We’ve been dropping hints for a while, and now we’re ready to reveal to you some specifics about our plans to celebrate the school’s 30th Anniversary.

Having started eight months earlier, in August 1978 ten pioneers completed their diploma program and became the first graduates of Sutherland-Chan School & Teaching Clinic. In planning for the ceremony Christine Sutherland and Grace Chan knew they wanted something with an Asian flavour. They concluded that a sign-in book was what they needed. So, in the Asian tradition of celebrations, Grace purchased a small red book in Chinatown and brought it to the ceremony. On the first page she simply wrote Sutherland-Chan Graduation, August 26, 1978 and then asked “the 10” to sign it. In doing so Christine and Grace created the first and now oldest icon of the school. That little red book will be proudly displayed throughout 2008 along with a number of other items and pictures, some of which we hope to borrow from you, that will commemorate the school’s first 30 years.

Since 1978, over 2,500 others have joined the initial ten, becoming members of one of Canada’s largest and most respected massage therapy school alumni groups. We are planning to celebrate our 30th Anniversary with enthusiasm!
Planning is underway led by an organizing committee comprised of Grace Chan, Pam Fitch ’88, Paul Lafleur ’88, John Corry ’89 and Michael Nurse, Director of Admissions.

We intend to recruit additional volunteers to act as year captains, who will follow up with those who graduated in their year (and perhaps additional years close in time), as well as local captains across Canada who will follow up with all alumni in their communities. The aim is to ensure that everyone is made aware of the festivities, especially alumni who might not be reading this because the school doesn’t have their most up-to-date contact info – but someone does!

If you would like to get involved as a year captain or local captain, send an email to Grace (grace@sc-clinic.com) or Mike Nurse (michaeln@sutherland-chan.com).

Dust off your memories and make plans to join us in ’08!

by Mike Nurse, Director of Admissions


Sutherland-Chan is delighted to have this internationally acclaimed presenter coming to offer a course at our school (see flyer insert). Dr. Chaitow has recently been focused on breathing pattern disorders, which he describes as very prevalent but under diagnosed and under treated. He is a co-author of the 2002 text, Multidisciplinary Approaches to Breathing Pattern Disorders. In this article he previews the subject as an introduction to the course in June, which will be a combination lecture and practicum workshop focused on recognizing and treating BPD. The workshop is being promoted to massage therapists, naturopaths, osteopaths, and chiropractors.

Symptoms as diverse as neck and head pain, chronic fatigue, anxiety and panic attacks, cardiovascular distress, gastrointestinal dysfunction, lowered pain threshold, spinal instability and hypertension (this is not a comprehensive list) may be directly caused, or more commonly aggravated and maintained, by breathing pattern disorders such as hyperventilation.¹

What is BPD?

Overbreathing, of which hyperventilation (HVS) is the extreme, tends to be the result of disordered breathing patterns (BPDs). It is a predominantly female problem – the female: male ratio of BPD occurrence ranges from 2:1 to 7:1 in different studies. Relative to men, women normally have a higher respiration rate. This is exaggerated during the luteal (post-ovulation and pre-menstrual) phase of the menstrual cycle. Women may be more at risk because of hormonal influences, since progesterone stimulates respiration, and in the luteal phase carbon dioxide (CO₂) levels drop on average 25%. Additional stress can subsequently, “increase ventilation at a time when carbon dioxide levels are already low.”²

The incidence of BPD in the general population has been variously estimated to be in a range of 3.5% to 28%.³ It can result in a complex array of symptoms from cardiovascular, to digestive, emotional, musculoskeletal⁴ and numerous others, including fatigue, ‘brain-fog’ and significant disturbance of levels of calcium and others nutrients. Although common and easily identifiable and treatable, BPDs largely go ignored or go unrecognised by physicians, practitioners and therapists.

