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 2014

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 connaitre 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

CANADIAN PSYCHOLOGICAL ASSOCIATION   SOCIÉTÉ CANADIENNE DE PSYCHOLOGIE

Coping with loss: The relationship between childhood bereavement and later elements of worldview

Jenny J.W. Liu, BA
Ashley Ward, MA and Marilyn Hadad, PhD
Department of Psychology, Ryerson University

Abstract

This study investigated the relationship between bereavement in childhood and adolescence, and factors relating to personality in early adulthood. The research question of focus was: does bereavement in childhood relate to an early adult's present levels of depression, perception of experienced stress, and social support? Bereaved and non-bereaved participants were recruited through an undergraduate research system and answered several questionnaires measuring the above variables. Preliminary analyses found no significant differences between bereaved and non-bereaved individuals. However, upon sub-grouping the bereaved participants based on their self-identified coping strategies, the bereaved group that did not identify social support as their coping strategy was found to be significantly more depressed, and perceived less current social support than those who did receive social support. The results highlight the importance of social support in coping with bereavement and the possible development of a worldview that is affected, directly or indirectly, by bereavement experiences in childhood.

Résumé

Cette étude s'est penchée sur la relation entre le deuil durant l'enfance et l'adolescence, et les facteurs qui ont une incidence sur la formation de la personnalité au début de l'âge adulte. La question centrale de la recherche était : le deuil durant l'enfance a-t-il un lien avec la dépression au début de l'âge adulte, la perception du stress vécu et le soutien social? Des participants qui avaient vécu un deuil et d'autres qui n'en avaient pas vécu ont été choisis par l'intermédiaire d'un système de recherche de premier cycle et ont répondu à plusieurs questionnaires afin d'évaluer les variables proposées. Les analyses préliminaires des résultats n'ont indiqué aucune différence entre les deux groupes. Cependant, après répartition en sous-groupes des participants ayant vécu un deuil — sous-groupes établis en fonction des stratégies d'adaptation rapportées par chacun —, ceux qui n'avaient pas évoqué le recours au soutien social comme moyen de se remettre du deuil vécu se sont avérés beaucoup plus dépressifs et se sont vus comme étant moins soutenus par le milieu social que ceux qui avaient sollicité un tel soutien. Les résultats soulignent l'importance du soutien social pour se remettre de la perte d'un être cher, et le possible développement d'une vision du monde influencé directement ou indirectement par les deuils vécus durant l'enfance.

Introduction

Early loss of attachment, both physical and emotional, and its consequences on growth and development have been implicated as early as in Bowlby's developmental theory (Bowlby, 1963, 1973). Bereavement in children and adolescents is often correlated with higher rates of depression, anxiety, and other psychopathologies (Christ, Siegel, & Christ, 2002; Dowdney, 2000).
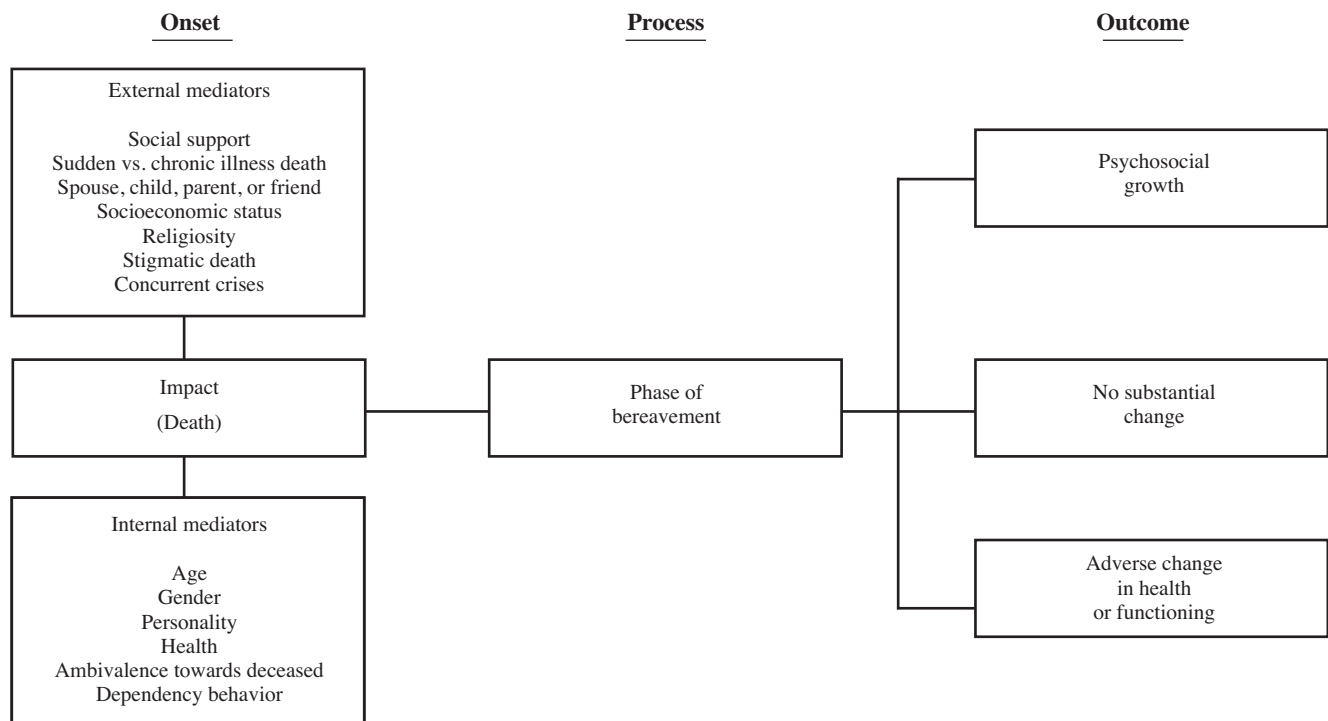
While previous studies of bereavement tend to focus on the coping processes and psychopathologies that could follow, Attig (2004) described bereavement as a process of relearning and reengaging with the world, "given that death has changed the world significantly" (p. 350). The experience of bereavement at an early age coincides with the development and consolidation of personality and worldview. Therefore, it is important to examine the potential differences in development between those who have experienced bereavement and those who have not encountered this type of stressor.

This study aims to examine bereavement through a comprehensive approach as suggested by Sanders (1989). Sanders's integrative approach to bereavement combines aspects of attachment with the appraisal and interpretation of stress (see Figure 1 below). Here, bereavement is conceptualized as an adaptive process that unfolds over time, with both internal and external moderators, which lead to various outcome trajectories including adverse effects on

Figure 1. Integrative theory of bereavement

Onset **Process** **Outcome**

External mediators

Social support
Sudden vs. chronic illness death
Spouse, child, parent, or friend
Socioeconomic status
Religiosity
Stigmatic death
Concurrent crises

Impact

(Death)

Internal mediators

Age
Gender
Personality
Health
Ambivalence towards deceased
Dependency behavior

Phase of
bereavement

Psychosocial
growth

No substantial
change

Adverse change
in health
or functioning

(Miller & McGown, 1997, p. 161; Sanders, 1989)

health and functioning, no changes in functioning, as well as post-traumatic growth (Sanders, 1989).

The purpose of this study was to look at the relationship between the experience of childhood and adolescent bereavement and elements of a worldview in a sample of university students to determine whether individuals who had been bereaved in the past developed a different worldview compared to those who had not previously experienced bereavement. Due to the difficult nature of identifying and measuring worldview, select variables of interest were chosen to represent three expressions of worldview. These variables were depression, perceived stress, and perceived social support. Given the lack of conclusive research on post-bereavement and worldview, no concrete predictions could be made with regard to the analyses, rendering the study exploratory in nature.

Method

Sixty-four undergraduate students ($N = 64$), including nine males and fifty-five females enrolled in an introductory psychology course, participated in this study. The participants' ages ranged from 17 to 35 years, with a mean age of 25 years. Participants were recruited through an online sign-up system, followed by a meeting with the experimenter in a psychology laboratory room on campus to obtain informed con-

sent and to complete a package of paper and pencil questionnaires.

Measures

Participants responded to a general demographics questionnaire constructed for the purposes of this study. The *Depression Inventory* is adapted from the revised *Beck Depression Inventory* (BDI-II; Beck, Steer, Ball, & Ranieri, 1996). This 21-item self-report measure is scored on a four-point Likert-type scale. This widely used measure has well-established reliability, with internal reliability scores ranging from = 0.90 (Segal, Coolidge, Cahill, & O'Riley, 2008) to = 0.96 (Basker, Moses, Russel & Russel, 2007), and a test-retest reliability of $r = 0.82$ (Basker et al., 2007). One item pertaining to sexuality was excluded, given the diversity of population culture and the age of some of the participants in the study. The *Perceived Social Support Scale* is adapted from Zimet, Dahlem, Zimet and Farley's (1988) *Multidimensional Scale of Perceived Social Support*. This 12-item questionnaire demonstrates strong internal reliability of $\alpha = 0.93$ (Zimet et al., 1990). The *Perceived Stress Scale* is a 10-item scale developed by Cohen, with an internal reliability of $\alpha = 0.78$ (Cohen & Williamson, 1988). The *Bereavement Questionnaire* is composed of 10 items selected from the *Two-Track Model of Bereavement Questionnaire* (TTBQ) developed by Rubin and

colleagues (Rubin, 1981, 1999; Rubin, Nadav, Malkinson, Koren, Goffer-Shnarch, & Michaeli, 2009). In addition to the aforementioned questionnaires, one open-ended question ("Can you specify one thing/person/event that helped you cope with loss?") conceived by the first author was included in order to identify respondents' coping strategy.

Results

Out of the 64 participants involved in the study, 24 self-identified as having never experienced a prior bereavement (37.5%). Twenty-two respondents reported having experienced one prior bereavement (34.4%), and 18 endorsed having experienced at least two bereavements (28.1%).

A preliminary multivariate analysis of variance (MANOVA) test analyzing the effects of bereavement ($n = 40$) versus non-bereavement ($n = 24$) indicated no significant differences between these groups' scores on any of the various measures, $F(6, 57) = 1.074$, $p > .05$, ns. Further MANOVAs examining the effects of non-bereavement ($n = 24$), single bereavement ($n = 22$), and multiple bereavement ($n = 18$) also found no significant differences among the groups, $F(6, 57) = 1.831$, $p > .05$, ns.

MANOVA tests looking at the effects of identified coping strategies were executed based on the results of a content analysis grouping the bereaved participants as either bereaved and coping through social support ($n = 32$), or bereaved and coping through other strategies ($n = 8$). Independent ratings from four raters resulted in an overall inter-rater reliability of 80%. Box's Test of Equality of Covariance Matrices confirmed that homogeneity of covariance was not violated at the $p < .001$ level. A significant effect of self-identified coping on various interpersonal measures was found, $F(3, 36) = 3.445$, $p < .05$, $\eta^2 = .223$. Tests of between-subject effects indicated significant effects of self-identified coping on both depression, $F(1, 38) = 8.630$, $p < .01$, $\eta^2 = .185$, and perceived social support, $F(1, 38) = 6.781$, $p < .05$, $\eta^2 = .151$. The bereaved participants who felt that they had not received social support were found to be significantly more depressed ($M = 16.50$, $SD = 12.81$) than the bereaved participants who received social support ($M = 7.16$, $SD = 6.49$). Moreover, the bereaved participants who received social support at the time of grieving also perceived more social support in the present time ($M = 72.25$, $SD = 11.61$) than the bereaved participants who did not previously receive social support ($M = 59.75$, $SD = 14.28$).

Discussion

Based on the depression scores in the coping style groupings yielded by the analyses, bereaved individuals coping through strategies other than social support appeared more depressed than other groups. This is consistent with previous literature reporting higher rates of depression among bereaved populations (Tyrka, Wier, Price, Ross, & Carpenter, 2008). In addition, the significant differences among the groups in depression ratings may be rooted in participants' feelings of lacking social support regardless of whether or not they had experienced a prior bereavement. Past research also has found a positive relationship between lack of social support, feelings of loneliness, and depression (Yaacob, Juhari, Talib, & Uba, 2009).

Social support serves a variety of functions, all of which may facilitate the amelioration of stress across multiple situations, including bereavement. The feeling of being cared for, valued, and loved is helpful in reminding a person that other meaningful relationships are still available; the presence of a caring person to freely talk to allows one to explore one's thoughts and come to terms with the loss (i.e., meaning-making; see Currier, Holland, & Neimeyer, 2006; Kim, Kjervik, Belyea, & Choi, 2011). In this capacity, for example, a caring listener may provide new insights and perspectives that help a mourner to cope (see Wolchik, Coxe, Tein, Sandler & Ayers, 2008); supportive relationships may provide feedback such as validation (e.g., "No, I don't think you're crazy."), as well as material or physical help in adapting to a new life. Thus, social support may play a key role in post-loss perceptions, meaning-making, and beliefs regarding the world.

By perceiving less satisfaction with their social support, participants in this study may have felt more depressed and/or more stressed, which may contribute to a more pessimistic view of the world (Nolen-Hoeksema, Parker, & Larson, 1994). Also, Attig (2004) regarded the bereavement process as relearning the world through philosophical reflections. The relearning of the world as a more negative place, brought on by the experience of loss, may then lead to further negative beliefs and worldview, which may have resulted in higher scores on the depression measure within groups that have experienced a prior bereavement. Due to the complex nature of social support, further research is needed in order to explore the dynamic relationship between the role of social support, experience of trauma, and the idea of meaning-making and worldview. In addition, it would be interesting to explore whether the same results would be found in other sample populations.

The lack of differences across all variables in groupings based on non-bereavement and the number of times bereaved suggest that there is a high level of resiliency in childhood and adolescence when facing trauma and extreme stress, such as bereavement.

Perceptions of current psychological and situational states are often dependent on or shaped by interactions between past experiences, personality factors, and present situations (Hadad, 2012). Overall, this exploratory study highlighted the importance of the possible role of intrapersonal and interpersonal characteristics in post-loss experiences. The variability in individual responses found in this study is indicative of the nature of the bereavement response and its uniqueness to each individual (Hadad, 2012; Sanders, 1989).

It is important to acknowledge the current study's limitations. This study is quasi-experimental in nature with a cross-sectional design. Many (potentially) relevant variables to this research, such as the age at bereavement, relationship with the deceased pre- and post-loss, the level of attachment to the deceased, and the actual bereavement 'trajectory' for the individual cannot be controlled nor manipulated by experimental means. Results can only be analyzed through correlational procedures, and are limited in how the relationships may be generalized. In addition, participants of this study were university students, a relatively distinct group that is not necessarily representative of the general population. Future studies that test our constructs of measure on other populations, and that use a longitudinal design, could serve to replicate and expand on some of the findings of this current study.

In spite of its limitations, this study emphasized the need to continue bereavement research in relation to subsequent experiences of depression and perceived social support. To this end, the study established links between certain variables and the idea of a worldview that should be examined more closely, ultimately adding to a growing body of evidence for exploring interpersonal and intrapersonal factors and their relationships in much more complex and dynamic ways.

In conclusion, the practical implications of this research suggest that social support may be an essential in coping with bereavement, especially in the population of post-secondary university students. The present study underscored the importance of social support, and serves as a springboard into future research exploring the role of social support in coping with loss. Its practical applications could include making social support more readily accessible to youths and adolescents when facing traumatic stressors through systematic delivery of services alongside education to bring public awareness to its purpose and utility.

References

Attig, T. (2004). Meanings of death seen through the lens of grieving. *Death Studies, 28*, 341-360. doi:10.1080./07481180490432333

Basker, M., Moses, P.D., Russell, S., & Russell, P.S.S. (2007). The psychometric properties of Beck Depression Inventory for adolescent depression in a primary-care paediatric setting in India. *Child Adolescence Psychiatry and Mental Health, 1*(8), 1-7. doi:10.1186/1753- 2000-1-8

Beck, A.T., Steer, R.A., Ball, R., & Ranieri, W. (1996). Comparison of Beck Depression Inventories –IA and –II in psychiatric outpatients. *Journal of Personality Assessment, 67*(3), 588-597. doi:10.1207/s15327752jpa6703_13

Bowlby, J. (1963). Pathological mourning and childhood mourning. *Journal of American Psychoanalytical Association, 11*, 500-541. doi:10.1177/000306516301100303

Bowlby, J. (1973). *Attachment and loss, volume 2: Separation, anxiety and loss.* Hogarth Press and Institute of Psych-Analysis.

Christ, G.H., Siegel, K., & Christ, A.E. (2002). Adolescent grief: "It never really hit me until it actually happened." *Journal of the American Medical Association, 288*, 1269-1278. doi:10.1001/jama.288.10.1269

Cohen, S., Kamarack, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior, 24*, 386-396. Retrieved from http://kongfu.psy.cmu.edu/~scohen/globalmeas83.pdf

Cohen, S., & Williamson, G. (1988). Perceived stress in a probability sample of the United States. In S. Spacapan & S. Oskamp (Eds.), *The social psychology of health. Thousand Oaks*, CA: Sage.

Currier, J.M., Holland, J.M., & Neimeyer, R.A. (2006). Sense-making, grief, and the experience of violent loss: Toward a meditational model. *Death Studies, 30*, 403-428. doi:10.1080/07481180600614351

Dowdney, L. (2000). Childhood bereavement following parental death. *Journal of Child Psychology and Psychiatry, and Allied Disciplines, 41*, 819-830. doi:10.1111/1469- 7610.00670

Hadad, M. (2012). *The satisfying life: Positive psychology and personal growth.* Toronto, ON: Pearson.

Kim, S.H., Kjervik, D.K., Belyea, M., & Choi, E.S. (2011). Personal strength and finding meaning in conjugally bereaved older adults: A four-year prospective analysis. *Death Studies, 35*, 197-218. doi:10.1080/07481187.2010.518425

Miller, B., McGown, A. (1997). Bereavement: Theoretical perspectives and adaptation: Canberra, Australia. *The American Journal of Hospice & Palliative Care, 14*(4), 156- 177. doi:10.1177/104990919701400401

Nolen-Hoeksema, S., Parker, L.E., & Larson, J. (1994). Ruminative coping with depressed mood following loss. *Journal of Personality and Social Psychology, 67*(1), 92-104. doi:10.1037/0022-3514.67.1.92

Rubin, S. (1981). A two-track model of bereavement: Theory and application in research. *American Journal of Orthopsychiatry, 51*, 101-109. doi:10.1111/j.1939-0025.1981.tb01352.x

Rubin, S. (1999). The Two-Track Model of Bereavement: Overview, retrospect and prospect. *Death Studies, 23*, 681-714. doi:10.1080/074811899200731

Rubin, S.S., Nadav, O., Malkinson, R., Koren, D., Goffer-Shnarch, M., & Michaeli, E. (2009). The Two-Track Model of Bereavement Questionnaire (TTBQ): Development and validation of a relational measure. *Death Studies, 33*(4), 305-333.
doi:10.1080/07481180802705668

Sanders, C.M. (1989). *Grief: The mourning after: Dealing with adult bereavement.* New York, NY: John Wiley Press.

