





Mind Pad

Canada's student written, edited,
and published psychology newsletter.

Notes d'idées

Le bulletin rédigé, édité et publié par les étudiants
de la Société canadienne de la psychologie.

SPRING 2012



Mind Pad

Canada's student written, edited,
and published psychology newsletter.

Notes d'idées

Le bulletin rédigé, édité et publié par les étudiants
de la Société canadienne de la psychologie.

Mind Pad has two mandated goals:

1. It aims to provide a professional newsletter that is written and reviewed by students of psychology who are affiliates of the Canadian Psychological Association. The content of the newsletter should be of interest to all who are practicing and studying psychology, but the primary audience of the newsletter is students of psychology.
2. It aims to offer studying psychology researchers and writers an opportunity to experience a formal submission process, including submission, review, and resubmission from the points of view of both submitter and reviewer/editor.

Mind Pad is a student journal of the Canadian Psychological Association (CPA) over which the CPA holds copyright. The opinions expressed are strictly those of the authors and do not necessarily reflect the opinions of the Canadian Psychological Association, its officers, directors, or employees. Mind Pad is published semi-annually, only in electronic form and made available to members of the CPA and the general public.

Le mandat de *Notes d'idées* a deux objectifs :

1. Fournir un bulletin professionnel rédigé et évalué par les étudiants en psychologie qui sont membres affiliés de la Société canadienne de psychologie. Le contenu devrait être d'intérêt à tous les praticiens et étudiants en psychologie, mais les étudiants en psychologie sont les lecteurs cibles.
2. Fournir aux étudiants en psychologie l'opportunité de connaître le processus formel de soumission y compris la soumission, la révision, et la resoumission du point de vue d'auteur et d'évaluateur/redacteur.

Notes d'idées est une revue étudiante de la Société canadienne de psychologie (SCP). La SCP réserve les droits d'auteur. Les opinions exprimées sont strictement celles des auteurs et ne reflètent pas nécessairement les opinions de la Société canadienne de psychologie, ses représentants, directeurs, ou employés. Notes d'idées paraît deux fois par année et n'est publié qu'en format électronique. Le bulletin est disponible aux membres de la SCP et au public.

Table of contents

-
- 3** Editorial
Éditorial
Rachel Wayne – rachelwayne@gmail.com
-
- 5** A word from the editor..
Un mot de la rédactrice en chef..
Rana Pishva MSc. – rana.pishva@queensu.ca
-
- 6** Supply and Demand: Shifts in Entry-Level Degree Requirements for Psychologists in Nova Scotia
Hilary M. Kitchener, B.A.H. – hilary.kitchener@gmail.com
-
- 10** Parenting a Child with Cancer
Kathryn A. Birnie, B.A.H – kbirnie@dal.ca
-
- 15** Singing in St John's: A Report on the Third Annual Meeting of Advancing Interdisciplinary Research in Singing (AIRS)
Sally L Busch – sallylbusch@gmail.com
-
- 17** Conferences beyond Psychology: A Review of the 2011 American Academy of Child and Adolescent Psychiatry / Canadian Academy of Child and Adolescent Psychiatry Joint Annual Meeting
Colin Andrew Campbell, M.A. – colin.campbell2@mail.mcgill.ca
-
- 20** The Nature of Nurture: A Reconciliation of Intuition and Empirical Findings Regarding the Long-Term Effects of Parenting on Child Outcome
Cameron M. Clark, B.A. – clarkcm@ucalgary.ca

Editor: Rana Pishva rana.pishva@gmail.com

Undergraduate reviewers:

Natasha Korva natashakorva@gmail.com
Lev Tankelevitch lev.tankelevitch@utoronto.ca
Daphne Vrantisidis d.vrantisidis@utoronto.ca

Graduate reviewers:

Rachel Wayne rachelwayne@gmail.com
Thomas Huber thomashuber_2@yahoo.com
Jessica Flores jessica.p.flores@gmail.com
Kenneth Colosimo kennethc@yorku.ca
Selena Hodsman hodsman@uwindsor.ca

Senior Advisor:

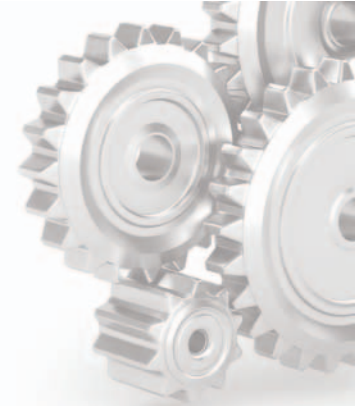
Dr. Angela Birt angela.birt@msvu.ca

CPA Liaison:

Tyler Stacey-Holmes publicrelations@cpa.ca

Design: memoproductions.ca – Raymond Leveille





The Science of Writing (Or Not Writing)

Rachel Wayne

Queen's University



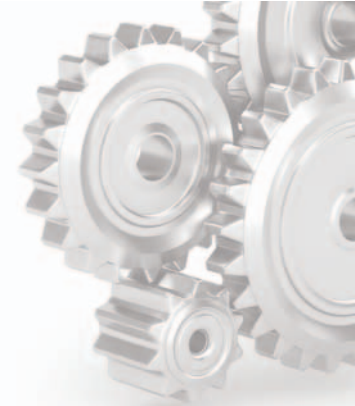
As an editorial board member for MindPad, I set out to write an editorial in great spirits but my unbridled enthusiasm was soon met by a paralyzing inability to write. I initially hoped to contribute lessons of wisdom and words of inspiration, however, these manifested only in a series of fragments on an otherwise blank page. I felt like I was sitting in front of a computer screen for inordinate lengths of time, endlessly typing and deleting words. Ordinarily mundane tasks like tidying up my desk or cleaning my apartment seemed suddenly appealing. After several cups of tea and procrastinating at length on Facebook and replying to overdue emails, I continued to sit and write and think, but still nothing came to mind. I hoped that just by simply typing, the words would magically flow from my fingers and arrange themselves into a coherent and meaningful string of letters on the page. Instead, I was left staring at an amorphous blob of text.

As psychology students, we are well acquainted with the phenomenon of writer's block. Whether it is writing a paper for a class or communicating research findings, the task of writing is indispensable to our professional livelihood. Research papers can take tens or sometimes even hundreds of hours to prepare, and even after several drafts and major revisions, we continually face the risk of rejection from peer-reviewed journals. In face of potential obstacles and high expectations, it is little wonder that the writing process can feel overwhelming.

Writer's block is ultimately a psychological phenomenon and, despite its inconvenience, may serve an adaptive func-

tion. Writer's block potentially parallels the function of anxiety in its ability to orient us to other aspects of our lives that require immediate attention; a perceived inability to write may often be an indicator that our efforts should be redirected towards other, more pressing priorities. Alternatively, the development of new ideas and arguments requires patience and these may not come fully into fruition until we have had sufficient time to reflect upon them. Thus, writer's block may be the manifestation of an incubation period for germs of ideas that have not fully formed. Finally, whereas some ideas are the product of intensive and prolonged thinking, others may arise spontaneously. Writer's block perhaps allows us to discover the unexpected, yielding serendipitous 'eureka' moments that might not have otherwise existed.

Despite the challenges of getting started, it is of comfort to remember that we rarely work alone. Writing within an academic context is frequently an intensely collaborative effort. Whether it's through peer review or a helpful colleague, an extra pair of eyes is useful for revealing blind spots and strengthening our arguments. Invaluable suggestions and constructive criticisms allow our incipient ideas to flourish. With diligent tending (and shiny kitchen floors), what started as a few scattered phrases on a screen begins to resemble a work fit for publication. As an editorial board member, I look forward to supporting you in the writing process in the hopes that you too will find it a worthwhile challenge.



La science d'écrire (ou de ne pas écrire)

Rachel Wayne

Queen's University



En tant que membre du comité de rédaction de Mind-Pad, de fort bonne humeur, je me suis mise à écrire un éditorial, mais mon enthousiasme débordant s'est vite buté à une incapacité paralysante d'écrire. J'espérais au début pouvoir apporter des leçons de sagesse et des mots d'inspiration, mais ceux-ci ne se transposaient qu'en fragments sur une page autrement blanche. J'ai constaté que je passais un temps fou devant l'écran de l'ordinateur à taper et à supprimer des mots à n'en plus finir. Des tâches ordinairement sans intérêt comme mettre mon bureau en ordre ou nettoyer mon appartement devenaient soudainement plus attrayantes. Après avoir bu plusieurs tasses de thé, procrastiné abondamment sur Facebook et répondu à des courriels en retard, j'ai continué à écrire et à réfléchir mais encore là, rien ne me venait à l'esprit. J'espérais que de tout simplement taper, les mots couleraient de façon magique de mes doigts et se disposeraient dans une chaîne de phrases cohérentes et significatives sur la page. Plutôt, j'étais là à fixer un ramassis sans forme de texte.

En tant qu'étudiants en psychologie, nous sommes bien familiers avec le phénomène de l'angoisse de la page blanche. Qu'il s'agisse de produire une dissertation pour un cours ou de communiquer des conclusions de recherche, la rédaction est une tâche indispensable à notre gagne-pain professionnel. Des articles de recherche peuvent prendre parfois des dizaines, voire même des centaines d'heures à préparer et malgré les nombreuses ébauches et les révisions majeures, nous faisons continuellement face au risque de rejet par les revues évaluées par les pairs. Devant les obstacles potentiels et les attentes élevées, il ne faut pas se surprendre que le processus de rédaction peut être abrutissant.

Ultimement, l'angoisse de la page blanche est un phénomène psychologique et, malgré son inconvénient, peut

servir de fonction d'adaptation. L'angoisse de la page blanche peut aussi équivaloir à la fonction d'anxiété dans notre capacité de nous orienter sur d'autres aspects de nos vies qui font appel à une attention immédiate; une incapacité perçue de rédiger peut souvent être un indicateur que nos efforts pourraient être redirigés vers d'autres priorités plus urgentes. Autrement, l'élaboration de nouvelles idées et d'arguments nécessite de la patience et ceux-ci pourraient ne pas entièrement venir avant que nous ayons eu suffisamment le temps d'y réfléchir. Par conséquent, l'angoisse de la page blanche peut être la manifestation d'une période d'incubation de germes d'idées qui ne se sont pas encore entièrement pris forme. En dernier lieu, alors que certaines idées sont le produit d'une pensée intensive et prolongée, certaines autres peuvent jaillir spontanément. L'angoisse de la page blanche nous permet peut-être de découvrir l'inattendu, produisant des moments « eureka » inopinés qui pourraient autrement ne pas avoir existé.

Malgré les difficultés à démarrer, il est réconfortant de savoir que nous travaillons rarement seul. La rédaction dans un contexte universitaire est fréquemment un effort de collaboration intense. Que cette aide vienne d'un examen par les pairs ou d'un bon collègue, une autre paire d'yeux est utile pour révéler nos angles morts et renforcer nos arguments. Les suggestions inestimables et les critiques constructives permettent à nos balbutiements d'idées de fleurir. À force de soins attentifs (et des planchers de cuisine bien lustrés), ce qui a débuté comme quelques phrases éparses sur un écran commence à ressembler davantage à un ouvrage qui serait publiable. En tant que membre du comité de rédaction, je suis entièrement disposée à vous appuyer dans le processus d'écriture dans l'espoir que vous trouverez aussi qu'il s'agit d'un défi qui en vaut la peine.



