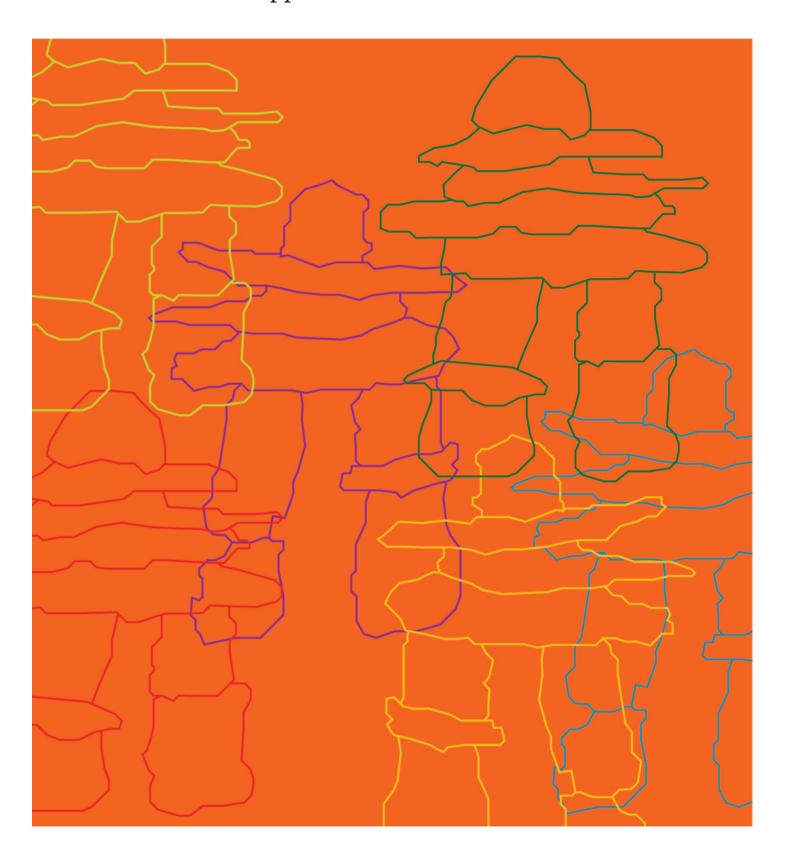


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Robert Shea, Founding Editor/Rédacteur en chef Diana Boyd, Associate Editor/Rédactrice adjointe

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Editorial

Welcome to Volume 15, Issue 2 of *The Canadian Journal of Career Development*. I am pleased to present to you four articles and an interview with Marilyn Van Norman.

In 'The Role of Dysfunctional Career Thoughts and Indecisions in Determining Guidance Needs' 523 high school students in Finland participated in a study that investigated how much dysfunctional career thoughts and indecision impacted their guidance needs. The authors findings showed significant differences, which point towards the need to screen for dysfunctional career thoughts and indecisions in order to formulate an adequate guidance session.

'Rival Structures for Career Anchors: An Empirical Test of the Circumplex' is the English translation of 'Structures Rivales Des Ancres De Carrière: Un Test Empirique du Circumplex' which was previously published in Volume 15, Issue 1. This article focuses on career anchors, circular structure, and the use of Schein's Inventory.

Allen Rufus and Robert Lanning in 'Knowledge and Risk: Choices and Decisions in the Career Selection Process Among University Students' looks at the career choices of students, and the information and resources used to support their choices. The authors then use this information to assess the viability of the students' decisions in relation to employment projections. In closing, the authors talk about policy implications their findings have for universities.

The final article in this issue is by Cynthia Chaddock and José Domene. 'Exploring the Career-Related Goals and Barriers of Teenage Mothers' provides a glimpse into academic and career-related needs of teenage mothers. While the case-study nature limits the application and generalizability of the findings, the findings nevertheless are extremely beneficial to literature; they show the need to conduct additional research for this group and their future careers.

Our closing article is an interview with Etta St. John Award Winner Marilyn Van Norman. Marilyn was the first recipient of this award in April 2007. Through her words, she provides readers with a brief look into her own career development, the importance of mentors in her life, past and future accomplishments for career development in Canada, and finally advice to up-and-coming career practitioners.

I hope you enjoy this issue and take away some insights to think about. If you are interested in keeping up to date with the Journal, feel free to follow us on Twitter, Facebook, and LinkedIn.

Rob Shea

Founding Editor



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- Pour reconnaître pionniers qui exercent en même temps le rôle de mentor, d'éducateur, d'auteur, de conseiller, de défenseur et de modèle.
- Pour inciter chacune et chacun au Canada et partout dans le monde à saluer la contribution remarquable des membres de leur entourage à la profession.

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The Role of Dysfunctional Career Thoughts and Indecision in Determining Guidance Needs

Jukka Lerkkanen. *University of Jyväskylä* Kaisa Kivelä. *Youth & Special Groups in Rovaniemi* Gary W. Peterson. *Florida State University* James P. Sampson, Jr. *Florida State University*

Abstract

This study investigates the extent to which dysfunctional career thoughts and indecision affect career guidance needs. The participants were 523 high school students from two cities in central Finland. All the participants were second-year students and were 16 to 19 years old (M = 17.47; SD = .44). The respondents completed the Ohjaus-TarveArvio (OTA), a Finnish translation of the Career Thoughts Inventory, a measure of dysfunctional career thoughts and questions concerning career decision states and the need for support in career decision-making. The results showed that significant differences exist between factor scores of dysfunctional career thoughts, degree of indecision, and needs for career guidance. Proper screening of dysfunctional career thoughts and the state of indecision could provide valuable information for counselors concerning how to formulate appropriate guidance interventions that enhance readiness for career decision-making.

This study developed from an interest in investigating the extent to which dysfunctional career thoughts and indecision affect career guidance needs in Finnish high school students. The role of guidance is to support students in their studies and to ensure that they have sufficient skills and knowledge to progress in their studies and enter

the world of work. Career decisionmaking is therefore one of the major tasks in high school career guidance. In the process of career decisionmaking the focus should be on career information and assessment (Gati & Levin, 2012). Career information and assessment is defined as supporting students in assessing their personal characteristics and needs as well as connecting them with information on opportunities and requirements in labour and education markets (Schiersmann et al., 2012). The assessment of students' readiness for career decision-making and of their needs for career guidance services should be a starting point in facilitating complex and non-linear transitions from secondary education to further education and employment. The use of appropriate assessment procedures is an important aspect for stakeholders, practitioners, and students in formulating plans that assist individuals in developing career decision-making skills. In the present study, career decision-making is concerned with the state of indecision and its relation to the potential lack of decisionmaking readiness due to the occurrence of dysfunctional career thoughts.

Dysfunctional Career Thoughts

Dysfunctional thoughts are specific barriers in a student's thinking process (Niles & Harris-Bowlsbey, 2013) and they may present significant problems in the decision-

making process (Kleiman et al., 2004). Dysfunctional career thoughts related to career decisionmaking include self-efficacy beliefs (Guay, Ratelle, Senecal, Larose, & Deschenes, 2006), attachment anxiety and avoidance (van Ecke, 2007), negative self-talk or confused thought processes (Sampson, Reardon, Peterson, & Lenz, 2004), or negative thoughts and feelings (Sampson, McClain, Musch, & Reardon, 2013). Dysfunctional career thoughts limit the acquisition of decision-making skills and occupational knowledge, as well as the clarity and consistency of selfknowledge (Sampson et al., 2004).

Dysfunctional career thoughts are a central element in the cognitive information processing approach (CIP; Peterson, Sampson, & Reardon, 1991; Sampson et al., 2004). CIP theory includes three dimensions of dysfunctional thoughts: decision-making confusion (DMC), commitment anxiety (CA), and external conflict (EC). DMC and CA refer to the internal psychological aspects of indecision, whereas EC reflects social barriers, such as attachment avoidance (van Ecke, 2007). DMC describes the difficulty students have in beginning or continuing with career decision-making due to disabling emotions and/or a limited understanding of the decision-making process itself. CA describes the inability to commit to a specific career choice, accompanied by generalized anxiety about the results of the decision-making process



that leads to further indecision. EC describes the inability to balance the importance of personal perceptions with the importance of input from significant others, leading to reluctance to assume responsibility for decision-making (Peterson, Sampson, Lenz, & Reardon, 2002).

Dysfunctional career thoughts are related to an understanding of what services best meet students' career guidance needs. Sampson et al. (2004) have classified career guidance needs and services into three categories. First, students with low-level dysfunctional thinking and high readiness for career decision-making have the potential to be served by self-help services. Self- help services are selfguided career resources found in libraries and online. Second, students with moderate-level dysfunctional career thinking and readiness for occupational and career decision-making have the potential to be served by brief staff-assisted services such as career courses, peer-groups, and short-term individual counseling. Third, students with high-level dysfunctional thinking and low readiness for career decision-making have the potential to be served by individual case-managed career guidance services organized at high schools, career centers, and employment offices. This study builds upon the limited work completed to date (Saunders, Peterson, Sampson, & Reardon, 2000; Walker & Peterson, 2012).

Career Indecision

The taxonomy of career problem-solving and decision-making states comprises three major categories: *decided, undecided,* and *indecisive* (Sampson et al., 2004). Decided individuals have made their commitment to a specific educational or occupational choice (Sampson et al., 2004). Undecided

individuals, on the other hand, have not made their commitment to a specific educational or occupational choice due to gaps in their knowledge necessary for choosing (Gati, Krausz, & Osipow, 1996; Gati, Osipow, Krausz, & Saka, 2000) or gaps in their current life-situation if they do not need to make career decisions (Lerkkanen, 2002).

Over 50 variables have been explored as possible correlates of the state of indecision (Brown & Rector, 2008). Osipow (1999) categorized indecision into developmental indecision and chronic indecisiveness. Indecision reflects an individual's inability to initiate or sustain decision-making processes. This difficulty is a result of potential mental health issues such as depression (Walker & Peterson, 2012) or attachment avoidance (van Ecke, 2007). It ensues due to general indecisiveness and a lack of information about one's self or about occupations (Kleiman et al., 2004). In addition, characteristics of developmental indecision include disabling emotions and/or a lack of understanding about the decisionmaking process itself (Sampson et al., 2004). Generalized anxiety about the outcome of the decisionmaking process, internal conflicts, and inconsistent information (Kleiman et al., 2004) result in an individual's inability to make a commitment to a specific career choice, and this, in turn, perpetuates the state of indecision (Sampson et al., 2004).

The variables that have been found to play an important role in chronic indecisiveness comprise personality traits that affect many situations demanding decisions (Osipow, 1999), and include anxiety, depression, and psychological hardiness (Brown & Rector, 2008). Substantial evidence exists that suggests indecisive students are not a homogenous group (Santos & Ferreira, 2012).

Brown et al. (2012) noted that indecision comprises the following four factors: (a) negative affectivity associated with chronic indecisiveness and high levels of anxiety, depressive affect, and trait neuroticism; (b) choice/commitment anxiety with a high need for self- and occupational information and low levels of selfesteem and general problem solving confidence; (c) interpersonal conflict with dependent decision-making style and external barriers; and (d) a lack of readiness combined with a lack of planfulness or goal directedness as well as a lack of selfefficacy beliefs in career decision-making. Sampson et al. (2004) define indecisive individuals as those who have not engaged to a specific occupational choice due to gaps in their knowledge for choosing. They have a maladaptive approach to career problem solving in general, which is accompanied by a maladaptive level of anxiety.

High School Education and Guidance in Finland

In the Finnish educational system, basic education is a public nine-year education provided for all members of the age cohort in comprehensive schools. Compulsory schooling starts when a child turns seven and ends after the basic education syllabus has been completed. After nine years of compulsory education, students usually opt for high school or vocational upper secondary education and training for three more years. The largest fields of vocational upper secondary education and training are technology, communications, transport, social services, health, and sports. Vocational upper secondary education and training is popular in Finland. However, half (51%) of the age cohort continues their studies in high schools (Statistic Finland, 2015).



Applicants are selected for high school based on their marks in basic education. The high schools are public schools and education is tuition free, provided by the municipality or an educational consortium of municipalities, and a national core curriculum is followed. In the national core curriculum of high school studies there is one compulsory and one specialization course of guidance. Additionally, in all the schools they have at least one study counselor who is responsible for organizing guidance for students. The second year in high school is the time when most students make their career decisions, and thus they will receive guidance lessons and individual counseling for career decision-making. Finnish students must be guaranteed the opportunity to complete their high school studies within three years. In addition, they have the right to receive as much educational and occupational guidance as they require.

The Present Study

The aim of this study was to investigate the extent to which dysfunctional career thoughts and indecision affect career guidance needs. First, we determined if there were significant mean differences between the level of dysfunctional career thoughts and the following demographic variables: (a) gender, (b) age, (c) basic education, (d) city, (e) high school, and (f) diploma the participant was studying for. We hypothesized that there were no significant mean differences between the level of dysfunctional career thoughts and these demographic variables (Lerkkanen, 2011).

Second, we determined whether significant differences existed between factor scores of dysfunctional career thoughts and the state of career indecision. Our hypothesis was that a significant difference existed between the level of dysfunctional career thoughts and the state of indecision (Lerkkanen, 2011; Kleiman et al., 2004).

Third, we examined whether significant differences existed between factor scores of dysfunctional career thoughts and needs for guidance according to the following variables: (a) tendency to seek support, (b) prioritized educational choice, and (c) satisfaction with the current educational choice. We hypothesized that there were significant differences between factor scores of dysfunctional career thoughts and all three separate variables, which would indicate a need for guidance (Gilat, Ezer, & Sagee, 2010; Hirschi & Läge, 2008; Kleiman et al., 2004; Lerkkanen, 2011).

Method

Participants

The participants of this study were 523 students (218 males and 305 females) from ten high schools in two cities (first, n = 367and second, n = 156) in central Finland. All of the participants were second-year students between 16 and 19 years old (M = 17.47; SD =.44). Most of the participants (93%) reported that their basic education was obtained at a comprehensive school. Some of the participants (7%) have graduated from vocational education before high school studies. The sample was 99.5% Caucasian.

Procedure

All of the high schools from the two cities were invited to participate. Of the 12 total, 10 (5 from each city) participated. Permission for students to participate in the study was granted from the respective school administrations. The participants' parents were informed about the study and they had the ability to decline their children's participation. The data was collected via an online survey tool (Digium Enterprise) and all the measures were combined into a single questionnaire. The response time was approximately 15 minutes. The first data set was collected between November 2011 and February 2012, and the second data set between April and May 2012. The difference between the two periods was due to the schedule of the counselors who facilitated data collection in their schools.