Segal, D.L., Coolidge, F.L., Cahill, B.S., & O'Riley, A.A. (2008). Psychometric properties of the Beck Depression Inventory –II (BDI-II) among community-dwelling older adults. *Behavior Modification, 32*(1), 3-20.
doi:10.1177/0145445507303833

Tyrka, A.R., Wier, L., Price, L., Ross, N., & Carpenter, L.L. (2008). Childhood parental loss and adult psychopathology: Effects of loss characteristics and contextual factors. *International Journal of Psychiatry in Medicine, 38*(3), 329-344. doi:10.2190/PM.38.3.h

Wolchik, S.A., Coxe, S., Tein, J.Y., Sandler, I.N., & Ayers, T.S. (2008). Six year longitudinal predictors of posttraumatic growth in parentally bereaved adolescents and young adults. *OMEGA, 58*(2), 107-128.
doi:10.2190/OM.58.2.b

Yaacob, S.N., Juhari, R., Talib, M.A., & Uba, I. (2009). Loneliness, stress, self-esteem and depression among Malaysian adolescents. *Journal Kemanusiaan, 14*, 85-95. Retrieved from http://www.doaj.org/doaj?func-abstract&id=504089

Zimet, G.D., Dahlem, N.W., Zimet, S.G., & Farley, G.K. (1988).The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment, 52*, 30-41. Retrieved from
http://www.yorku.ca/rokada/psyctest/socsupp.pdf

Zimet, G.D., Powell, S.S., Farley, G.K., Werkman, S., & Berkoff, K.A. (1990). Psychometric characteristics of the Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment, 55*, 610-617. doi:10.1016/j.comppsych.2007.09.002

Developing a healthy stress response in childhood: The role of the environment

Jennifer Lavoie, M.Ed.
Liane C. Pereira, M.S, M.A.
University of McGill

Abstract

Learning to cope with stress is part of healthy development in childhood, which leads to better stress management in adulthood. The critical period for learning to regulate one's stress response is early childhood, but this is also a time when children have little control over their environment yet learn cues for responding to stress from their social and physical environments. Children who are most impacted by stress in the environment are also the ones who do not have access to the social, emotional, and physical resources to help them learn to cope effectively with stress. Working from a psychobiological definition of stress, this paper presents the magnitude of the impact of stress in early childhood on future physical and mental health as the rationale for the need to construct and implement supplemental resources to those available in the children's developmental environments.

Résumé

Apprendre à composer avec le stress fait partie du développement normal de l'enfant, et cette faculté permet de mieux gérer le stress à l'âge adulte. La période névralgique pour apprendre à canaliser le stress est le début de l'enfance, mais cette étape de la vie en est une où les enfants ont peu de contrôle sur leur environnement. Or, les enfants arrivent malgré cela à acquérir des réflexes pour répondre au stress en puisant dans leur environnement social et dans leur environnement physique. Les enfants qui souffrent le plus du stress environnemental sont aussi ceux qui n'ont pas accès aux ressources sociales, émotionnelles et physiques qui pourraient les aider à apprendre à composer efficacement avec le stress. Se fondant sur une définition psychobiologique du stress, l'article décrit l'ampleur de l'incidence que le stress vécu au début de l'enfance peut avoir sur la santé physique et mentale future des individus, et se sert de ce constat pour justifier le besoin d'élaborer et de mettre en œuvre des ressources d'appoint dans les environnements où les enfants se développent.

Stress is a part of living, however when stress levels are not well-managed they can lead to many physical and mental health problems later in life (E.g., Beckie, 2012). This is especially poignant for children who are in the early stages of physical, cognitive, and emotional development because stress can alter these trajectories in sometimes significant and lasting ways (Danese & McEwen, 2012). Early childhood is a critical period for developing a healthy emotional and behavioural response to stress, which in turn impacts the physiological response to stress. When children live in a constant state of physiological stress without the emotional, social, and physical resources to offset it, many negative physical and mental health outcomes ensue (Shonkoff et al., 2012). Furthermore, the children who are the most impacted by stress in the environment are also generally the ones who do not have access to the resources to help them cope with it effectively. With such profound implications for physical and mental health and general quality of life, childhood stress is a subject of significance and interest to researchers across many disciplines.

Studying stress from a psychobiological perspective highlights that stress is a state of physiological arousal affecting cognition, emotions, and behaviour that has a detrimental effect on child development when chronic or constant. Consequently, this review will (a) highlight the relationship between childhood stress and development; (b) examine the impact of the developmental environment on how children learn how to cope with stress; (c) present the factors that affect stress in childhood; (d) frame the need for supplementing social and emotional resources to children's developmental environments; and (e) discuss the implications for professionals in psychology working with children and for future research on stress in childhood.

Defining Stress

Establishing a common framework and context for understanding how stress impacts childhood allows researchers and practitioners to construct stress in a similar manner. When discussing a phenomenon as complex as childhood stress, it is helpful to establish

a common understanding because the perspective from which stress is studied will determine how the resulting knowledge is translated to recommendations for practice. For example, if stress is only studied observationally, as is often the case in many research studies, much of the complexity of the mind-body interaction is lost, and the practice developed from the research will not address the complex factors of interaction that affect stress. By studying the interaction between the physiology and psychology of stress, meaningful practice recommendations can be made that reflect the inherent multifacetedness of stress. Accordingly, this review presents stress as a psychological state that impacts both the mind and body (Lundberg, 2008). This understanding of stress posits that events or situations that exceed an individual's perceived abilities to resolve the event or situation trigger a measurable stress response in the body (McEwen, 2006), essentially a state of arousal as the body diverts its resources to resolving and overcoming the situation (Motzer & Hertig, 2004). While there are many long-term damaging effects to the body when stress is chronic or constant (McEwen & Gianaros, 2010), it can also help an individual adapt to his or her surroundings when the individual has the resources to effectively or appropriately address the stress. Thus, the resources that the individual has at his or her disposition can change the impact that stress has on his or her mind and body. This distinction highlights the key role that the social, emotional, and physical resources in the environment have in supporting how well children cope with stress.

Environmental Impact on how Children Experience Stress

Psychobiological research on the impact of chronic stress in childhood is crucial because of the foundational impact childhood has on life course heath and development (Center for the Developing Child at Harvard University, 2010; Shonkoff et al., 2012). Part of healthy development is learning to cope with stress in the environment, whether it be chronic stress from living conditions, acute stress from life events, or daily hassles, because a continuously aroused stress response is particularly damaging for children who are still developing physically, emotionally, and cognitively (Danese & McEwen, 2012; Duncan & Murnane, 2011). The Center on the Developing Child at Harvard University (2010) has emphasized the significance of environments that are physically and emotionally safe and that invite interaction between caring adults and children for setting a foundation of future physical and mental wellbeing. In fact, relationships, physical space, and the availability of adequate physical, cognitive, and emotional resources are all part of that developmental environment and need to be in-

cluded when intervening in childhood stress.

Previous studies have identified various factors in the environment that elicit a psychobiological stress response in children and impact their development. These factors include adverse life experiences (Felitti et al, 1998; Foster, Hagan, & Brooks-Gunn, 2008), toxins in the environment (Diez-Rioux & Mair, 2010), unsafe environments (Sharkey, Tirado-Strayer, Papachristos, & Raver, 2012), and neighbourhood poverty (Chen, Cohen, & Miller, 2010; Schulz et al., 2012). Danese and McEwen (2012) discussed a decrease in hippocampal volume and an increase in amygdala volume in response to chronic or toxic stress created by these factors. They stated these changes in the brain—"deficits in declarative, contextual, and spatial memory" (p. 30) and increased fear response—hurt the child's development in ways the child cannot control. Similarly, Duncan and Murnane (2011) posited that these changes in hippocampal and amygdala volume may affect the child's ability to identify and regulate emotions, both important tools in deactivating the stress response. Teaching these skills not only helps in daily functioning but also makes lasting physiological changes on future physical and mental health.

Supplementing Resources in the Developmental Context: Social and Emotional Skills

When intervening in childhood stress to make lasting physiological changes, the strategies employed need to be developmentally sensitive. The central difference between the ways that children and adults experience stress is that children generally have fewer developed coping skills to manage situations or events that elicit a stress response. In fact, the Center on the Developing Child at Harvard University (2007) explained that young children depend on caregivers to teach them to deactivate their stress response; they stated "healthy development depends on the capacity of these [stress response] systems to ramp up rapidly in the face of stress, as well as their ability to ramp back down and return to baseline when they have done their job" (p. 10). Gunnar and Donzella (2002) elaborated that children who are not receiving sensitive care from their caregivers have a higher response to environmental stressors than children who are receiving sensitive care. When caregivers either do not model effective stress deactivation methods or are not responsive to the needs of the child, young children do not learn the tools that they need to cope with the stress they experience, which, in turn, affects their behaviour. Thus, even though they have little control over their environments, caregivers, or socioemotional learning, children are the ones most impacted when they do not learn the coping skills to regulate their stress re-

sponse. As a vital part of a child's developmental environment, caregivers should be included in stress management training because they are key influences on the development of children in their care.

In addition to targeting caregivers in the mediation of stress responses in childhood, emotion-regulation skills should also be included in stress interventions because regulating emotions is part of learning healthy mechanisms to cope with stress. Specifically, expressing emotion is part of learning to regulate emotion (Peedom, 2008), and Heim, Ehlert, and Hellhammer (2000) elaborated that suppressed emotions may be related to lower daily cortisol levels, an indicator of an unhealthy stress response. Thus, the inability to recognize and express emotions could be impacting how children respond to stress. Taylor, Way, and Seeman (2004) explained that children who do not learn these social and emotional regulation skills, specifically "the experience, control, and expression of emotion" (p. 1366) when they are young are much more likely to have difficulties coping with stress when they are adults. In comparison, children who employ emotional regulation skills are better equipped to regulate their stress responses, which is why teaching these skills to all children, not just the ones who seem to be struggling, is so important. Additionally, teaching all children socioemotional skills is a way to support children who have not had access to the same resources in their developmental environment without placing a negative stigma.

Implications for Professionals in Psychology and Future Research

Understanding the impact of the environment on the development of children's stress response has implications for professionals who work in psychology, particularly in terms of facilitating more effective intervention in childhood stress. One of the ways to recognize when children are not coping effectively with stress is negative behavioural and emotional manifestations, as they may indicate they have not learned the social and emotional regulation skills necessary for managing stress (Taylor, Lerner, Sage, Lehman, & Seeman, 2004). These behavioural and emotional manifestations can include externalizing responses such as frequent tantrums, and internalizing responses such as the emotional inability to recover from unpleasant events, which can be indicated by emotional withdrawal and social inhibition (Essex et al., 2006). This is especially relevant for professionals working in school psychology because children who are not managing their behaviour and emotions well are often the ones most referred for psychological assessment and care (Loman & Gunnar, 2010) in educational settings. Those working with children should view these behaviours as symp-

toms of a more pervasive problem, and also as an indication that there are deficits in the socioemotional development of the child that require attention. While one may presume that the child will learn these skills from caregivers or even at school, this is not always the case (Repetti, Taylor, & Seeman, 2002). When professionals in psychology believe that these skills will be learned from adults in the child's developmental context, the focus in the child's psychological care becomes treating the undesirable behaviour and heightened emotional responses of the child more so than building the tools to affect change at the problem's origin (Lean & Colucci, 2010). As such, teaching emotion- and behaviour-regulating skills as a part of the child's psychological intervention may influence the desired long-lasting changes on both a psychological and physiological level. Essentially, these psychoeducational tools will enable children to change how they react to stressors, thus impacting both their mental and physical health.

In moving towards a model of educating children about emotional regulation techniques as a primary part of their psychological intervention before such intervention is necessary, children will become better positioned to control their responses to stress to support their own physical and mental health. This way, children who do not have or who have not had access during the critical period of development to these social resources will still have the opportunity to learn stress management strategies. One promising model for teaching emotional regulation techniques includes school-wide approaches of social and emotional learning (Jones & Bouffard, 2012), which would move away from a model of targeted intervention towards a model of universal design (Howard, 2004). This inclusive strategy of using prevention and promotion would reach a broad and diverse group of children, benefitting a greater number of children than is possible to reach through targeted psychological intervention alone.

Another implication of this research is to include environmental factors in childhood stress studies, through pathways such as responsive caregiver relationships (Repetti, Taylor, & Seeman, 2002), safe physical environments (Evans, 2006), and modeling of effective stress-management techniques (Taylor et al., 2004). In particular, studies exploring the interactions between factors in the environment and differences between individual responses to stressors would elaborate on the pathways through which children develop healthy stress responses. Including these factors would help determine how personal characteristics such as social or emotional competencies impact the way children experience these stressors and would have great implications for psychological and educational practice.

Moving Forward in the Field of Childhood Stress and Development

Stress that is chronic, constant, or beyond children's coping abilities is very damaging to future physical and mental health and the impact of this damage lasts long into adulthood. For example, stressors in the environment that impact children's development include difficult life events (Foster et al., 2008), neighbourhood poverty (Schulz et al., 2012), neighbourhood safety (Sharkey et al., 2012), and exposure to toxins (Diez-Rioux & Mair, 2010), among many others. The strategies that children learn to cope with stress when they are young are used into adulthood, thus it is to society's benefit that children learn effective tools as early in life as possible. This research suggests that the developmental environment is very important to the way children learn to respond to and recover from stressors. Part of the process of mediating the ill effects of chronic and constant stress in childhood includes involving parents and caregivers, focusing on emotional regulation and socioemotional learning, and using universal models to teach stress management skills. Future research can focus on increasing the understanding of how children experience stress at a biological and psychobiological level. This continued research and practical support for responsive environments where children live and grow is a vital component in affecting change toward a healthier future for the coming generations.

References

Beckie, T. M. (2012). A systematic review of allostatic load, health, and health disparities. Biological Research For Nursing, 14, 311-346. doi:10.1177/1099800412455688

Center on the Developing Child at Harvard University. (2010). The foundations of lifelong health are built in early childhood. http://www.developingchild.harvard.edu

Center on the Developing Child at Harvard University. (2007). A science-based framework for early childhood policy: Using evidence to improve outcomes in learning, behavior, and health for vulnerable children. http://www.developingchild.harvard.edu

Chen, E., Cohen, S., & Miller, G. (2010). How low socioeconomic status affects 2-year hormonal trajectories in children. Psychological Science, 21, 31-37.

Danese, A., & McEwen, B. S. (2012). Adverse childhood experiences, allostasis, allostatic load, and age-related disease. Physiology & Behavior, 106, 29-39. doi:10.1016/j.physbeh.2011.08.019

Diez Roux, A. V., & Mair, C. (2010). Neighborhoods and health. Annals of the New York Academy of Sciences, 1186, 125-145. doi:10.1111/j.1749-6632.2009.05333.x

Duncan, G. J., Dowsett, C. J., Claessens, A., Magnuson, K., Huston, A. C., Klebanov, P., ... & Japel, C. (2007). School readiness and later achievement. Developmental Psychology, 43, 1428-1446.

Duncan, G. J., & Murnane, R. J. (2011). Whither opportunity?: Rising inequality, schools, and children's life chances. New York; Chicago: Russell Sage Foundation; Spencer Foundation.

Essex, M. J., Klein, M. H., Cho, E., & Kalin, N. H. (2002). Maternal stress beginning in infancy may sensitize children to later stress exposure: Effects on cortisol and behavior. Biological Psychiatry, 52, 776-784.

Essex, M. J., Kraemer, H. C., Armstrong, J. M., Boyce, W. T., Goldsmith, H. H., Klein, M. H., ... & Kupfer, D. J. (2006). Exploring risk factors for the emergence of children's mental health problems. Archives of General Psychiatry, 63, 1246-1256.

Evans, G. W. (2006). Child development and the physical environment. Annual Review of Psychology, 57, 423-451.

Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson D. F., Spitz, A. M., Edwards, V., Koss, M. P., & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: the adverse childhood experiences (ace) study. American Journal of Preventive Medicine, 14, 245-258.

Foster, H., Hagan, J., & Brooks-Gunn, J. (2008). Growing up fast: Stress exposure and subjective "weathering" in emerging adulthood. Journal of Health and Social Behavior, 49, 162-177.

Gunnar, M. R., & Davis, E. P. (2013). The effects of stress on early brain and behavioral development. Neural circuit development and function in the brain (pp. 447-465). San Diego, CA: Academic Press.

Gunnar, M. R., & Donzella, B. (2002). Social regulation of the cortisol levels in early human development. Psychoneuroendocrinology, 27, 199-220.

Heim, C., Ehlert, U., & Hellhammer, D. H. (2000). The potential role of hypocortisolism in the pathophysiology of stress-related bodily disorders. Psychoneuroendocrinology, 25, 1-35.

Howard, K. L. (2004). Universal design for learning: Meeting the needs of all students in the curriculum--multidisciplinary. Learning & Leading with Technology, 31, 26-29.

Jones, S. M., & Bouffard, S. M. (2012). Social and emotional learning in schools: From programs to strategies. Social Policy Report, 26, 1-22.

Koch, F. S., Ludvigsson, J., & Sepa, A. (2010). Parents' psychological stress over time may affect children's cortisol at age 8. Journal of Pediatric Psychology, 35, 950-959.

Lean, D. S., & Colucci, V. A. (2010). Barriers to learning:

The case for integrated mental health services in schools. Lanham, Md: Rowman & Littlefield Education.

Loman, M., & Gunnar, M. R.. (2010). Early experience and the development of stress reactivity and regulation in children. Neuroscience and Biobehavioral Reviews, 34, 867-876.

Lundberg, U. (2008). Stress and (Public) Health. In K. Heggenhougen (Ed.), International Encyclopedia of Public Health (pp. 241-250). Oxford: Academic Press.

McEwen, B. S. (2006). Protective and damaging effects of stress mediators: Central role of the brain. Dialogues in Clinical Neuroscience, 8, 367-381.

McEwen, B. S., & Gianaros, P. J. (2010). Central role of the brain in stress and adaptation: Links to socioeconomic status, health, and disease. Annals of the New York Academy of Sciences, 1186, 190-222. doi:10.1111/j.1749-6632.2009.05331.x

Motzer, S. A., & Hertig, V. (2004). Stress, stress response, and health. The Nursing Clinics of North America, 39, 1-17.

Peedom, J. (Director). (2008). Life at 3: Bad behavior. In J. Cummins (Producer), Life at 1, 3, 5, and 7: A longitudinal study in child development. Princeton, N.J.: Films for the Humanities & Sciences.

Peedom, J. (Writer). (2006). Life at 1: stress and its impact. In J. Cummins (Producer), Life at 1, 3, 5, and 7: a longitudinal study in child development. Princeton, N.J.: Films for the Humanities & Sciences.

Repetti, R., Taylor, S. E., & Seeman, T. E. (2002). Risky families: Family social environments and the mental and physical health of offspring. Psychological Bulletin, 128, 330-366.

Schulz, A. J. P., Mentz, G., Lachance, L., Johnson, J., Gaines, C., & Israel, B. A. D. (2012). Associations between socioeconomic status and allostatic load: Effects of neighborhood poverty and tests of mediating pathways. American Journal of Public Health, 102, 1706-1714.

Sharkey, P. T., Tirado-Strayer, N., Papachristos, A. V., & Raver, C. C. (2012). The effect of local violence on children's attention and impulse control. American Journal of Public Health, 102, 2287-2293.

Shonkoff, J. P., Garner, A. S., Committee on Psychosocial Aspects of Child and Family Health, Committee on Early Childhood, Adoption, and Dependent Care, Section on Developmental and Behavioral Pediatrics, Siegel, B. S., ... & Wood, D. L. (2012). The lifelong effects of early childhood adversity and toxic stress. Pediatrics, 129, 232-246.

Taylor, S. E. , Lerner, J. S. , Sage, R. M. , Lehman, B. J. , & Seeman, T. E. (2004). Early environment, emotions, responses to stress, and health. Journal of Personality, 72, 1365-1393.

When the going gets tough, do the passionate get going?

Benjamin J. I. Schellenberg, MA
University of Manitoba

ABSTRACT

People can be highly motivated to engage in certain meaningful activities in their lives. Vallerand and colleagues (2003) proposed that this form of intense motivation, or passion, comes in two varieties: Harmonious passion involves a balanced, autonomous relationship with an activity, while obsessive passion involves a more rigid, uncontrollable urge to engage in an activity. This article reviews research that has examined how passionate individuals cope when facing obstacles and challenges while pursuing their passions. Studies examining the coping responses of passionate dancers, volleyball players, and hockey fans have linked harmonious passion with problem- or task-oriented forms of coping, and obsessive passion with more avoidant forms of coping. Passionate individuals can encounter challenges while pursuing their passions, and the ways in which these individuals cope and self-regulate in response to these demands is related to whether a passion is more harmonious or obsessive.

