

**COMMUNICATION****Plastic Surgery and Aggressive Skating: Can Business Mix with Pleasure?**

Sody A Naimer

Department of Family Medicine, Ben-Gurion University of the Negev, Beersheva, Israel

**Correspondence:** Sody A Naimer  
 Department of Family Medicine, Ben-Gurion University of the Negev, POB 653, Beer-Sheva 84105, Israel  
 Tel: +972-8-6477433, Fax: +972-8-6477623, E-mail: sodyna@clalit.org.il

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**INTRODUCTION**

The therapeutic experience of both patient and dedicated clinician striving to deliver optimal care is shaped by the assumed mutual interest and benefit to both parties. The caregiver can shape the environment in order to create an experience more rewarding than a mere encounter. Technical aspects such as time allocation, amicable staff, ample equipment supply, and teamwork contribute to a productive working environment. However, the major component affecting the atmosphere of and satisfaction with therapeutic activity is the state of mind of the dominant figure—the surgeon. Can we do more to enhance the experience and relive the original thrill we had when we began training as novices delivering patient care? Do we have the capacity to sustain the excitement of the practice of medicine? This essay is an attempt to invite others to join an adventure of virtual imagery. This proposal is achieved through mental exercise, combining various sides of the physician work and play, in a manner that can boost our spirits and turn an ordinary routine encounter into a fascinating challenge.

**DISCUSSION**

It all began as a curiosity. On the way home one day my attention was diverted to the goings-on in a recently constructed skate park near our neighborhood. A group of active kids in protective gear obviously having loads of fun distracted my thoughts. Hey, this is cool!

I thought to myself, I wonder if...

I grew up in Montreal, Canada, and as far back as I can remember, I played in the freezing cold, wiping my running nose and simultaneously trying to keep balance gliding over the irregular surface of naturally frozen ice at the local park. After moving to a climate where ice is only a concept, my dormant talent remained hidden, until a spark of revitalization emerged. Despite my advanced age (50+), and prompted by a substrate of an attention deficit personality, I couldn't resist masochistic engagement in a novel physical activity, potentially beyond my capability. The force of gravity and the consistency of concrete worked in concert, challenging my stamina and testing my endurance, in each of my first attempts at inline skating over strategically placed obstacles. As Douglas Adams put it:

“There is an art, it says, or rather, a knack to flying. The knack lies in learning how to throw yourself at the ground and miss... The first part is easy. All it requires is simply the ability to throw yourself forward with all your weight, and the willingness not to mind that it's going to hurt... It's no good deliberately intending to miss the ground because you won't. You have to have your attention suddenly distracted by something else when you're halfway there, so that you are no longer thinking about falling, or about the ground, or about how much it's going to hurt if you fail to miss it. It is notoriously difficult to prize your attention away from these three things during the split second you have at your disposal. Hence most people's failure, and their eventual disillusionment with this exhilarating and spectacular sport” [*The Hitchhiker's Guide to the Galaxy*].

In time, aggressive skating gradually turned into a pleasant recreational activity that became an ideal method to “pump iron” and concentrate intense physical training into a pleasurable brief session. Alongside its character as a physical challenge, the activity also set the stage for a cognitive exercise. I began to imagine myself jumping, diving, and grinding at the park, while doing minor surgery in my clinic. I found myself devising strategy, planning skate moves, and improving surgical performance all at the same time. I became fascinated by the idea that creative imagery can stimulate and enrich routine activity. At the same time, while sweating, huffing and puffing at the skate grounds, I could not help but imagine entering and exiting wounds and surveying their boundaries. The similarities of these two activities on the planning-to-execution axis suggest that such deliberation on one activity while performing the other could actually facilitate their enhancement, sharpen skills, and improve outcomes in both endeavors.

Plastic and reconstructive surgery is a field that relies on basic principles to restore form and function to the human body. Plastic surgeons must be skilled at adapting fundamental knowledge of human anatomy and physiology to create ingenious solutions to

ever-changing challenges. The use of established principles makes it possible to address the infinite diversity of medical problems. Over the years, numerous efforts have been made to formulate these principles. Despite changes in technique, the fundamental principles of plastic and reconstructive surgery have withstood the test of time. The earliest codification of principles of reconstructive surgery may be attributed to the French surgeon, Ambroise Paré, who in 1564 published five basic principles of plastic surgery. These are mainly associated with the manipulation of tissues. Chase [1] wrote in 1983: "A principle develops through a period of gestation; it is not born fully developed. Once born, a principle continues to evolve and to become more refined as new developments prompt expansion or modification of the principle." (Its broader application may serve the basis for its extrapolation to other schools of thought).