Measures

The readiness measure for career decision-making. Ohjaus-TarveArvio (OTA) is a 32-item, selfadministered inventory that measures negative thoughts that inhibit career problem solving and decision-making (Lerkkanen, 2008). The OTA is based on cognitive information processing theory (Peterson et al., 1991; Sampson et al., 2004) and measures negative career thoughts according to the pyramid of information processing and the communication, analysis-synthesis, valuing, and execution (CASVE) cvcle.

The basic structure of the Finnish OTA is similar to the Career Thoughts Inventory (CTI; Sampson, Peterson, Lenz, Reardon, & Saunders, 1996a). The CTI is a 48-item inventory that measures the amount and nature of dysfunctional career thoughts (Sampson et al., 1996a). The CTI Total score is correlated with career indecision as measured by the Career Decision Scale (Osipow, Carney, Winer, Yanico, & Kashier, 1997) and the Career Decision-Making Difficulties Questionnaire (Kleiman et al., 2004). In addition, the CTI Total score correlates with attachment anxiety and



avoidance as measured by Experiences in Close Relationships-Revised (van Ecke, 2007). The CTI items were translated into Finnish and underwent initial validation by Lerkkanen (2002). Subsequently, the Finnish version of the CTI was further developed into the OTA. The differences between the CTI and OTA include the number of the items, 48 vs. 32, and a revision of some of the items for use with high school students (Lerkkanen, 2012). Similar to the CTI, the OTA provides a Total score and three subscale scores—Decision-Making Confusion (DMC), Commitment Anxiety (CA), and External Conflict (EC)—derived from an exploratory factor analysis. In the preliminary tests of the OTA for high school students, the internal consistency coefficients using Cronbach's alpha were .92 for the Total score (32 items), .93 for DMC, .82 for CA, and .68 for EC. Intercorrelations among the three subscales varied between .03 and .39 (Lerkkanen, 2008).

The content of the OTA items allude to (a) culture and educational system aspects; (b) pessimistic views about the process of decision-making, the world of work, and personal control; (c) anxiety about the process and the uncertainty of the possible outcomes; and (d) self and identity factors associated with generalized anxiety, selfesteem, unclear vocational identity, and interpersonal conflicts. The 32 items were derived from eight content domains from CIP theory (Peterson et al., 1991; Sampson et al., 2004). Higher Total scores indicate lower readiness for career decisionmaking. The scores of each of the subscales are important because they indicate the kinds of challenges individuals face in making educational and career-related decisions. Each of the eight content domains of the CIP approach (Sampson, Peterson, Lenz,

Reardon, & Saunders, 1996b) was represented with four items on the OTA. The rating scale for each item consists of a 4-point Likert-type scale (0 = strongly disagree; 3 = strongly agree). The maximum Total score in the OTA is 96, on the dimension of DMC 48 (16 items), CA 21 (7 items), and EC 24 (8 items).

The state of career decision-making was determined by asking participants which of the three states most appropriately described their situation: (a) I know exactly what I'm going to do after high school (decided), (b) I'm still unsure what I'm going to do after high school (undecided), and (c) My career plans after high school are totally unclear (substantially undecided). The choices followed the structure in previous studies (Lerkkanen, 2008, 2011; Peterson et al., 1991).

The need for guidance was measured by three separate measures: (a) satisfaction with the current educational choice; (b) prioritized educational choice; and (c) tendency to seek support. All these measures are used as three separate variables in the subsequent analyses. The need for guidance concept is based on previous studies (Lerkkanen 2002, 2011) and the national education policy of high schools in Finland. In scale (a) participants were asked if they were satisfied (yes/no) with the educational choice they had made (Lerkkanen, 2002). To assess scale (b), participants were asked whether the school in which they were studying was their first choice (yes/no). Honkonen (1997) and also Lerkkanen (2002) noted that the order of priority in educational options indicated guidance needs. If students did not receive their first educational option, they expressed more need for guidance. Scale (c) was assessed in terms of the expressed need for support (yes/no) in choosing a career. This part of the measure was based on previous studies of helpseeking attitudes (Gilat, Ezer, & Sagee, 2010: Lerkkanen, 2002).

Data Analyses

Exploratory factor analysis (EFA) was conducted to determine which OTA items load to which factors in an a priori 3-factor model. One-sample t tests were used to find out if there were significant mean differences in OTA factor scores (dependent variable) with respect to gender, city, satisfaction with career choice, prioritized educational choice, and tendency to seek support (independent variable). One-way ANOVA was used to determine if there were statistically significant mean differences in OTA factor scores (dependent variable) with respect to different age groups, basic education, high school, diploma for which the participants were studying, and the state of career indecision. The alpha level to test the hypotheses was set at .001 to protect against family-wise error (independent variable). Finally, Levene's test was used to ascertain whether the assumptions of equality of variances were met in the respective comparisons of independent samples.

Results

Factor Structure of OTA

An exploratory factor analysis was conducted using the principal components analysis with oblique rotation specifying a three-factor solution. The three-factor solution was chosen for two reasons:
(a) the CIP theory used in the OTA suggests three factors: Decision-Making Confusion, Commitment Anxiety, and External Conflict; and (b) the three-factor solution was tested in previous studies (Lerkkanen 2002, 2008). Oblique rotation was used because it maximizes the variance of the coefficients, and it



assumes the factors are correlated to some degree. Based on the pattern matrix, Item 32 (My choices after high school are just my own business) was eliminated from the factors due to too low loading on all three factors. The first factor (16 items), Decision-Making Confusion, accounted for 33.61% of the variance. The second factor (8 items), External Conflict, accounted for 8.63% of the variance. The third factor (7 items), Commitment Anxiety, accounted for 7.37% of the variance. The three factors together explained 49.60% of the variance. Participant alpha coefficients were .93 for the Total score, .93 for DMC, .85 for CA, and .76 for EC.

Demographic Variables

The first research question assessed the significant differences among the dysfunctional career thoughts, as measured by the OTA factor scores in groups of demographic variables. Employing a t test, there were no significant mean differences between OTA scores with respect to age, city, basic education, high school, and diploma for which participants were studying. However, there were significant mean differences between males and females with respect to DMC (t = -3.221; p = .001; d = .28), CA (t = -4.268; p = .000; d = .38), and OTA Total score (t = -3.256; p = .001; d =.24), but not for EC (t = .428; p =.669). The results thus indicated that females demonstrated moderately higher scores than males did on dimensions of DMC, CA, and the OTA Total score. Therefore, with the exception of gender, the OTA appears to possess considerable discriminant validity regarding potential confounding demographic variables.

Indecision and OTA Scores

The second research question determined whether significant differences existed between dysfunctional career thoughts, as measured by the OTA factor scores in groups of the respective levels of the career decisionmaking states. One fifth of the participants (21%; n = 112) were decided about their plans after high school. Over half of the participants (60%; n = 316) were undecided and they were uncertain about their future after high school, and 18% (n = 95) of the participants were indecisive, that is, they were completely unclear about their plans after high school. Based on the one-way ANOVA, there were significant mean differences in the levels of the state of career decision and OTA scores. The results indicated lower levels of decidedness were significantly (p < .001) related to lower levels of readiness for career decision-making (see Table 1). The differences were significant for all OTA scores: DMC (F = 167,373; df = 2; p < .001), CA (F = 57.507; df = 2; p < .001), EC (F = 7.856; df = 2; p < .001), and Total score (F = 116.178; df = 2; p < .001).

Need for Guidance

The third research question looked at whether significant differences existed among the dysfunctional career thoughts, as measured by the OTA factor scores, in groups in need for guidance, as measured by (a) tendency to seek support, (b) satisfaction with the current educational choice, and (c) prioritized educational choice. Over half of the participants (57%; n = 297) responded that they needed support from others in choosing a career and 43% (n = 226) of the participants indicated they do not need support. Based on t tests, there were significant (p < .001) mean differences between the tendency to seek support (expressed need for support, yes/no) and the respective OTA factor scores: DMC (t = 11.129; p < .001), CA (t = 8.487; p < .001), EC (t =2.657; p < .01) and Total score (t = 10.116; p < .001). The results showed that if the participants expressed need for support in choosing a career, they also had higher scores on the OTA (see Table 2). With respect to the Total score, the comparison of means did not meet the assumption of equality of variances (see Table 2) according to Levene's test (F = 8.193, p = .004). To take this finding into account, the t ratio for equal variances not assumed was selected in this particular instance. Nevertheless, the results showed that if the participants expressed a need for support in choosing a career, they also had significantly higher scores on the respective dimensions of the OTA (see Table 2).

Almost all of the participants (95%, n = 494) responded that they were satisfied with their choice of high school. There were significant mean differences between satisfaction with the educational choice (yes/no) and DMC (t = -3.888; p < .001), EC (t = -3.505; p < .001) and OTA Total score (t = -3.452; p < .01). The results showed that if the participants were not satisfied with their choice, they had significantly (p < .001) higher scores on DMC, and EC. The results also show that confusion in linking self-knowledge and occupational knowledge to form options (DMC), and uncertainty in taking charge of the decision (EC) mean were higher with students who were dissatisfied with their educational choice. The variance of satisfaction with the educational choice was oblique. Therefore, the findings were characterized as an indicative result.

Most of the participants (82%) indicated their present high



school was their *prioritized educa*tional choice. There were no significant mean differences in the respective OTA scales with respect to students attending their first choice of high school.

Discussion

This study investigated the extent to which dysfunctional career thoughts and indecision affect career guidance needs. The results showed that there are significant differences between factor scores of dysfunctional career thoughts, and degree of indecision, and needs for career guidance.

First, we explored whether there were significant differences between the means of dysfunctional career thoughts and the following demographic variables: (a) gender, (b) age, (c) basic education, (d) city, (e) high school, and (f) diploma the participant was studying for. The results partly supported the first hypotheses that there were no significant mean differences between the level of dysfunctional career thoughts and demographic variables (see Sampson et al., 1996b). The only exception was gender. Females appeared to indicate a higher level of dysfunctional career thoughts in DMC, CA and OTA Total score (see also Ginerva, Nota, Soresi, & Gati, 2012; Watson, Creed, & Patton, 2002). On the one hand, this finding could be attributed to more willingness by females than by males to admit to negative career thoughts. In other words, a social desirability response set may be a factor in responding to OTA items. On the other hand, females may indeed be experiencing more anxiety, self-doubt, and apprehension regarding the career decisions they face than males do. However, in spite of possible gender bias in the OTA, we believe that the endorsement of any item in any terms of agree or

strongly agree—regardless of gender—is worthy of exploration and reframing in order to replace negative thoughts with more positive ones (see Sampson, Peterson, Lenz, Reardon, & Saunders, 1996c).

Second, we focused on identifying Finnish high school students' dysfunctional career thoughts and indecision. As expected, the findings supported the second hypothesis. Indecisive students indicated more dysfunctional career thinking than the undecided or decided students did. Hence, career guidance practitioners could well use students' state of decision-making to identify indecisive students (Niles & Harris-Bowlsbey, 2013). The results of this study demonstrate that using the OTA as a screening device to measure readiness for career decision-making can provide appropriate information concerning what phase of the decision-making process students are in. Additionally, the OTA results can generate information regarding what the correct level of guidance service is (selfhelp, brief-assisted, individual casemanaged) to deliver to the students.

Third, we determined whether there were significant mean differences between dysfunctional career thoughts and needs for guidance as measured by tendency to seek support, satisfaction with the current educational choice, and prioritized educational choice. We hypothesized that there are significant differences between factor scores of dysfunctional career thoughts and all three of the separate variables, which would indicate a need for guidance. The findings were partly in accordance with the hypothesis. The means of dysfunctional career thoughts were higher with students who have higher tendencies to seek support in career decision-making and were more dissatisfied with their current educational choice. In this study, there were no significant

differences between the means for priority of high school and level of dysfunctional career thinking. This finding is in line with the result that over 80% of the participants in the sample were in their school of first choice.

Practical Implications

The results suggested that counselors should pay particular attention to guidance needs assessment in high schools. Without an adequate needs analysis, counseling services might over- or underserve students. Proper screening avoids overserving highly prepared young people with costly individualized interventions that are unnecessary, and it avoids providing inadequate interventions by staff that is unaware of the substantial needs of young people with a low readiness (Sampson et al., 2004).

The findings of this study are in accordance with the results of prior studies on career indecision. A major risk factor in Finnish high schools is poor commitment to career goals after high school studies. Previous studies have reported that adolescents emphasize work-related goals and the likelihood of securing a job after graduation (Bertoch, Lenz, Reardon, & Peterson, 2014; Nurmi, Salmela-Aro, & Koivisto, 2002). Therefore, guidance interventions should be targeted at exploring the goal orientation and capability for career decision-making. Setting goals and being optimistic may be conditions that help students to formulate plans for their professional future, take a greater responsibility for their choices, and be more engaged in their educational pathways (Jung & McCormick, 2010; Nurmi et al., 2002; Savickas, 2005).



Table 1

Means of OTA factor scores and the state of career indecision

		DMC		CA		EC		Total score	
	n	M	SD	M	SD	M	SD	M	SD
Substantially undecided	95	24.8	8.2	10.5	4.1	5.9	3.3	43.1	12.1
Moderate undecided	316	15.6	7.3	9.7	3.8	5.7	3.4	32.9	11.8
Decided	112	6.2	6.4	5.5	4.3	4.3	3.5	18.0	12.8

Note. DMC = Decision-Making Confusion, CA = Commitment Anxiety, EC = External Conflict All the differences between the means were significant (p=.000).

Table 2

Means of OTA factor scores and tendency to seek support

		DMC		CA		EC		Total score	
•	n	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Expressed need for support	297	18.8	8.5	10.3	4.0	5.8	3.4	36.7	12.5
Expressed no need for support	226	10.5	8.3	7.3	4.2	5.0	3.5	24.7	14.1

Note. DMC = Decision-Making Confusion, CA = Commitment Anxiety, EC = External Conflict All the differences between the means were significant (p = .000)

Limitations

There are some limitations of our study that need to be considered when making any generalizations based on these results. First, the sample includes only second year high school students from two cities in Finland. Therefore, the generalizability of results to all high school students is limited. Second, more than fifty variables have been explored as possible correlates of the state of indecision (Brown & Rector, 2008). The present study has focused on dysfunctional career thoughts only. For instance, more research is needed to study the corre

lation between the way of thinking (optimism/pessimism) and indecision. Additionally, more information is needed concerning the relationship between needs for guidance and trait neuroticism or between low levels of self-esteem and problemsolving confidence. Third, our results are based on an examination of significant differences between the groups. Further studies could also use correlation-based analysis between dysfunctional career thoughts, indecision, and the need for guidance.