Carbon Dioxide Loss and Alkalosis

The most immediate aspect of overbreathing involves excessive exhalation of CO₂, which in turn depletes carbonic acid levels, producing an increase in blood alkalinity. During hyperventilation blood pH rises above the normal level of 7.4, creating respiratory alkalosis.⁵ With the onset of respiratory alkalosis there is an immediate disruption in the acid-base equilibrium (as bicarbonate is excreted in a homeostatic attempt to normalise pH), triggering a chain of systemic physiological changes, many of which have adverse implications for musculoskeletal health. As a result there are negative effects on balance⁶, motor control⁷, pain thresholds⁸ and autonomic imbalance, characterised by sympathetic arousal.⁹

Some of the autonomic effects of respiratory alkalosis include altered autonomic controls and a tendency for smooth muscles to constrict. This leads to narrowing of blood vessels (and other tubular structures such as the intestines and urethra), resulting in reduced delivery of blood to tissues¹⁰ which in part explains the large range of BPD effects. ...⁴

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Hyperventilation and Pseudo-Angina

As one of the more severe manifestations of such effects, angina-like symptoms can occur from coronary blood vessel constriction caused by excessive CO₂ exhalation during unbalanced breathing episodes. Such stress-induced changes can occur during hyperventilation in the absence of true heart disease. One study suggests that up to 90% of non-cardiac chest pain can be brought on by HVS and other BPDs. It is therefore important that BPD sources of chest pain are adequately investigated, so that heart disease can be excluded as a diagnosis, unnecessary treatment for heart disease can be avoided, and breathing rehabilitation started.

Breathing Pattern Changes and Effects on Spinal Stability and Pelvic Floor Problems

Hyperventilation is usually characterized by a shift from a diaphragmatic to a thoracic breathing pattern, which imposes biomechanical stress on the neck/shoulder region due to excessive recruitment of sternocleidomastoid, scalene, and trapezius muscles in support of thoracic breathing.

There are also major implications of BPDs for spinal stability. According to Schleifer et al hyperventilation can compromise spinal stability in a number of ways, including increasing any tendency to greater muscle tension, muscle spasm, and amplified response to catecholamines. Muscle ischemia/hypoxia increases, as does interference with the intra-abdominal pressure stabilisation functions of the diaphragm. Motor control is commonly compromised as a result.

A clear connection between respiratory (diaphragmatic) dysfunction and pelvic floor problems (high tone or low tone), potentially involving associated affects including stress incontinence, prostatic symptoms, interstitial cystitis and chronic pelvic pain, has recently been demonstrated by Lee.

'Multiple Vague Symptoms'

Beales has summarised the problems of managing patients with multiple vague symptoms where there is no obvious organic cause: "Katon and Walker estimate that 14 common physical symptoms are responsible for almost half of all primary care visits. Yet over a one-year period, only about 10%–15% of these symptoms are found to be caused by an organic illness. Abdominal pain, chest pain, headache, and back pain are commonly found to be medically unexplained. Primary care physicians find patients with medically unexplained symptoms frustrating, and these patients tend to be frequent attenders, who account for a disproportionate amount of healthcare resources... Reid et al examined the records of the 361 patients who attended outpatients most frequently (i.e., the top 5%). In 208 of the 971 consultations, after full investigation, their symptoms were medically unexplained."

Many of these patients may well need identification and treatment of BPD. As well, such individuals often subsequently find their way to complementary health care professionals, making the need for manual therapists to be able to recognise and manage BPDs of more than peripheral importance. (cont. on p.5)
Solutions and Studies?