It was not until many years later that six principles appeared in 1957 in the book *The Principles and Art of Plastic Surgery* by Gillies and Millard [2]. This book was a review of Gillies' career of forty years, which included 1,100 cases from World War I. Making a plan with a pattern and having a backup plan, returning tissues to their normal position, replacing lost tissue by similar tissue, not discarding anything, treating the primary defect first, and treating each case individually were some of their important dictums. These principles not only applied to plastic surgery problems but also, in a more general way, to the philosophy of life [3]. All of them are self-explanatory. Observation, diagnosis, maintaining records, and after-care were a few of the important additions to the original ones. In fact, it appears that Gillies and Millard used their principles in their daily life too. One of the principles, "Never do today what can honorably be put off till tomorrow," has an interesting story associated with it. Before Millard was to leave for America, one late evening he went to Gillies' house to get his autograph on his photographs. Gillies signed one photograph without a word. When Millard pulled out another photograph for a signature, Gillies flatly refused to sign it. Using one of his principles, applied in practice as always planning a safeguarded alternative, Millard told him, "Just trying to play it safe with a lifeboat, Sir." In the same vein, Gillies promptly countered this with another principle: "Never do today what can be put off until tomorrow." This principle calls for the surgeon to delay any intervention not seen immediately necessary seeing as things may work out spontaneously. The next day he signed the photograph.

Building upon these early ideas, Gillies [4] took the principles of Paré to the next level, ultimately formulating a total of 33 principles by 1986. The "ten commandments" were one of the phases of the development of these principles.

In 1980, a group of ice hockey players in Minnesota were looking for a way to practice during the summer. Scott and Brennan Olson formed a company to sell skates with four polyurethane wheels ar-

ranged in a straight line on the bottom of a padded boot. Later, a central soul plate was added in the middle of the soles for grinding. In 1988, the first aggressive inline skate was introduced. Aggressive inline skating developed as an organized sport in the early 1990s. The style of community skate parks differs from street skating due to the specific nature of the design for skaters to do tricks, for example, on the top of the ramp (coping). Park skating often emphasizes the technical side of aggressive inline, focusing on the variety of tricks a skater can do and encouraging skaters to connect tricks. A series of tricks connected together in a fluid motion over different obstacles is known as a 'line'. Skate parks often feature quarter pipes and half-pipes, curved ramps, and other features that are not usually found in a regular urban setting. This is a completely new form of recreation, the biomechanics of which are yet to be elucidated [5]. Safety is a primary concern, given that only one text on the medical treatment of participants has been published [6]. Without exception, all arbitrarily chosen skaters interviewed in that study had visited a doctor for one reason or the other pertaining to this activity, averaging 1.4 visits per skater per year, averaging one injury per 586 hours of aggressive skating. Injuries primarily involved the lower limbs, and only 32% of skaters wore all the requisite protective devices. In this regard, I serve an impeccable example for the youngsters - entering the park dressed as a warrior with a complete set of protective gear!

How can both scopes of activity be contemplated from the same perspective? The principles known as the "Ten Commandments" of plastic surgery are presented here with commentary on how they may be applied at the skate park as well as in the operating theatre.

#### Thou shalt make a plan

Safety is paramount and encompasses every single aspect of both skating and surgery. Before skating in a new park, become a dedicated spectator. Observe, heeding the dangers and unique characteristics and issues that may seem more challenging than previously experienced. Spend whatever is needed for effective updated protective gear. With every fall you will recover your costs. This is precisely what a good surgeon will do in the operating room. From ideal illumination to room temperature, seating or standing comfort and prepared technical equipment will all serve us well, when and as needed. Have a goal and a dream. Plastic surgery takes passion, determination, and sacrifice. The basic notion is that one should use the simplest approach to solving a reconstructive problem, before advancing up the ladder to a more complex technique. Likewise, skating proficiency will demand patient attainment of basic maneuvers before subsequently climbing to a higher level of expertise. You have to think before you act: plan your movements, then act. A 'line' in skating is precisely the sequence of actions planned, just like the planned procedure from incision to dissection/excision, tissue ap-

proximation, and primary or other wound closure. A thorough investment in detailed planning will improve the eventual outcome.

#### Thou shalt have a style

As applicable in all areas of life, be honest with yourself. Know your limitations, strengths, and weaknesses and work with them as you proceed. While imagination sparks innovation, free-spirited thinking, and creativity, one should not underestimate the need for talent, stamina, and physical fitness (Some long procedures ultimately test our bladder neck control.). Never bite off more than you can chew; otherwise you may find yourself licking your wounds or battling unnecessary side effects. Be prepared to own up to defeat if a feat is beyond your scope or current skill. For future growth, find an instructor or colleague to coach you or cooperate in performing the exercises needed to perfect performance and advance to further goals. Mobilize your auxiliary capabilities to develop individual flair, but only aptitude should determine your specialization.