RÉSUMÉ

Il arrive que les gens soient très motivés à s'adonner à certaines activités. Vallerand et collègues (2003) suggèrent que cette forme d'intense motivation, cette passion, existe sous deux formes : la passion harmonieuse, qui caractérise la relation équilibrée et autonome que les gens peuvent avoir avec une activité, et la passion obsessive, que l'on associe d'emblée au besoin rigide et incontrôlable de faire une activité. Cet article examine une recherche qui s'est penchée sur la façon dont les personnes passionnées composent avec les obstacles et les défis qui se présentent à eux lorsqu'elles tentent de faire les choses qui les passionnent. Les études qui ont examiné les réactions des personnes passionnées qui font face à un problème — des danseurs, des joueurs de volley-ball et des adeptes du hockey — ont établi un lien entre, d'une part, la passion harmonieuse et les réactions axées sur le problème ou les tâches à accomplir pour le régler et, d'autre part, la passion obsessive et les réactions davantage axées sur certaines formes de fuite. Dans la poursuite des passions, les façons de composer avec les problèmes et de s'adapter à de nouvelles demandes sont fonction du caractère harmonieux ou obsessif de la passion.

Student members of the Canadian Psychological Association (CPA) are often driven by their passion for psychology. This passion motivates us to engage in all the academic activities that are required to prepare ourselves for careers in psychology. However, passionate psychologists in training are also well versed in the challenges and obstacles that are encountered while engaging in academic pursuits: There are exams, deadlines, presentations, and $p > .05$. We can cope with these challenges and demands in different ways, and research has identified that coping in these types of situations is influenced by person-related factors (Carver & Connor-Smith, 2010). Recently, one such individual difference variable that has been linked with coping is the type of passion a person has for an activity.

Passionate Motivation

Passion as a psychological construct has been studied extensively in the context of interpersonal relationships (e.g., Berscheid, 2010; Sternberg, 1986). In 2003, Vallerand and colleagues published a seminal article that applied the concept of passion to a different context: intrapersonal goal pursuit. Rather than focus on the passion that people have for other people, their approach focused on the passion that people have for meaningful activities in their lives. They defined passion as "a strong inclination towards an activity that people like, that they find important, and in which they invest time and energy" (Vallerand et al., 2003, p. 757). They also distinguished be-

tween two types of passion based on how an activity can be internalized into a person's identity. A *harmonious passion* emerges when a passionate activity has been internalized autonomously into one's identity, meaning that the activity is congruent with one's personal values and is performed without any contingencies attached to the activity (Ryan & Deci, 2002). With a harmonious passion, the activity is freely incorporated into one's identity and the individual engages in the activity without any pressure to do so. On the other hand, an *obsessive passion* emerges when the activity has been internalized in a controlled and less self-determined way, and is performed because of the external or internal contingencies that are connected with it. With obsessive passion, the individual feels pressured to engage in the activity, which can lead to conflict between the passion activity and other life domains (Vallerand, 2010; Vallerand et al., 2003). As outlined in the dualistic model of passion, personality and environmental factors that influence the internalization process will impact the development of both types of passion; factors that facilitate autonomous and controlled internalization will indirectly lead to the development of harmonious and obsessive passion, respectively (Vallerand, 2010). In general, research has revealed that harmonious passion is positively associated with adaptive outcomes such as positive emotions, while obsessive passion is unrelated to positive outcomes, and is at times associated with maladaptive outcomes such as aggression (Vallerand, 2008, 2010, 2012).

Passion and Coping

Passion types are linked with distinct goal pursuit strategies (Vallerand, 2010). This has lead researchers to predict that harmonious and obsessive passions are uniquely related to distinct coping tendencies. Individuals with a predominantly harmonious passion tend to pursue goals by striving for mastery and attempting to reduce the discrepancy between actual and desired states (Vallerand et al., 2007). In demanding situations, this may mean that people with a harmonious passion are more likely to direct thoughts and behaviours towards coping with the problem or source of the stress in order to achieve their goals. Individuals with a predominantly obsessive passion are more likely to engage in goal pursuit with more ambivalence (Vallerand et al., 2007). While goal achievement has the potential to have a positive impact on self-esteem and life satisfaction, goal failure can have equally devastating outcomes (Mageau, Carpentier, & Vallerand, 2011). Therefore, people with an obsessive passion may be likely to ignore or draw themselves away from demanding situations, in order to avoid events that

threaten future goal attainment.

Research examining the relationship between passion types and coping has generally supported these hypotheses. In one of the first studies on this topic, Rip, Fortin, and Vallerand (2006) asked a group of passionate dance students how they cope when suffering from dance-related injuries. Results revealed that harmonious passion was positively related to more active, problem-focused strategies, such as information-seeking and consulting with a professor about the injury, and negatively related to avoidance forms of coping such as hiding or ignoring the injury. In addition, the stronger the harmonious passion, the more likely the dancers were to stop dancing to let their injuries heal. Obsessive passion, however, was positively associated with more avoidant forms of coping, such as ignoring the injury and taking less time off to treat the injury. This study revealed a pattern of coping behaviour in which harmoniously passionate individuals were more likely to acknowledge an environmental stressor and take steps to remedy the situation, while obsessively passionate individuals were more likely to ignore these challenges.

Schellenberg, Gaudreau, and Crocker (2013) examined the relationship between passion and coping by asking a group of collegiate-level volleyball players how they coped with training demands throughout the season. Results were consistent with the findings of Rip et al. (2006): Harmonious passion measured at the start of the season was positively associated with task-oriented coping (such as effort expenditure, seeking support, and thought control) at the end of the season, while obsessive passion was positively associated with disengagement-oriented coping (such as venting unpleasant emotions and disengaging from the source of stress). Moreover, task-oriented coping was associated with increases in goal attainment and decreases in burnout, while disengagement-oriented coping was associated with decreases in goal attainment and increases in burnout. Therefore, not only were harmonious and obsessive passion associated with different coping styles, but these coping styles also had an impact on changes in burnout and goal attainment over the course of the season.

Recent research by Schellenberg, Bailis, and Crocker (2013) examined the relationship between passion types and how individuals coped during the start of the 2012-2013 National Hockey League (NHL) season. At the start of this NHL season, there was a labour dispute between the NHL owners and the NHL Players' Association in which the owners "locked out" the players until both parties reached a new labour agreement. As a result, the start of the season was delayed over three months. The lockout presented a rare case in which passionate hockey

fans were unable to pursue their passion and were uncertain when or if the NHL season would resume. During the lockout, the researchers asked a group of passionate hockey fans from Winnipeg, Manitoba (a city that is well known for having many zealous hockey fans) to report how they coped with the ongoing lockout.

The extent to which the lockout was perceived as a distressing situation depended on whether one's passion for hockey was harmonious or obsessive (Schellenberg, Bailis, & Crocker, 2013). All forms of stress appraisals, including the extent to which the lockout was appraised as threatening, central to oneself, and stressful, were positively associated with obsessive passion but unrelated to harmonious passion. Obsessive passion was also positively correlated with a variety of coping strategies, including denial, behavioural disengagement, seeking emotional support, turning to religion, and using substances such as drugs and alcohol to cope. Harmonious passion showed relatively weak relationships with only a few coping behaviours. To distinguish further between the tendency to attend to or ignore stressors, the researchers asked the hockey fans to report how much they had been monitoring and avoiding information about the lockout that was being reported in local newspapers, on television, and on the internet. Harmonious passion was negatively associated with avoiding information and positively associated with monitoring lockout-related information. However, fans with high levels of obsessive passion were more likely to avoid and less likely to attend to these media reports.

Do Passionate Individuals Get Going?

People with a passion in life, such as many CPA student members, often encounter obstacles and challenges while pursuing their passions. Given the amount of time and energy they devote to their favourite activities, passionate individuals may be even more likely to encounter these obstacles compared to their non-passionate counterparts. But in situations when the going gets tough, do these passionate individuals get going? The research reviewed suggests that the answer depends on (a) whether a passion is more harmonious or obsessive, and (b) what we mean by the term *going*. Research has found that harmonious passion predicts problem- or task-oriented forms of coping. Therefore, individuals with high levels of harmonious passion often cope by going *towards* the problem and actively confront environmental demands. On the other hand, obsessive passion predicts more avoidant forms of coping; thus obsessive individuals tend to cope by going *away* from the problem and disengage from the demands. To

answer our question, both harmonious and obsessive individuals get going when the going gets tough – but they go in different directions.

To this point, I have focused on the ways passionate individuals cope with demands and setbacks related to a passion. However, the coping tendencies linked with harmonious and obsessive passion might follow an opposite pattern if, rather than focus on disengagement from demands, we focus on disengagement from *activities*. For example, Rip et al. (2006) found that obsessively passionate dancers were more likely to ignore an injury while harmoniously passionate dancers were more likely to take steps to treat an injury. This is a situation in which obsessive passion is associated with disengagement from a demand (the injury), while harmonious passion is linked with approach forms of coping. But many dancers will face chronic injuries throughout their careers, and will need to decide whether or not to end their careers because of these injuries. It is this choice of whether to persist in or disengage from an activity where harmonious passion, rather than obsessive passion, might be linked with disengagement. Harmonious passion is characterised by a flexible relationship with an activity (Vallerand, 2010). This might mean that harmonious individuals would be more willing or able to disengage from an activity entirely, particularly if persistence would come at a cost to one's physical well-being. Conversely, obsessive passion is linked with a tendency to rigidly persist in activities, even in situations when it may not be ideal to do so (Vallerand et al., 2003). Although obsessive passion is linked with disengagement from demands within an activity, obsessive passion may be associated with a tendency to remain engaged in the activity itself. In this scenario, we would predict that harmonious and obsessive individuals respond in different ways when the going gets tough. However, when the choice is to abandon the activity entirely, it may be the harmonious individuals who go away from the activity and the obsessive individuals who remain.

There are many opportunities for future research on the relationship between passion and the stress process. This research can adopt alternate research designs (e.g., daily process approach), explore additional coping outcomes (e.g., life satisfaction), and study moderators (e.g., perceived stress) and mediators (e.g., appraisals of threat and challenge) of the passion-coping relationship. Further research will allow for a greater understanding of how passionate individuals cope and self-regulate when the going gets tough. Fortunately, there are many passionate students willing to take on this challenge.

_____

References

Berscheid, E. (2010). Love in the fourth dimension. *Annual Review of Psychology*, *61*, 1-25. doi: 10.1146/annurev.psych.093008.100318

Carver, C. S., & Connor-Smith, J. (2010). Personality and coping. *Annual Review of Psychology*, *61*, 679-704. doi: 10.1146/annurev.psych.093008.100352

Mageau, G. A., Carpentier, J., & Vallerand, R. J. (2011). The role of self-esteem contingencies in the distinction between obsessive and harmonious passion. *European Journal of Social Psychology*, *41*, 720-729. doi: 10.1002/ejsp.798

Rip, B., Fortin, S., & Vallerand, R. J. (2006). The relationship between passion and injury in dance students. *Journal of Dance Medicine & Science*, *10*, 14-20.

Ryan, R. M., & Deci, E. L. (2002). Overview of self-determination theory: An organismic dialectical perspective. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination theory* (pp. 3-33). Rochester, NY: The University of Rochester Press.

Schellenberg, B. J. I., Bailis, D. S., & Crocker, P. R. E. (2013). Passionate hockey fans: Appraisals of, coping with, and attention paid to the 2012-2013 National Hockey League lockout. *Psychology of Sport and Exercise*, *14*, 842-846. doi: 10.1016/j.psychsport.2013.06.004

Schellenberg, B. J. I., Gaudreau, P., & Crocker, P. R. E. (2013). Passion and coping: Relationships with changes in burnout and goal attainment in collegiate volleyball players. *Journal of Sport & Exercise Psychology*, *35*, 270-280.

Sternberg, R. J. (1986). A triangular theory of love. *Psychological Review*, *93*, 119-135.

Vallerand, R. J. (2008). On the psychology of passion: In search of what makes people's lives most worth living. *Canadian Psychology*, *49*, 1-13. doi: 10.1037/0708-5591.49.1.1

Vallerand, R. J. (2010). On passion for life activities: The dualistic model of passion. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (pp. 97-193). New York, NY: Academic Press.

Vallerand, R. J. (2012). From motivation to passion: In search of the motivational processes involved in a meaningful life. *Canadian Psychology*, *53*, 42-53. doi: 10.1037/a0026377

Vallerand, R. J., Blanchard, C. M., Mageau, G. A., Koestner, R., Ratelle, C., Léonard, M., & Gagné, M. (2003). Les passions de l'ame: On obsessive and harmonious passion. *Journal of Personality and Social Psychology*, *85*, 756-767. doi: 10.1037/0022-3514.85.4.756

Vallerand, R. J., Salvey, S., Mageau, G. A., Elliot, A. J., Denis, P. L., Grouzet, F. M. E., & Blanchard, C. (2007). On the role of passion in performance. *Journal of Personality*, *75*, 505-534. doi: 10.1111/j.1467-6494.2007.00447.

'Spirit Possession' in the wake of the Nepalese Civil War: An exploratory study of stress and coping among conflict-affected Tamang villagers in Kavre District

Jesse Beatson, B.Sc., University of Toronto
Obindra Chand, M.A., Tribhuvan
Shakti Lama, Ritual Lama, Thali Monastery

ABSTRACT

A decade of conflict between Maoist rebels and Nepalese government security forces (1996-2006) left many civilians dead and many more victimized by various forms of violence and torture. There is a research gap concerning the conflict and post-conflict experiences of civilians, especially in many of Nepal's ethnic minority communities. This exploratory study was conducted with the Tamang, a Tibeto-Burman community with a distinct language, culture, and religion, in the Kavre District of Eastern Nepal. Local accounts of the conflict's impact were sought and recorded. A content analysis of interview transcripts was performed. As a consequence of the conflict, members of a Tamang community experienced extreme stress from having perpetual fear for their physical security, property, and family members. There is reportedly an increase in a type of trance state, understood in Tamang culture as 'Spirit possession', in the wake of the conflict. The adaptive coping function these trance states may serve is explored.

RÉSUMÉ

Les affrontements qui, pendant une décennie (1996-2006), ont opposé les maoïstes aux forces de l'ordre du gouvernement népalais ont causé la mort de nombreux civils et ont fait en sorte que de nombreux autres ont été victimes de diverses formes de violence et de torture. Peu de recherches ont été menées sur les expériences qu'ont vécues les civils pendant et après le conflit, et encore moins dans les collectivités des minorités ethniques. Cette recherche exploratoire a été effectuée auprès de la communauté tamang du district de Kavre, dans l'est du Népal. D'origine tibéto-birmane, les Tamangs possèdent leur propre langue, leur propre culture et leur propre religion. Les chercheurs ont sondé la population afin de recueillir des observations sur les répercussions du conflit, puis ont procédé à l'analyse de la transcription des entrevues. À cause du conflit, les membres de la communauté tamang ont vécu un stress démesuré qu'ils associent au fait d'avoir vécu dans la peur constante de voir leur sécurité physique, leurs avoir et les membres de leurs familles menacés. Au lendemain du conflit, on a rapporté une augmentation des cas d'un certain type d'état de transe que la culture tamang désigne comme une « possession par les esprits ». L'article explore le rôle que ces états de transe peuvent jouer pour permettre aux personnes de s'adapter et de composer avec le stress vécu.

A decade of conflict (1996 – 2006) between Maoist rebels and Nepalese government security forces claimed 16,000 lives (Luitel, Jordans, Sapkota, Tol, Kohrt, Thapa, & Sharma, 2013). Torture was practiced frequently by both sides, and participants in the present study were either victims of torture, or witnessed torture or other forms of brutality. Since the resolution of the Nepalese Civil War (1996 – 2006) in a peace accord, Nepal has been in a prolonged political transition. In the summer of 2013, Nepal Mental Health Foundation (NMFH) organized a conference where politicians from both the democratic and Maoist parties publically acknowledged, for the first time ever, the massive psychosocial impact of this conflict on the civilian population (Kathmandu Post). This acknowledgment came with a pledge to enshrine mental health rights within the constitution, as well as improve mental health services, which are in a dire state (Regmi, Pokharel, Ojha, Pradhan, & Chapagain, 2004).

The rights and services promised by the government of Nepal could lead to an increase in clinical and counselling services at an unprecedented rate. While this appears to be a promising development, a challenge is presented by the research gap concerning the conflict-related experiences of several of

Nepal's ethnic minority groups. It is not well known how members of these groups have coped with the conflict and also what community resources are already present that may be aiding a recovery process. Clinicians risk exacerbating tensions within these communities if they intervene without being appropriately informed about local idioms of distress and culturally-sanctioned forms of coping.

A related complication for intervention efforts is the widespread discrimination and stigmatization of mental illness in Nepal. Supernatural and religious approaches to understanding and treating mental illness are normative in many places, and somatization of psychological symptoms is also widespread (Regmi et al., 2004; Lauber, Christoph, & Rossler, 2007). Within this context, a response from government and NGO sectors focused on simply increasing the accessibility of resources is insufficient. The success of clinical work in conflict-affected regions will be largely based on 'cultural competence', which must be grounded in solid understandings of other cultural practices and epistemologies (Canino, Lewis-Fernandez, & Bravo, 1997; Van Duijl, Cardeña, & De Jong, 2005). Making intervention efforts more problematic, there are potential consequences of identifying individuals who may have mental disorders in communities that hold heavy stigmas against mental illness. This is another reason to acknowledge, understand, and support local forms of coping, even if they have supernatural or religious explanations and associated rituals.

Regardless of the research work required, properly informing intervention teams about the diverse cultural contexts in which conflict occurred in Nepal is an urgent priority. Firstly, as Kohrt and Harper (2008) have identified, there is an abundance of untreated trauma. Untreated trauma can lead to states of anxiety and depression, substance use disorders, and even subsequent violence by the victims (Flannery, 2001). Secondly, it is important to keep in mind that the people most affected by the conflict were minority groups far from the urban capital of Kathmandu where most of the health resources are located (Luitel et al., 2013). This can be seen as a basic issue of health equity, as minority groups in Nepal are already underserved by the healthcare system.

The present study was conducted with the Tamang, an ethnic minority group that to our best knowledge has not been the focus of any research regarding conflict-related experiences or coping behaviour. The dearth of research on this population is unfortunate considering that many of their communities are in the Kavre District, the site of several of the bloodiest battles during the conflict. The INSEC 'Conflict Victims Profile' states that in Kavre District, with a total population of 385,000, 125 people were killed by the Nepal Army and 154 were killed by Maoist forces (INSEC). This research focuses on the Tamang members of a mountainous village called Kharpachowk. According to these interviewees, many people were tortured, beaten, kidnapped, or interrogated.

Trance states are a phenomenon experienced in this Tamang community that appear linked to these potentially traumatizing events. 'Spirit possession', as this experience is locally conceived, involves an extended period of bodily shaking and may also entail obscene or uncharacteristic utterances. A further characteristic often witnessed is temporary personality change. Members of the Tamang community in Kharpachowk, including educators and a health worker, believe that 'spirit possession' is a way in which the deceased can return to speak through the living (Sharma, Jha, Joshi, & Lamsal, 2010).

Not exclusive to the Tamang, 'spirit possession' is reportedly on the rise in many rural areas of Nepal (Nicoletti, 2006) and in fact reports of it are relatively frequent across southern and Southeast Asia and in parts of Africa (Bourguignon, 1968; Bulatoa, 1982; van Duijl, Nijenhuis, Komproe, Gernaat, & de Jong, 2010). Jones (1976) underscores the fact that 'spirit possession' is culturally articulated in a diversity of ways, and hence it is important not to make assumptions about the applicability of findings across different cultural settings.