Conclusion

This study examined the extent to which dysfunctional career thoughts and indecision affected the career guidance needs of high school students in Finland. The results showed that students varied considerably in dysfunctional career thoughts, indecision, and perceived need for guidance. The extent of dysfunctional career thoughts varied by gender, and dysfunctional career thoughts were related to increased indecision and a greater perceived need for guidance, as well as to decreased satisfaction with educational choice.



Clearly, a large number of students in this study experienced difficulty in career decision-making and were aware that they needed assistance. These results call into question the one-size-fits-all design of career guidance services where each student receives a similar individual or group guidance intervention. Career guidance practitioners can use brief assessments of students' dysfunctional career thoughts and indecision to identify those students who most need assistance with their career choices. Guidance resources in high schools need to be focused on where they are going to do the most good, thus making the best use of limited guidance resources. In the delivery of guidance services, a brief assessment of each student's needs is an essential first step.

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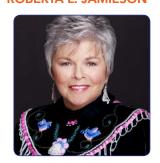






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Rival Structures for Career Anchors: An Empirical Test of the Circumplex

Thierry Wils, HEC Montréal and UQO José Bélanger HEC Montréal, Université de Montréal and UQO Eric Gosselin UQO

Précis

La manière d'organiser les ancres de carrière selon une logique circulaire a récemment donné naissance à plusieurs structurations rivales qui n'ont pu être validées empiriquement. Contrairement à ces structurations athéoriques, un modèle théorique de structuration est proposé. En utilisant la technique statistique de Browne (1992), il s'avère que le modèle théorique est supérieur aux autres structurations. Les résultats obtenus sont aussi en accord avec une structuration par quadrants regroupant des ancres de carrière compatibles. Le quadrant du carriériste se compose de l'ancre de gestion; le quadrant du protéen regroupe respectivement les ancres de compétence technique/fonctionnelle, de défis créatifs, d'entrepreneurship et d'autonomie/indépendance. Le quadrant du social rassemble les ancres de style de vie et de service/dévouement alors que le quadrant du bureaucratique fait référence à l'ancre de sécurité/stabilité.

Abstract

The way of organizing career anchors according to a circular logic has recently given birth to several competitive structures that did not receive empirical support. Unlike these structures of career anchors that were atheoretical, a new theoretical structuring model is proposed. Using the statistical technique developed by Browne (1992), it turns out that the theoretical model

is superior to other structures. The results are also consistent with a structure based on quadrants of compatible career anchors. The *careerist* quadrant consists of anchor management; the *protean* quadrant respectively combines the technical/functional competence of anchors, creative challenges, entrepreneurship and autonomy/independence. The *social* quadrant brings together lifestyle as well as service/dedication anchors while the *bureaucratic* quadrant refers to the security/stability anchor.

In recent years, the responsibility for career management has gradually passed from the organization to employees. However, this change does not mean that the idea of career anchors is outdated, in the sense that career aspirations are still a major concern for employees (Mercure & Vultur, 2010). Furthermore, the theory of career anchors that arose in the 1970s through Schein'work (1978) is still generating interest among researchers (Rodrigues, Guest, & Budjanovcanin, 2013). According to Schein, the idea of a career anchor refers to an individual's tendency to choose a work environment that reflects the perception of their talents, motivations and needs. Among young adults, initial career choices are made based on a fairly vague notion of these perceptions. As individuals advance in their career tackling the challenges of the early years, they gradually develop what Schein calls an "individualized" career choice that results from the interaction between the individual and the work environment. This is how they forge a "stable" career identity. This psychological process is at the source of career orientations or career anchors1 that hinge around three areas: 1) talents and skills; 2) motivations and needs; and 3) values. According to Schein, over time a single stabilizing career anchor emerges, guiding and limiting a person's career path. When individuals face a situation in which they have to make a difficult professional choice, they use this so-called dominant career anchor because it is an affirmation of what is truly important to them in their career.

Schein originally identified five career anchors: the management anchor, the technical/functional competence anchor, the security/stability anchor, the entrepreneurial creativity anchor and the autonomy/independence anchor (Schein, 1975). Schein later added three more career anchors: the service/dedication to a cause anchor (which belongs to the service anchor identified by DeLong, 1982), the pure challenge anchor (which belongs to DeLong's variety anchor) and the lifestyle anchor (Schein, 1987).

Feldman & Bolino (1996) have remarked that in Schein's study (1978), around one-third of respondents had multiple career anchors, suggesting the possibility of simultaneous primary and secondary anchors. This observation was confirmed by a study by Martineau, Wils, & Tremblay (2005) conducted with 900 Quebec engineers. They maintained that multidimensional



dominance refers to "lack of differentiation," i.e. the interiorization of a number of complementary anchors, while the "differentiation" that underlies Schein's work (1975; 1978; 1987; 1990; 1996) refers to the interiorization of a single career anchor (or one-dimensional dominance). To the extent that several dominant career anchors can coexist simultaneously within the same individual and that this is the case for the majority of individuals (Chapman, 2009), a new research problem emerges, that is, structuring career anchors that refer to relationships between career anchors. In fact, a number of structuring models have been proposed in recent years.

Reference Framework

The structuring of career anchors was approached inductively (atheoretical model) and deductively (theoretical model). Let's look at atheoretical models first.

Atheoretical models

A number of authors have proposed a career anchor structure based either on purely speculative relationships between these career anchors or on relationships that emerge from partial empirical results. The origin of these models goes back to Schein's work. In 1990, after years of research and experiments, Schein developed a model of mutually inconsistent career anchors. For example, as presented in figure 1, he suggested that the technical/functional competence anchor was in opposition to the management anchor, that the security/stability anchor was in opposition to the autonomy/independence anchor and that, lastly, the entrepreneurial creativity anchor was in opposition to the service/dedication anchor (Barclay, 2009). We should note by the way that Schein did not propose anything for the lifestyle and pure challenge anchors.

It took until 1996 for a more elaborate model to be designed by articulating the anchors according to a circular logic. Feldman & Bolino

Figure 1. Schein's structuring model (1990)	
Technical/functional competence	Management
Autonomy/independence	Security/stability
Service/dedication to a cause	-Entrepreneurial creativity

(1996) proposed an octagon model for structuring career anchors according to which the centrality of career anchors is implemented within each of the three groups of anchors (talent, motives and needs, attitudes and values) and not within all anchors combined, as Schein argues (Barclay, 2009). The technical/functional competence, management and entrepreneurial creativity anchors would relate to the individual's talents; they would be centred on dayto-day work. The security/stability, autonomy/independence and lifestyle anchors would represent motives and needs; they would focus on how individuals want to structure work based on their desires and their lives. Lastly, the service/dedication to a cause and pure challenge anchors would represent attitudes and values; they also relate to the individual's identification with their job and the organizational culture. Feldman &Bolino (1996) stipulate that someone could have a dominant career anchor for each of these categories, which would explain the existence of primary and secondary career anchors by virtue of their complementary nature.

To better understand the dynamic between these three career poles, Feldman & Bolino (1996) proposed an octagon structuring model for career anchors (see Figure 2). According to this model, there is proximity among certain so-called compatible or complementary anchors (adjacent anchors on the octagon, such as technical/functional competence and pure challenge anchors) and an opposition between other so-called incompatible anchors (anchors diametrically opposed in the octagon, such as the security/stability and entrepreneurial creativity anchors). To the extent that Feldman and Bolino based their work on a few empirical studies to establish the relationships between the anchors in the octagon (Wils, Wils, & Tremblay, 2010), this model must be considered atheoretical.

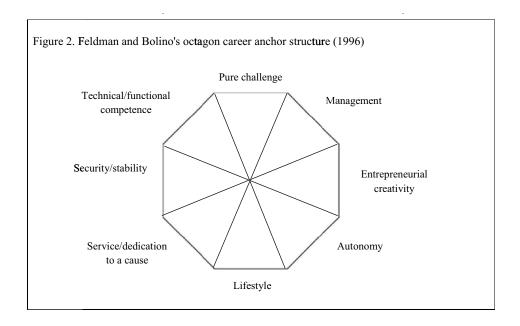
A third model was put forth by Bristow (2004). To clarify, he suggested different terminology from Schein for readers who are not familiar with the career anchors. Terminology changes were the following: technical/functional competence became "expert," management became "managing others," autonomy/independence became "gaining in autonomy," stability/security became "ensuring one's security," entrepreneurial creativity became "innovation," service/dedication to a cause became to "serving others," pure challenge became "reaching a goal" and, lastly, lifestyle became "maintaining balance."

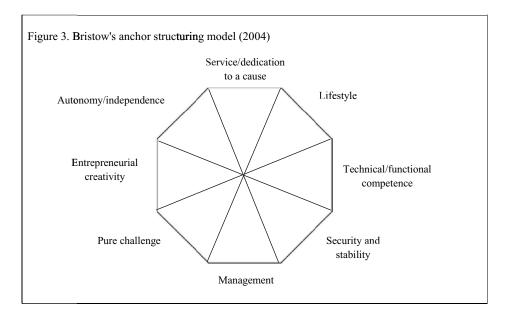
In the end, as figure 3 shows, Bristow (2004) recommends that pure challenge, entrepreneurial creativity and autonomy/independence be complementary, whereas entrepreneurial creativity and technical/functional competence, as well as autonomy/independence and stability/security would be mutually opposed. However, like the previous models (Schein, Feldman, & Bolino), Bristow's model remains atheoretical.

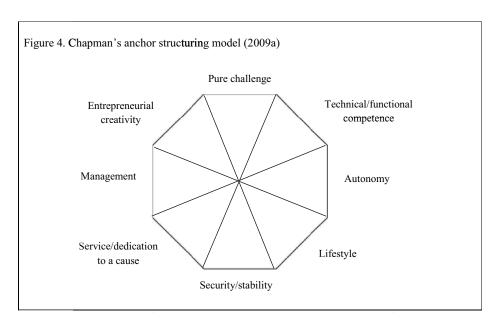
In 2009, Chapman developed a fourth model to establish relationships between career anchors; there are two versions of this model. In the first version of his model, entrepreneurial creativity, pure challenge and technical/functional competence are presented, for example, as being complementary career anchors, whereas stability/security and pure challenge were identified as being opposite anchors (see Figure 4 for the other relationships between career anchors).

Also in 2009, Chapman proposed another version of the model of opposite career anchor relationships based on Schein's model. In











addition to the three oppositions in Schein's model, he added a fourth: pure challenge versus lifestyle, as shown in figure 5.

Empirical Research Into Atheoretical Career Anchor Models

Three empirical studies looked at atheoretical models of structuring career anchors. Chapman (2009) mainly tested Feldman and Bolino's model in his doctoral thesis from primary data, whereas Barclay (2009) and Barclay, Chapman & Brown (2013) tested all atheoretical models from secondary data.

The Chapman study was intended to look at Feldman and Bolino's (1996) two hypotheses, more specifically the question of the plurality of career anchors and their relationships. From a sample of 1,361 participants working for an oil multinational, Chapman created an index ("indices of mutual presence" or IMP) to identify patterns of career anchors. In his study, career anchors were measured using an instrument similar to Schein's (Career Orientation Inventory or COI), but using the forced-choice method (ipsative data). On the one hand, the results showed that "more than 40 percent individuals can be typified by multiple career anchors" (Chapman & Brown, 2014, page 732) On the other hand, in terms of relationships between complementary and opposite anchors, the results do not corroborate the oppositions between the anchors (mutually exclusive relationships) that are the basis of the Feldman and Bolino model. In other words, complementarity prevails over oppositions. Chapman then inductively used his data to propose a structuring model.

Barclay (2009) and Barclay, Chapman, & Brown (2013) evaluated different atheoretical structurings of career anchors, from secondary data (seven empirical studies). From a consolidated sample of around 2,700 individuals who took part in all these studies, the authors mainly used principal component method of exploratory factor analysis to ana-

Figure 5. Chapman's anchor structuring model (2009b)	
Technical/functional competence	Management
Autonomy/independence	Security/stability
Service/dedication to a cause	Entrepreneurial creativity
Pure challenge	Lifestyle

lyze and illustrate their data. They also used confirmatory factor analysis to test the incompatibilities between anchors that are specified in the different atheoretical models.

Barclay noted that the oppositions of career anchors proposed by Feldman & Bolino (1996) was not significantly more negative than those proposed by the models of Bristow (2004) and Chapman (2009). Also, the results of the confirmatory factor analysis have shown that the Feldman and Bolino model does not fit better than the three other models. In fact, Schein's model is the one that seems to fit best, but this data fit is not satisfactory.

Criticism of These Empirical Studies

To try to explain the different and non-significant results for the circular logic test of career anchors, Chapman and Barclay suggest that using certain methods of data collection could contribute to producing non-significant results. For example, using a Likert fivepoint scale, participants tend to provide biased answers that will generate more positive than negative correlations (Barclay, 2009). This argument is, however, debatable to the extent that Chapman (2009) and Cai (2012) measured career anchors in different ways (forced-choice technique, Likert scale and a variant of the Likert scale called "economic exchange method"), but this did not change the correlation patterns or help validate a structuring model of anchors. Furthermore, Likert scales are commonly used in many valid measurement instruments. Measurement does not seem to be the main explanation for non-significant results. Besides, it should be emphasized that knowledge of the factor structure of Schein's instrument cannot be considered weak. When Schein's original instrument is used, the nine-factor solution (entrepreneurial creativity being split into two parts, creativity and entrepreneurship) only approaches acceptable level of construct validity (Danziger, Rachman-Moore, & Valency, 2008). In short, it is unlikely that the absence of validation of atheoretical structuring models is primarily explained by the improper measurement of career anchors.

Barclay, Chapman, & Brown (2013) essentially used two types of factor analysis (exploratory and confirmatory) to validate atheoretical models. They conclude that a two-dimensional structuring such as proposed by Feldman and Bolino (1996) is inadequate to reflect the complexity of relationships between career anchors, leading them to propose a three-dimensional model instead. Before making the structuring model more complex, it is important to ensure that sufficient empirical studies have adequately tested structuring models. To the extent that anchors are organized according to a circular structure, factor analysis is not the appropriate technique for testing a circumplex (Fabrigar, Visser, & Browne, 1997).

