement planning. *Hum Resour Health* 2016;14:67.
16. **Ritter M, Austrom MG, Zhou H, Hendrie HC.** Retirement from orthopaedic surgery. *J Bone Joint Surg [Am]* 1999;81-A:414-418.

 DOI: 10.1302/2048-0105.84.360702