While this phenomenon may be articulated in different ways, there appears to be a common feature in the environments from which 'spirit possession' emerges. Perera (2001) claims that "reports of supernatural activity generally arise from places where violent actions are known to have taken place" (p. 197). A quantitative study conducted in Uganda showed that compared to a control group, those who had experienced 'spirit possession' reported having had higher levels of exposure to armed violence in a local civil conflict (van Duijl et al., 2010). Consistent with cultural perceptions of possession states as literal experiences, study participants did not connect these states to conflict exposure (van Duijl et al., 2010). Anthropologists and ethnopsychologists have noted this epistemological gap between Western researchers and study participants in 'spirit possession' studies, and have suggested that researchers use the terms 'possession trance' or 'trance state' to clarify when they are referring to this phenomenon from their perspective (Bourguignon, 1980). This convention is adopted in this paper.

The present investigation is qualitative in nature, and was guided by a broad research question for each of the study's three focal points: stress, coping, and intervention guidance. 1) During the civil war, how

badly were members of the Tamang community in Kharpachowk impacted? 2) Since the conflict ended, how have individuals in this community been coping with the severe stress they may have experienced? 3) What local customs and behaviours seem most pertinent for designing an effective psychosocial intervention?

'Spirit possession' emerged as a key theme of the interviews, and it is hypothesized that it is a response to extreme stress. While 'spirit possession' occurred before and during the conflict, it was reported far more often in the period after the conflict ended. This connection to potentially traumatizing events, as previously noted, was found in other post-conflict contexts such as Uganda. Speculation will be made about the way possession trance may serve to reduce stress, but more research in this area is definitely needed.

As a note, the concept of stress was used in place of trauma, both because it seemed a better match to local idioms of distress (see Chase, Welton-Mitchell, & Bhattarai, 2013) and because no psychometric testing was performed as part of this study. Furthermore, there is ongoing debate on whether trauma-related disorders such as PTSD are outcomes of political violence that are actually universal (Pedersen, 2006).

Methods
Design

The study was conducted over a 9 week period in Nepal. Data was collected in Kharpachowk, a remote region in the Kavre District of Nepal with approximately 300 households. The native language is Tamang, though a majority of villagers speak Nepali, and a minority also speak some English. All Tamang individuals practice a type of Buddhism and approx-

Figure 1: Image taken of Kharpachowk by Jesse Beatson

imately 95% of the residents in Kharpachowk are ethnically Tamang. The research team included a native speaker of Tamang and a Nepali speaker, in addition to the primary researcher, who was an English speaker with basic Nepali language skills.

The research was conducted in three stages: general literature review, data-collection, and data-analysis. Over a five week period, research team members familiarized themselves with various aspects of the Nepalese Civil War, coping theory, and Tamang culture. Subsequently, during the two week community entry phase, interviews were conducted to determine how villagers had experienced the conflict and how they were continuing to cope. The final two weeks of the study involved a form of "member checking", in which individuals familiar with Tamang communities and with possession trance states, but not villagers themselves, were consulted about preliminary findings. These 'consultant informants' were based at Lagankhel Mental Hospital and Tribhuvan University.

Data Collection

In-depth and semi-structured interviews of approximately an hour's length each were conducted with a cross-section of community members. A total of 16 key informants from the community were contacted, as well as 3 additional 'consultant informants' from outside the community, and all agreed to participate. Nearly 80% of the community interviewees were named on a list of community members provided by a Kharpachowk resident who met with the research team in Kathmandu before the study commenced. The remaining interviewees were contacted via a snowball sampling procedure. Interviewees were drawn from a wide array of social and occupational categories.

Interviews were conducted in the language requested by the interviewee and were often carried out in contexts where interviewees would feel relaxed - mainly in their own homes - with the aim of allowing them to feel comfortable and speak in their own terms. Interviews were audio recorded. Where interviews were not conducted in English, transcriptions were produced by research team members. Glaser and Strauss (1967) note that qualitative research often reaches a saturation point. For the present research, once major trends in the interviews began to recur and key themes had already emerged, the research team stopped adding new individuals to the sample.

Data-Analysis

A content analysis of interview transcripts was performed. Transcripts were first read through briefly, and then re-read very carefully. The data was then coded in terms of overall relevance to Tamang expressions of stress and coping. Relevance was determined by looking at the frequency with which certain words or themes were repeated as well as the importance attributed to these words and themes by interviewees. For stress codes, the frequency of related words like 'fear' and 'tension' were tabulated. In addition, the extent to which conflict-related occurrences like 'interrogation', 'beatings' and 'torture' were mentioned was noted. For coping codes, we looked for themes that were common across interviews. We referred to Chase and colleagues (2013), in which coping strategies from the Brief COPE scale were adapted for working with a Bhutanese refugee population in Nepal. Some coping styles from this scale include: active coping, planning, positive reframing, acceptance, religion, and seeking emotional support.

Analysis was concentrated around the central theme of possession trance. Research team members agreed that reporting on the theme of possession trance would make the most meaningful contribution to the literature on stress and coping; particularly in terms of the diverse ways that extreme stress can manifest and be managed. Further, possession trance is likely to be one of the least understood aspects of Tamang society, and more research on this is needed to facilitate the cross-cultural understanding necessary for effective psychosocial interventions.

Results

As consequence of the conflict, locals experienced extreme stress from having perpetual fear for their physical security, property, and family members. Themes of violence were highly prominent in interviews, and all locals mentioned that during the conflict they had either experienced or witnessed at least one of the following acts: torture, extortion, murder, theft, or kidnapping. One interviewee described having stray bullets fired through the walls of his home while he and his family hid inside. Another showed a bullet that was still lodged inside his wounded leg. Yet another interviewee spoke of being blindfolded and taken away for months of interrogation, never once told where he was being held or for how long. Not surprisingly, the word 'fear' was mentioned several times, specifically in 8 of the 16 interviews with locals. As one informant told us:

"we lived in fear. We were trapped by both parties [Army and Maoists]. What to do? With whom to share our tensions? We were happier after the peace accord. We can now die a natural death; nobody will come and kill us".

Describing the post-conflict scene, many interviewees pointed to the importance of *bombos* – Tamang shamans – who through elaborate rituals "chase away evil spirits". A commonly held local belief is that the souls of deceased persons, especially those who had not received proper burial, enter the bodies of affected individuals. Since there were many improper burials during the conflict period, the Tamang report that their community is haunted by restless spirits. When asked about specific coping strategies, several interviewees said that there is so need for them, for they believe that there are no "psychological symptoms" in the community after the conflict.

Physical manifestations of possession trance that were often mentioned included shaking, randomly speaking, and fainting. Sharma and colleagues (2010) found that possession trance in Nepal primarily affects school-aged girls. This was also reflected in Kharpachowk, as according to several informants, a large majority of Tamang individuals who have experienced possession trances are young girls. When queried about whether individuals who underwent possession trances experienced any discrimination, informants replied that anyone may be "caught by spirits" and possession is not caused by bad karma, bad luck, or moral failings. Consequently, individuals experiencing possession trances are given broad community support, in addition to the treatment they receive from a *bombo.*

This high level of acceptance for those "caught by spirits" contrasts with the way expressions of distress in psychological terms –sadness, hopelessness, depression, or anxiety – seem to be received. In Kharpachowk, these expressions are interpreted as signs of mental weakness. A person with a mental illness, according to one informant, "is considered a 'half-mind' and their social status deteriorates". Similarly, drinking alcohol to "solve tension" is not highly esteemed. In particular, women are discouraged from drinking. Women are also expected to perform their social and occupational roles with a positive attitude, implying a taboo against negative venting.

An academic from Tribhuvan University echoed Tamang interviewees, noting that villagers did not know the reason for the conflict; they were uncertain about its aims, as well as how long it was expected to last. As a result, Tamang individuals experienced "cumulative tensions", along with a "meaning vacuum". Medical informants from Lagankhel Mental Hospital, who had some experience working with members of the Tamang community in Kharpachowk, suggested

that possession trances are fairly common with this community. Consistent with what was noted earlier, medical informants also confirmed that these possession trances occur most frequently with young girls.

The doctors explained that an important component of possession trance is a 'dissociative spell' whereby individuals act out in uncharacteristic ways and have no memory of these behaviours. When questioned about why adolescent females are the most vulnerable to possession trances, the doctors suggested that this same population experiences the greatest number of social restrictions and hence has greater levels of "suppressed emotions". Comparatively, men have more coping options available to them, including substance use. Similar to possession trance, drinking induces a form of dissociation that may help men manage stress.

Nearly all community participants inquired whether research was being conducted for the purpose of intervention and indicated a desire for outside support to address conflict-related issues, including psychosocial counselling.

Discussion

In the years following the conflict, reportedly there was a significant rise in possession trances occurring in Kharpachowk. This increase is seemingly connected to the severe stress induced by conflict-related events. Similar to other documented cases in Asia and Africa, in this region the state of possession trance induces individuals to shake uncontrollably and perform strange behaviours uncharacteristic of the individual (Nicoletti, 2006). Berceli (2005) describes how bodily 'shaking' might serve a positive healing function:

"Once the trauma is over, the body's nervous system is designed to literally shake out this deep muscular tension and help the body return to its normal state. This shaking or tremoring…signals the brain to release the contraction and return to a normal state of relaxation"

Kleinman (1980) proposes that along with denial and somatization, dissociation is one of the three universal coping strategies found in all cultures. Medical staff at the Lagankhel Mental Hospital suggested that possession trance offers an opportunity to cope through inducing a "dissociative spell". These same informants suggested that an altered state of consciousness enables villagers to vent negative emotions while escaping any guilty feelings or social stigma, as the blame for these actions is attributed to the intruding spirit. Whether possession trance affords benefits through tension release or through dis-

sociation, or some combination of the two, it appears to be an adaptive and culturally-sanctioned form of coping.

Future studies should investigate whether the culturally-defined state of possession necessarily requires an individual to experience altered physiological or psychological states. This could be achieved by adding medical assessment to ethnographic observations. Gaining these insights could further academic understanding on how exactly possession trances help individuals cope. One option would be to measure levels of cortisol, a stress hormone, before and after a possession trance episode to see if stress levels are reduced. Similarly, future studies could go beyond 'stress' and attempt a study of trauma levels; for instance, investigating the applicability of the PTSD construct in conflict-affected Tamang communities. Performing quantitative studies with large sample sizes would also help determine whether or not gender differences are statistically significant.

Conclusion

Kharpachowk is a community that has been seriously impacted by civil conflict. For several years it was plagued by a seemingly endless influx of armed combatants who were frequently violent with villagers, frequently using torture. After the signing of the Comprehensive Peace Accord (2006) between the government and Maoist rebels, the Tamang have made their best efforts to pick up the pieces and resume their former lives. Nevertheless, some still feel ongoing tensions that they attribute to conflict experiences.

Through in-depth interviews, it was learned that methods of coping with remaining tensions are limited by the stigma associated with psychological articulations of distress. Coping behaviour is even more circumscribed for women who face social taboos against drinking and venting negative emotions. In this context, possession trance appears to act as a kind of 'cultural free zone' where extreme stress can be processed in such a way that the individual avoids incurring social disapproval. This is not to say possession trances are consciously contrived to deal with stress or achieve personal goals. Instead, the mechanism for selection of this coping strategy likely operates subconsciously.

It is beyond the scope of this study to determine the effectiveness of possession trance as a form of coping. Outside interventions are desired by community members, and are most likely required as one way to enhance community coping resources. Since there is now political will in Nepal to address post-conflict psychosocial distress, interventions seem a likely prospect over the next few years. The form that

these interventions take, if they are to be respectful and effective, must be grounded in a thorough understanding of Tamang culture. Otherwise, interventions run the risk of failing to meet the needs of this severely conflict-affected community, while also contributing to cross-cultural misunderstanding. Caution is especially warranted given the lack of firm empirical evidence for current Western classifications and treatments for possession trance. When investigating this phenomenon in various and diverse communities, learning how it is locally conceptualized will likely advance Western knowledge on this topic.

References

American Psychiatric Association (1994) *Diagnostic and Statistical Manual of Mental Disorders*

(4th edition) (DSM–IV). Washington, DC: APA.

Berceli, D. (2005). *Trauma releasing exercises*. South Carolina: Global Book Publishers.

Breuer, J., & Freud, S. (2009). *Studies on hysteria*. Basic Books.

Brown, R. J., Cardeña, E., Nijenhuis, E., Sar, V., & Hart, O. V. D. (2007). Should conversion disorder be reclassified as a dissociative disorder in DSM–V?. *Psychosomatics*, *48*(5), 369-378.

Bourguignon, E. (1980) Possession Belief and Possession Trance in Haitian Healing. Paper presented at the International Conference on Cultural Conceptions of Mental Health and Therapy. Honolulu, 4-6 June.

Bourguignon, E. (1983). Religion, Altered States of Consciousness, and Social Change. Columbus: Ohio State University Press

Bulatoa, J. (1982) Local cases of possession and their cure. *Philippine Studies*. 30, 415-425.

Canino, G., Lewis-Fernandez, R., & Bravo, M. (1997). Methodological challenges in cross-cultural mental health research. *Transcultural Psychiatry*, *34*(2), 163-184.

Chase, L. E., Welton-Mitchell, C., & Bhattarai, S. (2013). Solving tension: coping among bhutanese refugees in Nepal. *International Journal of Migration, Health and Social Care*, *9*(2).

Glaser, B. G., Strauss A. L. (1967): The Discovery of Grounded Theory: Strategies for Qualitative Research. *London: Wiedenfeld and Nicholson*.

INSEC Conflict Victims Profile. In *Informal Sector Service Centre*. Retrieved August 9, 2013, from http://www.insec.org.np/victim/candidate_display_user.php?display=home

Jones, R. L. (1976). *Spirit possession in the Nepal Hi-*

malayas. Warminster: Aris and Phillips.

Keogh, E., & Herdenfeldt, M. (2002). Gender, coping and the perception of pain. *Pain*, *97*(3), 195-201.

Kleinman, A (1980). Patients and Healers in the Context of Culture. Berkeley and Los Angeles: University of California Press.

Kohrt, B. A., & Harper, I. (2008). Navigating diagnoses: Understanding mind–body relations, mental health, and stigma in Nepal. *Culture, Medicine, and Psychiatry*, *32*(4), 462-491.

Lauber, C., & Rössler, W. (2007). Stigma towards people with mental illness in developing countries in Asia. *International Review of Psychiatry*, *19*(2), 157-178.

Luitel, N. P., Jordans, M. J., Sapkota, R. P., Tol, W. A., Kohrt, B. A., Thapa, S. B., ... & Sharma, B. (2013). Conflict and mental health: a cross-sectional epidemiological study in Nepal. *Social psychiatry and psychiatric epidemiology*, *48*(2), 183-193.

Nicoletti, M. (2006). Hamanic solitudes: ecstasy, madness and spirit possession in the Nepal Himalayas. Vajra Publications-Kathmandu.

Parties vow to make mental health national agenda. (2013, July 7). *Kathmandu Post*. Retrieved October 4, 2013, from http://www.ekantipur.com/the-kathmandu-post/2013/07/07/nation/parties-vow-to-make-mental-health-national-agenda/250892.html

Pedersen, D. (2006). Reframing political violence and mental health outcomes: outlining a research and action agenda for Latin America and the Caribbean region. *Ciência & Saúde Coletiva*, *11*, 1189-1198.

Perera, S. (2001). Spirit possessions and avenging ghosts. *Remaking a world: violence, social suffering, and recovery. University of California Press, Berkeley*, 157-200.

Regmi, S. K., Pokharel, A., Ojha, S. P., Pradhan, S. N., & Chapagain, G. (2004). Nepal mental health country profile. *International Review of Psychiatry*, *16*(1-2), 142-149.

Sharma, P. P., Jha, A. K., Joshi, A., & Lamsal, R. (2010). Mass Hysteria and Adolescent Girl: An Interventional Study. *Nepal Journal of Obstetrics and Gynaecology*, *5*(1), 17-20.

Van Duijl, M., Cardeña, E., & De Jong, J. T. (2005). The validity of DSM-IV dissociative disorders categories in south-west Uganda. *Transcultural psychiatry*, *42*(2), 219-241.

Van Duijl, M., Nijenhuis, E., Komproe, I. H., Gernaat, H. B., & de Jong, J. T. (2010). Dissociative symptoms and reported trauma among patients with spirit possession and matched healthy controls in Uganda. *Culture, Medicine, and Psychiatry*, *34*(2), 380-400.

Coping strategies and implications of disability in parents of children with autism versus down syndrome – Two different sides of the same coin?

Daniella Goldberg, M.A, McGill University
Laura Fontil, M.A., McGill University
Ingrid Sladeczek, Ph.D., McGill University
Nancy Miodrag, Ph.D., California State University

ABSTRACT

Parenting a child with a developmental disability is stressful. Psychological impairment among parents and siblings is more apparent in families where there is a child with emotional, behavioural, and communication problems, such as autism (Dabrowski & Pisula, 2010). Researchers have found that parents of children with autism are more distressed compared with parents of children with other developmental disabilities, such as Down syndrome (DS; Sanders & Morgan, 1997). This study compared beliefs about the implications of having a child with a disability with the different types of coping strategies used by parents of children with autism spectrum disorders (ASD) and DS. The sample included 41 parents who had a child with DS and 33 with ASD. MANOVA was used to compare these two groups on coping strategies and beliefs. Results elucidated that parents with a child with ASD had more negative beliefs about the implications of their child's disability on family life than parents with a child with DS.

RÉSUMÉ

Élever un enfant ayant une déficience développementale est une activité stressante. Les perturbations psychologiques chez les parents, les frères et les sœurs sont plus apparentes dans les familles où l'un des enfants a des problèmes émotionnels, comportementaux ou de communication, comme c'est les cas des enfants autistes (Dabrowski et Pisula, 2010). Les chercheurs ont constaté que les parents d'enfants autistes sont plus perturbés que les parents d'enfants ayant d'autres types de déficience comportementale, comme la trisomie (syndrome de Down; Sanders et Morgan, 1997). Cette étude a comparé les croyances concernant les conséquences d'élever un enfant qui a une déficience avec différents types de stratégies de réponse mises en œuvre par les parents d'enfants ayant un trouble du spectre de l'autisme et ceux d'enfants trisomiques. L'échantillon étudié était constitué de 41 parents d'enfants trisomiques et de 33 parents d'enfants autistes. L'analyse de la variance à plusieurs variables a été utilisée pour comparer ces deux groupes tant sur le plan des stratégies de réponse que des croyances. Les résultats ont fait valoir que les parents d'un enfant autiste ont plus de croyances négatives au sujet des répercussions que la déficience de leur enfant peut avoir sur la vie familiale que les parents d'un enfant trisomique.

Introduction

Parenting a child with a developmental disability can be taxing for parents because of the increased financial and emotional costs involved (Baker, Blancher, & Olsson, 2005). Numerous empirical studies have found that parents of children with developmental disabilities (e.g., Autism Spectrum Disorder (ASD), Down syndrome (DS)) report more mental health difficulties than parents of typically developing children (Siklos & Kerns, 2006; Tunali & Power, 2002). Baker, Bruce, Blacher, Crnic, and Edlerbrock (2002) suggest that stress is related to parents' ability to cope with the many challenges involved with raising a child with a disability, such as the financial, personal, and social stressors.

Trute and Hiebert-Murphy (2002) found that one of the ways that parents of children with developmental disabilities cope with parental stressors is related to their conceptualization and understanding of their child's diagnosis and its impact on family life. These appraisals determine how the family will cope in the face of misfortune. Some families will seek out community services and others will rely on familial or spiritual support (Van Riper, 2007). Sanders and Morgan (1997) found that mothers of children with developmental disabilities who had more positive beliefs about their child's diagnosis, reported less depressive symptomology and scored higher on measures of psy-

chological well-being. These mothers were more likely to seek out services and have more positive interactions with their children.