A word from the editor... Un mot de la rédactrice en chef...

By Rana Pishva MSc.



Dear *MindPad* Readers,

The CPA student section is proud to present the second edition of *MindPad*, the student written, edited and published Newsletter. Once again, we received varied and interesting submissions – thank you everyone who submitted articles, as well as those who helped with the review process. We hope to narrow our focus in the future; hence we are now accepting papers with the following themes:

- Positive psychology: human virtue and positive functioning
- Defining the psychology student
- The changing discipline of psychology
- Psychology and the media and social networking

If you have other theme suggestions, please do not hesitate to share them.

As always, submission targeting the student population will be prioritized. **The next submission deadline is August 15th 2012.** Please visit our website (<http://www.cpa.ca/students/MindPad>) for more information on submission guidelines, as well as our submission form. Do not hesitate to contact me with questions at rana.pishva@queensu.ca.

Thank you and have a wonderful summer!

Rana Pishva MSc.
Editor-in-Chief

Chers lecteurs de Notes d'idées

La section des étudiants de la SCP est fière de vous présenter la deuxième édition de Notes d'idées, le bulletin rédigé, révisé, et publié par les étudiants. De nouveau, nous avons reçu de nombreuses soumissions intéressantes. Merci à tous ceux qui ont soumis un article, ainsi qu'à tous ceux qui ont aidé avec le processus de révision. Dans l'avenir, nous aimerions choisir un thème commun pour chaque édition. Par conséquent, nous acceptons dès maintenant des articles portant sur les thèmes suivants :

- La psychologie positive : La vertu humaine et le fonctionnement positif
- Définir l'étudiant en psychologie
- L'état changeant de la discipline de psychologie
- La psychologie et le média et le réseautage social

Si vous avez des suggestions de thèmes, n'hésitez pas à les partager avec nous.

Comme d'habitude, nous donnerons priorité aux articles qui porteront sur les étudiants. **La prochaine date limite pour soumettre un article est le 15 août, 2012.** Pour plus de renseignements sur les directives de soumission et le formulaire de soumission, visitez notre site web : <http://www.cpa.ca/etudiants/MindPad/>. N'hésitez pas à me contacter avec vos questions à rana.pishva@queensu.ca

Merci et veuillez passer un bel été!

Rana Pishva MSc.
Rédactrice-en-chef

Supply and Demand: Shifts in Entry-Level Degree Requirements for Psychologists in Nova Scotia

Hilary M. Kitchener, B.A.H.

Acadia University

Abstract

The Nova Scotia Board of Examiners in Psychology (NSBEP) recently announced its plans to propose legislative changes to government that would require a doctoral degree for registration as a psychologist in the Province of Nova Scotia (ELC Report, March 2011). While many psychologists in the Maritime Provinces practice at the Master's level, the national professional organization, the Canadian Psychological Association, advocates for doctoral-level degrees as being the entry-level degree for the profession. There has been a long-standing debate about the best practices for training in psychology. The two major doctoral programs available in Canada are the Psy.D. and Ph.D. Retention in Nova Scotia is an issue; there is a need for more psychologists, particularly in rural areas. In this article I discuss the differences between the Psy.D. and the Ph.D., as well as discuss the implications of the change in entry-level requirements for students, Masters-level registered psychologists, and the community.

bre de psychologues, particulièrement dans les régions rurales. Dans le présent article, je décris les différences entre le D.Psy. et le Ph.D., ainsi que les conséquences des changements apportés aux exigences au niveau d'entrée pour les étudiants, les psychologues enregistrés au niveau de la maîtrise et la collectivité.



In North America, becoming a licensed or registered Psychologist depends on the licensure requirements set by the jurisdiction (i.e., province or state) in which you would like to practice (Association of State and Provincial Psychology Boards, 2008). In addition to meeting specific standards, such as passing examinations and acquiring supervised clinical hours, the professional designation conferred by a board depends on the level of education you complete. The Nova Scotia Board of Examiners in Psychology (NSBEP) recently announced its plans to propose legislative changes to government that would require a doctoral degree for registration as a psychologist in the Province of Nova Scotia (ELC Report, March 2011). The purpose of this article is to highlight the differences between the two most common doctoral degrees in Psychology, the Psy.D. and Ph.D.¹, and to discuss what the changes in training requirements could mean for future and current psychologists, especially those living in rural areas, such as in Nova Scotia. While this change will take years to implement, it has implications for incoming graduate students, current graduates in terminal Clinical Master's programs, Masters-level registered psychologists, universities, and the mental health community.

Résumé

Le Nova Scotia Board of Examiners in Psychology (NSBEP) a récemment fait part de son intention de proposer des changements législatifs au gouvernement qui exigeraient un diplôme de doctorat pour l'autorisation d'exercer à titre de psychologue en Nouvelle-Écosse (rapport ELC, mars 2011). Bien qu'un grand nombre de psychologues dans les provinces Maritimes exercent leur profession au niveau de la maîtrise, l'organisation professionnelle nationale, la Société canadienne de psychologie, préconise un diplôme de doctorat pour le niveau d'entrée à la profession. De vieille date, il y a des débats entourant les meilleures pratiques de formation en psychologie. Les deux grands programmes de doctorat offerts au Canada sont le D.Psy. et le Ph.D. Il y a un problème de maintien de l'effectif en Nouvelle-Écosse; il y a un besoin pour un plus grand nom-

What is the Difference between a Ph.D. and a Psy.D.?

There has been a long-standing debate about the best practices for training to become a psychologist. While many psychologists in the Maritime Provinces practice at the Master's level, the national professional organization, the

¹ The Ed.D. in Counselling is another doctoral degree whose training can be acceptable for licensure as a Psychologist in Nova Scotia. However, NSBEP has a set of criteria they use to evaluate whether a program is suitable for licensure and not all Counselling programs meet these standards. For the purposes of this article, I will focus on the Psy.D. and Ph.D. in Clinical Psychology because they meet the criteria (rather than going into which Ed.D.s are valid). For more details on the criteria, go to the NSBEP website: <http://www.nsbep.org/pages/requirements.html>

Canadian Psychological Association (CPA), advocates for doctoral-level degrees as being the entry-level degree for the profession of psychology. Currently, individuals holding a Master's degree can practice with the title of 'Psychologist' in Alberta, Newfoundland, Nova Scotia, and the North West Territories. In other provinces that have adopted a two-tier system, such as Ontario and British Columbia, the title would instead be 'Psychological Associate' (or 'Master Psychologist' in Saskatchewan). Quebec and New Brunswick most recently changed to doctoral training only for registrations. Only doctoral programs in Canada can receive CPA accreditation, which is the gold standard in Canada for Clinical Psychology programs (see CPA, 2011). Furthermore, it is important that psychologists and other professionals meet the standards of training provided by national accreditation (MPHEC, 2006).

The two most common doctoral degrees in psychology are the Ph.D., doctor of philosophy, and the Psy.D., doctor of psychology. The most prominent difference between the Ph.D. and Psy.D. is their focus. Specifically, a Ph.D. program has a heavier emphasis on research, whereas a Psy.D. program focuses more on applied clinical practice. According to the model Psy.D. curriculum of the Canadian Psychological Association (CPA, 2004), a Psy.D. student "...learns to address problems associated with the practice of psychology, using an appropriate strategy of disciplined inquiry, whereas the Ph.D. candidate learns to produce original, generalizable research relevant to clinical psychology. Both models of training require similar competency in research knowledge bases" (p. 3). Whereas a Ph.D. program is based on a "scientist-practitioner" model, a Psy.D. is based on a "practitioner-scholar" model. These titles reflect the relative emphasis of the programs, and while the academic curriculum between the two kinds of programs may essentially be the same, the content and flavour of course content can be quite different (CPA, 2004; Gauthier, 2011).

Most doctoral-level clinical psychologists in Canada hold a Ph.D. degree². Discouragingly, the average time to complete a Ph.D. is 7.3 years, with some programs having averages closer to 10 years (CPA Annual Report, 2007). Much of that time is taken up in the research domain (i.e., finishing a dissertation), yet most graduates become practitioners and do not pursue or even prefer research careers (Hunsley & Lefebvre, 1990). At the same time, psychologists do keep abreast of developments in their field and maintain current knowledge of empirically-based practice. They are thus "consumers" of research and need critical thinking skills to evaluate research, not unlike other health professionals such as dentists and medical doctors. In the words of the CPA (2004):

Effective and ethical practice requires more than a passive reading of reports of original research, even if the re-

search is published in peer-reviewed journals. An informed practitioner must be able to distil best practices from research literature. When reading research reports, the practitioner must be able to make judgements with regard to issues such as adequacy of sampling, adequacy of measurement devices employed, use of appropriate data analysis techniques, the nature of inferences made on the basis of data analysis, and the generalizability of findings from the research sample used by the scientist to the clinical population served by the practitioner.

A Psy.D. program has the advantage of taking, on average, 4 years to complete. Currently, there is only one English Psy.D. program in Canada (at Memorial University in Newfoundland), while the other accredited programs are offered in French (e.g., Université de Laval, Université de Moncton, Université de Montréal).

The Demand in Nova Scotia

Psychology is devoted to the science and practice of human behaviour and processes of behavioural change. There is a recognition within the psychological community that Clinical Psychology is ideally suited to contribute to health promotion and illness prevention within society, in addition to more traditional roles within the mental health system (e.g., see Arnett, 2005). Services which change behaviour to optimize health can help citizens prevent chronic illness and premature death. As noted by the Canadian Mental Health Commission (CMHC, 2006), one in five Canadians will experience a mental illness at some point in their lifetime and mental illness accounts for one third of the number of days Canadians spend in hospitals each year, yet mental health receives a small fraction of health care funding. A community-based approach to health care, wellness, and prevention is an important emphasis of the Government of Nova Scotia, and consistent with the current number one priority of Canadians: Health Care (Romanow, 2005).

A report by the Nova Scotia Health Care Human Resources Sector Council (2003) has suggested that a benefit of increasing the credentials of mental health care providers is that new graduates can broaden their areas of practice to include research, teaching, management, and policy direction. In addition, this council reports that despite the significant mental health needs of Nova Scotians, only 3% of the people working in the Nova Scotia health care sector, broadly defined, work in the mental health field. Statistics have shown that there is one psychologist for every 2,195 people in urban areas of Canada, but only one for every 9,619 in rural areas (Banzana, 1999). This means people in rural areas of Canada either travel significant distances to access psychological services, or go without such services. This is particularly problematic since health and

² For comparisons of degree requirements in Canada to the U.S.A. and Europe, see the CPA Psy.D. Task Force Report (1998): <http://www.cpa.ca/cpsite/userfiles/Documents/publications/PsychD%20Final%20Report.pdf>

mental health indicators of citizens in rural areas are actually worse on average than in urban areas (Statistics Canada, 2001). Comparable statistics are available for Nova Scotia, where there is one psychologist for every 1,892 people in the Halifax Regional Municipality, but ratios range from 1:2,441 in Pictou County to 1:7,077 in Cape Breton. As the national average for this ratio is 1:2,500, rural areas of Nova Scotia are all at or above national averages (Nova Scotia Health Care Human Resources Sector Council, 2003).