Strategies that can help to normalise such a cascade of health problems have been shown in many studies to require, for optimum results, a combination of breathing retraining and physical medicine interventions that focus attention on the thoracic cage, diaphragm and accessory respiratory muscles. Reducing levels of apprehension, anxiety and fear also have the potential for encouraging improvement in breathing patterns, and all the negative symptoms that flow from these.22,23,24

There is also good evidence that breathing rehabilitation is a useful method for achieving reduced anxiety/panic levels, and for improving postural control and somatic complaints such as low back pain, and conditions such as chronic fatigue.25

- In one study more than 1000 subjects suffering from anxiety and phobia disorders were treated using a combination of breathing retraining, physical therapy and relaxation. Symptoms were usually eliminated in one to six months with some younger patients requiring only a few weeks. At 12 months 75% were free of all symptoms, 20% had only mild symptoms and about one patient in 20 had intractable symptoms.26

- A recent study compared 'gold standard physical therapy' with breathing rehabilitation (also not clearly defined) in treatment of chronic low back pain. Both approaches produced good to excellent results.27

Recognising BPD

Clinical experience suggests that observation, palpation, and recognition of the cluster of symptoms associated with unbalanced breathing can offer strong indications of BPD. Additionally, the Nijmegen questionnaire is a non-invasive test of high sensitivity (up to 91%) and specificity (up to 95%). This easily administered, internationally validated diagnostic questionnaire is the simplest, kindest and to date most accurate indicator of acute and chronic hyperventilation (apart from use of capnography, which measures CO₂ levels).28,29

Conclusion

When asked why BPDs go largely unrecognised, Dinah Bradley, a physical therapist and expert in breathing rehabilitation, replied that they are so common that they are viewed by many practitioners and therapists as 'normal' variations, and that to a large extent they are simply not looked at as having the potential to cause the symptoms they so obviously do.30 BPDs are common, easily recognised, and generally correctable via retraining and manual soft tissue (and sometimes osseous) mobilisation of respiratory structures.

References

Where Are They Now?

MURRAY PICKERING ’89

Eleven years ago, a few days after teaching my last classes at Sutherland-Chan, I set off for Nova Scotia. We'd bought a piece of land in the back woods, we were expecting a baby in 5 months, and we had no work beyond a couple of names of clinics to check into. I wouldn't necessarily recommend this as an ideal way to start a family!

I live about an hour’s drive from Halifax, and for many years I commuted a few days a week either to practice or teach. After a couple of years, I opened a clinic in my home town which I currently run with 2 wonderful partners. I got involved for a few years in the provincial association and the CMTA which I enjoyed a lot, but one does get tired... As for the teaching, well, it was always great fun in the classroom, though it would have been awfully nice to have a school like S-C out here.

It’s been 20 years since I first went to Sutherland-Chan as a student, and so it perhaps isn’t surprising that I felt recently that it was time to move into a new career. I still practice a few evenings a week, and I still really enjoy doing some weekend workshops, and upgrading my knowledge and skills on Muscle Energy Technique, but my new day job is with a non-profit organization that assists persons with disabilities to find work. It's a good change for me, though it was disconcerting not to renew my CMTO membership this January.

And I still live on that piece of land. We've had quite the range of critters over the years. For 5 years or so, we raised some goats; these days my daughter and I are down to a wonderfully motley group of hens that keep us entertained, and in eggs. And now that things are slowing down a little, maybe we'll fatten up a couple of pigs this summer, or just fish some more...

Murray

We are in the last lap of Term 4, and working hard toward our graduation ceremony, which will be held at Arcadian Court on July 26, 2007.

Much appreciation goes to our hardworking committee members:

Co-Chairs: Jackie Sin, Ashley MacCormack
Treasurer: Rebecca Atkinson
Faculty Advisor: Lescine Maitland ’02

Alycia Duff Derek Ducharme Paul Carnavale
Kathryn Ang Raisa Regoso Baylea Wilkins
Ngoi Chi Lee Yvette Langille
Steph Kulesha Michelle McCormick

We would still very much appreciate any raffle prizes, or door prizes, that you might be able to donate.
In a recent Research Methods class we were discussing the features of a particular study, when the subject of dosage arose. We might think of massage therapy dosage as a product of the number of treatments received in a given period, the duration of each treatment, and/or the focus of treatment, the latter being particularly important in the context of the need to target a specific structure or structures. Dosage is not a layer of the lens through which massage is usually viewed, but if the concept is considered, some of what we know, or probably more notably, what we do not know, about the effects of therapy become evident.