Researchers have found that although stress is higher in parents of children with developmental disabilities compared to parents of typically developing children, these rates are higher in mothers of children with ASD than in mothers of children with DS (Abbeduto et al., 2004; Dabrowska & Pinsula, 2010). Griffith, Hastings, Nash, and Hill (2010) attributed the high psychological distress of parents of children with ASD to the specific characteristics of ASD. For example, ASD compared with DS, is diagnosed at a later age (around six years of age), is characterized by fewer physically identifiable features and more behavioural problems, as well as a lack of social and communication skills. The lack of social and communication skills and increased behavioural problems contribute to greater physical and psychological distress for parents (Abbeduto et al., 2004; Baker et al., 2005). There are tend to be more personal and financial costs associated with raising a child with ASD, which can result in greater familial stress and life changes (Jabrink, Fombonne, & Knapp, 2005).

Few studies have compared the differences in how parents of children with ASD and DS conceptualize the impact of their child's disability on their family life, and their ability to cope with related stressors. This study examined the relationship between stress, appraisals, and coping in families with children with developmental disabilities in order to elucidate how the type of diagnosis relates to the stress families experience. It was hypothesized that parents of a child with ASD would experience more negative beliefs compared with parents of a child with DS. It was expected that parents of a child with ASD would use less adaptive coping strategies compared to parents with a child with DS.

Method
Participants
Families with a child who met the criteria for ASD or DS were taken from a larger study, the National Early Intervention Research Initiative Project, as well as a community sample. The National Early Intervention Research Initiative Project looked at the trajectories of children with developmental disabilities and their families receiving early intervention services. Participants in the community sample were recruited using flyers, advertisements on Canadian websites, and through parent newsletters. The study received approval by the Human Subject Research Ethics Board at the university level and community center where participants were recruited. From the large sample, children diagnosed with either ASD or DS were se-

lected. Eligible participants consisted of 39 children with ASD and 42 with DS out of the larger sample of 177 children. Children with comorbid diagnoses were excluded from the final sample.

Diagnoses were determined by clinical chart reviews conducted by research assistants affiliated with this project and were based on DSM-IV criteria (DSM-IV, APA, 2000). Of the original 177 children in the larger National Early Intervention Project and community sample about 22% (*n*=39) met the DSM-IV criteria for ASD, and 23% (n=42) met the DSM-IV criteria for DS.

Children with ASD averaged 6.15 years old (*SD*= 2.34), and children with DS averaged 5.94 (*SD*= 3.62) years old. Most of the children with ASD were male (79.5%) while in the DS group about half (54.8%) were male. 28 mothers completed the psychological, social, and demographic questions in the ASD group. In this group, mothers on average were 37.97 years old (*SD*= 6.040) and 35.7% had a university education. In the DS Group, 38 mothers completed the psychological, social, and demographic questionnaires, and averaged 40.08 years old (*SD*=5.049) and 47.4% had a university degree.

Measures
Coping with life stressors. The Family Crisis Oriented Personal Evaluation Scale (F-COPES) is a self-report measure used to assess how families cope with life stressors (McCubbin, Olson, & Larson, 1981). Mothers were asked to rate their use of particular coping skills. Five coping mechanisms are measured in this questionnaire. These include acquiring social support, reframing, seeking spiritual support, mobilizing family to acquire and receive help, and passive appraisals. Test retest reliability for each scale was found to be .78; .61; .95; .78; and .75, respectively, in a study by McCubbin et al., (1981). A total coping scale was computed by summing up scores from the six subscales.

Beliefs about disability. The Family Impact of Childhood Disabilities Scale- 2nd Edition (FICD) was used to determine families' beliefs on the positive and negative effects of disability on a family's daily life (Trute & Hiebert-Murphy, 2002). Mothers were asked to rate items (both negative and positive) on the degree to which their child's disability affects family life. Higher scores on the positive subscale indicate that parents have more positive beliefs, while on the negative subscale higher scores indicate more negative beliefs. Internal reliability for the negative scale was .71 and for the positive .88 (Trute & Hiebert-Murphy, 2002).

Results
Multivariate ANOVA, controlling for age and gender,

Table 1

Means and Standard Deviations for Family Impact of Childhood Disabilities (FICD) Subscales for Autism Spectrum Disorder (ASD) and Downs syndrome (DS) groups

FICD	ASD (N = 41)		DS (N = 33)		
	M	SD	M	SD	F
Positive Subscale	30.12	6.24	30.44	5.02	.09
Negative Subscale	30.64	5.48	24.24	6.31	18.05***

***$p < .001$

a. higher scores = more positive beliefs
b. higher scores = more negative beliefs

Table 2

Means and Standard Deviations for Family Impact of Childhood Disabilities (FICD) Negative Subscale Items for Autism Spectrum Disorder (ASD) and Downs syndrome (DS) groups

FICD	ASD (N = 41)		DS (N = 33)		
	M	SD	M	SD	t
Additional financial stress	3.82	.47	3.27	.67	3.99*
More chronic stress	3.27	.91	2.41	.99	3.82*
Reduced time for friends	3.18	.95	2.66	1.04	2.24
Hesitate to call friends	2.64	1.14	1.68	.99	3.86*
More tension between spouses	2.69	1.12	2.08	1.02	2.42
Postponed holidays	2.58	1.25	1.80	1.12	2.79*
Postponed purchases	3.15	1.06	1.93	1.06	4.94*

*$p < .0071$

was conducted to compare coping mechanisms and belief systems in parents of children with DS and ASD's. Paired sample *t*-tests were conducted to elucidate significant findings. Please note the two groups did not differ significantly in age.

Coping Strategies

No significant difference was found between mothers of children with DS and mothers of children with ASDs coping strategies, $F(6, 67) = .44$, $p = .847$.

Belief Systems

While there were no significant differences between mothers' positive beliefs about their children, mothers of children with ASD held more negative beliefs than mothers of children with DS, $F(1, 72) = 7.57$, $p < .001$. See Table 1.

T-tests using a Bonferroni adjusted alpha of .0071 revealed that parents of children with ASD had additional financial stress ($t(72) = 3.99$, $p < .001$), more chronic stress ($t(72) = 3.82$, $p < .001$), hesitated to call friends ($t(72) = 3.86$, $p < .001$), and postponed holidays ($t(72) = 2.79$, $p = .007$) and purchases ($t(72) = 4.94$, $p < .001$) more frequently than parents of children with DS. See Table 2.

Discussion

Given the increased level of stress experienced by mothers of children with ASD (e.g., Sanders & Morgan, 1997), it was hypothesized that these mothers might hold more negative beliefs about the implications of their child's disability on family life. While mothers of children with ASD held more negative beliefs than those of children with DS, their positive beliefs about having a child with a developmental delay did not differ. All mothers held high positive beliefs about their children (i.e., more tolerance, extraordinary time spent, belief that children are unique and special). Additionally, we found that mothers of children with ASD and DS did not differ in their coping strategies.

Parenting a child with ASD appears to be related to different challenges than parenting a child with DS. Hodapp (2002) suggests that behavioural styles may explain the different challenges these parents experience. Children with DS tend to be more sociable and have less maladaptive behaviour problems. Hodapp also posits that parental understanding of the nature and etiology of DS may also contribute to their overall well-being. Parents of children with ASD have reported that their child's impairments in social communication (Davis & Carver, 2008) and restricted or repetitive behaviours (Gabriels et al., 2005) are particularly stressful. Coping mechanisms that are effective in restricting negative beliefs in families with children with DS may not be sufficient for parents of children with ASD.

Results from this study are expected to inform practitioners and service providers about the different coping strategies used by parents of children with various developmental disabilities. Interventions aimed at targeting the general needs of families and children with special needs may not be sufficient. Parents of children with varying emotional, behavioural, and/or developmental difficulties or diagnoses present with unique needs that cannot be generalized. Service providers must be aware to tailor their interventions accordingly.

Limitations and Future Directions

This study's limitations should be noted. The study has a small sample size, which may have affected the robustness of the findings. Moreover, a clearer understanding of families' socioeconomic status and cultural background may have shed light on the underlying mechanisms of family coping mechanisms and belief systems. Given the financial impact that a child with disabilities can have on a family, families of lower socioeconomic status may have experienced a disproportionate amount of stress related to their fi-

nances. Families' cultural backgrounds can play an integral role in how families understand and cope with a child with a disability (Blacher & McIntyre, 2006; Hanson, 1998). Finally, a child's gender can also have an impact on families' beliefs about their child and their coping mechanisms.

A more comprehensive exploration of families coping mechanisms and belief systems would help contribute to the future development and implementation of effective evidence-based interventions for these families and their children.

References

Abbeduto, L., Seltzer, M. M., Shattuck, P., Krauss, M. W., Orsmond, G., & Murphy, M. M. (2004). Psychological well-being and coping in mothers of youths with autism, down syndrome, or fragile X syndrome. *American Journal of Mental Retardation, 109*(3), 237–54. doi:10.1352/0895-8017

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders,* (4th Ed. – Text Revision). Washington, DC: Author.

Baker, Bruce L, Blacher, J., Crnic, K., & Edelbrock, C. (2002). Behavior problems and parenting stress in families of three-year-old children with and without developmental delays. *American Journal of Mental Retardation*, 107(6), 433–44. doi: 10.1352/0895-8017(2002)107<0433:BPAPSI>2.0.CO;2

Baker, B. L. Blancher, J. & Olsson, M. B. (2005). Preschool children with and without developmental delay: Behaviour problems, parents' optimism and well-being. *Journal of Intellectual Disability Research, 47*(8), 217-230. doi:10.1111/j.1365-2788.2005.00691.x

Blacher, J., & McIntyre, L. L. (2006). Syndrome specificity and behavioural disorders in young adults with intellectual disability: Cultural differences in family impact. *Journal of Intellectual Disability Research, 50*(3), 184-198. doi:10.1111/j.1365-2788.2005.00768.x

Davis, N. O., & Carver, A. S. (2008). Parenting stress in mothers and fathers of toddlers with autism spectrum disorders: associations with child characteristics. *Journal of Autism and Developmental Disorders, 38*(7), 1278-91. doi:10.1007/s10803-007-0512-z

Gabriels, R. L., Cuccaro, M. L., Hill, D. E., Ivers, B J., & Goldson, E. (2005). Repetitive behaviours in autism: Relationships with associated clinical features. *Research in Developmental Disabilities, 26*(2), 169-181. doi:10.1016/j.ridd.2004.05.003

Griffith, G.M., Hastings, R.P., Nash, S., & Hill, C. (2010). Using matched groups to explore child behaviour problems and maternal well-being in children with Down syndrome and Autism. *Journal of Autism and Developmental Disorders, 40*(5), 610-619. doi: 10.1007/s10803-009-0906-1

Hanson, M. J., Wolfberg, P., Zercher, C., Morgan, M., Gutierrez, S., Barnwell, D., & Beckman, P. (1998). The culture of inclusion: Recognizing diversity at multiple levels. *Early Childhood Research Quarterly, 13*(1), 185-209. doi:10.1016/S0885-2006(99)80032-5

Hodapp, R. M. (2002). Parenting children with mental retardation. In M. H. Bornstein (Ed.), *Handbook of Parenting, 2nd edn. Vol. 1: Children and Parenting* (pp. 355-81)., Mahwah, NJ: Lawrence Erlbaum Associates.

Järbrink, K., Fombonne, E., & Knapp, M. R. J. (2005). Measuring the parental, service and cost impacts of children with autistic spectrum disorder: A pilot study. *LSE Research Online, 33*(4), 395–400. doi: 10.1023/A:1025058711465

McCubbin, H. I., & Patterson, J. M. (1983). The family stress process: The double ABCX model of adjustment and adaptation. In H. I. McCubbin, M. B. Sussman, & J. M. Patterson (Eds.), *Social stress and the family: Advances and developments in family stress theory and research* (pp. 7-37). New York: Haworth Press.

Pisula, E. (2007). A Comparative Study of Stress Profiles in Mothers of Children with Autism and those of Children with Down's Syndrome. *Journal of Applied Research in Intellectual Disabilities*, 20(3), 274–278. doi:10.1111/j.1468-3148.2006.00342.x

Sanders, J. L., & Morgan, S. B. (1997). Family stress and adjustment as perceived by parents of children with autism or Down syndrome: Implications for intervention. *Child and Family Behavior Therapy*, 19(4), 15–32. doi:10.1300/J019v19n04_02

Siklos, S., & Kerns, K. (2006). Assessing need for social support in parents of children with autism and Down syndrome. *Journal of Autism and Developmental Disorders*, 36(7), 921–933. doi:10.1007/s10803-006-0129-7

Trute, B., & Hiebert-Murphy, D. (2002). Family adjustment to childhood developmental disability: A measure of parent appraisal of family impacts. *Journal of Pediatric Psychology*, 27(3), 271–80. doi: 10.1093/jpepsy/27.3.271

Tunali, B., & Power, T. G. (2002). Coping by redefinition: cognitive appraisals in mothers of children with autism and children without autism. *Journal of Autism and Developmental Disorders*, 32(1), 25–34. doi: 10.1023/A:1017999906420

Van Riper, M. (2007). Families of children with Down syndrome: Responding to a change in plans with resilience. *Journal of Pediatric Nursing, 22*(2), 116–28. doi:10.1016/j.pedn.2006.07.004

What do 911 Communication Workers need?
A discussion of unique characteristics and possible intervention strategies

Sarah Horsford, M.Ed, C.C.C., The University of Western Ontario

ABSTRACT

There is overwhelming literature regarding occupational stress, coping, and burnout within emergency responder populations, such as police, fire, and ambulance responder; however the pertinent literature often overlooks the importance of emergency (911) communications workers as the first point of contact in an emergency. The present paper discusses the unique qualities and worker characteristics of communication workers. These characteristics include shift-work, secondary trauma exposure, lack of nonverbal cues, emotional labour, hypervigilance, and lack of control. It also proposes several approaches for addressing occupational stress within this population, including a discussion of the need for tailored supports and possible primary, secondary and tertiary intervention strategies at the individual and organizational levels

RÉSUMÉ

Il existe une foule d'ouvrages sur le stress professionnel, la gestion du stress et l'épuisement professionnel des personnes qui doivent intervenir dans les situations d'urgence, telles que les policiers, les pompiers et les ambulanciers. Or, les écrits pertinents en la matière font souvent fi de l'importance des travailleurs du service de communication des urgences, le 911, qui est le premier point de contact pour le signalement des urgences. L'article porte sur les qualités uniques des travailleurs des communications et sur ce qui caractérise leur travail, nommément le travail par quarts, l'exposition secondaire aux événements traumatisants, l'absence de signaux non verbaux, l'effort émotionnel, l'hypervigilance et le manque de contrôle. L'étude propose également diverses méthodes pour traiter le stress professionnel vécu par ces travailleurs, et discute du besoin de mettre au point un soutien sur mesure à leur intention, dont, possiblement, des stratégies d'intervention primaires, secondaires et tertiaires sur une base individuelle et à l'échelle de l'organisme employeur.

'911, what is your emergency?' is a phrase many of us may never hear in our lifetime. In the middle of a crisis, little thought is given to who may answer that call. We often think of the stress and trauma that are experienced by 'first responders' such as police, fire, and ambulance workers, but the true first responders are in fact the ones on the phone lines. Sadly, these emergency communication workers are often overlooked and, therefore, little is known about them. Even less is known about the effects of stress and burnout in the communication worker population, or how to prevent or mediate the effects of this stress. This paper seeks to identify the effects of stress on 911 communication workers, discuss viable options for potentially mediating this stress, and directions for future research.

Introduction

Emergency communication workers provide telecommunications services, using terminals and peripheral computerized equipment, to dispatch emergency vehicles (e.g., ambulance and police) in response to urgent situations within a given area (Ontario Provincial Police, 2009). They are located in centres available by telephone 24 hours a day, 7 days a week. When communication workers respond to telephone enquiries, they receive information from distressed callers and are often the first point of contact in an emergency. With this information, they dispatch emergency assistance, and prioritize assistance based on the urgency of the situation and availability of responders. They are both similar to, and different from, other emergency responders. Similar to other emergency workers, they work rotating shifts and are often the first point of contact for individuals in emergency situations. They also provide support to distressed individuals, use problem-solving, stress management, prioritization, and multi-tasking to manage the situation (Ontario Provincial Police, 2009); however, they do not have face-to-face contact with the individuals to which they are providing support. They rely solely on verbal communication to obtain information and operate at a distance which does

not allow the same sense of control that other emergency responders have. As a result, communication workers must rely heavily on the questions they pose and what they hear in the caller's language, voice, and surroundings to assess and respond. Since they are always the first contact, they rarely learn of the outcomes of the incidents with which they assist.

In general terms, workplace stress can be viewed as a process representing an individual's responses triggered by perceived lack of resources to solve a problem (Dalton, Elias, & Wandersman, 2007), and can be associated with short-term responses that are physiological (e.g., elevated blood pressure), psychological (e.g., rigidity) and behavioural (e.g., substance use; LaMontagne, Keegel, Louie, & Ostry, 2010). Burnout is the response to ongoing stress, causing a deterioration or depletion of emotional and cognitive resources (Shirom, 2003). If stress can lead to burnout, leading to increased mental and physical health problems, effective coping mediates these issues (Dalton, Elias, & Wandersman, 2007). In the existing literature, there is a large body of research describing the effects of stress, coping and burnout for emergency responders (such as police officers, fire responders, and ambulance workers), health care workers (such as hospital nurses and physicians), and mental health workers (such as psychiatric nurses, counsellors, and front-line staff) (see Swider & Zimmerman, 2010 for example). The literature, however, associated specifically with communication workers is sparse. Existing literature is largely related to critical incident stress and does not take into account the effects of occupational stress in response to everyday call taking and dispatch activities (Jenkins, 1997; Kapucu & Van Wart, 2006; Halpern, Gurevich, Schwartz, & Brazeau, 2008). Although these occupations have similar characteristics to those of communication workers, coping experiences can vary (Folkman, & Moskowitz, 2004), and the lack of research in this area makes it considerably more difficult to understand this particular group's experience of coping, or how to develop appropriate intervention strategies.

Workplace Characteristics of Communication Workers

There are several characteristics that seem to contribute to workplace stress among communication workers. As previously noted, these characteristics include shift-work, secondary trauma exposure, lack of non-verbal cues, emotional labour, hypervigilance, and lack of control.

Shift-work. Shift-work challenges an individual's ability to obtain a good quality sleep (Moorcroft, 2003). Many shift workers experience poor quality and quantity of sleep due to disrupted circadian rhythms (Moorcroft, 2003). Communication workers are required to provide continuous call taking around the clock. Shift work disturbs their circadian rhythms and many suffer from a condition known as 'shift lag', or desynchrony (Berger & Hobbs, 2006). In general, sleep that is obtained by shift-workers is of poorer quality because it is fragmented by arousals (Moorcroft, 2003). Sleep disturbances in shift-workers expose them to physical, mental, as well as emotional and social stress, and evoke significant problems with mood, health, mental skills and performance (Harrington, 1994).

Secondary trauma. Emergency responders are routinely exposed to primary trauma—the first-hand exposure to a tragic event resulting in experienced traumatic symptoms (Conner, 2007). Similarly, communication workers are at higher risk for experiencing secondary trauma (Jenkins, 1997)—where individuals do not typically witness the event themselves but may be traumatised through reading, hearing or talking about the event.

The diagnostic criteria for post-traumatic stress disorder (PTSD) in the DSM-IV (American Psychiatric Association, 1994) recognizes that learning about trauma, experienced by a family member or close friend, can elicit symptoms of PTSD. It has also been noted that secondary trauma can be a result of engaging empathetically with anyone who may have experienced trauma (Pearlman & Saakvitne, 1995). Similarly, communication workers routinely experience traumatic events through listening to the experiences of their callers (Lanier, 2008). Furthermore, compassion fatigue has been found to occur among those who have experienced secondary trauma with jobs in care-giving roles (like communication workers), where the worker focuses too much on others, without taking care of themselves (Compassion Fatigue Awareness Project, 2010).