Unlike Chapman and Barclay, who point primarily to methodological weakness to explain the absence of validation of structuring models for career anchors, the absence of theory may be the main reason for it. In other words, the absence of validation of these models also comes from a theoretical weakness justifying the relationships between anchors. For example, Feldman and Bolino's model is inductive in that it is based only on the study by Nordvik (1991). Taking



into account all empirical studies on career anchors, a number of contradictions between the conceptual model and the empirical evidence arise (Wils et al., 2010). Starting from the principle that most anchors are similar to the motivational areas described by Schwartz (1992), it is possible to use the structure of values developed by Schwartz (1992) to form a theoretical basis for structuring career anchors (Wils et al., 2010).

Theoretical Model for Structuring Career Anchors

Based on the theory of the universal structure of fundamental values (Schwartz, 1992), Wils, Wils, & Tremblay (2014) proposed a model for structuring career values. Two perpendicular axes divide the circular model into four parts or quadrants. Horizontally, there is the bureaucratic self-concept (bureaucratic quadrant) versus the protean self-concept (protean quadrant); vertically, the careerist self-concept (careerist quadrant) versus the social self-concept (social quadrant). Career anchors are theoretically associated with these quadrants: the management anchor with the careerist quadrant, the pure challenge and autonomy anchors with the protean quadrant, the service/dedication to a cause anchor with the social quadrant and the security/stability anchor with the bureaucratic quadrant. Because of the different meanings of some items of Schein's measurement instrument, a few anchors could be placed in two quadrants (Wils et al., 2014). For example, the autonomy/independence anchor could belong either in the careerist quadrant (sense of freedom) or the protean quadrant (sense of professional autonomy). This study refines this theoretical model by arranging career anchors in a circular logic (circumplex) to represent their dynamic. In other words, the anchors are organized within each quadrant. To do this, we need to go back to the work of Schwartz (1992) according to which values are associated with ten motivational areas (Wils, Luncasu, & Waxin, 2007) organized as follows: power, followed by accomplishment (self-affirmation quadrant), hedonism, stimulation and then self-orientation (openness to change quadrant), universalism, followed by benevolence (self-transcendence quadrant), tradition/conformity and, to complete the loop, security (continuity quadrant).

As figure 6 shows, the careerism quadrant covers the management anchor. In fact, values such as social power or hierarchical authority, which characterize managers who have a management anchor, belong to the motivational area of power. To the right of the management anchor is the technical/functional competence anchor. We should note that we have placed this anchor straddling the careerism and protean quadrants because of the different meanings² attributed to it. According to Schein's career anchor measurement instrument, some items refer to functional managers who attach importance to values such as professional success, competence or influence, values that characterize the motivational area of accomplishment in Schwartz (located to the right of power) and that belong in the careerism quadrant. On the other hand, other items refer to the development of professional expertise as well as attachment to a professional area, which would tend to situate them in the protean quadrant, because values such as expertise characterize professionalism.

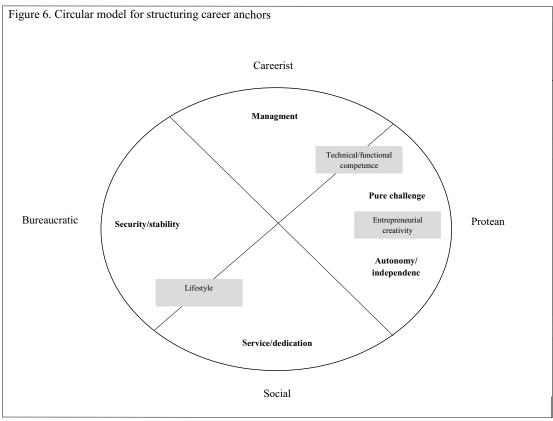
The protean quadrant groups three anchors, i.e. pure challenge, entrepreneurial creativity and autonomy/independence. On the one hand, the pure challenge anchor is associated with the motivational area of stimulation based on the sharing of values such as a varied or exciting life. On the other hand, the autonomy/independence anchor is associated with the motivational area of self-orientation because of the sharing of values such as independence. Between these two anchors, we placed the entrepreneurial creativity anchor, which is straddled between the motivational area of stimulation (value such as daring or the risk associated with entrepreneurship) and self-orientation (value of creativity).

The social quadrant is associated with the service/dedication anchor based on shared values because the motivational areas of universalism and benevolence use values required for service to others (open-mindedness, being helpful, a meaning for life). The bureaucratic quadrant covers the anchor of security/stability, which is directly associated with the motivational area of security. Lastly, we placed the lifestyle anchor between the social quadrant and the bureaucratic quadrant because of the different meanings assigned to the concept of lifestyle. On the one hand, lifestyle can refer to the desire to have enough time for friends, family or volunteer work, which would place it in the social quadrant because of concern for others. But this anchor can also indicate the desire to have enough time for oneself (for example, for personal leisure or travel), which would associate it with the bureaucratic quadrant (insert 3 sidenote) because a salary provides enough financial security for consumption (Mercure & Vultur, 2010). In Figure 6, we have highlighted (see the boxes) the anchors whose location is uncertain because of the different meanings, whereas the other anchors that are not in the boxes refer to anchors that are clearly identified with a motivational field. In short, the circular logic of our model is as follows: management, technical/functional competence, pure challenge, entrepreneurial creativity, autonomy/independence, service/dedication to a cause, lifestyle and security/stability.

Empirical Studies About the Theoretical Model

No study has tested the circular logic of the theoretical model presented in this study. However, two studies showed a link between the quadrants and career anchors. A first version of the circular structuring model of anchors was





compared with empirical data by Wils et al. (2010) using the methodology developed by Schwartz (data standardized on an individual basis, the use of an SSA "smallest space analysis" multidimensional scaling analysis by Guttman-Lingoes). From a sample of 880 Quebec engineers, these authors showed that the management anchor is part of the self-affirmation quadrant (corresponding to the careerist quadrant), that the creativity and pure challenge anchors are part of the openness to change quadrant (here called the protean quadrant), that the service/dedication anchor belongs to the self-transcendence quadrant (social quadrant) and that the security anchor is connected to the continuity quadrant (bureaucratic quadrant). A second study about the link between career values and career anchors largely confirms these results from several samples from the hospital sector (Wils et al., 2014). However, the technical competence anchor is instead associated with the bureaucratic quadrant, whereas the entre preneurship and independence an chors are connected with the careerist quadrant.

Criticism of These Empirical Studies

One of the weaknesses of these two studies is having used a modified or short version of the career anchors instrument like many studies (for example, Igbaria, Greenhaus, & Parasuraman, 1991). Furthermore, the study by Wils et al. (2010) is not about career anchors as defined by Schein, but rather about the facets of career anchors that result from the relationship between the items used to measure the anchors and Schwartz's motivational areas. Another weakness of the two studies stems from the fact that multidimensional scaling analysis is an exploratory statistical technique that does not allow for testing a circular structure. This study is intended to address these two shortfalls using Schein's original instrument along with a confirmatory statistical technique designed to test a circumplex, i.e. the circular stochastic process model. In the end, the study's results make it possible to evaluate rival structures of career anchors to evaluate whether the proposed theoretical model is superior to atheoretical

structurings. In other words, the goal of this study is to identify the structuring model that is closer to the empirical model of the circumplex from the analysis of data.

Methodology

Sample

The data was collected using a self-administered questionnaire sent to 2,300 management graduates from a Quebec university. Since no initial sampling was done, all graduates in administration, accounting and industrial relations from this university make up the population of the study. Of the 2,300 questionnaires mailed to the graduates' home address, 366 were returned completed, for a response rate of 15.9%. Before sending the questionnaire, it was subject to a pre-test to ensure that it was relevant and understandable, and a reminder letter was sent one week after the questionnaire was initially mailed to encourage subjects to respond.

Before analyzing the data, this convenience sample was refined. We withdrew a number of ob-



servations for different reasons. First, five subjects did not respond to a number of statements (over 50% of data missing per individual). Second, six other subjects frequently used the same point on the scale, (insert 4 sidenote) which suggests a lack of effort to seriously evaluate the career statements. We then eliminated subjects with little work experience, because Schein (1990a) believes that a minimum of five years of experience is required for the anchors to become clear and stable. Therefore, we eliminated 31 subjects with under five years of experience and 11 others who did not answer the question about their work experience (for 42 subjects eliminated). In total, 53 subjects were eliminated, which reduced the sample to 313 subjects.

Measurement

The career anchors were measured with the French version of Schein's original instrument, which is made up of 40 items (Schein, 2004). Respondents were to use a six-point Likert scale (1= Completely agree,...6= Completely disagree) to evaluate the extent to which they agreed with each of the 40 statements. Each of the eight anchors were measured by five items. As an illustration, one of the items to measure the pure challenge anchor reads as follows: "I dream of a career filled with problems to solve and challenges to tackle." The Englishlanguage version of Schein's instrument shows an almost satisfactory construct validity (Danziger et al., 2008). Given that Schein's instrument is long, many researchers have used a short version of the original. For example, Igbaria & Baroudi (1993) validated a short English-language version of Schein's instrument that also presents an acceptable factor structure with alpha coefficients ranging from 0.62 to 0.90. An adapted, short Frenchlanguage version of this instrument also shows satisfactory reliability with alpha coefficients ranging from 0.73 to 0.82 (Tremblay, Wils & Proulx, 2002). Furthermore, this version, which was reworked by Roger (2006), also showed a satisfactory construct validity (correlation between 0.41 and 0.47 between the anchors measured by two different instruments).

Statistical Analysis

All the analyses were conducted with R software (R development core team, 2013). For the past few years, R software, which is a programming language, has been popular not only because it is free, but also because it makes it possible to conduct specialized analyses not available with commercial software such as SPSS. One of these specialized analyses is found in the package CircE library (Grassi, 2014) which estimates the structural models for circumplexes (Fabrigar, Visser, & Browne, 1997). The mathematical details of this technique are explained in Browne (1992) who is behind CIRCUM software in the DOS environment. In fact, CircE is a more upto-date version of this software, which was developed with R (Grassi, Luccio, & Di Blas, 2010). Lastly, we used the lavaan package library for the confirmatory factor analysis, again with R. We also used the packages psych, rela, GPArotation and corpcor libraries for the exploratory factor analysis (principal component analysis).

Characteristics of the Sample

With respect to the characteristics of the sample, the average age is relatively high at 40.5, and respondents earn on average \$72,834 annually. Women comprise 47.2% of the sample. Furthermore, the large majority of respondents have a bachelor's degree (79.5%) and 21.2% of them have a graduate degree.

Findings

The findings section is divided in two parts: the results of the factor analyses and the results from the structural model to test the circumplex.

Factor Analyses

Since the factor structure of Schein's instrument has not been validated for the French version of Schein's instrument, we performed an eight-factor confirmatory factor analysis (i.e. the eight anchors indicated in Schein's theory). The results do not allow us to conclude that the eight-factor model is adequate based on the indices (insert 5 sidenote) of fit. In the case of the eight-factor confirmatory factor analysis, we obtained values lower than 0.95 for the CFI and the TLI (0.69 and 0.66 respectively). According to Byrne (2001), values lower than 0.95 are insufficient to assert that a model fits well with the data. For the RMSEA, a value lower than 0.05 is a good fit, and we obtained a value higher than 0.08 for the eight-factor solution. With respect to the SRMR, we obtained a value higher than 0.05 (i.e. 0.09), whereas a value lower than 0.08 is desirable for a good fit. Lastly, we observed that the result of the test χ^2 was significant at p = 0,000, leading us to the conclusion that the model is not adequate. By the way, we should point out that the eight-factor structure tested using the confirmatory factor analysis by Danziger et al. (2008) was worse than the nine-factor structure (the entrepreneurial creativity anchor was divided in two), but that the latter was not entirely satisfactory (with the English-language version of Schein's instrument).

Following this negative result, we conducted a principal component analysis (PCA) as recommended by Churchill (1979) and explained by Field, Miles, and Field (2012). This analysis addressed the 40 items with an orthogonal rotation (Varimax). The KMO (Kaiser-Meyer-Olkin), which is 0.80, shows the utility of conducting the PCA (a KMO of 0.80 positioned between "good" and "great" (Field et al., 2012). Furthermore, all the KMOs for individual items are higher than 0.70, which is above the acceptable threshold of 0.50. Bartlett's sphericity test, which is significant at p < 0.000, shows that the



correlations between the items are sufficiently strong to conduct a PCA. An initial PCA indicates that a few items pose problems, such as saturation on a factor not anticipated by the theory and unique saturation on one factor. A series of five successive PCAs led to eliminating five items. In the last PCA, eight factors were selected examining the "Scree" graph. These factors, which have a proper value greater than 1, explain 60% of the variance. The analysis of residuals between the correlation matrix and the reproduced matrix shows that the percentage of significant residuals (higher than 0.05) is 26%, which does not exceed the recommended threshold of 50%. The root-mean-square residual is 0.05. Given that 0.05 is lower than the recommended threshold of 0.08, the number of factors extracted is adequate. Lastly, we should note that the number of factors extracted is in line with Schein's theory, i.e. eight factors. Table 1 shows all the saturation coefficients after the rotation that are higher than 0.30, this threshold being appropriate given the sample size, which is close to 300 observations.