The study we were discussing in class was titled “Changes in the Self Efficacy (SE) of Multiple Sclerosis Clients Following Massage Therapy” (Finch and Becker, Publication Pending). SE reflects an individual’s perception of their ability to function and control their lives in the context of their disease state. The study found that the self efficacy of clients was increased significantly following a series of 16 treatments (one treatment per week, over a 16 week period), and that 8-12 weeks after the last treatment had been delivered, self-efficacy had returned to a level not significantly different from baseline.

We can look at this graphically, with measurement points indicated by BL (Baseline), PI (Post Intervention) and FU (Follow Up). This is interesting data. As noted, self efficacy increased significantly following the series of treatments, and then fell in the absence of treatment.

Equally interesting are the questions left unanswered. The list below is not exhaustive by any means, but captures the dose related issue.

• If the weekly dose of MT were increased, would the improvement in self efficacy be achieved more quickly? That is, would the BL to PI line be steeper?
• What dose of MT would be required to maintain self efficacy at the level reached immediately after the last treatment was delivered (that is, at the PI level)?
• To what extent could self efficacy levels be increased beyond the change demonstrated (that is, how far could the BL to PI line be projected), and would this be dose dependent?
• What is the self-efficacy plateau beyond which further improvement would not be expected. That is, what is the maximum achievable PI value?
• If this plateau is reached, what is the maintenance dose of MT required to maintain this level of self efficacy?
• Is the MT dose required to maintain improved but sub-optimal level of self efficacy different from the dose required to maintain optimal levels?

So, while the study provides evidence that is strongly suggestive of the fact that massage therapy improves self efficacy, there are many effects, dose related and otherwise, that we do not understand. As always, further research will improve our knowledge base, and dose related studies have started to become a focus within the research community.

As our knowledge of dosage related to massage improves, the professional community’s ability to construct effective and efficient evidence-informed treatment plans will be enhanced. This will be beneficial to clients, and can only enhance the professional standing of MTs within the healthcare team.

Happy dosing ...

Reference

Finch, P. and Becker, P. Changes in the Self Efficacy of Clients with Multiple Sclerosis Following Massage Therapy. Publication Pending; Journal of Bodywork and Movement Therapies.
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Marion Bishop
We are all very interested in your feedback and ideas about the newsletter. Please contact us.

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Help Keep Our OSAP Default Rate Among the Lowest in the Province

Repay your student loan promptly. It's good for your credit rating and the financial standing of your practice. It also helps make sure S-C students have access to loans in the future.

Student Referral Raffle

Alumni support the school in many ways. Recommending students is just one example. Each year we collect from new T1 students the names of alumni who directed them to the school. Then we draw four names from that list and award prizes to the winners.

A very special thank you to all alumni who regularly refer new students to the school.

This year’s winners are:

Julia Yano ’04
$400 Air Canada Gift Certificate

Julie Rioux ’04
$250 Home Depot Gift Certificate

Murray Howarth ’00
$200 Sutherland-Chan Con-Ed Gift Certificate

Kaya Darling ’06
$50 Cineplex Odeon Movie Passes

Welcome To New Office Staff

Gayana Vartanian
Curties-Overzet Office Coordinator

Esther Bye
Admissions Coordinator

A Heads-Up from Tannis Bundi ’05

“There are beautiful clinic rooms for rent at the Toronto Healing Arts Centre (Bloor & Christie). 416-535-8777 torontohealingarts.ca Mention my name.”

Timekah Roberts ’06 had a healthy baby boy, Michael (MJ) on January 24.

Facility News

BABIES ON THE WAY!

- Frank Marincola ’95 and Leslie are expecting their second child on April 30.
- Michelle Bingham ’00 and Geoff Harrison ’01 expect their first on July 13.
- Peter (’98) and Pauline Becker (’99) look forward to their first child on October 6.

WEDDING BELLS!

- Johan Overzet ’94 and Rosemary Stovell plan to marry on August 11.