Several symptoms are associated with secondary trauma and lack of self-care (i.e., utilizing self-awareness to address one's physical, mental, and emotional needs; Compassion Fatigue Awareness Project, 2010). Individual symptoms can include excessive blaming, bottled up emotions, isolation from others, complaints about administrative functions, poor self-care, re-occurrence of nightmares, flashbacks to traumatic event, and difficulty concentrating, chronic physical ailments such as gastro-intestinal problems, and recurrent colds. Among staff, these difficulties can result in high absenteeism, desire to break company rules, lack of flexibility, negativism towards management, and an inability to believe improvement is possible.

Lack of nonverbal cues. Those in helping professions (e.g., communication workers) communicate much of

their attending and listening through non-verbal behaviours, and their clients are often observed through non-verbal behaviour to determine what they are experiencing (Hill, 2009). There is some research to support the contention that some may rely more heavily on either verbal or nonverbal cues when detecting stress in others (Vande, Creek, & Watkins, as cited in Knapp & Hall, 2010). In addition, researchers (Archer & Akert, as cited in Hill, 2009) have suggested nonverbal behaviours have a superior role in communicating emotions than do verbal behaviours.

Emotional labour. Emotional labour is emotional regulation, and the display of particular emotions as part of one's job (Hochschild, as cited in Opengart, 2005). This concept is highly applicable to the work of communication workers who are expected to maintain a calm demeanour, and rational problem solving, when faced with crisis situations (Shuler & Davenport-Sypher, 2000). The challenge is greatest for those who, on the inside feel the emotional effects of the content and experience of the caller in crisis, while acting as if they are not affected. Emotional labour becomes burnout when the individual can no longer separate feelings of personal distress from the experience of the client (Kovacs, Kovacs & Hegedus, 2010).

Hypervigilance. Among police officers, for example, emotional survival is constantly threatened because of awareness of potential danger (Gilmartin, 2002). Hypervigilance is necessary for survival as it increases adrenaline to promote alertness, improved hearing, faster reaction time, elevated heart rate, and increased blood sugar (Herman, 1992). Gilmartin (2002), found recovery from this state takes approximately 18 to 24 hours. Work schedules create a Hypervigilance Biological Rollercoaster® with long-term effects resulting in burnout symptoms. Communication workers must maintain this balance between emotional regulation (through emotional labour) and the need to be quick, alert, accurate, and efficient. These hypervigilant reactions lead to increased adrenaline and an elevated heart rate which are also similar to the immediate reactions of those who have experienced primary or secondary trauma (Herman, 1992).

Low control. According to the workplace Demand-Control Model (Karasek & Theorell, 1990), if the workplace consists of too much demand, and not enough control, then it can affect health and well-being. Organizational interventions which increase perceived job control, by furthering the extent to which employees had discretion and choice in their work, improved stress-related outcomes (Bond & Bunce, 2001). Communication workers must balance emotional content with rational decision-making, despite having little control over the types of calls they receive, or the outcome of these calls. As such, it would seem that increasing control in other aspects of the workplace would be significantly important to managing this Demand-Control Model, and thus their overall well-being.

Although a number of these characteristics are consistent with the communication worker population, many organizational interventions have been researched with other populations to address issues related to workplace stress. These organizational interventions have been classified into primary, secondary, or tertiary (Kendall et al., 2000, as cited by Caulfield, et al. 2004). Primary approaches include strategies to prevent occurrence of work stress, while secondary approaches are designed to change an individual reaction to stressors (e.g., by means of relaxation training and team building), and tertiary approaches are used to treat the symptoms of stress after they have been identified (Compassion Fatigue Awareness Project, 2010).

Discussion

Organizational approaches focused on three levels of prevention have been further developed into strategies within each level (De Jonge & Dollard, as cited in Caufield et al. 2004), emphasizing the individual, organization or both (Caulfield et al. 2004). For example, improving work content and career development, as well as workshops on communication, decision-making, and conflict management, are all initiatives that could be considered primary interventions at the organizational level. Peer support groups, coaching and career planning services, as well as critical incident group debriefings, could be considered secondary interventions at the organizational level. Other approaches like stress leave, sick leave, schedule changes, post-traumatic stress assistance programs, and individual/group psychotherapy, could all be considered tertiary approaches that would likely take place at the individual level.

Large companies, such as Google, have achieved positive results with workplace wellness programs (Reference for Business, 2012). These wellness initiatives are beneficial as an intervention strategy as they address a broad range of issues. For example, health problems, like cancer, heart disease, respiratory problems and hypertension, which have been linked to lifestyle choices such as smoking, poor nutrition, and lack of exercise, have shown to have a lowered frequency among those participating in workplace wellness programs (Reference for Business, 2012). In addition, absenteeism and turnover have been found to decrease, and productivity to increase (Reference for Business, 2012). Furthermore, wellness programs can be used as a primary, secondary, or tertiary or-

ganizational intervention. Similar results have also been achieved within the law enforcement profession.

Massachusetts State Police have produced interesting findings supporting the use of wellness programs through physical activity, time management, and compartmentalization strategies (Gilmartin, 2002). Paid physical activity is well received, utilized, monitored, and reinforced (Kotz, 2011). In addition, time management workshops, and clarity about time on the job and off the job, promote a sense of control and prioritization of aspects of one's life, allowing for the establishment of multiple roles and the ability to separate from work role when off the job (Boudo, 2009). Reduced sleep disturbance and increased healthy body mass were found among participants (Rajaratnam, et al., 2011), and the results were expected to also have protective effects against depression, anxiety and burnout (Kotz, 2011).

Regardless of the approach taken toward employing intervention strategies at an organizational level, communication centres need to assess the current climate within their organization in order to determine which themes seem to be causing stress via the characteristics previously discussed. It is quite possible that in one centre, communication workers could be feeling unqualified or unsupported in their role and could benefit from additional training, while another centre could be suffering from decreased morale and simple changes such as allowing 'dress down days', or allowing potluck dinners once a month, could help to mediate these issues. Of course, situations are often much more complex and may require multiple strategies in conjunction with policy changes or administrative reorganization.

In the meantime, while this topic is still fairly unresearched, and communication centres have not "bought into" these organizational intervention strategies, workers can do their own part at the individual level, such as maintaining a healthy lifestyle by including balanced meals/snacks throughout a shift, and in daily life, by ensuring adequate exercise. Engaging in physical activity within 24-hours of experiencing increased adrenaline would help combat the effects of the Hypervigilance Biological Rollercoaster® (Gilmartin, 2002), and also acts as a primary, secondary or tertiary intervention strategy at the individual level. Communication workers can also take an active role in understanding their ability to cope through increasing their own self-awareness and setting up their daily lives to be conducive to engaging in self-care routines, some of which could be beneficial to explore through the support of a counsellor (Compassion Fatigue Awareness Project, 2010).

Conclusion

While there is some evidence about the effectiveness of particular individual coping strategies among emergency service providers, and growing evidence of the impact of staff workplace wellness programs, the literature on workplace stress among communication workers is minimal. Although this population is often overlooked, the implications of not finding sound interventions is greater than absenteeism, turnover, and decreased productivity, as the real price we pay is public safety when these individuals are not at their best. In order to more fully explore strategies that would be most applicable to the communication worker population, more research would need to be conducted. Ideally, quantitative methods exploring the efficacy of primary, secondary or tertiary interventions, that are designed with their unique organizational profile and characteristics in mind, would be most beneficial, not only for the workers themselves, but also for our communities and our public safety.

References

American Psychiatric Association. (1994). Diagnostic and statistical manual of mental disorders (DSM-IV) (4th ed.). Washington, DC: Author.

Berger, A.M., & Hobbs, B.B. (2006). Impact of shift work on the health and safety of nurses and patients. Clinical Journal of Oncological Nursing, 10(4), 465–471.

Bond, F.W., & Bunce, D. (2001). Job control mediates change in a work reorganization intervention for stress reduction. Journal of Occupational Health Psychology, 6(4), 290-302.

Boudo, M. (Producer). (2009, May 12). The Hiller instinct: State police perks [7news WHDH]. Sunbeam Television Corp. Podcast retrieved from http://www1.whdh.com/features/articles/hiller/BO113072/

Caulfield, N., Chang, D., Dollard, M. F., & Elshaug, C. (2004). A Review of Occupational Stress Interventions in Australia. International Journal of Stress Management 11(2), 149-166.

Compassion Fatigue Awareness Project. (2010). Recognizing Compassion Fatigue. Retrieved from http://www.compassionfatigue.org/index.html

Conner, M. G. (2007). Dealing with the impact of secondary trauma on adolescents in residential schools and programs. Retrieved from http://www.crisiscounseling.org/traumaloss/TraumaResidential.htm

Dalton, J. H., Elias, M. J., & Wandersman, A. (2007). Community Psychology: Linking individuals and communities. (2nd ed.). Belmont, CA: Thomson Wadsworth.

Folkman, S., & Moskowitz, J. (2004). Coping: Pitfalls and promise. Annual Review of Psychology, 55, 745-774.

Gilmartin, K. M. (2002). *Emotional survival for law enforcement: A guide for officers and their families.* Tucson, AZ: E-S Press.

Halpern, J., Gurevich, M., Schwartz, B., & Brazeau, P. (2008). Interventions for critical incident stress in emergency medical services: A qualitative study. *Stress and Health, 25,* 193-149.

Harrington, J. M. (1994). Shift work and health-a critical review of the literature on working hours. *Annals Academia of Medicine Singapore*, *23*, 699-705.

Herman, J. (1992). *Trauma and recovery.* New York, NY: Basic Books.

Hill, C. E. (2009). *Helping skills: Facilitating exploration, insight, and action.* (3rd ed). Washington, D.C.: American Psychological Association.

Jenkins, S. R. (1997). Coping and social support among emergency dispatchers: Hurricane Andrew. *Journal of Social Behavior & Personality, 12*(1), 201-216.

Kapucu, N., & Van Wart, M. (2006). The evolving role of the public sector in managing catastrophic disasters: Lessons learned. *Administration & Society, 38*(3), 278-308.

Karasek, R., & Theorell.,T. (1990). *Healthy work: Stress, productivity, and the reconstruction of working life.* New York: Basic Books.

Knapp, M. L., & Hall, J. A. (2010). *Nonverbal communication in human interaction* (7th ed.). Boston, MA: Wadsworth.

Kotz, D. (December 20, 2011). Sleep disorders plague police officers: State police fare better than most. *The Boston Globe,* Retrieved from

http://www.bostonglobe.com/metro/2011/12/20/sleep-disorders-plague-police-officers/kpN2ZMMsdXm9BprQtwR5RI/story.

Kovacs, M., Kovacs, E., & Hegedus, K. (2010). Is emotional dissonance more prevalent in oncology care? Emotion work, burnout and coping. *Psycho-Oncology, 19*, 855-862.

LaMontagne, A. D., Keegel, T., Louie, A. M., & Ostry, A. (2010). Job stress as a preventable upstream determinant of common mental disorders: A review for practitioners and policy-makers. *Advances in Mental Health, 9*, 17–35.

Lanier, J. (2008). Take care of yourself. *Journal of Emergency Dispatch, July/August*, 23-28.

Moorcroft, W. H. (2003).*Understanding sleep and dreaming.* New York: Kluwer/Plenum.

Ontario Provincial Police. (2009). *Careers-Communication Centre.* Retrieved from http://www.opp.ca/ecms/index.php?id=286

Opengart, R. (2005). Emotional intelligence and emotion work: Examining constructs from an interdisciplinary framework. *Human Resource Development Review, 4(*1), 49-62.

Pearlman, L. A, & Saakvitne, K. W. (1995). *Trauma and the therapist: counter transference and vicarious traumatization in psychotherapy with incest survivors.* London: W. W. Norton.

Rajaratnam, S. M. W., Barger, L. K., Lockley, S. W., Shea, S. A., Wang, W., Landrigan, C. P.,... Czeisler, C. A. (2011). Sleep disorders, health, and safety in police officers. *Journal of the American Medical Association, 306*(23), 2567-2578.

Reference for Business (2012). *Stress.* Retrieved from http://www.referenceforbusiness.com/management/Str-Ti/Stress.html

Shirom, A. (2003). Job-related burnout. In J. C. Quick & L. E. Tetrick (Eds.), Handbook of occupational health psychology (pp. 245–265). Washington, DC: American Psychological Association.

Shuler, S., & Davenport Sypher, B. (2000). Seeking emotional labour: When managing the heart enhances the work experience. *Management Communication Quarterly,* 14(1), 50-89.

Swider, B. W., & Zimmerman, R. D. (2010). Born to burnout: A meta-analytic path model of personality, job burnout, and work outcomes. *Journal of Vocational Behavior, 76,* 487–506.

Optimizing well-being in retirement: Summarizing three decades of research on successful coping in retirement

Alyssa Herzig, MA, Concordia University

ABSTRACT

More retirees are spending more time in retirement. Unfortunately, for one third of retirees, retirement creates stress and leads to decreases in psychological well-being. The present article reviews the relationships between stress, coping, and well-being and aims to elucidate which coping strategies are most effective for dealing with the stressors of retirement. The literature evidences that no strategy is ubiquitously effective, but certain strategies, such as emotion-focused coping, are particularly useful for the loss-related stresses of aging and retirement. The literature also reveals that a person's perceptions of control moderate how coping and well-being are related. Strategic implementation of multiple compensatory strategies may be the most effective method to cope with the stressors of retirement.

RÉSUMÉ

De plus en plus de retraités passent de plus en plus de temps à la retraite. Malheureusement, pour le tiers d'entre eux, la retraite est une source de stress et se traduit par un étiolement de leur bien-être sur le plan psychologique. Cet article examine les relations qui existent entre le stress, la réponse au stress et le bien-être, et tente de cerner les stratégies de réponse les plus efficaces pour composer avec les facteurs de stress qui accompagnent la retraite. Ce qui a été écrit à ce sujet établit de façon patente qu'il n'existe pas de stratégie efficace à tout point de vue, mais que certaines, comme la réponse axée sur les émotions, sont particulièrement utiles pour le stress lié à la perte qui caractérise le vieillissement et le départ à la retraite. La littérature révèle également que la perception de contrôle des personnes vient relativiser le lien entre la réponse au stress et le bien-être ressenti. La mise en œuvre stratégique de multiples stratégies compensatoires pourrait être la façon la plus efficace de composer avec les facteurs de stress qui accompagnent la retraite.

Why do some people experience emotional declines in retirement while others thrive? With trends towards earlier retirements (Kim & Moen, 2001) and longer life expectancies (Statistics Canada, 2006), North Americans today can expect to spend 25% of their lives in retirement (Price, 2001). Retirement can be regarded as a final opportunity to enjoy satisfaction, fulfill potential, and live successfully. Many individuals do experience retirement as a positive life stage and enjoy improved self-esteem and psychological health in retirement (e.g., Reitzes, Mutran & Fernandez, 1996). The retirement stage, however, can be fraught with numerous potential sources of stress and many North Americans experience important difficulties adjusting to retirement. A consistent ratio of approximately one third of retirees report negative psychological consequences of retirement including declines in psychological well-being (Belgrave & Haug, 1995), dissatisfaction (e.g., Sheppard, 1976; Barfield & Morgan, 1974; 1978), and a feeling that they will never get used to the change of retirement (Cottrell & Atchley, 1969). The present article summarizes decades of research investigating which coping strategies may be effectively employed to mitigate the stressors of retirement and enhance psychological well-being during this life stage. Important stressors of retirement are described, coping strategies are defined, evidence supporting the effectiveness of four coping types is evaluated, and research is presented suggesting the benefits of strategic implementation of multiple coping strategies. Cognitive appraisal and perception of control in particular, are discussed for their potential roles in mediating stress and enabling retirees to select appropriate coping strategies.

Stress and Coping in Retirement

Retirees are confronted with important potential stressors in retirement often relating to loss of work and changes related to aging. Friedmann and Havighurst (1954) describe five benefits of work that people lose in retirement including income, a routine to

provide structure to life, a context for social interactions, a significant basis for personal identity and status, and a meaningful experience that can provide a sense of accomplishment. Compounding these losses are the challenges of aging. For many retirees, this life stage brings losses to cognitive and physical capacities, health, and loved ones (Baltes, 1997; Brandtstadter et al., 1993; Dhaval, Rashad, & Spacojevic, 2007). Considering these potentials for loss, it is not surprising that retirement has been associated with identity confusion (Brandtstädter & Renner, 1990), sadness, and decreased feelings of control (Drentea, 2002).

Fortunately, retirees can employ coping strategies to mediate the relationships between negative events and their well-being. *Coping strategies* are defined as the cognitive and behavioural approaches that individuals employ during stressful circumstances to restore their psychological or emotional stability (Folkman & Lazarus, 1980). *Coping* is understood to be a central method by which older adults adjust to the challenges of aging (Brandtstadter & Renner, 1990; Heckhausen & Schulz, 1995).

The well-established COPE self-report measure developed by Carver, Scheier, and Weintraub (1989) is highly regarded for its assessment of a variety of coping behaviours and for its multi-dimensional classification scheme. The COPE asks participants the extent to which they typically employ specific behaviours to cope with stress and assesses use of four higher-order coping strategies: 1) *Problem-Focused Coping,* defined as "efforts aimed at directly altering or modifying the source of stress," 2) *Emotion-Focused Coping,* defined as "cognitive and emotional efforts aimed at managing internal consequences of stress," 3) *Social Support Seeking*, defined as any social strategy including attempts aimed at "mobilizing social support," and 4) *Avoidance Coping*, defined as "cognitive and behavioural strategies for avoiding dealing with a stressor."[1] Confirmatory factor analysis supports the scale's structure in older adults (Dalton, 2005) and in new retirees (Herzig, 2009). Research investigating the effectiveness of each of these four types of coping for enabling retirees' and older adults' well-being is described below.

Evidence for the effectiveness of each coping type for promoting well-being in older adults and retirees

Of Carver's and colleagues' four coping strategies, problem-focused and emotion-focused coping strategies yield the most consistently positive associations with psychological health across populations (e.g.,

see reviews by Dalton, 2005; Herzig, 2009; Penley, Tomaka, & Wiebe, 2002). In the context of retirement and aging-related stressors, these strategies each appear beneficial for particular sources of stress. Manfredi and Pickett (1987) found that the majority of elderly adults' stress is caused by loss and conflict. They found that elderly adults who report more conflict use more problem-focused coping; whereas the elderly who report more loss use more emotion-focused coping. Dalton (2005) found that increased use of problem-focused coping was negatively associated with depression and worry in elderly adults experiencing lower levels of stress; while, emotion-focused coping predicted well-being in elderly adults experiencing high levels of stress. As the stressors of retirement often involve loss, such as work-related benefits and health, retirees may find emotion-focused strategies particularly effective for managing their cognitive and emotional reactions to these stressors. Consistently, emotion-focused strategies have been shown to enable retirees to experience more emotional stability, happiness and satisfaction in their lives (Brandtstadter & Renner, 1990; Heckhausen, 1997; Heckhausen & Schulz, 1995).