Four of the eight factors correspond fairly well to the anchors as provided by Schein, i.e. the stability/security anchor (component 1), the service/dedication to a cause anchor (component 2), the lifestyle anchor (component 3), the autonomy/independence anchor (component 7). Two other factors almost correspond to two anchors, i.e. the management anchor (component 5) and the technical/functional competence anchor (component 8). In the case of the management anchor, one item from the technical anchor (item 17) negatively saturates with two items from the management anchor (items 26 and 18). This situation is explained by the fact that Schein defines the technical anchor in terms of functional management. Therefore, item 17 of the technical anchor ("I prefer to become a functional senior manager in my field of expertise rather than CEO" is in fact the reverse of the wording of item 26 of the management anchor ("I

Table 1
Summary of PCA results with 35 items

anchor		1				d factor loadings		
	1 Stability/ security	2 Service/ dedication	3 Lifestyle	Crea- tive chal- lenge	5 Manage- ment	6 Entre- preneur- ship	7 Autonomy/ independence	8 Tech- nical
Item 20/ Stability/security	0.82							
Item 36/ Stability/security	0.79							
Item28/ Stability/security	0.77							
Item 4/ Stability/security	0.70							
Item 12/ Stability/security	0.65							
Item 22/ Service/dedication		0.78						
Item 6/ Service/dedication	_	0.73						
Item 30/ Service/dedication	-	0.73						
Item 38/ Service/dedication	-	0.63						
Item 14/ Service/dedication		0.51						
Item 24/ Lifestyle			0.77					
Item 32/ Lifestyle	1	0.31	0.73					
Item 8/ Lifestyle	1		0.71					
Item16/ Lifestyle	-		0.65					
Item 40/ Lifestyle	0.39		0.48					
Item 21/ Entrepreneurial creativity				0.64		0.35		
Item 29/ Entrepreneurial creativity				0.62		0.39		
Item 23/ Pure hallenge				0.62				
Item 31/ Pure challenge				0.59				
Item 7/ Pure challenge				0.55	0.33			0.32
Item 15/ Pure challenge	-			0.51				0.34
Item 26/ Management					0.85			
Item 17/ Technical					-0.83			
Item 18/ Management					0.68			
Item 5/ Entrepreneurial creativity						0.76		
Item 37/ Entrepreneurial creativity	-					0.75		
Item 13/ Entrepreneurial creativity						0.70		
Item 19/ Autonomy/independence							0.73	
Item 35/ Autonomy/independence							0.63	
Item 27/ Autonomy/independence	-0.47						0.57	
Item 11/ Autonomy/independence]						0.55	
Item 3/ Autonomy/independence	1					0.35	-0.47	0.35
Item 1/ Technical				0.34				0.69
Item 2/		0.36						0.65
Management Item 9/								0.49
Technical Eigenvalues (after	3.58	2.76	2.75	2.68	2.38	2.37	2.34	2.00
rotation, eight factors) % variance	10.00	0.08	0.08	0.08	0.07	0.07	0.07	0.06
Cronbach's alpha	-0.83	0.73	0.75	0.71	0.79	-0.81	0.71	0.57



prefer to become CEO rather than a senior functional executive in my field of expertise"). On the other hand, we left in component 8 which corresponds to the technical anchor (items 1 and 9) one item from the management anchor (item 2) because the wording of the latter item includes the idea of "participation of others" which is central to collaborative work between professionals to better serve internal clients. Lastly, the two last factors do not correspond exactly to the anchors as defined by Schein. In fact, the items in the entrepreneurial creativity anchor were divided in two. Component 6, which includes three items for entrepreneurship, corresponds to the entrepreneurship anchor identified by Danziger et al. (2008). On the other hand, the two other creativity items in the entrepreneurial creativity anchor were combined with the pure challenge anchor items (component 4). This can be explained by the fact that the motivational field of stimulation refers to a "need for excitement, novelty and challenge" (Wach & Hammer, 2003). Rodrigues et al. (2013) also found that challenge was related to the ideas of novelty and innovation. We therefore named this factor "creative challenge."

Structural models to test the circular logic of the eight anchors. The analysis based on circular stochastic process model with a Fourier series (circumplex covariance structure model) is meant to test the circular representation of data where the distance between the anchors on the circle is a function of their correlation (Browne, 1992). To evaluate the circular structure of the career anchors, the management anchor was placed as a reference variable at 0 degree. Three structural models were specified: (1) the circumplex model with two constraints (equal spacing between the anchors on the circle, equal radii (equal communalities) between the centre of the circle and each anchor); (2) the quasi-circumplex model with one constraint (unequal spacing between the anchors on the circle, but with the constraint of equal radii between

the centre of the circle and each anchor); and (3) the model without constraints (unequal spacing between the anchors on the circle, unequal radii between the centre of the circle and each anchor. For the correlation function, the number of free parameters (m) was set at 3, which is commonly used (Browne, 1992; Perrinjaquet, Furrer, Usunier, Cestre, & Valette-Florence, 2007). In the three cases of figures, the models converged.

As Table 2 shows, the fit indices show that the model without constraints (the third model) is the most plausible: the GFI = 0.98 and the AGFI = 0.93 are higher than the recommended threshold of 0.90; the CFI, which is 0.945, is close to the recommended threshold of 0.95 (a value higher than 0.90 is acceptable); the RMSEA = 0.087 is a little high, but still acceptable (an RMSEA higher than 0.10 indicates a poor fit according to Browne & Cudeck, 1992) and the SRMR = 0.06 is below the recommended threshold of 0.08 (Browne & Cudeck, 1992). In spite of the fact that the fit is not the best, the model without constraints is still acceptable. It is even more acceptable given that the circular structure is new and that the measurement of anchors by the French-language version is not optimal.

The fit indices provide no information on the location of the anchors along the circle. According to Figure 7, which represents the circular logic of the model without

constraints, the anchors are organized in the following order: MG (Management), TC (Technical or technical/functional competence), CC (creative challenge anchor), AI (autonomy/independence anchor), EN (entrepreneurship anchor), SD (service/dedication anchor), LS (lifestyle anchor) and SS (security/stability anchor). The management anchor is in clear opposition to the lifestyle and service/dedication anchors, whereas the stability/security anchor is in clear opposition to the entrepreneurship and autonomy/independence anchor. This arrangement of the anchors also works with the logic of our quadrant-based model. Therefore, the careerist quadrant is made up of the management anchor (alpha=0.79); the protean quadrant includes the technical/functional competence, creative challenge, autonomy/independence and entrepreneurship anchors (alpha=0.82); the social quadrant combines the lifestyle and service/dedication anchors (alpha=0.78); lastly, the bureaucratic quadrant refers to the security/stability anchor (alpha=0.83). We should also note that the careerist and social quadrants are negatively correlated (-0.24), as are the bureaucratic and protean quadrants (-0.19).

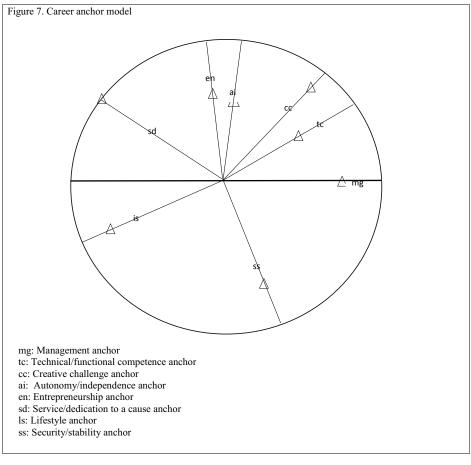
Discussion

To evaluate the rival structures for career anchors, the circular ordering illustrated in Figure 7 (empirical model based on structural

Table 2
Summary of data fit indices

Models	GFI	AGFI	CFI	RMSEA	SRMR
Equal spacing/equal radii	0.83	0.75	0.41	0.18	0.16
Unequal spacing/equal radii	0.94	0.86	0.80	0.13	0.08
Unequal spacing/unequal radii	0.98	0.93	0.945	0.087	0.06





equation modeling with no constraints) was compared with that of atheoretical/theorical models proposed in the studies. Let's look at the first model, which is Schein's. While this model does not predict a circular ordering, it still proposes three oppositions. Of the three oppositions predicted, only one is in line with the empirical model: autonomy/independence is in opposition to security/stability. Management is not in opposition to technical/functional competencies, whereas entrepreneurial creativity (creative challenges) is not in opposition to service/dedication to a cause. Basically, this model is inadequate. The second model, that of Feldman and Bolino, proposes a circumplex with four oppositions. Pure challenge (creative challenges) is not in opposition to lifestyle, whereas technical/functional competencies is not in opposition to autonomy. This model is therefore rejected. The third model, Bristow's, proposes a circumplex with four oppositions. Technical/functional competencies

are not in opposition to entrepreneurial creativity (creative challenges), and lifestyle is not in opposition to pure challenges (creative challenges). This model is therefore rejected. The fourth model, Chapman's, proposes a circumplex also made up of four oppositions. Management is not in opposition to autonomy/independence, service/dedication to a cause is not in opposition to technical/functional competencies, lifestyle is not in opposition to entrepreneurial creativity. This model is also rejected. The fifth model, Chapman's, adds an opposition to the three proposed by Schein's first model, but this addition is not appropriate because pure challenge (creative challenges) is not in opposition to lifestyle. In short, these five structures are incongruent with the empirical model.

Unlike the five previous structures which are atheoretical, we proposed a model based on Schwartz's theory to justify the circular ordering of the career anchors. This model, which proposes organi-

zing the anchors within each of the quadrants (the quadrants are also structured according to a circular logic), is compatible with the empirical model. At the disaggregated level of the anchors, the circular logic proposed by the model (management, technical/functional competence, pure challenge, entrepreneurial creativity, autonomy/independence, service/dedication to a cause, lifestyle and security/stability) is very close to the empirical model (management, technical/functional competence, creative challenges, autonomy/independence, entrepreneurship, service/dedication to a cause, lifestyle, security/stability). Aside from entrepreneurship being located after autonomy/independence, the order is very similar. In terms of oppositions between anchors, management is in opposition to service/dedication to a cause. Security/stability is also in opposition to creative challenges and autonomy/independence. None of the five previous atheoretical structures



(with the expected oppositions) show such compatibility with the circular logic of the anchors from the empirical model. Our model is therefore the most plausible. Furthermore, one of the weaknesses of the above models is that they propose a circular logic without specifying the second-order dimensions (quadrants). So it is hard to group related anchors to form quadrants as our model allows.

This study also raises three uncertainties in our model. First, technical/functional competence, which was straddling management and pure challenge, is actually closer to creative challenges than management. This result seems to indicate that technical/functional competencies refer to professional skills in our sample. These skills go hand in hand with other anchors such as creative challenges and autonomy/independence which are central to professionalism and which characterize the protean quadrant. Second, lifestyle also straddles security/stability and service/dedication to a cause in our model. According to the results, lifestyle is clearly closer to service/dedication than security/stability. This result is consistent with the idea of lifestyle, which puts the focus on friends and family and which is central to the social quadrant. Lastly, entrepreneurial creativity is split in two. Creativity merged with pure challenge, and entrepreneurship was placed after autonomy/independence. To the extent that entrepreneurship refers to "being one's own boss," it is logical that it be closely related to autonomy/independence, because the area of self-direction in Schwartz's theory refers to independence of thought. Creativity was combined with pure challenge. This result can be explained by the fact that the area of stimulation refers to needs for excitement, novelty and challenge in Schwartz's theory. Here, creativity refers more to novelty and the desire to "build something from my own ideas" (item 21). That said, the exact location of these anchors is not essential to our model to the extent that it proposes a logic based on four

quadrants at the aggregated level (higher order dimensions). It is therefore expected that creative challenges, autonomy/independence and entrepreneurship are part of the protean quadrant. We should note that these higher level anchors show adequate reliability.

Conclusion

The major contribution of this research is that it sheds light on the debate about structuring career anchors, by proposing a new more general structural model for anchors based on Schwartz's theory of values. Furthermore, the circular logic of this new model was empirically validated. Unlike other studies that have tried to validate the structures of career anchors, to our knowledge our study is unique for having tested the circular logic of anchors with a statistical analysis appropriate to circumplexes (Browne, 1992). Given that our quadrant model is better than rival structures, in the short term researchers could use these quadrants in future studies rather than Schein's eight anchors. A particularly interesting question would be to find out whether dominant career anchors belong to the same quadrant, closely related quadrants and/or opposite quadrants. Career choices could be difficult, to varying degrees, depending on the scenario. On the other hand, our results support the circular logic of our model of career anchors. In the longer term, this offers an interesting avenue for research to transform our model into a quasi-circumplex. If the management anchor is in opposition to the lifestyle anchor, is De-Long's identity anchor in opposition to the service/dedication anchor? Along the same lines, if the security/stability anchor is in opposition to the entrepreneurship and autonomy/independence anchors, what anchor is in opposition to the challenge and creativity anchors? Is the functional skill (professional) anchor in opposition to the new technical anchor? Are there several variants of the lifestyle anchor? What anchors are these variants in

opposition to? Like Rodrigues et al. (2013), qualitative studies would be appropriate to clarify the variants of the technical/functional competence and lifestyle anchors. Even though these future studies do not identify a universal set of career anchors, they nevertheless have the potential to lay the groundwork for structuring the anchors according to a quasi-circumplex.

The results of our study also have a practical use. Schein's measurement instrument for career anchors is long (40 items). To the extent that anchors can be grouped into quadrants, it is possible to reduce the number of items to measure only the quadrants (rather than the eight anchors). Also, understanding the proximity of the anchors will likely help practitioners with their career orientation work.

The limitations of this study also open the door to new studies. First, our study used the French-language version of Schein's original instrument. Our results indicate that a number of items in this version pose a problem. Also, the Frenchlanguage version (Schein, 2004), which uses a Likert scale, is not entirely similar to the English-language version (Schein, 1990b) which is based on two different scales (Likert and forced choice). An interesting study would be to establish the construct validity of the French-language version. Our study would also have to be replicated with the English version of Schein's instrument. Lastly, the external validity of our study should be questioned because our sample was a convenience sample. Other studies with different populations are therefore required to establish the universality of the structure of career anchors. Like Schwartz's theory of basic values, it is expected that the structure of anchors will be universal, which does not exclude the fact that the importance placed on career anchors can be contingent, that is influenced by context (Rodrigues et al., 2013).



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- 1 The distinction between "career anchor" and "career orientation" is tenuous. Originally, Schein (2004) called his measurement instrument for career anchors "Questionnaire on career orientations." DeLong also uses the term "career orientation" as a synonym for career anchor. Over time, the idea of career orientation has evolved. On the one hand, a career anchor refers to a stable image of oneself that is congruent with a work environment, whereas a career orientation means a stable career preference related to a social context that is more encompassing than work (see Rodrigues et al, 2013). On the other hand, according to Roger (2006), a career orientation encompasses not only stable choices (career anchors), but also the initial choice of career. In short, the idea of career orientation seems more encompassing than the idea of career anchor, but there is no consensus on the definition of this reconceptualization of career orientation.
- 2 The technical/functional competence anchor can also have a third meaning not measured by Schein's instrument, i.e. techniques to master, which could place it in the bureaucratic quadrant.
- 3 Lifestyle can also have a third meaning: being able to pursue a career with opportunities for balancing work and family, which would associate it with the protean quadrant. For this study, we did not use this meaning, which does not appear in the wording of items measuring the lifestyle anchor.
- 4 Schwartz uses this criteria (62.5% for a single point on a scale) to refine the data (Schwartz, 1992).
- 5 These are the indices available with R using the lavaan package library.