Supplying the Demand

There are many highly qualified undergraduate students in psychology applying for graduate training in Clinical psychology, with applicant rejection rates ranging from 85 to 95%. The quality of students applying to doctoral programs is always high. One category of very qualified student whom has been largely ignored by doctoral programs in Canada is the professionally registered psychologist with a Master's degree. Those who are already registered at the Master's level are not going to lose their credentials as a result of the NSBEP changes, but there may be a demand for mid-career retraining. Other considerations raised in the ELC (2011) report with respect to changing the training requirement were the declining number of psychologists working in rural hospitals as well as a need for access to training.

A Psy.D. program has benefits for both Nova Scotia and the rest of Canada. Its applied focus is appealing to those who want less of a research emphasis in their training. Additionally, these programs have a higher turnover rate; a shorter completion time (4 years) allows national demand to be met. Waiting lists, even for psychologists in private practice settings, can be months long. There are important trends within the health care system that would be addressed by such a program, particularly in rural and coastal areas. Providing clinically-based researchers with expertise in rural mental health would be positive for Canadian Universities. A community-based approach has been proposed as a strategic direction for Nova Scotia's mental health care system (see Government of Nova Scotia, 2004), which implies equitable access of Nova Scotians to services in all regions of the province, and delivery of empirically-based best practices of services.

Clinical psychologists play an important role in the delivery of mental health services, as their education includes intensive training in assessment and intervention skills, as well as empirically-based skills necessary to evaluate the effectiveness of programs, best practices, and community needs. These skills are critical to practice and research within a variety of mental health, health, clinical, private practice, forensic, work, and school settings in which psychologists are found.

Psychology programs should encourage the development of psychological services in rural areas and to provide skills necessary to facilitate the establishment of careers

in rural areas (e.g., McIlwraith et al., 2005). This is not unique to the profession of psychology: Health Boards throughout rural Nova Scotia are aware of how difficult it can be to recruit and retain highly qualified personnel in a variety of health professions such as medicine, nursing, psychiatry, and physiotherapy. The average age of psychologists, which is over 50 (Cohen, 2005), is considerably higher than in other professions (Service Canada, 2012). This means the baby-boom retirement cohort will leave psychology faster than other health care professions, which will make it more difficult to staff psychology positions in rural areas in years to come. This requires planning, given the lag time between the establishment of academic programs and graduates from the program hitting the job market.

Conclusion

A survey by the Association of Psychologists of Nova Scotia (APNS, n.d.) of its members identified opportunities for change in the current mental health care system. One opportunity for change proposed by members was that, in association with APNS, Psy.D. programs should be developed and supported in Nova Scotia in order to attract students to the province and to supply underserved rural populations. It is possible that the proposed increase in credentials will inflate the already high psychologist-to-patient ratio experienced in the rural areas of Nova Scotia. On the other hand, the motion toward the doctoral entrance requirement in Nova Scotia is in line with CPA's aspirations for a nationwide standard.

As mentioned earlier, students who complete a Ph.D. in clinical psychology more often than not go into practice upon completion of their degree, rather than pursuing academia or research-related careers; however, the average completion time of Ph.D. program is simply too long to supply the demand. Retention in Nova Scotia is an issue, and there is a need for more psychologists – particularly in rural areas. The development of a Psy.D. program would be extremely beneficial in Nova Scotia to address the demand for more psychologists and to provide an avenue for retraining for Masters-level practitioners because of the shorter completion time and applied practitioner focus.



References

- Arnett, J. (2005). Psychology and health. Presidential address at the annual meeting of the Canadian Psychological Association. Montreal, QC.
- Association of Psychologists of Nova Scotia (n.d.). Submission to the provincial mental health advisory committee. Retrieved March 27th 2012 from <http://www.apns.ca/documents/MHSRecommendations.pdf>
- Association of State and Provincial Psychology Boards (2008). Entry requirements for the professional practice of psychology. Retrieved March 1st 2012 from http://www.asppb.net/files/public/09_Entry_Requirements.pdf
- Bazana, G. (1999). Geographic locations survey of registered psychologists in Canada. Ottawa ON: Canadian Psychological Association.
- Canadian Mental Health Commission (2006). Retrieved December 10th 2007 from http://www.cmha.ca/bins/content_page.asp?cid=5-916.

919-928

Canadian Psychological Association (2011). Accreditation standards and procedures for doctoral programmes and internships in professional psychology (5th revision). Retrieved March 27th 2011 from http://www.cpa.ca/docs/file/Accreditation/Accreditation_2011.pdf

Canadian Psychological Association (2004). A model curriculum for a doctor of psychology (PSY.D.) programme: A report to the board of directors of the Canadian psychological association. Retrieved February 14th 2011 from http://www.cpa.ca/cpsite/userfiles/Documents/publications/Psy%20D%20Model%20Curriculum%20final%20_2_.pdf

Canadian Psychological Association (2007). Annual report, table 4: Program and practicum completion. Retrieved March 27th from <http://www.cpa.ca/cpsite/userfiles/Documents/Accreditation/Table%204%20AnnRepStats%281%29.pdf>

Cohen, K. (2005). Doctoral psychology internship training: What we have, what we need and where we are going. *Psynopsis: Canada's Psychology Newspaper*, 27, 19.

Entry Level Committee (March, 2011). Proposed change to the entry level standard to become a registered psychologist in the province of Nova Scotia. Report submitted to the Nova

Scotia board of examiners in psychology. Retrieved February 14th 2011 from http://www.nsbep.org/downloads/ELC_Report_Web.pdf

Gauthier, J. (June, 2011). The PsyD model in Canada: How well is it growing up and fulfilling its mission? Presentation at the annual meeting of the Canadian Psychological Association, Toronto ON, Discussant John Service.

Government of Nova Scotia (2004). Strategic directions for Nova Scotia's mental health system. Retrieved May 1st 2005 from http://www.gov.ns.ca/health/mhs/pubs/strategic_directionsrevised.pdf

Health Care Human Resource Sector Council (2003). A study of health human resources in Nova Scotia 2003. Retrieved February 14th 2012 from http://www.gov.ns.ca/health/reports/pubs/hhr_ns_study_report_2003.pdf

Hunsley, J., & Lefebvre, M. (1990). A survey of the practices and activities of Canadian clinical psychologists. *Canadian Psychology*, 31, 350-358.

McIlwraith, R.D., Dyck, K.G., Holms, V.L., Carlson, T.E., & Prober, N.G. (2005). Manitoba's rural and northern community-based training program for psychology interns and residents. *Professional Psychology: Research and Practice*, 36, 164-172.

Maritime Provinces Higher Education Commission (June, 2006). Maritime degree level qualifications framework. Retrieved March 27th 2011 from <http://www.mphed.ca/resources/DegreeLevelFrameworkEn.pdf>

Romanow, R.J. (2005). Honorary president's address: Canada's medicare – At the crossroads? *Canadian Psychology*, 47, 1-8.

Service Canada (2012). Psychologists analytical text. Retrieved March 27th 2012 from http://www.servicecanada.gc.ca/eng/qc/job_futures/statistics/4151.shtml

Statistics Canada (2001). The health of rural Canadians: A rural-urban comparison of health indicators. Retrieved May 1st 2005 from <http://www.statcan.ca/9096/bsolc/english/bsolc?catno=21-006-X2002006>.



73rd Annual Convention
73^e Congrès annuel

CANADIAN
PSYCHOLOGICAL
ASSOCIATION

SOCIÉTÉ
CANADIENNE
DE PSYCHOLOGIE

June 14-16 juin
2012

HALIFAX

WORLD TRADE AND CONVENTION CENTRE, HALIFAX, NOVA-SCOTIA

Parenting a Child with Cancer

Kathryn A. Birnie, BAH

Dalhousie University

ABSTRACT

Childhood cancer impacts the family system, drastically changing the context within which parenting occurs. Parents of children diagnosed with cancer are profoundly influenced by their child's diagnosis and associated treatment demands at a time completely out of sync with the broader family developmental cycle. This review synthesizes literature examining the impact of childhood cancer on parent psychological well-being, as well as parental roles and reciprocal influences on the ill child's adjustment and development. Potential differences between mothers, fathers, and families of diverse composition are highlighted; the impact of childhood cancer on the spousal/partner relationship, the parent-child relationship, parenting style, and the potential for both parents and children to find benefit from the childhood cancer experience is also highlighted. Research examining parent and child adjustment to childhood cancer within the broader family system remains an important area of study if we are to support such families to better cope long term.

RÉSUMÉ

Le cancer chez l'enfant a des répercussions sur le système familial, ce qui change de façon dramatique le contexte au sein duquel se déroule le parentage. Les parents des enfants diagnostiqués d'un cancer sont profondément influencés par le diagnostic de leur enfant et les exigences des traitements qui lui sont associées désynchronise complètement le cycle de développement de la famille plus large. La présente étude passe en revue la littérature ayant pour objet l'impact du cancer de l'enfant sur le bien-être psychologique des parents, ainsi que les rôles parentaux et les influences réciproques sur l'ajustement et le développement de l'enfant malade. Des différences potentielles entre les mères, les pères et les familles de diversément constituées sont mises en lumière; de plus, l'examen de l'impact du cancer de l'enfant sur la relation conjoint/partenaire, la relation parent-enfant, le style de parentage et la possibilité que les parents et l'enfant trouvent un aspect positif dans l'expérience du cancer de l'enfant. La recherche qui se

penche sur l'ajustement parent et enfant au cancer au sein d'un système familial large demeure un domaine important d'étude si nous voulons appuyer ces familles pour mieux s'ajuster à long terme.



According to the Canadian Cancer Society (2008), approximately 850 Canadian children under 14 years of age will develop cancer each year. When a child is diagnosed with cancer, it can become the central focus of the family system, with a pervasive and stressful impact on all family members, including parents (Bayat, Erdem, & Kuzucu, 2008) and healthy siblings (Houtzager et al., 2004). Given that the majority of childhood cancer patients survive into adulthood (i.e., approximate survival rate of 82%; Canadian Cancer Society, 2008), parents continue to be formative in the ill child's development. This review synthesizes research on the impact of childhood cancer on parents, as well as parental roles and influences on the ill child's adjustment and development. It focuses on issues of parenting during active treatment for the child's cancer and into survivorship; it is unable to adequately discuss important and related issues of parental involvement and coping with end-of-life care or adjustment to the loss of a child to cancer (see Kars et al., 2011 and McCarthy et al., 2010 for recent research).

Parent Psychological Adjustment

Parenting a child with cancer is very distressing, with parents reporting a sense of loss of control, uncertainty, anxiety, depression, sleep disturbance, and lowered self-esteem (Boman, Lindahl, & Bjork, 2003). Poorer parental well-being is associated with poorer child well-being (e.g., behavior problems, child depression and anxiety) and clinical factors of the child's disease (e.g., currently in active treatment, poorer prognosis for the child, more hospitalizations; Klassen et al., 2007). Parents describe their experience immediately following the child's cancer diagnosis as particularly distressing, characterized by fear, sadness, grief, loneliness, and dependence on others (Bjork, Wiebe,

& Hallstrom, 2005; Fornider & Norberg, 2010). Parents report feeling governed by their child's disease, with lengthy hospitalizations taxing the family system by removing the child from the home when support is most needed (Miller & Janosik, 1980), while simultaneously reducing parents' opportunities to work and increasing financial strain (Enskar et al., 1997). This experience reflects a fundamentally changed view of the world, drastically altering the conditions within which parenting occurs (Fornider & Norberg, 2010).