Social support seeking strategies have inconsistent associations with well-being across populations. At times these strategies appear beneficial and other times they appear detrimental, contingent on the type of stressor and the quality of social support received (e.g., Chou & Chi, 2001; Husaini et al., 1991; Sharpley & Yardley, 1999). Gender differences may also account for inconsistencies. For example, Hobfoll, Dunahoo, Ben-Porath & Monnier (1994) found that women have different social support seeking strategies and these strategies differently predict well-being for each gender. Consistent with this, Herzig (2009) found that increased use of social-support seeking strategies was associated with well-being in male but not female retirees male retirees who employed social support seeking were more likely to use problem focused strategies, whereas the female retirees' use of social support seeking was associated with increased avoidance. The broad category of social-support seeking is composed of three specific strategies, including instrumental support seeking, emotional support seeking, and venting subscales, which correlate differently with well-being (e.g., Ratliff-Crain & Baum, 1990). Dalton (2005) describes the importance of soliciting quality social support. For example, complaining to others and obtaining poor advice would likely be less helpful than receiving emotional support, helpful encouragement, and resources to enable later

---

[1] The complete COPE (Carver et al., 1989) with items and subscale loadings is available online: http://www.psy.miami.edu/faculty/ccarver/sclCOPEF.html.

problem solving. Dalton found that elderly adults' use of social support strategies was particularly effective when employed to gain resources necessary for later problem solving. In summary, evidence indicates that the effectiveness of social-support strategies in retirement varies with quality of received support and how they are combined with other strategies.

Results across studies indicate that avoidance strategies appear to be the least effective coping methods amongst retirees. Most research indicates that retirees' tendency to use avoidance coping has been associated with negative psychological well-being and is thought to prevent adjustment to retirement (e.g., Herzig, 2009; Sharpley & Yardley, 1999). This pattern is consistent in other populations. For example, in their meta-analytic review of studies on 26 samples of adults, Penley et al., (2002) found that increased used of avoidance strategies were negatively associated with psychological health. Conversely, Dalton (2005) found elderly adults' use of Carver's and colleagues' avoidance coping strategies was not associated with detrimental outcomes when used in conjunction with problem-focused strategies. She interpreted her results as supporting the theory that disengagement from unsolvable goals can be adaptive, particularly when it facilitates re-engagement in alternative goals (Carver et al., 1989; Moscowitz et al., 1996; Wrosch, Scheier, & Carver, 2003). Literature assessing the related concept of goal disengagement provides strong evidence that retirees' and older adults' disengagement from unattainable goals can be particularly adaptive for managing regret and freeing up resources for re-engagement in adaptive goals (e.g, Farquhar, Wrosch, Pushkar, & Li, 2013; Gagner, Wrosch, & Brun de Pontet, 2011; Wrosch et al., 2003). In summary, there is significant evidence indicating that the general indiscriminate tendency to avoid is detrimental to well-being in all life stages including retirement; however, strategic use of avoidance may be effective when used wisely and in combination with other strategically selected coping strategies.

In summary, some strategies, such as emotion-focused and problem-focused coping, appear more effective across more contexts than other strategies, and provide compelling evidence for ranking the helpfulness of particular coping strategies. Nonetheless, results across studies indicate that no coping strategies are ubiquitously effective or detrimental for older adults and retirees. This finding is consistent with results in other populations (Lazarus & Folkman, 1984; Penley et al., 2002). A conclusion drawn from the aforementioned evidence was the importance of choosing strategies appropriate for the type of stressor and combining strategies effectively. Brand-

stadter (1989), Brandstadter and Renner (1990) and Heckhausen and Schulz (1995) indicate that effective use of complimentary coping strategies for managing stress will become increasingly important as retirees experience declines in physical and cognitive resources. Effective coping has been described as flexible identification and use of a combination of complimentary and supplementary strategies (e.g., Somerfield & McCrae, 2000) and appropriate use should depend on whether the stressor is a harm, loss, or threat (Folkman & Lazarus, 1980) and on its severity (Terry, 1991). In accordance with this notion, Dalton (2005) investigated dispositional coping profiles in order to determine what coping repertoires were associated with well-being in elderly adults. She found that the most effective copers were those who had high perceptions of control and who strategically employed high levels of supplementary emotion-focused, problem-focused, and social-focused strategies to adapt to the challenges of aging.

Cognitive Appraisal and Perceived Control moderates coping with retirement and well-being

Albert Ellis proposed his well-supported theory that it is people's interpretation of events, rather than events themselves, that tend to cause distress, anxiety or depression (e.g., Ellis, 2001). Cognitive appraisals of events have been shown to mediate the hypothalamic-pituitary-adrenal axis stress response and the emotional, physiological, and behavioural experiences of stress (Gaab, Rohleder, Nater, & Ehlert, 2005; Rohrmann, Hennig, & Netter, 1999). Stress is experienced when one's environment is appraised as threatening to one's well-being (Lazarus & Folkman, 1984). Therefore, individual differences in *perceived* threat plays an important role in experienced stress, in adjustment to retirement, and as we'll see, in coping strategy selection.

Retirees' beliefs about their degree of control are particularly important cognitive appraisals that influence the relationships between stress, coping, and well-being. In fact, perception of having control predicts adaptive functioning better than actual control (Averill, 1973; Burger, 1989). Langer (1979, p. 306) states that "the effects of objectively losing or gaining control will only have psychological significance if the person recognizes the gain or loss." What does it mean to believe you have control? Skinner (1996) confirmed in an extensive analysis of the control literature that to have high perceived control people must meet two criteria: 1) they must view the world as structured and responsive and 2) they must perceive themselves as competent. Lachman and Weaver (1998) defined these criteria as 1) low Perceived Constraints and 2) high Personal Mastery, respectively, in

their widely used self-report measure for Personal Control.

How does perception of control moderate relationships between coping and well-being? If a retiree believes a source of stress is modifiable and that she can competently modify it, she will select and employ coping strategies accordingly. As well, her long-term beliefs about control may influence how skilled she becomes at using different strategies for unique stressful situations. Her beliefs about being in control influence her choice of coping strategies and how frequently, persistently, and efficaciously she employ the strategies (e.g., Compas, Malcame, & Fondacaro, 1988; Skinner, 1996). For example, Marziali and Donahue (2001) showed that people were more able to cope with the financial stressors of forced retirement when they perceived greater self-reliance and internal control and used more perseverance. As well, in adult populations, mastery beliefs predicted less use of avoidance coping (Ben-Zur, 2002; Marshall, 1991), the coping strategies thought to be least effective in most cases. These studies show that perceiving higher levels of control is generally beneficial to well-being by encouraging more effective coping.

Notably, when beliefs about control are false, high perception of control can lead to poor choice of coping strategies. In general, people who perceive control tend to use problem-focused strategies, and this is helpful when situations are truly controllable (Carver et al, 1989; Folkman & Lazarus, 1980; Patterson et al, 1990). This phenomenon has also been shown in laboratory studies. People who persistently apply problem-focused strategies to solve impossible laboratory tasks experience increased distress (e.g., Bandura, 1997; Brandtstadter & Renner, 1990; Collins et al., 1983). Whereas, people who perceive low control, employ increased emotion-focused strategies, such as positive re-appraisal and acceptance, which tend to be more effective for enabling well-being in uncontrollable situations, (e.g., Folkman & Lazarus, 1980; Forsythe & Compas, 1987). Similarly, retirees who recognize a goal as impossible can disengage from their impossible goal and put their energy towards the pursuit of new fruitful goals, resulting in improved well-being (e.g., Gagne, Wrosch, & Brun de Pontet, 2011). While further research is required to investigate incorrect control perception among retirees, research on other populations indicate that retirees who do not recognize when their goal is impossible may stubbornly persevere with their impossible goals, which may lead to distress. In summary, research suggests that a general tendency towards perceiving greater control would be beneficial as it may enable retirees to use problem-focused strategies more effectively. Yet, when no control exists, retirees would

likely benefit from an accurate recognition of their degree of control. This recognition would allow them to employ other strategies that may be more adaptive given the circumstance.

Conclusion

In summary, two insights emerge from the literature. First, problem-focused and emotion-focused coping appear more effective while there is less support for the effectiveness of social-support seeking and avoidance strategies for enabling well-being in retirement. Despite these findings, results from the literature would not recommend indiscriminate use of problem-focused or emotion-focused strategies. Rather, more successful copers appear to have a repertoire of many complimentary coping strategies and strategically select combinations of coping strategies for use in particular situations. For example, problem-focused strategies appear more appropriate for stresses caused by conflict and for goals that are attainable. Conversely, emotion-focused strategies and strategic avoidance may be more appropriate for loss-related stressors, when the external source of stress is uncontrollable, and when goals are unattainable. Avoidance and social support seeking strategies appear more beneficial when combined with re-engagement towards more appropriate goals and problem-focused coping. Second, in order to cope effectively with the stressors of retirement, retirees may benefit from a stable perception that a source of stress is controllable and s/he can competently influence it. Additionally, it appears as though retirees will need to accurately discern when a stressor is *not* controllable and employ emotion-focused, high quality social-focused coping, or strategic disengagement at these times. As retirement stressors can become increasingly loss-related and uncontrollable, accurate discerning and skillful application of emotion-focused strategies and high-quality social support would likely become increasingly useful. Notably, coping research is often correlational and therefore causation between coping strategy use and well-being cannot be inferred. As well, as indicated above, additional research is required to further support the relationships between accurate perception of control and effective coping selection in retirement populations. The results of research described above do indicate clear patterns suggesting effective coping skills in retirement.

Dalton (2005) and Somerfield and McCrae (2000) review interventions aimed at teaching older adults to develop and strategically employ a repertoire of coping strategies. They indicate that an effective repertoire should consist of a variety of compensatory coping strategies that can be tailored to unique con-

texts. They suggest that interventions target individuals with insufficient coping repertoires to teach them compensatory strategies. Such an approach may be similarly beneficial for enabling retirees to cope more effectively with retirement. As indicated by the present review, retirees would likely also benefit from learning how to more accurately discern the extent to which they have control over their situations and how to select coping strategies based on their level of control. Research would be required to investigate the effectiveness of interventions in retirees.

References

Averill, J. R. (1973). Personal control overaversive stimuli and its relationship to stress. *Psychological Bulletin, 80,* 286-303.

Baltes, P. B. (1997). On the incomplete architecture of human ontogenesis: Selection, optimization and compensations as foundations of developmental theory. *American Psychologist, 52,* 366-381.

Bandura, A. (Eds.) (1997). Exercise of personal and collective efficacy in changing societies. New York: Cambridge University Press.

Barfield, R.E. & Morgan, J.N. (1974). Early retirement: The decision and the experience and a second look. Survey Research Center, Institute for Social Research, University of Michigan, Ann Arbor, Michigan.

Barfield, R.E. & Morgan, J.N. (1978). Trends in satisfaction with retirement. *The Gerontologist*, *18*, 19-23.

Belgrave, L.L. & Haug, M.R. (1995). Retirement transition and adaptation: Are health and finances losing their effects? *Journal of Clinical Geropsychology, 1(1),* 43-66.

Ben-Zur, H. (2002). Coping, affect and aging: The roles of mastery and self-esteem. *Personality and Individual Differences, 32,* 357-372.

Brandtstädter, J. & Renner, G. (1990) Tenacious goal pursuit and flexible goal adjustment: Explication and related analysis of assimilative and accommodative strategies of coping. *Psychology and Aging, 5(1)*, 58-67.

Burger, J. M. (1989). Negative reactions to increases in perceived personal control. *Journal of Personality and Social Psychology, 56,* 246-256.

Carver, C.S., Scheier, M.F., & Weintraub, J.K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology, 56,* 267-283.

Chou, K.-L., & Chi, I. (2001). Stressful life events and depressive symptoms: Social support and sense of control as mediators or moderators? *International Journal of and Human Development, 52, 155-171.*

Collins, D.L., Baum, A., & Singer, J.E. (1983). Coping with chronic stress at Three Mile Island: Psychological and biochemical evidence. *Health Psychology, 2,* 149-166.

Compas, B.E., Malame, V.L. & Fondacaro, K. (1988). Coping with stressful events in older children and young adolescents. *Journal of Consulting and Clinical Psychology, 56, 405-411.*

Cottrell, F. & Atchley, R.C. (1969). *Women in retirement: A preliminary report.* Scripps Foundation: Oxford, Ohio.

Dalton, C. (2005). *Dispositional coping, psychological health and aging: Comparisons across age and coping profiles.* Unpublished doctoral dissertation, Concordia University, Montreal.

Dhaval, D., Rashad , I., & Spasojevic, J. (2007). The Effects of Retirement on Physical and Mental Health Outcomes. *Andrew Young School of Policy Studies Research Paper Series No. 07-35.*

Drentea, P. (2002). Retirement and mental health. *Journal of Aging and Health, 14 (2),* 167-194.

Ellis, Albert (2001). Overcoming Destructive Beliefs, Feelings, and Behaviors: New Directions for Rational Emotive Behavior Therapy.

Folkman, S. (1984). Personal control and stress and coping processes. A theoretical analysis. *Journal of Personality and Social Psychology, 46,* 839-852.

Folkman, S. & Lazarus, R.S. (1980). An analysis of coping in a middle-aged community sample. *Journal of Healthy and Social Behavior, 21*, 219-239.

Forsythe, C. J., & Compas, B. E. (1987). Interaction of cognitive appraisals of stressful events and coping: Testing the goodness of fit hypothesis. *Cognitive Therapy and Research , 11,* 473-485.

Friedmann, E. & Havighurst, R. (1954). The meaning of work and retirement, University of Chicago Press, Chicago.

Gaab, J., Rohleder, N., Nater, U., & Ehlert, U. (2005). Psychological determinants of the cortisol stress response: The role of anticipatory cognitive appraisal. *Psychoneuroendocrinology, 30, 6,* 599-610.

Gagne, M., Wrosch, C., & Brun de Pontet, S. (2011). Retiring from the family business: The role of goal adjustment capacities. *Family Business Review, 24,* 292-304.

Heckhausen, J. (1997). Developmental regulation across adulthood: Primary and secondary control of age-related challenges. *Developmental Psychology, 33,* 176-187.

Heckhausen, J. & Schulz, R. (1995). A life-span theory of control. *Psychological Review, 102*, 284-304.

Herzig, A.J. (2009). *Dispositional coping and personal control: A sex-based study predicting depression in recent retirees.* Unpublished Master's Thesis, Concordia University, Montreal.

Hobfoll, S.E., Dunahoo, C.L., Ben-Porath, Y. & Monnier, J. (1994). Gender and coping: The dual-axis model of coping. *American Journal of Community Psychology, 22 (1), 49 82.*

Husaini, B.A., Moore, S. T., Castor, R. S., Neser, W., Whitten- Stoval, R., Linn, J. G., et al., (1991). Social density, stressors, and depression: Gender differences

among the Black elderly. *Journal of Gerontology, 46,* P236-P242.

Kim, J.E. & Moen, P. (2002). Retirement transitions, gender, and psychological well-being a life-course, ecological model. *Journal of Gerontology, 57B (3),* 212–222.

Lachman, M.E. & Weaver, S.L. (1998). The sense of control as a moderator of social class differences in health and well-being. *Journal of Personality and Social Psychology, 74 (3),* 763-773.

Langer, E. (1979). The illusion of incompetence. In L. Perlmutter & R. Monty (Eds.), *Choice and perceived control (pp.* 306). Hillsdale, NJ: Erlbaum.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping.* New York: Springer.

Manfredi, C. & Pickett, M. (1987). Perceived stressful situations and coping strategies utilized by the elderly. *Journal of Community Health Nursing, 4(2),* 99 – 110.

Marshall, G.N. (1991). A multidimensional analysis of internal health locus of control beliefs: Separating the wheat from the chaff? *Journal of Personality and Social Psychology, 61,* 483-491.

Marziali, E. & Donahue, P. (2001). Resilience Indicators of Post Retirement Well-Being. *Social and Economic Dimensions of an Aging Population Research Papers with number 49.*

Patterson, T. L., Smith, L. W., Grant, I., Clopton, P., Josepho, S., & Yager, J. (1990). Internal vs.

external determinants of coping responses to stressful life-events in the elderly. *British Journal of Medical Psychology, 63,* 149-160.

Penley, J.A., Tomaka, J., & Wiebe, J.S. (2002). The association of coping to physical and psychological health outcomes: A meta-analytic review. *Journal of Behavioural Medicine, 25,* 551-603.

Price, C.A. (2001). Women and retirement: Relinquishing professional identity. *Journal of Aging Studies, 14 (1),* 81-101.

Reitzes, D.C., Mutran, E.J., & Fernandez, M.E. (1996). Does retirement hurt well-being? Factors influencing self-esteem and depression among retirees and workers. *The Gerontologist, 36 (5),* 649-656.

Rohrmann, S., Hennig, J., & Netter, P. (1999). Changing psychobiological stress reactions by manipulating cognitive processes. *Int. J. Psychophysiol., 33,* 149–161.

Sheppard, H.L. (1976). Work and retirement. In R.H. Binstock & E. Shanas (Eds.), *Handbook of aging and the social sciences* (pp. 286-309). New York: Van Nostrand Reinhold Company.

Skinner, E.A. (1996). Personality processes and individual differences: A guide to the construct of control. *Journal of Personality and Social Psychology, 71 (3),* 549-570

Somerfield, M.R., & McCrae, R.R. (2000). Stress and coping research: Methodological challenges, theoretical advances, and clinical applications. *American Psychologist, 55,* 620-625.

Statistics Canada. (2006). A portrait of seniors in Canada (Catalogue No. 89-519-XPE).

Ottawa, Ontario: Turcotte, M., & Schellenberg, G. Terry, D. J. (1991). Coping resources and situational appraisals as predictors of coping behavior.

Personality and Individual Differences, 12, 1031-1047.

Wrosch, C., Scheier, M. F., Carver, C. S., & Schulz, R. (2003). The importance of goal disengagement in adaptive self-regulation: When giving up is beneficial. *Self and Identity, 2*, 1-20.

A Self-Study of the Mental Health and Well-Being of Psychology Graduate Student In Canada

Jen Rouse, M.A.
Matilda Nowakowski, Ph.D.
Madelaine Burley, M.A.
Leanne Wilkins, M.A.
Ryerson University

ABSTRACT

A quantitative self-study was conducted by a graduate student group to examine stress and well-being within a graduate psychology program. A self-report survey was adapted from an Ottawa university psychology group's questionnaire. Students from clinical and experimental psychology streams at a large urban university (N=24) responded to an online survey assessing the following domains often linked to health, stress, and coping: Demographics, lifestyle (e.g., sleep, exercise, diet, finances, coping, resources), academic stress, and access to mental health and well-being services. The majority of students endorsed the following: Poor sleep and eating habits, weekly exercise, heavy workload, financial constraints, and high stress. Half of all participants indicated that they had a well-balanced life; overall, three-quarters were satisfied with their academic life. Findings from the present self-study contributed to the development of targeted interventions. Future studies should explore students' stress and well-being in more detail, across multiple institutions, and develop student-driven solutions.

RÉSUMÉ

Une auto-analyse quantitative a été réalisée par un groupe d'étudiants aux cycles supérieurs afin d'examiner le stress et le sentiment de bien-être ressentis par ceux qui sont inscrits à un programme d'études supérieures en psychologie. Pour les besoins, un rapport d'expertise à remplir soi-même a été mis au point à partir d'un questionnaire utilisé par un groupe d'étudiants en psychologie de l'Université d'Ottawa. Vingt-quatre étudiants d'une grande université urbaine évoluant dans les branches de la psychologie clinique et de la psychologie expérimentale ont répondu à un sondage en ligne qui avait pour objet d'évaluer certains aspects de leur vie liés à la santé, au stress et aux façons d'y réagir : des données démographiques, des détails sur le style de vie (par exemple, le sommeil, l'exercice, le régime, les questions financières, les façons de réagir, les ressources), le stress associé aux études et l'accès aux services de santé et de bien-être mentaux. La majorité des étudiants ont accusé les traits suivants : de mauvaises habitudes de sommeil et d'alimentation, de l'exercice une fois par semaine, une charge de travail considérable, des contraintes financières et beaucoup de stress. La moitié des étudiants ont indiqué qu'ils avaient une vie bien équilibrée; au final, trois quarts des sondés se sont dits satisfaits de leur vie universitaire. Les constatations découlant de cette auto-analyse ont contribué à la mise au point d'interventions ciblées. Des études ultérieures examineront de façon plus approfondie le stress et le sentiment de bien-être ressentis par les étudiants de divers établissements, et tenteront de mettre au point des solutions à partir des observations formulées par les étudiants.