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Knowledge and Risk: Choices and Decisions in the Career Selection Process Among University Students

Allen Rafuse & Robert Lanning Mount Saint Vincent University

Abstract

The processes and resources university students employ for their career planning have become more important in the contemporary globalized economy. Demand for higher levels of education along with fluctuations in job availability and security are influencing students' vocational choices. One hundred eight students were surveyed on their choices of a career, informational and other resources supporting their choices. Four broad occupational categories were observed among student responses as potential career avenues. By making comparisons with similar recent surveys in Canada in terms of students' use of resources, we make an attempt to assess the viability of their decisions with respect to employment projections, and conclude with notes on the policy implications within universities.

Précis

Les processus et les ressources des étudiants universitaires emploient pour leur planification de carrière sont devenus plus importants dans l'économie mondialisée contemporaine. La demande pour des niveaux plus élevés de l'éducation ainsi que les fluctuations dans la disponibilité de l'emploi et de la sécurité sont d'influencer les choix professionnels des étudiants. Quatre grandes catégories professionnelles ont été observées parmi les réponses des élèves que des avenues de carrière possibles. En

faisant des comparaisons avec les enquêtes récentes similaires au Canada en termes de l'utilisation des ressources des étudiants, nous faisons une tentative pour évaluer la viabilité de leurs décisions par rapport aux projections de l'emploi, et de conclure avec des notes sur les implications politiques au sein des universités.

Making a viable decision about a course of study leading to a future occupation has become increasingly important and not without uncertainties. Globalization, the development of a knowledge economy, and economic fluctuations are but three inter-related factors that bear on educational and career choices, and suggest a more deliberate and focused process of decision-making at least for initial entry into a career. As a recent study has shown (Uppal & LaRochelle-Côté, 2014), another factor may be the awareness that significant proportions of university graduates, especially in non-professional programs, are "overqualified" for the occupation they hold. All of these factors create a context a group of counsellors may have had in mind when writing a position paper on career counselling citing the need to expand "the scope of career development to acknowledge that there are three interconnected domains: personal-career counselling, career education, and career information" (Crozier et al., 1999, p.

Many students arrive at university with definite program-to-career goals, while others are

undecided. Indecision may be successfully addressed early in the university career, in which case it may be a matter of personal development, but for some students it may be a more enduring situation of "indecisiveness" or "chronic indecision" (Gordon & Meyer, 2002, p. 41). As Crozier, et al. (1999) have noted, citing several sources, a "well established career theory" is one in which "vocational development is considered to be one aspect of the overall process of human development" (p. 3). The pattern of career decision-making and a later change of course is evident the Youth in Transition Survey's combined data on the consistency or inconsistency of choices among Canadian youth and young adults over time, 2000 to 2010 (Statistics Canada, 2015). Of interest is the relative instability of career decisions, for both women and men, between the ages of 15 to 17, and the relative stability of such expectations at ages 21 and 23, the initial post-secondary years. About 14% of men surveyed were still undecided at age 25, a proportion slightly higher than for women. Evidently, experience, new knowledge about careers and opportunities during the ages relevant to the post-secondary years has an effect on career expectations; just under 40% of men and about 37% of women had made a new career decision at the age of 25 (Statistics Canada, 2015, p. 6, Chart 2).

While there are numerous studies on school-to-work transitions, less research has been undertaken on the career selection process



once students are enrolled in university and have begun to engage in reflexive decision-making based on new knowledge, varied resources, and socio-political relations previously unknown to them. The study under discussion here sought the perspectives of students on aspects of their career selection. Participants were undergraduate students enrolled in Arts, Science, and Professional Studies programs at Atlantic University. (For confidentiality purposes, the name of the university has been changed.) We first discuss choice, risk and decision-making as a means of contextualizing the study, followed by a discussion of literature on career selection. The results of our survey are then presented. Our "Discussion" section examines our participants' responses in two ways: first, by looking at the viability of their career decisions in relation to the Canadian Occupational Projections System and related research and, secondly, by comparing the responses to our survey with similar recent research.

The Complex of Choice, Risk and Decision

A casual discussion with many university students will yield some degree of uncertainty regarding choices for academic study and a future occupation. The very concept of career planning implies an element of risk that may be partially overcome by adequate information about specific occupations and some understanding of the influence of economic fluctuations on job markets. The former is subject to control by students and their advisors, the latter is something over which individuals lack effective control.

The development of the concept of "risk society" (Beck, 1992; Giddens, 1991) has heightened attention to the potential consequences of decision-making with

respect to the competitive marketplace in "products, labor power, investments or money," the "thoroughgoing reflexivity ... of modern institutions" and linking of "individual and collective risks" with the global economy (Giddens, 1991, pp. 117-118, 20). The notion of reflexive information gathering and decision-making suggests that career information and knowledge of economic decisions are strategies of risk avoidance. Thus, rethinking plans and choices may well be a normative component of career selection that is evident in the link between individuals and the institutions in which they are involved. For example, "occupational climates" are prompting "changes to educational policies informing career education in high schools" (Truong, 2011, p. 1) which raises issues about the structure of universities with respect to their links to the job market (Miner, 2014). Giddens' notion of "risk profiling" (1991, p. 119) is one such issue in which the role of expert information informs what we might call the choice-riskdecision complex. Consider, in the context of career planning, that Giddens' conceptualization of a 'risk profiler' may include counsellors, university faculty and others as sources of labour market knowledge, providing their clients or students with information associated with opportunities and possible constraints of particular vocational paths. Discussions may involve (mis)perceptions developed from media exposure and other sources regarding projections of future occupational trends, corporate downsizing, job relocations and layoffs. However, an important caveat to the concept of risk in this context, and itself a potential mitigation of the problems of career selection, is the anticipation that the demand in many occupational opportunities in the future will exceed the number of

job seekers (Miner, 2010; Miner, 2014). If career readiness is a key mandate for post-secondary institutions, then the delivery of quality career education is integral to "student satisfaction with their post-secondary experience" (Crozier, et al. 1999, p. 8). We address some of these issues further below.

Aspects of the Literature on Career Decision-Making

The examination of career development programs and resources in fourteen countries by the Organization for Economic Co-operation and Development (hereafter OECD) in 2002 noted the "multifaceted and highly decentralized" career counselling in Canada reflecting variations among provinces and among institutions within specific jurisdictions (OECD, 2002, p. 4). The review committee also noted the optional character of career guidance in both public and postsecondary education as well as the funding in some provinces based on performance criteria. As to the latter issue, the reports' authors stated that the delivery of career development and education to students may be contingent upon whether or not it aligns with senior leadership's [school board] priorities (OECD, 2002). Clearly, career development and career education requires an integral relation between secondary school and post-secondary education of all types. The OECD concluded that these are "clearly recognized in Canada as a public good which should be freely accessible to all.... The public investment in such information is considerable, and the products are very impressive". On the other hand, the report notes that the 'impressive' information available to the public is "under-utilized" (OECD 2002, p. 13).

Career planning research in Ontario secondary schools revealed



students had decided upon, or contemplated, multiple vocational pathways. Students attribute career selection to be "very", or "quite important" as a feature defining their identities (Dietsche, 2013, p. 77). Career planning was influenced primarily by parents and guardians, along with "someone they admired who worked in a job/field" in which students may like to work; teachers and the media were also significant influences (Dietsche 2013, p. 78). Students noted that, job shadowing and speaking with others employed in a profession of interest were significant influences on career decision making (Dietsche 2013).

Troung's (2011) research on policy and practice in secondary schools regarding career education aimed to gather student feedback on their career development options. Students were dissatisfied with the "quality of advice" obtained from guidance counselors, who, according to students, were often unavailable for consultation (p. 14). Counselors acknowledged using classroom teachers as supplemental resources in order to relieve workload pressure and ensure students had "available counsel" for the variety of career possibilities (Truong 2011, p. 19). What 'quality of advice' from guidance counselors or classroom teachers entails is not clear; however, this may suggest that some elements of 'quality' are related to assessments of the risk environment of specific labour markets.

Research on career thoughts of undergraduates sought to discover whether "negative career thoughts" had any relations to "career decidedness and satisfaction with choice" (Chason et al., 2013, p. 39). Chason et al. conceptualize "career thoughts" as "an individual's feelings, thoughts, attitudes, beliefs, and expectations related to career decision-making and problem-solving

effectiveness", while "negative career thoughts" impart "a negative impact on one's career decisionmaking and problem-solving abilities" (2013, p. 40). Career decidedness characterizes those individuals who settled on a career choice or had a possible career in mind along with some alternatives. Negative career thoughts can cause a host of issues for the individual, including altering or avoiding career related behaviors and decision-making, the outcome of which may impact the "effectiveness of career problem solving and decision making" (2013, p. 40). Chason et al. concluded that the more "negative career thoughts" students held, the more variation there was in career decisions and satisfaction. In particular they noted that resolving anxieties around career choice implies satisfaction in the decision itself and a belief that one possesses adequate "decision-making skills" (2013, p. 45).

Method

Data collection was completed mid-way through the Winter academic term, 2014, using a 25-item questionnaire asking about demographic information, family background, occupational and educational goals, employment outlook, utilization of career related resources, and the influences on career decision-making from an variety of sources. Statistical analyses were performed utilizing IBM SPSS version 22.

The participants in the survey were 108 full-time undergraduate students enrolled in Arts, Science, or Professional Studies degree programs. Participants ranged in age from 18-27+ and were categorized based on predefined age groups. Slightly more than half were aged 18-20, one-third were 21-23, and the remainder (15.6%) aged

24 or older. Of students completing the survey nearly 40% were firstyear students, 12.8% in second year, 17.4% in third year, and 22.0% in fourth year. A small proportion were students in their fifth year or more of study, some having transferred from other post-secondary institutions or changed degree programs and did not know their relative position with respect to their new program of study. The programs of study were quite varied amongst the respondents but this was somewhat expected based on the classes selected for this sample: a first year Anthropology class, a second year Biology class, a third year Criminology class, and a fourth year class in Child and Youth Study. The selection of courses for the survey was based on discipline, availability and agreement of course instructors. There was something of a gender imbalance in that 88.0% of participants were women. The majority, (93.0%) indicated their country of origin was Canada; a similar proportion indicated their secondary education was completed in Canada.

Results

Parents' Education

The level of educational attainment for each parent as indicated by students offered some interesting figures, most notably a larger proportion of mothers having obtained a university degree (26.6%) compared to fathers (20.2%). Similarly, more mothers had completed a community college diploma, degree or certificate (25.7%), compared to fathers (22.0%) and more mothers had obtained a professional certification (e.g. nursing, medicine, law) (11.0%), compared to fathers (4.6%).



Occupational Goals and Educational Requirements

The overwhelming majority of students (90.0%) had decided upon a major and a significant majority (79.6%) indicated they had determined an occupational goal. Respondents who indicated the latter were asked to list the occupation they were anticipating; those who had not determined a goal were asked to list the occupations they were considering. The majority of decided respondents, and those considering their vocational options, cited four broad occupational areas: child care and early childhood education (35.0%), teaching at various levels of public schooling (24.1%), social work and related occupations (16.7%), and school, youth and/or health related counselling (14.8%), such as Sports Nutrition, Community Nutrition, or Registered Dietician. The first two of these categories (child care and teaching) are fairly specific occupations but ones in which job titles can vary depending on the institutional focus and clientele. The last two categories include considerably more sub-categories of jobs. In our analysis, below, of the viability of career selection in relation to occupational projections, these occupational groups (social work and related occupations, and school, youth and/or health related counselling) are collapsed into one group leaving us with three broad occupational categories.

We asked students to list "what educational level or training" was required for their chosen occupation. Assessing these responses, we found that the majority (73.0%) were accurate in their understanding of occupational requirements. When asked if education and training requirements influenced their decision to pursue employment in a given field, the most frequent response

(45.0%) was that it only "Somewhat" influenced their decision. This suggests that length of education and training serve as only one facet of the career selection process. Students were asked, "to your knowledge what is the availability of jobs in" your chosen occupation? Nearly 30% of students considered prospects to be "Good" and 27.5 % believed the occupation was "Growing", while one-quarter considered employment prospects to be "Slim"; the remainder did not know or were not sure. Using a sliding scale from "Not at all motivated" to "Completely motivated", students' perception of available job opportunities appears to motivate a large proportion (46.3%), while nearly 30.0% were indifferent, and slightly less than ten percent were not at all motivated by job availability. We return to the accuracy of choice and job availability below.

A qualitative analysis was not performed on the primary reasons students chose to pursue a particular occupation, but the most common responses, in general terms, were the intrinsic need to help people, and having had an interest in the field of choice prior to beginning their post-secondary education. The following are some typical rationales of students for selecting their occupational path:

Student Response 1: "My wife has Crohn's Disease, and I want to further the current treatment options and knowledge base to increase understanding of and treatment of gastroenterological disease."

Student Response 2: "I love working with children. I think that if we take care of our children then there will be a better future. The way a society treats their children, determines the morality and condition of a soci-

ety. I want to contribute positively to this."

Student Response 3 [para-phrased]: I have seen the amazing work Speech Language Pathologists have done with my siblings. I was inspired to follow a similar career path.

Student Response 4: "Being in a military family, I felt that it was important and relevant to provide support to those in need of it."

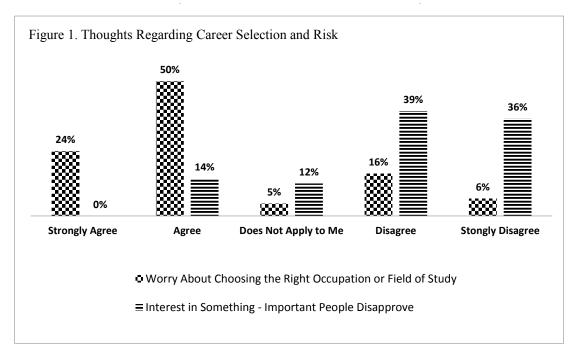
Student Response 5: "After researching into this field [Forensic Psychology], the many descriptions all sound appealing as a career choice."

Student Response 6: "Improving the health of my community members is important to me." I have an interest in diabetes education [paraphrased].