#### Honor that which is normal and return it to normal

If you ever forget part of your protective gear, it is worth leaving the skate park and returning equipped appropriately. Preserve your physique; you're still going to need it tomorrow. This is achieved by accurately planning every move—just as with scalpel incision, radiosurgical sculpting or suture needle penetration—a good bite of tissue and the exact angle of entrance should be calculated to cause the least tissue damage while achieving the aim. Such is the planning of wheels off and falling into the contact surface of a half pipe wall or jumping a spine considering body force and honoring speed and gravity simultaneously. Only in this manner of cautious movement can the preservation of the integrity of the skater be guaranteed.

#### Thou shalt not throw away a living thing

Conserve tissue at all costs, both your own, while skating, and that of the subject before you, while operating. Every part of you is necessary; you want to experiment and make a good impression at the skate park, but the most important objective is to return home in one piece. Therefore, skaters should refrain from taking unnecessary risks and above all else adhere to all safety precautions. Similarly, as the patient usually begins as natural and perfect as possible until becoming inflicted by a pathological process, unless it is absolutely unavoidable, healthy structures should always be left in position.

#### Thou shalt not bear false witness against thy defect

Being conscientious is always appropriate. When fairing well, self-affirmation is in order, but if you crash at the skate park or make an error in the operating room, don't blame the conditions or environment. Accept responsibility; identify the chain of events that led to

the mishap. Constructive self-critique can provide the basis for better planning in the future. Follow up with a critical eye. Think while down and turn a setback into a victory.

#### Thou shalt treat thy primary defect before worrying about the secondary one

The biggest mistake one can make is to think about the next skating trick in line while ignoring the current step. Immediate attention to balance is demanded in order to land and take off correctly. Prioritize each action and then take them as they come. Similarly, during surgery, you may be considering your contingency plan, but in the meantime, your major concern should be the movement confronting you right now.

#### Thou shalt provide thyself with a lifeboat

Always be prepared. Consider the worst-case scenario so as not to be taken by surprise. What happens if you don't make it, if you lose balance in mid-flight, if the smallest kid suddenly appears at the bottom of the pool right in front of you when you are at maximal acceleration? You may have only a split second to decide how to respond, so plan now while you have ample time. Likewise, in surgery, never underestimate "the enemy" of complications. Acknowledge that peril may lay behind every procedure. What will you do if the largest vessel in the field expresses pulsating red fluid, if there's a power cut, if the patient loses consciousness just when... Think of all these possibilities now in order to be better prepared.

#### Thou shalt not do today what thou canst put off until tomorrow

Don't rush into maneuvers beyond your scope! Patience is always rewarding. Never, never begin unless all the prerequisite demands are fulfilled. If any of the conditions of the operator or the subject have deteriorated, delay for later. In both aggressive skating and plastic surgery, acknowledge your limitations so as to do no harm.

#### Thou shalt not have a routine

Be flexible. Think of every confrontation as a new challenge in view of the fact that prevailing conditions are changing all the time. You are sometimes physically exhausted or emotionally drained; therefore, assess and proceed according to genuine gut feeling. Before, during, and after activity at the skate park and in the operating theatre, remain open for criticism and be prepared to change style at any time.

#### Thou shalt not covet thy neighbor's plastic unit, handmaidens, flaps, grafts..., nor anything that is thy neighbor's

Your colleague can demonstrate and present exquisite performance, thou art not he. Perfect your own specialties and repertoire and reproduce these in time as a science. Your contemporary's performance

can serve as a wonderful model but you may not have arrived there. An extra tip from the skate park: Don't con yourself into thinking that a physical feat performed by a very young skater must be easy!

"Think principles until they become instinctively automatic in your modus operandi" was Millard's concluding message to us all. He added that "a person who is able to go to work (or play) and create something close to perfection or striving for perfection, will lead a very satisfying life. By its very nature, then, plastic surgery gives us the opportunity to enjoy that ideal life." Each and every one of these thoughts, collectively and individually, is worth contemplating with regard to both skating and surgery.

## CONCLUSIONS

In conclusions, if we agree that "*pleasure is a by-product of doing something that is worth doing. Therefore, do not seek pleasure as such. Pleasure comes of seeking something else, and comes by the way,*" (A. Lawrence Lowell) then as we view the activities of our work and play as good

investments of our time, the answer to the question posed in the title is convincingly affirmative.

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