Introduction

Being a graduate student can be stressful (Oswalt & Riddock, 2007). There are competing obligations to contend with, including coursework, conducting research, writing papers, and teaching undergraduate students. Graduate students are at a developmental stage where social demands, such as maintaining close relationships, starting a family, and caring for elderly parents, are increasing. Graduate students often report difficulties balancing all their obligations, which can contribute to feelings of guilt, anxiety, and depression (Haynes, Bulosan, Citty, & Grant-Harris, 2012; Offstein, Larson, McNeill, & Hasten, 2004). They also commonly face financial stressors and a lack of understanding from family and friends (Offstein et al., 2004). Although students often express interest in seeking help to manage stress, only a small percentage follow through. Reasons cited for

not seeking professional mental health support include fear of stigma, lack of time, waitlists, and lack of knowledge about available resources (Stecker, 2004).

The Mental Health and Well-Being Group (MHWBG)

In recognition of these issues, in 2009, graduate students in clinical and psychological science streams at Ryerson University founded a group to enhance students' experience throughout graduate school. The MHWBG organizes events intended to support students and enhance well-being in the psychology graduate program. Examples of past events include seminars focused on navigating the first year of graduate studies and the development of a peer mentorship program to aid the transition to graduate school. Feedback on MHWBG events has been overwhelmingly positive thus far.

Cahir and Morris (1991) found that among psychology graduate students, self-reported time pressure explained the most variance in stress levels followed by negative feedback from faculty and financial difficulties. More recently, McKinzie, Altamura, Burgoon, & Bishop (2006) reported that poor sleep, lack of exercise, and low mood were all significantly related to higher stress levels amongst psychology graduate students. Nelson, Dell'Oliver, Koch, & Buckler (2001) also found that the presence of social support and good coping skills decreased stress levels and increased success amongst clinical psychology graduate students. Well-being is important for students in psychology graduate programs because these programs train future psychologists who will promote mental health and well-being in society. Interestingly, despite training in psychopathology and psychological treatment, guidance on personal well-being is not standard in psychology programs. Consequently, there is a need to better understand the experience of stress and well-being amongst students in graduate psychology programs and to identify relevant resources for these students. Since the last study to systematically investigate the experience of stress and well-being amongst psychology graduate students was published in 2006, it is increasingly important to determine an up-to-date understanding of these concepts. The purpose of the current study is to expand existing information about the experiences of psychology graduate students. The present quantitative self-study assessed lifestyle factors (i.e., sleep, eating habits, exercise, work, and financial concerns), overall stress level, access to confidential mental health services, and satisfaction with life at school amongst graduate students in a psychology program at Ryerson University.

Method
Procedure

A recruitment e-mail detailing the purpose and methods of this study was sent to all graduate students in the psychology program at a large urban university in Toronto. The e-mail provided a secure link to an online, anonymous self-report survey described below. Participants who gave informed consent to participate were given access to the online survey. A written debriefing form was provided to all participants. All procedures were approved by the Ryerson University Research Ethics Board.

Materials

Some questions for the online survey were from a mental-health and well-being survey previously developed by graduate students in a psychology program in Ottawa. This survey included 38 questions about the following: demographic variables, lifestyle (e.g. sleep, exercise, diet, finances), coping skills, academic stress and satisfaction, and access to mental health and well-being services. New items were developed to include questions about sleeping, eating, and exercise habits, hours of work per week, and financial concerns.

Participants

Sixty-eight psychology graduate students were given access to the survey and twenty-four psychology graduate students (18 clinical and 6 psychological science) completed the survey (35% response rate). Five (16.7%) students were in MA year one, eight (29.2%) in MA year two, six (20.8%) in PhD year one, and seven (25%) in PhD year two. Two (8.3%) students did not indicate their program year. The program from which students were recruited is new and was not yet at full capacity when the survey was conducted; therefore, no students were further along in the program than second year PhD. Six (20.8%) students identified as single, one (4.2%) identified as being in a short-term relationship, and 16 (58.3%) in a long-term relationship. Five (16.7%) did not indicate their relationship status.

Results
Lifestyle Factors

Participants were asked nine questions about lifestyle factors, including sleep, eating, exercise, and work habits. Descriptive statistics were gathered for each question, the results of which are outlined below and summarized in table 1.

Sleep. Approximately one-third (29.2%) of students reported sleeping eight hours per night, one-third (33.3%) seven hours per night, and one-third (33.3%) six hours per night. One participant indicated regu-

Table 1

Summary of self-reported lifestyle factors

Domain	Percentage
Number of hours slept per night	
>8	4.2
8	29.2
7	33.3
6	33.3
Description of eating habits	
"not very healthy"	8.3
"somewhat healthy"	20.8
"average"	29.2
"pretty healthy"	37.5
"very healthy"	4.2
Number of times exercised per week	
3	29.2
2	29.2
1	12.5
<1	25.0
Number of hours worked per week	
<30	4.2
31-40	12.5
41-50	29.1
51-60	29.2
60-70	16.7
>70	4.2

Notes: values reported as percentages; *N* = 24.

larly getting more than eight hours of sleep per night. Half of the participants endorsed sleeping five hours or less per night an average of once or twice per week. Overall, fifty-eight percent of students indicated that, on average, they do not get enough sleep.

Eating habits. Half (50.0%) of participants responded that they were unhappy with their current eating habits. Students varied on whether or not they ate a healthy diet: two (8.3%) indicated "not very healthy," five (20.8%) indicated "somewhat healthy," seven (29.2%) indicated "average," nine (37.5%) indicated "pretty healthy," and one (4.2%) indicated "very healthy." When asked about barriers to eating healthier, lack of time was the most commonly endorsed barrier (52.2%), followed by cost (13.0%), and lack of access at the university (4.3%). An additional 4.3% indicated that they simply do not like to cook, while 17.4% reported that there were no barriers to healthy eating.

Exercise habits. Most students identified exercising on a weekly basis, with seven participants (29.2%) indicating exercising three times per week, seven (29.2%) twice per week, and three (12.5%) once per week. Six participants (25.0%) indicated that they

exercise less than once per week, which may range from no exercise to only a few times per month. Students endorsed participating in a range of physical activities during the regular school year, including cardiovascular activities (61.9%), weight training (33.3%), yoga or pilates (28.6%), swimming (23.8%), team sports (14.3%), fitness classes (14.3%), outdoor sports (9.5%), and dancing (9.5%).

Work habits. Participants were asked how many hours they engaged in work/school related activities. Overall, students' work week varied. However, 71% indicated that they worked 46 hours per week or more: greater than 70 hours (4.2%), 60-70 hours (16.7%), 56-60 hours (16.7%), 51-55 hours (12.5%), 46-50 hours (20.8%), 41-45 hours (8.3%), 36-40 hours (4.2%), 31-35 hours (8.3%), and less than 30 hours (4.2%).

Financial Concerns

Seventy-one percent of students indicated they worried about money. While a large proportion of students (41.7%) were satisfied with their current income, the majority (58.3%) felt that their income was insufficient. Students identified a range of financial concerns, including: lack of financial stability, living with parents, previously accrued student debt, paying off debt, limited income to support oneself, high cost of living in Toronto, paying rent and bills on time, not receiving future funding, and concerns about funding running out.

Stress and Well-Being in Graduate School

Students were asked to describe their overall stress level (see Figure 1). Slightly above half of students were not comfortable with the level of stress they experienced (54.2%). Only half of students felt they had a well-balanced life. The survey inquired about participants' satisfaction with their life at school in particular (see Figure 2). Three-quarters of participants (75.0%) were "pretty satisfied" or "very satisfied" with their life at school; the remaining quarter was "somewhat satisfied" (12.5%), "not very satisfied" (8.3%), or "not at all satisfied" (4.2%).

(Suggested placement for figures 1 & 2)

Participants were queried about confidential access to mental health and well-being services. The majority of students (87.5%) acknowledged the importance of having access to confidential mental health and well-being services and the majority (73.9%) indicated that they would like better access to confidential mental health care.

Lastly, participants were asked to endorse items they felt were vital to maintaining their health and wellness, choosing as many options as applied; their responses, ordered by popularity are represented in

Figure 1
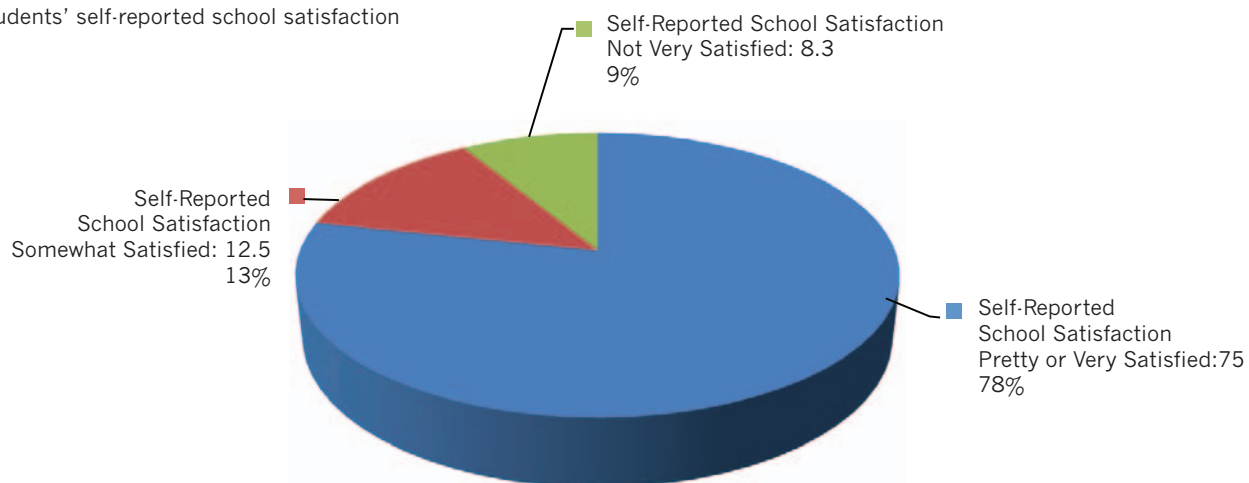Students' self-reported stress level

Self-Reported Stress Level
Somehwhat Low: 8.3
8%

Self-Reported Stress Level
Very High: 16.7
17%

Self-Reported Stress Level
Moderate: 33.3
33%

Self-Reported Stress Level
High: 16.7
17%

Self-Reported Stress Level
Somewhat High: 25
25%

Figure 2
Students' self-reported school satisfaction

Self-Reported School Satisfaction
Not Very Satisfied: 8.3
9%

Self-Reported
School Satisfaction
Somewhat Satisfied: 12.5
13%

Self-Reported
School Satisfaction
Pretty or Very Satisfied:75
78%

Figure 3
Domains endorsed as vital to health and wellness

95.5   90.9   86.4   86.4   81.8   81.8   72.7   72.7   59.1
A   B   C   D   E   F   G   H   I

Proportion of Students endorsing:
A: Social Support; 95.5
B: Leisure/Recreation Time; 90.9
C: Nutrition; 86.4
D: Exercise; 86.4
E: Time Management; 81.8
F: Stress Management; 81.8
G: Psychological/Emotional Health; 72.7
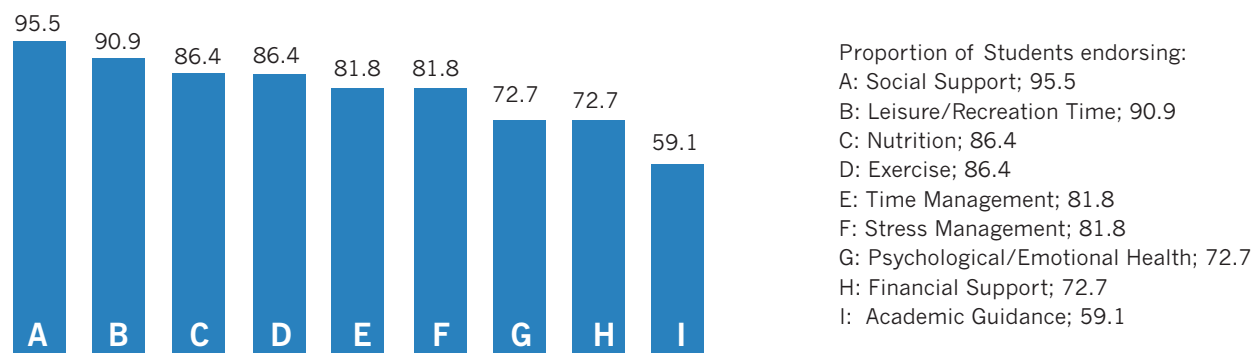H: Financial Support; 72.7
I: Academic Guidance; 59.1

Figure 3. When asked to identify the three most important items for maintaining health and wellness, psychological/emotional health and stress management were endorsed most (nine participants), followed by academic guidance and financial support (six participants), time management and leisure/recreation time (five participants), and exercise, nutrition, and social support (two participants).

(Suggested placement for figure 3)

Discussion

The aims of this self-study were to increase understanding of the experience of stress and well-being among graduate students in a psychology program and to elucidate what supports best enhance well-being. Consistent with past reports on student wellness studies, a substantial portion of our sample endorsed concerns about sleep and eating habits, coping with stress, finances, and accessing mental health services.

Students voiced concerns over lifestyle factors including the number of hours they slept and many were unhappy with their current eating habits. Barriers to healthy eating included lack of time, cost, and ease of finding healthy food choices on campus. The majority of students indicated that they worked 46 hours per week or more, substantially more than the national average of 36.6 hours (Human Resources and Skills Development Canada, 2013). The majority of students reported that they worried about finances and felt their income was insufficient. Concerning stress, approximately half of the students reported discomfort with their current stress. Further, the majority of students reported that they highly valued confidential access to mental health services. Many of these concerns echo those reported by students across academic disciplines (Murphy, Gray, Sterling, Reeves, & DuCette, 2009). In spite of the concerns reported, half of students reported being comfortable with their current level of stress and the majority of students indicated they were satisfied with their school life. Students identified access to confidential mental health services, academic guidance, financial support, time management, and recreation/leisure as the most important resources to maintaining their wellness.

Although future studies are needed to obtain students' perspectives on how the MHWBG, psychology department and university could best support wellness in these domains, this study illustrated how wellness research can be used by student groups to develop targeted interventions. Based on students' self-reported needs, the MHWBG developed annual stress-reduction seminars for students. Faculty within the department provided support and facilitated opportunities to provide student-driven suggestions to address the concerns endorsed in this survey. A follow-up survey and focus group will be conducted to more clearly identify the core issues related to the topics addressed in the current study and to elicit students' suggestions to help the department address concerns.

Data from studies such as this could also be used to improve curriculum in future years. Medical schools have begun to incorporate electives focused on self-care, stress reduction, and self-development. These electives have proven to be effective in decreasing students' self-reported experience of stress, anxiety, and depression and increasing well-being (Holm, Tyssen, Stordal, & Haver, 2010; Lee & Graham, 2001). Therefore, introduction of electives focused on self-care and well-being could be an important consideration for psychology training programs to include in their curriculum.

Limitations

Although this study has been helpful to the MHWBG in generating ideas about how to better serve students, it is not without limitations. The small sample size and low response rate limit the generalizability of the results to psychology graduate students. It would be prudent to expand the sample to include psychology graduate students from across Canada and graduate students in other disciplines (e.g., business, engineering, medical sciences, social sciences) to increase variability in the sample. It would be worthwhile exploring additional relevant research questions, such as exploring whether dispositional differences between graduate students in psychology and graduate students in other graduate programs moderate vulnerability to stress.

The development and psychometric evaluation of measures of graduate psychology student well-being are also needed. The survey used was developed for this study and psychometric properties of the survey have not been evaluated; as such, its reliability and validity are unknown. In addition, the wording of some questions were not clear, which rendered interpreting findings difficult. For example, participants were not asked if their current sleep patterns have changed since starting graduate school. However, since the majority of students reported they were not getting enough sleep and approximately half of the students reported sleeping five hours or less on a weekly or bi-weekly basis, we infer that poor sleep is related to graduate school (see Hurst, 2008; National Sleep Foundation, 2013). Moreover, because upper year PhD students were not included, it is not possible to generalize these findings to this group. Finally, it is not possible to draw any conclusions from this

study about possible relationships between well-being and academic/professional outcome because objective outcome measures, such as grades, were not obtained.

Conclusions

Despite the study's limitations, this study provided valuable information about the experiences of students in a graduate psychology program at a Canadian university. Although graduate students in psychology report many stressors, the students also reported much strength. For example, resilience was highlighted as a resource that can help students' cope and the majority of students reported they were satisfied with their academic experiences. This study also demonstrated how students may utilize student organizations, such as the MHWBG, to promote wellness through research, advocacy, and development of resources to enhance student experience.

_____

References

Cahir, N., & Morris, R.D. (1991). The psychology student stress questionnaire. *Journal of Clinical Psychology, 47*, 414-417.

Haynes, C., Bulosan, M., Citty, J., & Grant-Harris, M. (2012). My world is not my doctoral program... or is it?: Female students' perception of well-being. *International Journal of Doctoral Studies, 7*, 1-17. Retrieved from http://ijds.org/Volume7/IJDSv7p001-017Haynes329.pdf

Holm, M., Tyssen, R., Stordal, K. I., & Haver, B. (2010). Self-development groups reduce medical school stress: A controlled intervention study. *BioMed Central Medical Education*, *10*, 23. doi:10.1186/1472-6920-10-23

Human Resources and Skills Development Canada. (2013). *Indicators of well-being in Canada: Work – Weekly worked hours.* Retrieved from http://www4.hrsdc.gc.ca/.3ndic.1t.4r@-eng.jsp?iid=19#M_1

Hurst, M. (2008). *Who gets any sleep these days? Sleep patterns of Canadians*. Retrieved from http://www.statcan.gc.ca/pub/11-008-x/2008001/article/10553-eng.htm

Lee, J., & Graham, A.V. (2001). Students' perception of medical school stress and their evaluation of a wellness elective. *Medical Education, 35*, 652-659. doi: 10.1046/j.1365-2923.2001.00956.x

McKinzie, C., Altamura, V., Burgoon, E., & Bishop, C. (2006). Exploring the effect of stress on mood, self-esteem, and daily habits with psychology graduate students. *Psychological Reports, 99*, 439-448.

Nelson, N.G., Dell'Oliver, C., Koch, C., & Buckler, R. (2001). Stress, coping, and success among graduate students in clinical psychology. *Psychological Reports, 88*, 759-767.

Murphy, R. J., Gray, S. A., Sterling, G., Reeves, K., & DuCette, J. (2009). A comparative study of professional student stress. *Journal of Dental Education*, *73*, 328-337. Retrieved from http://www.jdentaled.org/content/73/3/328.full.pdf+html

National Sleep Foundation. (2013). *Myths – And facts – About sleep*. Retrieved from http://www.sleepfoundation.org/sleep-facts-information/myths-and-facts

Offstein, E. H., Larson, M. B., McNeill, A. L., Hasten, M. M. (2004). Are we doing enough for today's graduate student? *The International Journal of Educational Management, 18*, 396-407. doi: 10.1108/09513540410563103

Oswalt, S. B., & Riddock, C. C. (2007). What to do about being overwhelmed: Graduate students, stress, and university services. *The College Student Affairs Journal, 27*, 24-44. Retrieved from http://files.eric.ed.gov/fulltext/EJ899402.pdf

Stecker, T. (2004). Well-being in an academic environment. *Medical Education, 38*, 465-478. doi: 10.1046/j.1365-2929.2004.01812.x

ADVERTISE IN

PSYNOPSIS

ANNONCEZ DANS LE MAGAZINE DE PSYCHOLOGIE DU CANADA

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.