Occupational Risks and Anxiety

We infer students' awareness of the risks and anxieties associated with selecting the 'right' field of study and occupation from their rating of the following statement on a scale, where 1 represented "Strongly Agree" and 5 represented "Strongly Disagree": "I worry a great deal about choosing the right field of study or occupation." Figure 1 shows that 74.0% of respondents worry to varying degrees about choosing the right occupation (24% 'Strongly Agree', 50% 'Agree'), compared to 22% who either disagreed or strongly disagreed. Students were asked a follow up question (Figure 1): "Whenever I've become interest in something, important people in my life disapprove". The majority of respondents disagreed or strongly disagreed (75% combined) thus suggesting





support from others for their career interests.

Utilization of Resources

Career counselling services appear to be utilized by a larger number of students at the high school level, in contrast to its utilization at the university level; 37.0% and 28.0%, respectively (Figure 2). However, the majority of respondents did not use Career Counselling services at either level of education. Career Fairs were attended by more students during high school (57.0%) than during university (7.0%). Seeking advice regarding education or training from university faculty (48.0%) was nearly equal to the proportion not seeking advice (50.0%) did not (Figure 2).

Participants were asked: "Whether you are certain or not certain about a career / occupation, please rank the level of helpfulness of the following resources" (Table 1). Students indicated that job shadowing and speaking with individuals already employed in a given occupation to be very helpful, 78.0% and 77.0%, respectively. Workplace or

industry tours were seen as 'very helpful' by 44.0% of students. Web and text-based information used to explore, match, and describe potential career interests and abilities were viewed as somewhat helpful, 53.2% and 61.5% respectively. Cooperative education and career development courses at the high school level were also rated as 'very helpful', 47.7% and 30.3%, respectively; however, significant proportions of respondents indicated they had not used either resource, 27.5% and 18.3%, respectively. Organized career fairs or career days appear to be somewhat helpful (45.9%); however, a significant portion of students (17.4%) did not utilize these resources. Individually exploring vocational options with guidance counselors was rated as 'helpful' or 'very helpful' (71.6% in total).

Not surprisingly, students' vocational plans are influenced by an array of groups and individuals, with parents or guardians being most influential (36.7%), followed by teachers, (34.9%) (Table 2) and someone the respondent admired already working in the desired job (34.9%); friends appear somewhat (41.3%) or not at all influential

(37.6%) (Table 2). Other influential persons including family members, guidance counselors, career advisors, or university faculty, appear roughly split between 'somewhat' or not at all influential on career planning. The media's effect on planning was somewhat influential (36.7%), but almost one-half (47.7%) were largely unaffected by this source.

Discussion

As we have indicated, students derive some portion of their career decisions from informed planning through a variety of sources and are aware of the requirements of the occupations chosen. These are important issues not only in terms of individual student plans, but also for career counselling at the university level regarding a student's program choice that is indicative of a career path.

How Accurate are our Participants Regarding Future Occupational Availability?

As noted above, after collapsing two (social work and related occupations, and school, youth



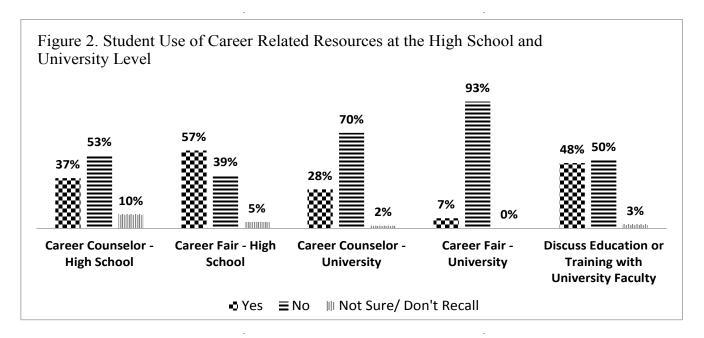


Table 1

Career/occupation

Whether you are certain or not certain about a career / occupation, please rank the level of helpfulness of the following resources.								
	Very helpful	Somewhat helpful	Not helpful	I did not use this resource	Did Not Respond			
Job shadowing to explore what the occupation involves.	78%	11%	0%	7.3%	3.7%			
Talking to people already working in the occupation.	77.1%	15.6%	0.9%	2.8%	3.7%			
Using a web-based tool that provides information you need to select a future career matched to your interests & abilities.	22.9%	53.2%	15.6%	4.6%	3.7%			
Text-based information on web sites or print material describing potential careers.	22.9%	61.5%	10.1%	0.9%	4.6%			
Career development course in high school.	30.3%	34.9%	12.8%	18.3%	3.7%			
High school co-op course.	47.7%	16.5%	4.6%	27.5%	3.7%			
Working one-on-one with a guidance counsellor to explore future careers.	34.9%	36.7%	8.3%	14.7%	5.5%			
Career Fairs or Career Days.	22.9%	45.9%	9.2%	17.4%	4.6%			
Speaking with university guidance staff.	38.5%	37.6%	4.6%	15.6%	3.7%			
Workplace or Industry Tours.	44%	26.6%	5.5%	20.2%	3.7%			

^{*}Adapted from Dietsche, 2013.



Table 2

Career/occupation Influence

Whether you are certain or not certain about a career / occupation, please rank the level of influence on your plans of the following individuals or groups.							
influence on your plans of the following indiv	Influenced me a lot	Influenced me somewhat	Did not influence me	Did Not Respond			
Parent(s) or Guardian(s)	36.7%	48.6%	10.1%	4.6%			
Someone I admire who is working in the job I'd like	34.9%	23.9%	36.7%	4.6%			
The media (e.g. movies, TV programs, etc.)	10.1%	36.7%	47.7%	5.5%			
Friend(s)	16.5%	41.3%	37.6%	4.6%			
Other family members or relatives	18.3%	47.7%	29.4%	4.6%			
Teachers	34.9%	37.6%	22.9%	4.6%			
Guidance counselors / Career Advisor	15.6%	38.5%	41.3%	4.6%			
University Faculty (e.g. professor, instructor)	13.8%	43.1%	38.5%	4.6%			

^{*}Adapted from Dietsche, 2013.

and/or health related counselling) of the four initial categories into one of expected occupations we can make some assessment of the accuracy of employment possibilities and, therefore, the viability of students' plans using equally broad projections from government and some more focused forecasts from other sources.

The three occupational categories most frequently cited were compared with the Canadian Occupational Projection System (COPS) used by Employment and Social Development Canada. COPS forecasts expansion demands of occupations in terms of additional numbers of employees, as well as projected retirements and other factors relevant to assessing a field of occupations for its long-term viability. (For a discussion of such forecasting, see Canadian Council on Learning, 2007). COPS forecasts currently cover the years 2013 - 2022. Only the three-digit National Occupational Classification (NOC) is used

to develop projections for 140 "occupations" (actually groups of closely related occupations); forecasting for each of the occupations within these groups (identified by their respective four-digit NOC code) is not provided. Thus, because of this grouping we can determine a general, but not a precise assessment for students' selections.

Social work and related occupations, along with various manifestations of counselling is a broad occupational area selected by 31.5% of our respondents. The COPS projections for this varied field (COPS, NOC 415) anticipate that of the job openings (60, 895) over the 2013-2022 period (equal to 40% of employees in this classification in 2012), 29% will be due to "expansion demand", while 60% of openings are expected to come from retirements. The projected demand will exceed job seekers by about 10% over this period. The majority of the expansion and replacement

demand will be in the specific occupation of social work. Further, the positive choice of this occupational group is also indicated by the low level of unemployment in 2012, 2.2%.

With an academic department devoted specifically to children and youth at Atlantic University it is not surprising that many of our respondents selected child care or working with youth as a career. COPS data shows that this occupational group (COPS, NOC 421), which also includes another area of our participants' interest, employment counselling, to be one in which demand will exceed job seekers by almost 10% in the 2013-2022 period. The combined expansion demand and replacement requirements are projected to be 15% of the number of employees in these groups (441,922) in 2012, while retirement over this period is expected to be almost 19% of that number. The unemployment rate in 2012 was



slightly below national average.

The choice of teaching has a much different outlook. Secondary and Elementary School Teachers and Counsellors (COPS, NOC 414) are occupations with diminishing demands for job seekers. COPS projects an excess of job seekers by 16% for the expected 147, 666 job openings over the 2013-2022 period. Expansion, other replacement demands, retirement and those moving out of this occupation will amount to slightly more than 30% of the occupational force of 487, 426 in 2012. If accurate, this projection will see at best a stable if not worsening unemployment rate which was 4.3% in 2012. Interestingly, a small number of participants who planned on a teaching career, acknowledged the 'slim' growth rate of that occupation.

We noted above that many students majoring in the child and youth care field also chose teaching as a possible occupation. However, it is not possible to ascertain whether the choice of child care is merely a basis for entering teacher education or that the latter occupation is simply an additional possibility. Given the COPS projections, at least, the completion of a degree in child and youth care brings students to a gateway of a more certain occupation, albeit one with lower remuneration and fewer benefits than teachers receive.

The generally positive occupational picture is, however, not entirely rosy. Several studies in Canada have examined the issue of "overqualification", defined as having educational credentials that exceed those required for an occupation (Uppal & LaRochelle-Côté, 2014, p. 10 n. 2). Using census data from 1991, 2006 and 2011 Uppal & LaRochelle-Côté (2014) note the proportions of men and women with university degrees working in occupations requiring

only high school education, 17.7% and 18.3%, respectively, in 2011. The proportions are greater for university graduates working in occupations requiring a community college degree only, 40.5% for men and 39.2% for women. The proportions of "overqualified" immigrants with degrees from universities outside Canada and the U.S. are higher. Overqualification is most evident for graduates in the humanities and the social and behavioural sciences, but is also evident for those with degrees in physical and life sciences, and management and business administration (Uppal & LaRochelle-Côté, p.5, Table 2). The authors note that overqualification decreases with age and occupational experience, factors that are not encouraging to university students or recent graduates.

How Similar is the Career Selection Path of our Participants Compared to Other Students?

Slightly more than 76% of our participants spoke with university guidance staff and found that resource 'Very' or 'Somewhat helpful' (Table 1). This proportion exceeds other studies of post-secondary students in which career counselling appears to have had less than adequate up-take. A pan-Canadian study of first-year community college students, for example, revealed that 20-30% had not sought advice from their high school career counsellor, "completed a questionnaire or visited an internet site to explore job interests or potential post-secondary programming or taken classes in career planning" (HRSDC 2007, p. 29). One-half of the sample of slightly less than 29,000 spent less than 8 hours exploring the occupation they anticipated after graduation. Rather, as in our survey (Table 2), parents were the primary source of information.

The difference between accessing counselling and assessing its quality is evident in responses of first year university students surveyed by the Canadian University Survey Consortium (CUSC). Eighty-six percent of participants who offered an opinion were satisfied or very satisfied with career counselling services at their university, but that figure is misleading as only 10% of the more than 15,000 participants responded to that survey item (CUSC 2013). Similarly, while 61% of graduating university students had decided on a career field or specific occupation, less than one-quarter had met with a career counsellor, although slightly more than half had discussed career issues with faculty. The same proportion, 60%, were satisfied or very satisfied with the "availability of information of career options in their area of study". (CUSC 2012, pp. 66, 67). As with college students, above, the satisfaction rate among graduating university students was high (78%) but only 31% of more than 15,000 students in the study had used career counselling services (CUSC 2012). While we did not ask directly about 'satisfaction', 54% of our respondents felt that counselling advice (which could have been during high school and/or university) had influenced them "a lot" or "somewhat".

CUSC recently released its survey of Middle-Years Students (in second or third years of study) concerning a wide range of universityrelated issues, including career planning. More than 22,000 students from 28 universities responded; Atlantic University was not among them. CUSC divided the responding universities into three groups depending on size and composition of programs. Group 2 is comprised of "universities that offer both undergraduate and graduate studies and that tend to be of medium size in terms of student



population" (CUSC 2014, p. 5). Atlantic University fits the Group 2 description; hence, the relevance of the CUSC data compared to our own will be confined to that group. Overall more than 7000 students from eight Group 2 universities responded with numbers ranging from 227 to 3223 second and third year students. The number of students in these years in our survey was comparatively low, 33 or slightly less than one-third of our total respondents. Nevertheless, to the extent it can be applicable, some comparison may be a useful addition for assessing the success or shortcomings of career counselling at Atlantic University.

Eighty-eight percent of our second and third year respondents had chosen a specific career, nearly two and one-half times more than CUSC participants (CUSC 2014). This difference may have something to do with a greater proportion of Atlantic middle-year students (24.2%) having consulted a career counselor (Figure 2, above) compared with 15% of CUSC respondents (CUSC 2014, p. 25 Table 30), although a much smaller proportion of our middle-year students (6%) had attended a career fair compared to 33% of those in the CUSC survey (CUSC 2014). Comparing the 37% affirmative responses to the CUSC Survey statement, "Talked with professors about employment/career" (CUSC 2014, p.39, Table 55) with responses in our Table 2 statement, above, regarding consultation with university faculty, 57% of our participants found that interaction influenced them "a lot" or "somewhat".

Conclusion

Other than the contribution to the complexity of 'risk' issues, the issues of education-job mismatch and the current concerns about labour shortages are beyond the

scope of this study, but at least two points are relevant. Miner (2014, pp. 18-22) discusses the job mismatch problem, the extent of which varies across numerous studies. Mc-Quillan (2013) adds to this issue by noting the imbalance between the available skills of a highly educated population in Canada and the demands of the labour market, particularly in relation to the Temporary Foreign Worker Program and current immigration policy. Job mismatch and speculation about labour shortages may complicate the career decisions of university students as these are compounded with the general labour market encouragement of obtaining at least one post-secondary degree. One implication of this discourse is that those with technological or professional degrees will not experience the degree of overqualification or job mismatch that other job seekers will. With respect to the survey under discussion here, it is clear that our respondents are choosing semi-professional (e.g. child care), arts-based and to some extent, science-based education and career paths. Only a handful of our survey respondents chose a specific STEM occupation (science, technology, engineering, mathematics and computer science), the types of occupations that are the focus of much of the current public discussion of the education-labour market connection. But it is worth noting that unemployment rates for young men (aged 25 - 34) with STEM degrees was less than one percent better than for those with non-STEM degrees in 2011; women (aged 25 - 34) had an unemployment rate more than one percent higher than women with non-STEM degrees (Hango 2013, pp. 2-3). The issue of job mismatch remained a problem, more so for women than for men (Hango, 2013, p. 2 Table 1).