Six categories of supportive care needs are outlined throughout the cancer journey (i.e., practical, spiritual, psychosocial, informational, emotional, physical; Fitch, 1994), with the highest percentage of parents identifying emotional and informational support as most critical (e.g., wanting a full understanding of child's treatment and procedures, and coping with fears about cancer spreading or the child's wellbeing; Kerr et al., 2007). Despite increasing effort to support families dealing with childhood cancer (e.g., parental guide; Canadian Cancer Society, 2009), parents continue to report many unmet supportive care needs (Mitchell, Clarke, & Sloper, 2006).

Research suggests possible differences between mothers' and fathers' experiences of parenting a child with chronic illness (Jones et al., 2010), with mothers reporting greater stress, particularly regarding childcare and parental tasks, and risk for emotional distress (Pelchat, Lefebvre, & Levert, 2007). Mothers report a sense of obligation to remain physically near their child (e.g., staying with them in hospital; Young, Woods, Findlay, & Heney, 2002) and an increase in responsibility in helping the child to manage their illness and treatment, providing both emotional and practical support. Mothers' heightened management of day-to-day tasks for the ill child can bring additional strain and impaired functioning in other familial relationships (i.e., with other children and partners; Young et al., 2002) and shifting of roles (i.e., disequilibrium) within the family system (Miller & Janosik, 1980).

Investigations have recently examined the role of fathers in childhood cancer. Fathers recount trying to regain control of the family's situation and striving for normalization by actively engaging in practical daily activities, minimizing the impact of the illness, and encouraging the family's re-engagement in everyday life (Hill, Higgins, Dempster & McCarthy, 2009). Fathers also describe "maternal gate-keeping" where their involvement in caring for the ill child is frequently peripheral, largely dictated by the mother's preferences and reinforced by the medical team. Despite dissatisfaction with this peripheral role, fathers perceive themselves as having significant responsibility in helping their family to cope (Hill et al., 2009; Jones et al., 2010). Parents' differing experiences of their child's cancer may, in part, arise from attempts to fulfill traditional family roles, and by the differences in how mothers and fathers relate to their ill child (Pelchat et al., 2007).

Impact on Spousal/Partner Relationship

Childhood cancer poses an atypical stressor for parents given the stage of the family's life cycle, bringing additional challenges at a time of typical significant family change (Pelchat et al., 2007). Parents adjust their relationship to make space for young children and are fulfilling new parenting roles (Carter & McGoldrick, 1999). Evidence is mixed regarding whether parents of a child with cancer experience greater marital dissatisfaction as compared to couples with healthy children (Dahlquist et al., 1993). Greater marital distress was observed among parents with highly discrepant levels of anxiety regarding the child's cancer and who used coping strategies that focused intently on the child's cancer (Dahlquist et al., 1993). However, parents of a child with cancer do not appear to be at greater risk for divorce (Syse, Loge, & Lyngstad, 2010).

Parents of children with cancer reveal greater togetherness and less marital strain during the most strenuous times of their child's cancer with increased difficulty during more restful periods (Enskar et al., 1997). Other research suggests that marital distress is most prominent immediately following diagnosis when parents are separated during the child's frequent and lengthy hospital stays (Lavee & Mey-Dan, 2003). It may be that parental roles require continual re-evaluation and adjustment as the stressors evolve throughout the cancer journey (i.e., diagnosis to treatment to survivorship), placing increasing and ever changing demands on the family (Miller & Janosik, 1980). Regardless, mutual spousal support appears important for both members of the couple (Pelchat et al., 2007).

Role of Family Composition

To date, research in childhood cancer has focused primarily on two-parent families. However, a number of children with cancer are embedded within single parent or blended/stepparent family homes. Single parents may experience increased burden caring for the ill child, greater financial stress, and may have generally fewer resources from which to draw upon (Brown et al., 2008). Single mothers appear more depressed, although they do not report higher levels of posttraumatic stress or using different problem-solving strategies (Iobst et al., 2009). However, pediatric cancer survivors from single parent homes appear to be at increased risk for behavioural problems (Brown et al., 2008). Given the inherent shifting of family structure boundaries facing stepfamilies, they may face unique challenges and potential sources of conflict when dealing with childhood cancer (Kelly & Ganong, 2011).

Impact on Parenting and the Parent-Child Relationship

The parent-child relationship is likely altered as a result of their shared experience with childhood cancer. Chronic illness disrupts the typical parent-child attachment process (Odegard, 2005) as repeated hospitalizations simultaneously exacerbate and challenge attachment needs (Gold-

berg, 2000). Parents' ability to support developing child autonomy can become impaired by increases in child and parent anxiety, substantial continued parental involvement due to the child's illness and treatment, as well as continued dependency on clinicians (Odegard, 2005). Despite desiring autonomy, adolescents with a life-threatening illness, such as cancer, rely more on their parents for support, consequently limiting their opportunities for peer interaction and relationship development (Knapp et al., 2010).

Differences in parenting have been observed between parents of healthy children and parents of children with cancer. Parents report greater worry about their child's health, a tendency to be overprotective, allow less independence, are more lenient in disciplining, and perceive their child to be vulnerable (Hillman, 1997), often resulting in less parental attention for other healthy siblings (Forinder & Norberg, 2010). However, the greater the time since diagnosis, the more closely parenting appears to approximate that of healthy families (Hillman, 1997). This may be due to parents' developed knowledge and use of effective strategies, as well as a greater sense of mastery, for managing their child's health condition over time (Klassen et al., 2007). More research is needed to understand potential differences in parenting as survivors of childhood cancer have higher levels of depression and anxiety, and display more antisocial behaviours and deficits in attention, as compared to their healthy siblings (Schultz et al., 2007). Parenting style is relevant to treatment outcomes as children with cancer whose parents have a "supportive" style (e.g., seek child input, are nonrestrictive and nurturing) are more likely to attend all treatment appointments and are quicker to report adverse treatment reactions (Manne et al., 1993).

Impact of Parents on Child Adjustment

Parents' experience of the child's cancer significantly impacts child adjustment, as parent and child distress are strongly related (Robinson, Gerhardt, Vannatta, & Noll, 2007). Positive parental coping, family support, and quality of the parents' relationship are associated with better outcomes for the child (Suzuki & Kato, 2003). Parents experience a variety of caregiver demands, such as physical and emotional care of the child, financial management, maintenance of family roles, and communication with the child's care team. Increased caregiver demands are associated with poorer child adjustment (Wolfe-Christensen et al., 2010). Children exhibit fewer internalizing problems when parents report low parenting stress, despite high caregiver demand (Wolfe-Christensen et al., 2010). Higher levels of parenting stress and overprotection are related to later internalizing and behavioural problems for the child (Fedele et al., 2011). Parental uncertainty regarding the child's illness (e.g., greater fears of death, unpredictable treatment side effects and late effects, and interruptions in school and peer relationships) has been associated with higher child uncertainty and increases in child anxiety and depression

Potential Resources for Families Dealing with Childhood Cancer:

Canadian Cancer Society (2009). *Childhood Cancer: A guide for families*. Toronto, Canada.

Canadian Cancer Society: www.cancer.ca

Childhood Cancer Canada: www.childhoodcancer.ca

Children's Oncology Group:

www.childrensoncologygroup.org

American Childhood Cancer Organization: www.acco.org

Cure Search: www.curesearch.org

Local children's hospitals typically have a list of recommended resources available to families dealing with childhood cancer.

(Stewart, Mishel, Lynn, & Terhorst, 2010).

Parents' decisions around what and how to communicate with their child about the cancer can also influence the child's experience. Honest and direct communication between parents and children about the child's cancer diagnosis and prognosis, is associated with better child adjustment, less distress, higher social competence, and closer parent-child relationships (Suzuki & Kato, 2003). Furthermore, parents play a pivotal role in encouraging their cancer-surviving children to maintain healthy lifestyles to counteract late treatment effects (e.g., physical activity; Norris, Moules, Pelletier, & Culos-Reed, 2010).

Family Resiliency and Ability to Find Benefit

Although childhood cancer is undoubtedly a traumatic experience, research suggests that childhood cancer survivors and their parents report some ability to find benefit from the cancer experience (referred to as posttraumatic growth; Barakat, Alderfer, & Kazak, 2006). Childhood cancer survivors and their parents were more likely to report post-traumatic growth when the child was older at the time of diagnosis and when greater life threat and treatment intensity were perceived. Most often they report positive changes regarding how they think about their lives, their plans for the future, and how careful they are (Barakat et al., 2006). After experiencing childhood cancer, parents recount renewed strength, improved communication, trust, conflict resolution, and mutual support in the spousal relationship (Brody & Simons, 2007; Lavee & Mey-Dan, 2003). Families engage in behaviours and attitudes geared towards mending their broken lives soon after the shock of the initial diagnosis has subsided (i.e., "striving to survive"; Bjork et al., 2005). These efforts to cope positively include feelings of hope and optimism, and actions intended to help the family regain closeness with others and control over their lives.

These findings are consistent with the family resilience framework, which emphasizes strengths that contribute to the well-functioning family unit and offers the possibility for positive family growth after a difficult experience (Walsh,

2003). Identified resiliency factors include the rapid mobilization and reorganization of the immediate family to the initial diagnosis, prolonged hospitalizations, ability to recognize both positive and negative impacts (McCubbin et al., 2002), and support from various systems surrounding the family (i.e., child's oncology team, extended family, community, parents' workplace; McCubbin et al., 2002). Parents with lower social support are more likely to report feeling hopeless and depressed (Bayat et al., 2008). Informal support from parents of other children with cancer may be particularly helpful, as parents report that many individuals outside of the family do not understand the experience and the impact on the entire family (Hill et al., 2009).

Conclusion

The impact of childhood cancer on families is far-reaching, dramatically altering the manner in which the family system functions. Parents experience substantial distress and their roles within the family, both marital and parental, must adjust. Parents' distress influences the ill child's adjustment and can lead to strain within the marital relationship. Mothers and fathers appear to perceive and manage their child's cancer differently and changes in parenting are observed as the ill child is seen as vulnerable and in need of greater protection. Although these differences in parenting may lead to later child behavioural and psychological difficulties, parents and children identify potential benefits arising from the cancer experience. The ability of families to respond with such resiliency in the face of challenge is something all families can foster when facing difficult situations. Areas highlighted for future research, include the potential differential experience of single-parent and blended/stepparent families, differences in parenting between healthy children and those with cancer, as well as when and how to best support parents throughout the cancer journey. Additionally, families from minority groups remain underrepresented in this area of research overall. Research examining familial factors in childhood cancer remains an important area of study if we are to support such families to better cope long term.



References

- Barakat, L.P., Alderfer, M.A., & Kazak, A.E. (2006). Posttraumatic growth in adolescent survivors of cancer and their mothers and fathers. *Journal of Pediatric Psychology, 31*(4), 413-419.
- Bayat, M., Erdem, E., & Kuzucu, E.G. (2008). Depression, anxiety, hopelessness, and social support levels of the parents of children with cancer. *Journal of Pediatric Oncology Nursing, 25*(5), 247-253.
- Bjork, M., Wiebe, T., & Hallstrom, I. (2005). Striving to survive: Families' lived experiences when a child is diagnosed with cancer. *Journal of Pediatric Oncology Nursing, 22*(5), 265-275.
- Boman, K., Lindahl, A., & Bjork, O. (2003). Disease-related distress in parents of children with cancer at various stages after the time of diagnosis. *Acta Oncologica, 42*(2), 137-146.
- Brody, A.C. & Simons, L.A. (2007). Family resiliency during childhood cancer: The father's perspective. *Journal of Pediatric Oncology Nursing, 24*, 152-165.
- Brown, R.T. et al. (2008). Single parents of children with chronic illness: An understudied phenomenon. *Journal of Pediatric Psychology, 33*(4), 408-421.
- Canadian Cancer Society (2009). *Childhood Cancer: A guide for families*. Toronto, Canada.
- Canadian Cancer Society/National Cancer Institute of Canada (2008). *Canadian Cancer Statistics*. Toronto, Canada.
- Carter, B. & Mc Goldrick, M. (1999). Overview: The expanded family life cycle: Individual, family, and social perspectives. In B. Carter & M. Mc Goldrick (Eds.), *The expanded family life cycle: Individual, family, and social perspectives, 3rd Edition*. (pp.1-26). Boston, MA: Allyn and Bacon.
- Dahlquist, L.M., Czyzewski, D.I., Copeland, K.G., Jones, C.L., Taub, E., & Vaughn, J.K. (1993). Parents of children newly diagnosed with cancer: Anxiety, coping, and marital distress. *Journal of Pediatric Psychology, 18*(3), 365-376.
- Enskar, K., Carlsson, M., Golsater, M., Hamrin, E., & Kreuger, A. (1997). Parental reports of changes and challenges that result from parenting a child with cancer. *Journal of Pediatric Oncology Nursing, 14*(3), 156-163.
- Fedele, D.A., Mullins, L.L., Wolfe-Christensen, C., & Carpentier, M.Y. (2011). Longitudinal assessment of maternal parenting capacity variables and child adjustment outcomes in pediatric cancer. *Journal of Pediatric Hematology & Oncology, 33*(3), 199-202.
- Fitch, M.I. (1994). *Providing supportive care for individuals living with cancer*. Toronto, Canada: Ontario Cancer Treatment and Research Foundation.
- Forinder, U. & Norberg, A.L. (2010). "Now we have to cope with the rest of our lives". Existential issues related to parenting a child surviving a brain tumor. *Supportive Care Cancer, 18*, 543-551.
- Goldberg, S. (2000). *Attachment and Development*. London, UK: Arnold Publishers.
- Hill, K., Higgins, A., Dempster, M., & McCarthy, A. (2009). Fathers' views and understanding of their roles in families with a child with acute lymphoblastic leukaemia. *Journal of Health Psychology, 14*(8), 1268-1280.
- Hillman, K.A. (1997). Comparing child-rearing practices in parents of children with cancer and parents of healthy children. *Journal of Pediatric Oncology Nursing, 14*(2), 53-67.
- Houtzager, B.A., Oort, F.J., Hoekstra-Weebers, J.E.H.M., Caron, H.N., Grootenhuis, M.A., & Last, B.F. (2004). Coping and family functioning predict longitudinal psychological adaptation of siblings of childhood cancer patients. *Journal of Pediatric Psychology, 29*(8), 591-605.
- Iobst et al. (2009). Brief report: Problem solving and maternal distress at the time of a child's diagnosis of cancer in two-parent versus lone-parent households. *Journal of Pediatric Psychology, 34*(8), 817-821.
- Jones, B.L., Pelletier, W., Decker, C., Barczyk, A., & Dungan, S.S. (2010). Fathers of children with cancer: A descriptive synthesis of the literature. *Social Work in Health Care, 49*, 458-493.
- Kars, M.C., Grypdonck, M.H.F., de Korte-Verhoef, M.C., Kamps, W.A., Meijer-van den Bergh, E.M.M., Verkerk, M.A., & van Delden, J.J.M. (2011). *Supportive Care in Cancer, 19*(1), 27-35.
- Kelly, K.P. & Ganong, L.H. (2011). "Shifting family boundaries" after the diagnosis of childhood cancer in stepfamilies. *Journal of Family Nursing, 17*(1), 105-132.
- Kerr, L.M.J., Harrison, M.B., Medves, J., Tranmer, J.E., & Fitch, M.I. (2007). Understanding the supportive care needs of parents of children with cancer: An approach to local needs assessment. *Journal of Pediatric Oncology Nursing, 24*(5), 279-293.
- Klassen, A., Raina, P., Reineking, S., Dix, D., Pritchard, S., & O'Donnell, M. (2007). Developing a literature base to understand the caregiving experience of parents of children with cancer: A systematic review of factors related to parental health and well-being. *Supportive Care in Cancer, 15*, 807-818.
- Knapp, C., Quinn, G.P., Murphy, D., Brown, R., & Madden, V. (2010). Adolescents with life-threatening illnesses. *American Journal of Hospice & Palliative Medicine, 27*(2), 139-144.
- Lavee, Y. & Mey-Dan, M. (2003). Patterns of change in marital relationships among parents of children with cancer. *Health & Social Work, 28*, 255-263.
- Manne, S.L., Jacobsen, P.B., Gorfinkle, K., Gerstein, F., & Redd, W.H. (1993). Treatment adherence difficulties among children with cancer: The role of parenting style. *Journal of Pediatric Psychology, 18*(1), 47-62.
- McCarthy, M.C., Clarke, N.E., Ting, C.L., Conroy, R., Anderson, V.A., &

- Heath, J.A. (2010). Prevalence and predictors of parental grief and depression after the death of a child from cancer. *Journal of Palliative Medicine*, 13(11), 1321-1326.
- McCubbin, M., Balling, K., Possin, P., Friedrich, S., & Bryne, B. (2002). Family resiliency in childhood cancer. *Family Relations*, 51(2), 103-111.
- Miller, J.R. & Janosik, E.H. (Eds.) (1980). *Family-Focused Care*. New York, NY: McGraw-Hill Book Company.
- Mitchell, W., Clarke, S., & Sloper, P. (2006). Care and support needs of children and young people with cancer and their parents. *Psycho-Oncology*, 15, 805-816.
- Norris, J.M., Moules, N.J., Pelletier, G., & Culos-Reed, S.N. (2010). Families of young pediatric cancer survivors: A cross-sectional survey examining physical activity behavior and health-related quality of life. *Journal of Pediatric Oncology Nursing*, 27(4), 196-208.
- Odegard, W. (2005). Chronic illness as a challenge to the attachment process. *Clinical Child Psychology & Psychiatry*, 10(1), 13-22.
- Pelchat, D., Lefebvre, H., & Levert, M.-J. (2007). Gender differences and similarities in the experience of parenting a child with a health problem: Current state of knowledge. *Journal of Child Health Care*, 11(2), 112-131.
- Robinson, K.E., Gerhardt, C.A., Vannatta, K., & Noll, R.B. (2007). Parent and family factors associated with child adjustment to pediatric cancer. *Journal of Pediatric Psychology*, 32(4), 400-410.
- Schultz, K.A.P., Ness, K.K., Whitton, J., Recklitis, C., Zebrack, B., Robison, L.L., Zeltzer, L., & Mertens, A.C. (2007). Behavioral and social outcomes in adolescent survivors of childhood cancer: A report from the childhood cancer survivor study. *Journal of Clinical Oncology*, 25(24), 3649-3656.
- Stewart, J.L., Mishel, M.H., Lynn, M.R., & Terhorst, L. (2010). Test of a conceptual model of uncertainty in children and adolescents with cancer. *Research in Nursing & Health*, 33, 179-191.
- Suzuki, L.K. & Kato, P.M. (2003). Psychosocial support for patients in pediatric oncology: The influences of parents, schools, peers, and technology. *Journal of Pediatric Oncology Nursing*, 20(4), 159-174.
- Syse, A., Loge, J.H., & Lyngstad, T.H. (2010). Does childhood cancer affect parental divorce rates? A population-based study. *Journal of Clinical Oncology*, 28(5), 872-877.
- Walsh, F. (2003). Family resilience: A framework for clinical practice. *Family Process*, 42(1), 1-18.
- Wolfe-Christensen, C., Mullins, L.L., Fedele, D.A., Rambo, P.L., Eddington, A., & Carpentier, M.Y. (2010). The relation of caregiver demand to adjustment outcomes in children with cancer: The moderating role of parenting stress. *Children's Health Care*, 39, 108-124.
- Young, B., Dixon-Woods, M., Findlay, M., & Heney, D. (2002). Parenting in a crisis: Conceptualising mothers of children with cancer. *Social Science & Medicine*, 55, 1835-1847.

If you're reading this...others will to!

MindPad is a newsletter reaching students in psychology across the nation! Contact us for advertising and sponsorship
 Contact **Tyler Stacey-Holmes** publicrelations@cpa.ca



Si vous lisez ceci, d'autre le ferons aussi!

Notes D'idées est un bulletin qui atteint les étudiants en psychologie à travers le pays. Contactez-nous pour des opportunités de parrainage
 Contactez **Tyler Stacey-Holmes** publicrelations@cpa.ca

Singing in St John's: A Report on the Third Annual Meeting of Advancing Interdisciplinary Research in Singing (AIRS)

Sally L Busch

Carleton University

ABSTRACT

This article provides a brief report of the Third Annual Meeting of the Advancing Interdisciplinary Research in Singing (AIRS) Group from the perspective of a student affiliate. AIRS research themes, including development, education, and well-being are described and events held concurrently with the meeting are outlined. The benefits of student involvement with such events and organizations, including opportunities for collaboration and inspiration are stressed.

Résumé

Cet article présente un bref rapport de la troisième réunion annuelle du groupe Advancing Interdisciplinary Research in Singing (AIRS) à partir de la perspective d'un étudiant affilié. Les thèmes de recherche du groupe AIRS, notamment le développement, l'éducation et le bien-être sont décrits et les activités tenues en même temps que la réunion sont décrites. Les avantages de l'engagement étudiant dans de telles activités et organisations, y compris les occasions de collaboration et d'inspiration sont soulignés.



Held July 9-11, 2011 at Memorial University of Newfoundland in St John's, Newfoundland, the Third Annual Meeting of Advancing Interdisciplinary Research in Singing (AIRS) was a rousing success. Meeting attendees were afforded the opportunity not only to share their research, but also to take in several activities occurring with concurrent conferences.

AIRS is a Major Collaborative Research Initiative funded by the Social Sciences and Humanities Research Council of Canada whose mandate is to promote and carry out research involving singing. Annual meetings of this group permit affiliated researchers to share their findings and generate new avenues for collaboration and study. AIRS focuses its research on singing into three main themes: development, education, and well-being. The developmental branch includes investigation of both how singing behavior

develops as well as how singing by others may influence development (e.g., how maternal singing regulates stress in infants). The educational theme includes research that addresses the ways singing is taught as well as how singing may be used as a teaching tool (e.g., how singing may enhance vocabulary learning in schoolchildren). Research concerning the role of singing in intergenerational and cross-cultural understanding, as well as physical and psychological health, is subsumed under the theme of well-being (e.g., how singing may aid in social connections or improve mood). Each of these themes and sub-themes of research was well-represented at this meeting, as researchers and students from a wide variety of disciplines including psychology, sociology, and music shared both poster and verbal presentations of their work. Verbal presentations were followed by periods of discussion open to all attendees. Potential avenues for collaboration both within and between themes were discussed extensively. Emergent themes of discussion from the AIRS meeting included the connection between song and movement, song as a mechanism for well-being both on individual and interpersonal levels, and song as a unique communication medium that engenders trust and encourages learning.

The Third Annual AIRS meeting was held in conjunction with several concurrent events, including Festival 500 Sharing the Voices (an international choral festival), The Phenomenon of Singing Symposium (an academic conference associated with Festival 500), and the International Council for Traditional Music Conference. The overlap between these varied, and yet highly related events represented a unique opportunity for researchers to attend diverse presentations and be exposed to music researchers and musicians from around the world. Sources of inspiration abounded, as presentations demonstrated how singing is already being applied in the real world for educational and therapeutic purposes, sometimes with, sometimes without research support.

Although AIRS itself is based at the University of Prince Edward Island in Canada, the international interest in singing research was immediately clear at this meeting, as members flew in from around the world to attend. While Memorial University provided meeting facilities and housed



many AIRS members in residence, St. John's itself provided a welcoming backdrop. In the evenings, the city was full of music; cozy pubs and other locales boasted live music, either local fare or sometimes more formal performances associated with Festival 500. During the day, meeting attendees were kept busy with AIRS business. Notably, in true commitment to the subject under investigation, each day's meeting began with a song. Furthermore, during presentations, both in the AIRS meeting and Festival 500, audience members were frequently encouraged to sing along. This interactive component lent these events a uniquely friendly and collaborative atmosphere, making them perhaps especially accessible to students new to the conference scene. The student experience of the AIRS meeting culminated in a highly productive and enjoyable meeting of the student and early researcher group. Over pizza and pop, students and early researchers affiliated with AIRS were able to sit down together to tackle organizational issues, generate research ideas, and socialize.

Involvement with a research initiative like AIRS generates a multitude of opportunities for academic and professional development for students: It can be an alternative source of research funding, offer career-building experiences through within-group publications and volunteer positions, as well as offer valuable connections with other researchers within a relatively small group. This meeting and others like it are important for young researchers to attend, as they afford opportunities to connect with others in similar veins of research, compare notes, and learn from the findings of others (in particular other students). Further, in an area of research such as singing, where the literature is relatively sparse, the information that can be shared at early stages

of research (i.e., in advance of publication) is invaluable. Also, professional connections made at such conferences may lead to unexpected avenues for future education or employment. And that's not to mention the many benefits of socializing with fellow researchers with similar interests! However, conference attendance is not always an entirely pleasant experience. Organizing any conference is a complex process, and so, as in the case of the AIRS meeting, some information (such as the conference schedule) may not be available until the last moment. Also, the expenses associating with attending conferences (travel costs, lodging, food) can be daunting for students. However, as I learned from my experience with the AIRS meeting, taking the initiative to ask questions (i.e., of conference organizers) and making use of all available funding sources (e.g., from your university, students' association, the organization holding the conference, the lab you work in, etc.) can make these aspects of conference attendance easier to navigate.

Overall, the Third Annual Meeting of AIRS was an excellent example of how holding concurrent events, although challenging from a planning perspective, can contribute to the cross-fertilization of ideas. The supportive and interactive atmosphere engendered by the proceedings was encouraging to its young researchers and set an example for other similar events. The next AIRS meeting will take place at the University of Prince Edward Island during August 2012. Those interested in singing research or becoming affiliated with AIRS can go to www.airsplace.ca for more information.



Conferences beyond Psychology: A Review of the 2011 American Academy of Child and Adolescent Psychiatry and Canadian Academy of Child and Adolescent Psychiatry Joint Annual Meeting

Colin Andrew Campbell, M.A.

McGill University

ABSTRACT

Academic conference experiences are an integral component of the psychology graduate school experience in terms of professional development. It is important to also attend conferences hosted by fields other than psychology for the benefit of multi- and interdisciplinary research and treatment. One such closely allied field is psychiatry. In the current article, I review the AACAP/CACAP Joint Annual Meeting, co-hosted by the Canadian and American academies of child and adolescent psychiatry in Toronto, October 2011. The conference featured many sessions of interest to psychology students, both in both familiar presentation formats as well as in unique ones. In addition to conference highlights, I also outline some of my personal experiences and ways in which the conference could be potentially improved from the perspective of a psychology student, such as providing a student conference rate and strengthening the social program offered.

chologie, comme d'offrir un tarif étudiant pour la participation à la conférence et renforcer les activités sociales offertes.



Interdisciplinary Conferences

Students in psychology are often reminded about the importance of attending and presenting at academic conferences such as the Canadian Psychological Association's (CPA) annual meeting being held in Halifax this year. Attending conferences within the field of psychology provides students, researchers and professionals with opportunities to present their own research, receive feedback, and network with others who have similar interests. Attendees are able to have research presented in an interactive forum. For those in more clinical and applied fields, attending conferences may also offer insight into new clinical approaches and often provides students with an opportunity to meet with representatives from clinical internship sites. In the current article, I will emphasize the importance of attending conferences in fields other than psychology and review one such conference that I recently attended: the American Academy of Child and Adolescent Psychiatry (AACAP) and Canadian Academy of Child and Adolescent Psychiatry (CACAP) Joint Annual Meeting.

It is hard to deny the importance of attending and presenting at conferences (Haines & Landrum, 2008; Tryon, 1985). However, when it comes time to consider which conferences to submit research applications, many students may not consider applying to conferences in allied disciplines such as education, nursing, occupational therapy, philosophy or psychiatry. These separate fields should not be overlooked. In recent years there has been a paradigm shift towards multidisciplinary and interdisciplinary research (National Academy of Sciences, 2004). Presenting at conferences in other fields can help promote psychology as a valuable component of scientific research, as well as provide an opportunity to find potential research collabora-

Résumé

La présence à des conférences universitaires demeure un élément intégral des expériences aux études supérieures en psychologie sur le plan du perfectionnement professionnel. Mais il est aussi important d'assister à des conférences organisées dans des domaines autres que la psychologie au bénéfice d'une recherche et d'un traitement multi et interdisciplinaires. L'un de ces domaines liés de près à la psychologie est la psychiatrie. Dans le présent article, je me penche sur la conférence annuelle conjointe AACAP/ACPEA, coparrainée par les académies canadiennes et américaines de psychiatrie de l'enfant et de l'adolescent qui a eu lieu à Toronto, en octobre 2011. Les présentations étaient en format familier, et d'autres uniques à la conférence. En plus des faits saillants de la conférence, je décris aussi certaines de mes expériences personnelles et des façons par lesquelles la conférence pourrait être possiblement améliorée à partir de la perspective d'un étudiant en psy-

tors in diverse fields. Attending conferences organized by another discipline can also be helpful for clinically focused students, as many psychologists regularly interact with teachers, speech-language pathologists and social workers among other professionals. One can benefit from seeing what clinical approaches their professional peers' field has to offer.

The AACAP/CACAP Conference

One field closely linked to psychology is psychiatry. Psychiatry, which uses a medical model in approaching the treatment and research of mental health issues, overlaps in many areas with psychology. This past October I had the opportunity to present a research poster at the American Academy of Child and Adolescent Psychiatry (AACAP) and Canadian Academy of Child and Adolescent Psychiatry (CACAP) Joint Annual Meeting. My poster was based on work I had done while at my pre-internship clinical placement at Montreal's Jewish General Hospital's Early Childhood Disorders program in helping to develop objective methods of assessing the effectiveness of ADHD medication. The focus of the poster was on how to implement a method that could be used with a multi-disciplinary team.

The AACAP/CACAP Joint Annual Meeting was held at the Sheraton Centre Toronto Hotel from October 18-23, 2011. Both the AACAP and the CACAP rotate their conference site from year to year, and have hosted a joint conference four times in the past 15 years, with three of those times being in Toronto. In addition to its familiar Toronto location, the AACAP/CACAP Joint Annual Meeting also had many of the same presentation formats seen at the CPA Annual Convention, including poster sessions, symposia, workshops, committee meetings and award presentations. Since most psychiatrists in attendance were also active practitioners, there were a number of session formats that focussed on the specific treatments of clients. This included clinical perspective sessions that highlighted the "clinical wisdom" of the practice of child and adolescent psychiatry, and clinical case conferences in which clinicians would present a particularly difficult case for discussion with those in attendance. In addition to the clinical case conferences, conference attendees could also attend clinical consultation breakfasts. During the clinical consultation breakfasts, groups of 15 or fewer would discuss a specific case or topic, such as the individual psychotherapy of adolescent sexual abuse. Some of the highlights of the conference program included separate symposia on integrating neuroscience and intervention in pediatric trauma, developmental and biopsychosocial perspectives on treating pediatric bipolar disorder, and findings from the Autism Genome Project (Anney et al., 2010; Hu-Lince, Craig, Huentelman, & Stephan, 2005). There were plenty of sessions available to attend each day.

Before attending the conference, I did not know what to expect. As a school and applied child psychology student

at McGill University, most of the conferences that I had attended and presented at were organized by psychologists. I expected a lot of research on pharmaceutical approaches, very little information on talk-based therapy, a lot of pharmaceutical representatives, plenty of medical students and not a lot of psychologists. Many of these assumptions were incorrect. For one, there were strict limits on the presence of pharmaceutical representatives and how they were allowed to interact with conference attendees. Additionally, each presenter was requested to disclose any potential conflicts of interest at the start of their presentation. In terms of the research presented, a common topic was the use of medication to treat clients, but there were still a substantial amount of presentations on non-pharmaceutical approaches to treatment. Thus, an attendee could avoid medication-focussed sessions and still have plenty of options in terms of what to attend. I was also surprised to find that unlike other conferences where the poster sessions seem to be populated by students, established psychiatrists were among the most common poster presenters. In fact, I did not seem to see as many psychiatry students as I had expected. Although this made the actual presentation of my poster a little anxiety inducing as the majority of people who stopped to ask me questions were experienced researchers in psychiatry, it had the added advantage that I was able to receive detailed feedback on my methodology and suggestions for potential future directions. Finally, upon reviewing the conference program it appeared as though psychologists were well represented as I was able to spot a few familiar names.

Despite the many positives elements of the AACAP/CACAP Joint Annual Meeting, I felt as though there were a few drawbacks as well. For one, I found that compared to other conferences I attended, the AACAP/CACAP Joint Annual Meeting did not offer as much in the way of social activities. There was a welcome reception on Wednesday evening featuring Pink Freud and the Transitional Objects, a musical troupe of psychiatrists, and an "open mic" night on Thursday. While conference attendees were provided with some options in terms of the social program, I felt it was unfortunate that each event was held at the convention centre. After a day spent attending events it may have been tempting for many attendees to spend the rest of their evening in their hotel room after dinner. Although places of interest in Toronto were outlined on the conference website, attendees were not provided with any organized outings that explored the city of Toronto. This was unfortunate, as visitors from the United States may have missed an opportunity to explore Canada's largest city. Additionally, I was disappointed to discover that the student socials were restricted to medical students. Finally, the cost of the conference may be considered high for some, as registration for the full length of the conference was \$475. Fortunately, non-member non-psychiatrists who were presenting only had to pay a \$125 to \$150 registration rate.

Medical students and psychiatry residents could attend for free, but this offer was not extended to students in other disciplines such as psychology. Certainly extending this offer to include students from other fields would have been welcome, or at the very least including a separate student rate.

Overall, the AACAP/CACAP Joint Annual Meeting had a strong program with many presentations and sessions that are of interest to psychologists and psychology students who work with children and adolescents. Psychologists and individuals in other fields were very welcome at the conference, as many of the psychiatrists I talked to were glad to have others there who provided a different perspective. Although high registration rates may hinder a psychology student's ability to attend as a non-presenter, if your research involves adolescents or children and is in an area that overlaps with aspects of psychiatry I would definitely recommend applying to present at either the CACAP or the AACAP Annual Meeting. For the next two years, the two organizations are going their separate ways. The CACAP will be holding their meeting at the Palais des congrès in Montréal, from September 30 to October 2, 2012 and then in Vancouver in 2013. The AACAP will be hosting their next annual meeting in San Francisco from October 23-28, 2012,

and at Walt Disney World in Florida in 2013. I hope that this review has convinced you to consider attending and presenting your research at either academy's meeting. See you in Montréal in the fall!



References

- Anney, R., Klei, L., Pinto, D., Regan, R., Conroy, J., Magalhaes, T. R., . . . Hallmayer, J. (2010).
A genome-wide scan for common alleles affecting risk for autism. *Human Molecular Genetics*, 19, 4072-4082. doi:10.1093/hmg/ddq307
- Haines, C., & Landrum, E. (2008). Faculty perceptions of undergraduate students' participation in regional psychology conferences. *Psychological Reports*, 103, 426-430. doi:10.2466/pr0.103.2.426-430
- Hu-Lince, D., Craig, D. W., Huentelman, M. J., & Dietrich, A. (2005). The Autism Genome Project : Goals and strategies. *American Journal of Pharmacogenomics*, 5, 233-246. doi:10.2165/00129785-200505040-00004
- National Academy of Sciences, National Academy of Engineering, and Institute of Medicine. (2004). Facilitating interdisciplinary research. Washington DC: National Academies Press.
- Tryon, G. S. (1985). What can our students learn from regional psychology conventions? *Teaching of Psychology*, 12, 227-228. doi:10.1207/s15328023top1204_14.

Social Media



We're bringing CPA to you! You may have noticed 3 shiny new icons on the CPA website. They are your direct link to our newest online properties. You can now receive updates about the latest news in science, practice and education directly on your Facebook, Twitter or LinkedIn account. Visit www.cpa.ca for the links.

Médias sociaux

Nous amenons la SCP à votre porte! Vous pourriez avoir remarqué trois nouvelles icônes brillantes sur le site Web de la SCP. Elles sont vos liens directs à nos plus récentes propriétés en ligne. Vous pouvez maintenant recevoir les mises à jour au sujet des dernières nouvelles en science, en pratique et en éducation directement sur votre compte Facebook, Twitter ou LinkedIn. Visitez le site www.cpa.ca pour voir les liens.

The Nature of Nurture: A Reconciliation of Intuition and Empirical Findings Regarding the Long-Term Effects of Parenting on Child Outcome

Cameron M. Clark, B.A.

University of Calgary

ABSTRACT

Results from large-scale twin and adoption studies over the last several decades have ostensibly suggested that parenting practices have little or no effect on the long-term outcome of children. This paper aims to reconcile these counterintuitive empirical findings with the intuition that the way children are raised by their parents certainly does have an effect on the people they eventually become. Specifically, the discrepancy between *who we believe ourselves to be* based on our idiosyncratic life histories, and *who we are measured to be* via standardized psychological tests is highlighted, and discussed.

Résumé

Les résultats d'études à grande échelle sur les jumeaux et de l'adoption au cours des dernières décennies ont manifestement suggéré que les pratiques de parentage n'ont que peu ou pas d'effets sur les résultats à long terme des enfants. Cet article vise à réconcilier ces conclusions empiriques contre-intuitives avec l'intuition que la façon pour les parents d'élever l'enfant a certainement un effet sur la personne qu'il deviendra éventuellement. Tout particulièrement, l'écart entre qui nous croyons être d'après sur notre vécu idiosyncratiques et la mesure de ce que nous allons être déterminé par des tests psychologiques standardisés est mis en lumière et décrit.



Why is it that the trajectory of some children will lead them to become successful productive professionals with rich social and familial relationships, while other children seem to just as naturally develop maladaptive patterns of behaviour and social interaction leading to psychopathology and social deviance? Today, the notion that both nature and nurture play causal roles in both the short and long-term outcomes of children is not particularly controversial.

However, what has been controversial over the last several decades is the role of parenting specifically (Harris, 1998). Is it the case that parents shape the future personalities and intelligences of their children via carefully planned parenting behaviours and practices, or would children generally turn out similarly in the long term given *any* set of parents that cared for and nurtured the child within the 'normal' (i.e. non-abusive, and non-neglectful) range of parenting behaviours? In an attempt to provide a meaningful answer to this question, this paper will briefly summarize both the intuitive arguments for the long-term effects of parenting on child outcome, and the scientific findings from the field of behavioural genetics that seem to refute this intuition. More importantly, this paper will attempt to reconcile these seemingly contradictory positions by highlighting the differences between who we believe ourselves to be as people, and who we are measured to be via standardized psychological tests.

To some, questioning the effects of parenting on the outcome of children will seem heretical. The effect of parenting on children might be considered so intuitive that no amount of empirical investigation is necessary to confirm it, and no amount of empirical evidence would be sufficient to deny it. Children of parents who foster secure forms of attachment and treat them with respect generally show more stable patterns of positive social interaction throughout their lives than children of parents who limit their child's sense of self-worth or treat them harshly (Harris, 1998). To only slightly oversimplify: better parenting produces better outcomes for children. Harris (1998, p. 2) sums up the popular sentiment succinctly: "Nature gives the parents a baby; the end result depends on how they nurture it. Good nurturing can make up for many of nature's mistakes; lack of nurturing can trash nature's best efforts."

However, empirical evidence has been steadily building against this conventional wisdom for several decades via behavioural genetic studies that have rigorously examined the causal role of genetics in contributing to child outcome. In 2000, psychologist Eric Turkheimer began a comprehen-

sive overview of behavioural genetic findings with a bold statement: “The nature nurture debate is over. The bottom line is that everything is heritable...” (Turkheimer, 2000, p. 160). He even went as far as to say that the ubiquity of genetic influences on behaviour ought to be “enshrined as the first law of behavioural genetics.” He cited results from major twin studies such as that of Bouchard, Lykken, McGue, Segal and Tellegen (1990) who reported results from the Minnesota Study of Twins Reared Apart. This study found that correlations between identical twins raised apart were highly concordant with scores for identical twins raised together for a staggering number of variables ranging from standard psychological assessments such as mental ability and personality, to more eclectic dimensions of human variation such as social attitudes including religiosity and traditionalism. These findings are surprising, especially for those who would believe that parenting and rearing environment play a large role in development, in which case these scores should be highly discordant (Bouchard et al., 1990). More recent behavioural genetic studies of this type have replicated these results and provided a more nuanced view of heritability, and have even shown very specific traits to be heritable including dependence on alcohol or nicotine, likelihood of divorcing, and even the number of hours of television watched (Bouchard, 2004).

Turkheimer’s controversial statements in rebutting the conventional wisdom of the effects of parenting did not stop with his first law – he went on to name two more:

The Second Law: the effect of being raised in the same family is smaller than the effect of genes.

The Third Law: a substantial portion of the variation in complex human behavioural traits is not accounted for by the effects of genes or families.

Where the calculations of heritability used to substantiate Turkheimer’s first law are fairly simple, the calculations required to substantiate the second and third laws are slightly more conceptually complex. Straight heritability estimates can be calculated in a number of ways, the simplest of which is taking an average of the correlations between identical twins reared apart on any given trait. Pairs in this unique population are genetically identical and share none of the rearing environment. Thus, if on average there is a correlation of .69 between scores of intelligence between identical twins, the heritability of that trait can be said to be .69, or that 69% of the variance in intelligence scores in that sample is caused by the genetic component (Bouchard & McGue, 2003; Plomin, Ashbury, & Dunn, 2001).

Substantiating Turkheimer’s second law requires parsing the variation observed in human traits into two additional components: shared environment (all the things that siblings reared together might be expected to share such as family and parenting), and non-shared environment (all of the environmental experiences that siblings reared together would not share including idiosyncratic events of both pos-

itive and negative influence – e.g. a chance meeting with a life-altering individual, or contracting a life-threatening virus). The effects of the shared environment can be calculated by subtracting the heritability value for a given trait, which is a measure of only the genetic contributions to variance, from the average correlation observed between identical twins reared together, which is a measure of both the genetic contributions *and* the effects of being reared together. Finally, the third component, non-shared environment, can be calculated by subtracting the correlation between identical twins raised together (who share genes and environment) from 1, leaving only the effects not accounted for by genes or shared environment. Results from large-scale twin studies examining the relative contributions of these three components of variance have delivered consistent results. Across traits, genes account for roughly 50% of the variation, unique or non-shared environment contributes the other 50% and the shared environment (the proportion of the variance which includes the effect of parents and rearing environments) is often measured to be zero, or a very small percentage if its value reaches significance at all (Bouchard et al., 1990; Pinker, 2002). These findings imply that on average, adult siblings are equally similar on measured psychological variables regardless of whether they were reared in the same home, adoptive siblings are no more similar than two people chosen at random on these measures, and identical twins are no more similar than we should expect on the basis of genetic similarity alone. Finally, Turkheimer’s third law follows directly from the first two. So long as estimates of heritability are greater than zero, and estimates of the shared environment hover around zero, a large proportion of the variance in any given trait will be caused by factors that do not relate to either nature or nurture, but other unknown aspects of one’s individual environment.

Large-scale investigations utilizing twin and adoption designs like those mentioned above are powerful tests of the effects of parenting on the long term outcomes of children (Pinker, 2002). Despite the huge variation in parenting styles, behaviours, and rearing environments, conventional wisdom holds that two children growing up in the same home should turn out more similar than two people selected at random. That is, “If *anything* that parents do affects their children in *any* systematic way, then children growing up with the same parents will turn out more similar than children growing up with different parents. But they don’t” (Pinker, 2002, p. 384). Thus, the two options that remain, as pointed out as early as 1983 by Maccoby and Martin, are that either 1) the particular effects of parenting are the cause of very little, if any, of the variation in psychological traits (i.e. giving rise to the idea parents have no long-term effects on their children); or, 2) that the effects that parents do have on children are unique for each child in the home. If parenting styles and practices have different effects on different children, and additionally, if those ef-

fects in aggregate account for a very, very small portion of the variance in any measured psychological trait (as per the second law), then what would be to gain from attempting to alter any parenting style at all? If this were the case, changes that would benefit some children would proportionately handicap others.

Thus, the picture painted by modern behavioural genetics is not one of genetic determinism as might be thought upon first consideration of the three laws of behavioural genetics, but rather a puzzle: genetics reliably account for roughly 50% of the variation in any given psychological trait, and the other 50% are accounted for by *something* in the environment. But whatever that *something* is, it cannot be shared between two children growing up in the same home, which rules out all of the causal factors espoused by conventional wisdom on parenting and child rearing (Pinker, 2002).

So, do parents have long term effects on the outcome of their children? Do parents matter? Before answering this question, it is important to qualify what exactly this question is asking, and more importantly, what it is not. First, the question is not asking whether or not children could raise themselves in the *absence* of their parents. Parents undoubtedly care for and protect their children in essential ways that foster development through to adulthood (Harris, 1998). Rather, the question is, would children turn out more or less the same in terms of *measurable psychological traits* if they had been raised by a different set of parents? In this regard, behavioural genetic studies indicate rather conclusively that they would. Second, the question is not asking whether or not parents have the ability to cause physical or psychological damage to their children – recent empirical work has confirmed longstanding intuitions that the experience of maltreatment itself can and does cause lasting psychological harm (Jonson-Reid et al., 2010).

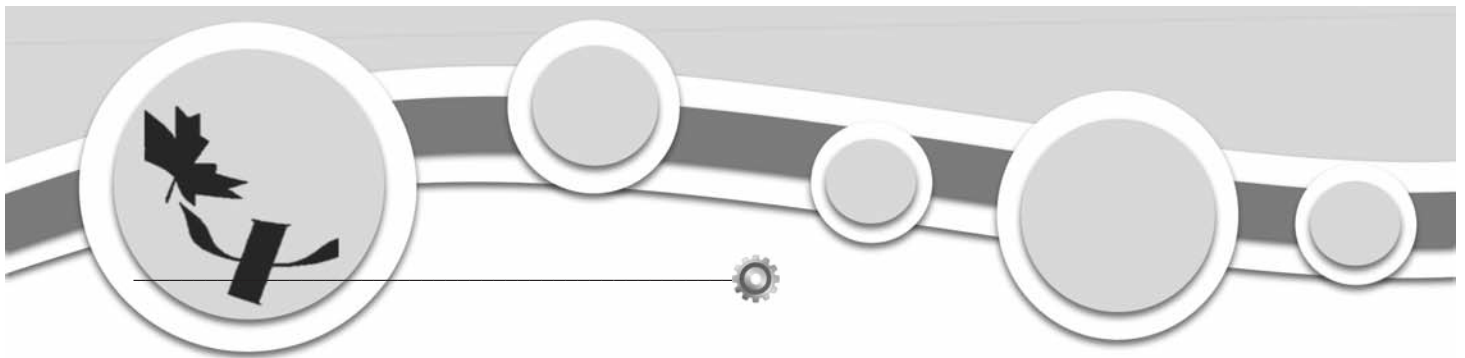
However, even with this modifier for situations involving maltreatment, the empirically derived three laws are hard to reconcile with our experientially derived intuitions about good parenting contributing to good outcome in childhood and beyond. Why? Because there is a disconnect between who each of us believes we are, and who we are measured to be via standardized psychological tests. Standardized tests of intelligence, personality, psychopathology, or any

other psychological trait of interest are purposely void of personalizing content relevant to the specifics of our idiosyncratic developmental trajectory. Thus, it may be the case that if raised by a different set of parents within the normal range, we may have answered questions assessing our intelligence or personality in strikingly similar ways; however we would also likely *not* say that who we are as human beings was well captured within our responses to those psychological measures. Rather, who we are as human beings, on a personal level is tightly intertwined with our specific and individual trajectory through life, of which our parents and other significant caregivers are doubtlessly an integral part. So, to say that parents don't matter is technically true in one highly specified sense; however I would argue that this is not the same sense in which each of us would like to believe that our parents matter to us.



References

- Bouchard, T. J. (2004). Genetic influence on human psychological traits. A Survey. *Current Directions in Psychological Science*, 13(4), 148-151. doi: 10.1111/j.0963-7214.2004.00295.x
- Bouchard, T. J., & McGue, M. (2003). Genetic and environmental influences on human psychological differences. *Journal of Neurobiology*, 54, 4-45.
- Bouchard, T., Lykken, D., McGue, M., Segal, N., & Tellegen, A. (1990). Sources of human psychological differences: the Minnesota Study of Twins Reared Apart. *Science*, 250(4978), 223-228. doi: 10.1126/science.2218526.
- Harris, J. R. (1998). *The nurture assumption: why children turn out the way they do*. New York: Free Press.
- Jonson-Reid, M., Presnall, N., Drake, B., Fox, L., Bierut, L., Reich, W., ... Constantino, J. N. (2010). Effects of child maltreatment and inherited liability on antisocial development: An official records study. *Journal of the American Academy of Child & Adolescent Psychiatry*, 49(4), 321-332.
- Maccoby, E.E. & Martin J.A. (1983). Socialization in the context of the family: Parent-child interaction. In P.H. Mussen & E.M. Heatherington (Eds.), *Handbook of child psychology: Socialization, personality, and social development* (4ed., Vol. 4). New York: Wiley.
- Pinker, S. (2002). *The blank slate: the modern denial of human nature*. New York: Viking.
- Plomin, R., Ashbury, K., & Dunn, J. (2001). Why are children in the same family so different? Nonshared environment a decade later. *Canadian Journal of Psychiatry*, 46, 225-233.
- Turkheimer, E. (2000). Three laws of behavior genetics and what they mean. *Current Directions in Psychological Science*, 9(5), 160-164. doi: 10.1111/1467-8721.00084.



Students in Psychology Guide to the 73rd annual CPA Convention 73^e congrès de la SCP : guide pour les étudiants en psychologie

Guest Speaker / Conférencière invitée



Dr. Arla Day is the Canada Research Chair at St Mary's University in Halifax. She will be giving a talk on work-life balance in student life and offer best practices for students and academics, including practical tips that you can use to better your work-life balance.

Dr. Arla Day est en charge de la Chaire de recherche du Canada à l'Université de St Mary's. Elle parlera de la conciliation travail-vie chez les étudiants. Elle offrira des suggestions pratiques pour les étudiants et les professionnels, ainsi que des façons d'améliorer la conciliation prémentionnée.

Student Social / Soirée sociale

Thursday Night at the "Foggy Goggle" at 9:00 pm / Jeudi soir au "Foggy Goggle" à 9h00

Meet in the front lobby of the convention hotel at 8:45 pm

Point de rencontre à l'accueil de l'hôtel à 20h45

Section Annual Meeting / Assemblée annuelle de la section

Friday from 3:00 – 3:55 / Vendredi de 3h00 à 3h55 Suite 305, Level 3

Workshops / Ateliers

Thursday / Jeudi

Procuring Graduate Scholarships from SSHRC, NSERC, and CIHR / Obtenir des bourses d'études du CRSNG, du CRSH, et de l'IRSC

11:00 – 12:55 (Meeting Room 4, Level 8)

Graduate Studies in Psychology: Navigating the application process / Études de deuxième cycle en psychologie : aperçu du processus de demande

1:00 – 2:55 (Meeting Room 4, Level 8)

Saturday / Samedi

Graduate Studies in Clinical Psychology: Expectations and Responsibilities of Students / Attentes et responsabilités des étudiants aux études supérieures en psychologie clinique

10:00 – 11:55 (Suite 205, Level 2)

Where are the Psychology Jobs? Look to Industrial/Organizational Psychology and Consumer Behavior / Où se trouvent les emplois en psychologie? Pourquoi ne pas considérer la psychologie industrielle/organisationnelle et le comportement des consommateurs?

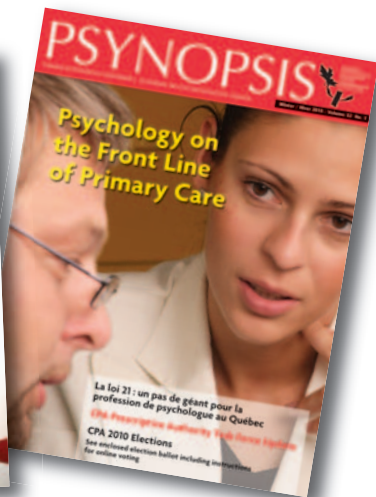
1:30 – 3:25 (Suite 201, Level 2)

ADVERTISE IN

ANNONCEZ DANS LE MAGAZINE DE PSYCHOLOGIE DU CANADA

PSYNOOPSIS

CANADA'S PSYCHOLOGY MAGAZINE



Published quarterly, Psynopsis, Canada's Psychology Magazine, presents articles on a wide range of topics of interest to scientists, educators, and practitioners in psychology.

Help increase the awareness of your products and services, including job opportunities, by advertising in Psynopsis, the formal vehicle by which CPA, CPA members, psychologists and those outside of psychology communicate with the diverse psychology community in Canada.

With a circulation of more than 6,000 members, Psynopsis offers the widest and most effective penetration of the Canadian psychology marketplace.

Did You Know?

Psynopsis is also posted on the Canadian Psychological Association's website, one of the most powerful marketing tools available.

In 2010, the design, look and feel of the on-line edition of Psynopsis changed in leaps and bounds! See for yourself, visit <http://www.cpa.ca/membership/membershipbenefitsandservices/psynopsis/>

With flexible layout options and with the opportunity to display your advertisement in black and white or in colour, take advantage of our discounts by purchasing repeat advertising placements that can span over a couple of issues. To view our rates visit <http://www.cpa.ca/membership/membership-benefitsandservices/psynopsis/advertisinginpsynopsis/>

To submit your advertisement for publication consideration contact the CPA Head office at publicrelations@cpa.ca.

Publié à tous les trimestres, Psynopsis, Le magazine de psychologie du Canada, présente des articles sur une vaste gamme de sujets d'intérêt pour les scientifiques, les enseignants et les praticiens en psychologie.

Vous pouvez aider à faire connaître davantage vos produits et services, y compris vos offres d'emploi, en annonçant dans Psynopsis, l'organe officiel par lequel la SCP, les membres de la SCP, les psychologues et tous ceux à l'extérieur de la psychologie communiquent avec la communauté de la psychologie canadienne dans toute sa diversité.

Avec un tirage de plus de 6 000 numéros, Psynopsis offre la pénétration la plus large et la plus efficace dans le marché de la psychologie au pays.

Saviez-vous que?

Psynopsis est également publié sur le site Web de la Société canadienne de psychologie, l'un des outils de commercialisation le plus puissant disponible.

En 2010, la conception, l'aspect et la convivialité de l'édition en ligne de Psynopsis ont changé à pas de géant! Rendez-vous compte par vous-même, visitez <http://www.cpa.ca/adhesion/avantagesdemembresdelascp/psynopsis/>

Grâce à des options de mise en page flexibles et la possibilité d'afficher vos annonces en noir et blanc ou en couleur, tirez avantage de nos rabais en achetant des placements publicitaires répétés qui peuvent s'étaler sur quelques parutions. Pour voir nos tarifs rendez-vous à <http://www.cpa.ca/adhesion/avantagesdemembresdelascp/psynopsis/publicite/>

Pour proposer votre annonce pour fins de publication, communiquez avec le siège social de la SCP à l'adresse publicrelations@cpa.ca.