Thus, despite the unknowns

at any particular juncture, economic fluctuations will affect students' career plans, however well planned these may be. It would seem prudent that universities become more pro-active in offering critical information to students regarding future employment probabilities. First, such critical information should include career counselling with all the possible caveats of occupational requirements, constraints and opportunities that may need to be considered by students as they plan their program of study. In other words, career counselling needs to be integrally related to educational choices with a view to adjusting those choices when necessary. Certainly, such a suggestion could apply to the multiple sources of advice young adults cited as influential in the present study as well as other studies to which we have referred. Secondly, parents and peers, however important, may be more limited in their knowledge of the future capacity or sustainability of particular occupations. Thus, it may be incumbent on counselling personnel to draw a sharper focus on multiple resources relevant to career planning. Thirdly, the institutional resources — faculty, counsellors, administrative personnel – a university has at its immediate disposal should become components of career counselling, including risky choices, especially faculty who need to be organized into an intentional and integral component of the career counselling process at least within their own disciplines. In our research and that of others, faculty are clearly important to the career selection process with their assumed knowledge of an occupational field and the inter-personal relations they can develop with students. Fourthly, career planning is carried out in an economic environment that is relatively stable but subject to instability with potentially enduring effects on



anticipated careers. For many students, the hope of stability and reward in a career of their choice may override the actual or projected economic outlook. Hence, however uncertain the economy may be at any moment, knowledge of economic fluctuations and potential must be part of the groundwork of career development. Much of this could possibly be achieved through university career development courses for credit which, as Hung (2002) has shown, provides students with theoretical and practical knowledge that can result in greater certainty with respect to career selection.

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Project Partnership Funding Available



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We invite both individuals and organizations (e.g. education, community-based, non-profit, private, etc.) to submit project proposals for career counselling-related research or learning and professional development.

The following Practical & Academic Research priority areas have been identified:

- Labour market information
- · Early intervention to assist children's career decision-making
- Evaluation: Impact of policy and programs on career services
- Intersection of diversity and work

The following **Professional Development & Ongoing Learning** priority areas have been identified:

- New emerging career development theories and career management models
- Impact of social media on how career practitioners are doing their work
- Entrepreneurial education and career development
- Impact of disability and/or mental health issues on career development

For more information or to complete a Letter of Intent Application, please visit ceric.ca.





Financement de projet en partenariat



Le CERIC accepte présentement les soumissions de proposition de développement de ressources novatrices pour le counseling et le développement de carrière.

Nous invitons les particuliers et les organismes (par exemple, éducatifs, communautaires, à but non lucratif, privés, etc.) à soumettre des propositions de projets de recherche ou d'apprentissage et développement professionnel dans le domaine de l'orientation.

Nous avons identifié les domaines prioritaires suivants en matière de **recherche appliquée et universitaire** :

- Information sur le marché du travail
- Intervention en bas âge pour faciliter la prise de décision chez les enfants
- Évaluation de l'impact des politiques et des programmes sur les services d'orientation
- Intersection de la diversité et du travail

Nous avons identifié les domaines prioritaires suivants liés au **perfectionnement professionnel** et à la formation continue :

- Théories émergentes dans le domaine de l'orientation professionnelle et modèles de gestion de carrière
- Impact des médias sociaux sur le travail des professionnels de l'orientation
- Enseignement de l'esprit d'entreprise et développement de carrière
- Impact d'un handicap et/ou de problèmes de santé mentale sur le développement de carrière

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Exploring The Career-Related Goals and Barriers of Teenage Mothers

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Abstract

As teenage childbearing is increasing in New Brunswick, it is imperative that teenage mothers' career-related goals and barriers are closely examined in hopes of supporting these youths. Using the qualitative approach, I explored the career-related goals and present/anticipated barriers of three teenage mothers. Both academic and careerrelated goals, as well as the barriers to fulfilling these goals, varied for each participant. Some of the barriers communicated included financial and time constraints, lacking supportive figures, lacking qualifications, lacking motivation to graduate from high school, and uncertainty related to a lack of guidance and knowledge in terms of formal education.

Précis

En raison des augmentations de la maternité auprès des adolescentes au Nouveau-Brunswick, il est impératif que leurs objectifs ainsi que leurs obstacles liés à leurs carrières soient examinés dans l'espoir d'un meilleur soutien. En utilisant l'approche qualitative, j'ai exploré les objectifs et les obstacles actuels/prévus liés à la carrière de trois mères adolescentes. Les résultats montrent que les objectifs liés à l'académique ainsi qu'à la carrière étaient variés entre chaque participante. Certains des obstacles communiqués inclus les contraintes financières et le manque de temps, le manque de soutien à la maison (partenaire), le manque de qualifications, le manque de motivation à obtenir un diplôme secondaire, et une incertitude liée à le manque de

conseil concernant l'éducation postsecondaire.

Despite the overall decrease in teenage pregnancy rates in Canada between 2001 and 2010, certain regions have actually experienced an increase during this time (McKay, 2012). For example, New Brunswick saw an increase of 1.6% in teenage pregnancy between 2001 and 2010 (McKay, 2012). Furthermore, approximately 50% of teenagers who become pregnant carry their baby to term, resulting in 20,000 children being born to teenagers each year in Canada (Al-Sahab, Heifetz, Tamim, Bohr & Connolly, 2012). Even though only a small proportion of these teenagers raise their children at home, these numbers reveal that motherhood is a phenomenon experienced by a substantial number of adolescents in Canada.

Various reasons have been proposed in the literature as to why teenage pregnancy and childbearing exist, and in some provinces, are actually increasing. Socio-economic disadvantages have been depicted as partially responsible for why teenagers get pregnant and decide to keep their babies (Bielski, 2013). As Bielski (2013) maintains, "teenage girls are more likely to get pregnant when they have fewer education or employment opportunities to postpone child-bearing for" (para. 4). Furthermore, Dryburgh (2000) suggests that the absence of a negative social stigma surrounding the phenomenon of teenage pregnancy and childbearing can result in it becoming normalized. Ineffective sexual health and contraceptive education may also contribute to increases in pregnancy and childbearing among teenagers (McKay, 2012). Lastly, Al-Sahab et al. (2012) maintain that teenage pregnancy and childbearing is most common among women who are non-immigrant, single, of a low-so-cioeconomic status and who have been or are currently subject to physical and/or sexual abuse. Although there is an extensive body of literature examining the experience of pregnancy and motherhood during adolescence, relatively few studies have focused on its implications for career development.

Career Development in Teenage Mothers

As evidenced in the literature, teenage mothers aspire to a wide range of career paths, including ones that require post-secondary education (Phipps, Salak, Nunes and Rosengard, 2011; Zippay, 1995). In Stiles' (2005) study, a common theme among the participants was their desire for general happiness, independence and a career: "[the participants] all talked about how education was necessary to earn good money in the future" (Stiles, 2005, p. 13). In another study, authors Barto, Lambert and Brott (2015) suggest that teenage mothers' abilities to plan and make decisions in regards to their future career was similar to those of their childless peers.

Despite these aspirations and abilities, teenage mothers often discontinue their secondary or post-secondary pursuits, which can ultimately propel these girls into a life of poverty (Bissell, 2000). As Bissell (2000), Smith and Wilson (2014) reiterate, teenage childbearing has grave economic conse-



quences, as teenage mothers are likelier to be socially disadvantaged. Dryburgh (2000) expands on these findings by stating that, "childbearing may curtail education and thereby reduce a young woman's employment prospects in a job market" (p. 11). Smith and Wilson (2014) continue by stating that a teenage mother's poor economic situation is largely attributed to becoming a mother before completing high school. Looking at the problem through a different lens, Miller (2009) suggests that delaying motherhood past the early 20s and 30s can actually increase a woman's career-related success, namely increasing her hours worked and consequently her career earnings. Smith and Wilson (2014) conclude by saying that the financial difficulty experienced by teenage mothers in supporting their offspring continues to be a public and policy issue.

As indicated above, limited employment prospects may potentially lead the teenage mother to a life of poverty. Living a life of poverty may result in these young mothers choosing to endure an abusive relationship for the financial support. This situation may then place the teenage mother and her baby's physical and emotional growth and development at risk (Al-Sahab et al., 2012, Business Community Anti-Poverty Initiative, 2006; Hellerstedt, 2002; Klein, 2005). In addition to the health risks that it places on the baby, exposure to partner abuse can also deter the teenage mother from participating in school, whether at the secondary or post-secondary levels (Kennedy, 2005; Kennedy 2006). Interestingly, MacGregor (2009) suggests that returning to school after the birth of a baby can actually act as an alternative pathway to financial stability among women without stable partners.

Previous research has identified a number of specific barriers that prohibited the fulfillment of teenage mothers' career development. These barriers include financial constraints, having insufficient time for education, the absence of

social support (i.e. peer, professional and partner) and a general lack of knowledge and guidance in areas such as how to manage money and how to balance school and parenting (Stiles, 2005; Zippay, 1995). In another study concerned with assessing the supports and resources necessary in helping parenting teenagers reach their academic and career-related goals, Brosh, Weigel and Evans (2009) highlight additional barriers faced by their participants. For example, inconsistent childcare, an unstable relationship with the parents of the infant's father and a lack of governmental resources were all highlighted as factors that prohibit successful attainment of academic and careerrelated goals.

Proposed strategies to overcoming these barriers included providing the teenage mother with a mentor (Zippay, 1995) or with school-based and community-based support groups (Phipps et al., 2011; Stiles, 2005) to assist them with pursuing their educational and occupational aspirations. Along with these proposed strategies, Rothenberg and Weissman (2002) maintain the importance of educating practitioners working directly with teenage mothers of their particular needs. Bissell (2000) continues by stating that in addition to addressing their needs, practitioners must simultaneously take into account teenage mothers' particular socioeconomic status, in order to effectively implement any particular initiative or program.

Theoretical Framework

The present study is qualitative and exploratory in nature, and is grounded in Savickas' Life Design theory of career development. This theory, which derives from a life designing epistemological position, focuses on the nonlinear progression, contextual possibilities, dynamic processes, multiple perspectives and personal patterns. Life Design theory also considers lifelong learning, flexibility, commitment, employability and emotional intelligence (Savickas, 2011). In terms of barriers to

career development, this theory maintains that the lack of stable organizations and secure employment, which has marked the twenty-first century, has resulted in an anxious and insecure worker (Savickas, 2011). As Savickas (2011) maintains, "entering today's work world requires more effort, deeper selfknowledge, and greater confidence than ever before" (p. 13). As a guide to this deeper self-knowledge and greater confidence, the Life Design theory is concerned with the construct of a narrative as a means of building a career. In other words, this theory posits that it is through detailing and reflecting upon their narrative that individuals will make career-related meaning, plan exploratory activities and form new intentions (Savickas, Nota, Rossier, Dauwalder, Duarte, Guichard, Soresi, Esbroeck & Vianen, 2009; Savickas, 2011).

To better understand career development among teenage mothers, this theory suggests that it is important to focus on this population's educational and occupational goals, anticipated and current barriers faced while pursuing these goals, and the opportunity structures, social networks, and personal demands they encounter.

Research Question

With the exception of studies such as Zippay (1995) and Stiles (2005), there has been very limited research examining the educational and occupational-related goals and barriers of teenage mothers. Al-Sahab et al. (2012) reinforce the necessity for conducting more research in this area by stating that, a comprehensive and multi-faceted understanding of how to assist this population of at-risk youth cannot be attained without examining their career development.

To address this pressing need in the literature and to expand knowledge of teenage mothers' career development, the following questions were addressed in the present study:



- 1. What stories about their educational and occupational goals do teenagers who have become mothers tell when they think about their future career?
- 2. Within these narratives, what do teenage mothers perceive to be meaningful supports and barriers to achieving their career goals, including the social networks, opportunity structures and demands that they anticipate having in their lives?

By addressing these focal research questions, the findings of this study provide a useful framework for beginning to conceptualize career development among Canadian teenage mothers.

Method

Research Design: Narrative **Inquiry**

This study was informed by Connelly and Clandinin's (1990) narrative inquiry, which focuses on an individual's stories, experiences, and the meaning of these experiences (Creswell, 2012; Maple & Edwards, 2010). As Connelly and Clandinin (1990) suggest, humans are storytellers who both individually and socially lead storied lives. Through the construction and reconstruction of personal and social stories, narrative inquiry seeks to study the way in which these storytellers experience the world (Clandinin & Connelly, 1990). In particular, narrative inquiry helps to understand a person's story as it is embedded in their personal and social frame of reference, as well as reveal the important themes in these lived experiences (Creswell, 2012). Peterson and Baker (2010) state that stories are a way of understanding a person's experience in their world, and thus gain a glimpse into their reality. It can be argued, therefore, that using narrative inquiry as a method "is to adopt a particular view of experience as phenomenon under study" (Peterson & Baker, 2010, p. 3). Furthermore, Polkinghorne

(2007) provides justification for the suitability of narrative inquiry in situations where there is limited existing research on a phenomenon by stating that "evidence, such as personal descriptions of life experiences, can serve to issue knowledge about neglected, but significant areas, of the human realm" (p. 472).

Participants and Recruitment

Sample and

recruitment. I used physical (e.g., posters) and electronic advertisements in schools, programs and agencies that serve teenage mothers and snowball recruitment strategies to recruit participants for this study. Purposive sampling was used to select participants for inclusion who were nineteen years of age or younger, who had given birth to a child, and who were the primary caregiver for that child.

Three teenage mothers from urban areas within New Brunswick participated in this study. Three participants were used as opposed to the originally sought four to six because of weather and transportation issues, as well as time constraints. Some of the characteristics of this sample of participants included: (a) a seventeen year old participant, an eighteen year old participant, and a nineteen year old participant, (b) they were all in a relationship with their baby's father in some capacity; (c) one of the participants was employed (e.g., financially supporting herself), while the two remaining participants were unemployed (e.g., receiving financial support from another source); (d) two of the participants were currently enrolled in high school, while the remaining participant had graduated from high school and was working fulltime; (e) all three of the participants were English-speaking Caucasian Canadians; and (f) all participants had one child, two of which were eight months old, while the remaining participant's child was ten months old.

Data Collection

I collected data using audiorecorded, semi-structured interviews guided by Wengraf's (2006) Biographic Narrative Interview Method. This method encourages the participant to share as much of their story as they wish, guided by initial probes (e.g., tell me about your experience of teenage motherhood). While the participant told their story, I wrote notes (e.g., what about teenage motherhood is difficult?). Once the participant's story came to a natural end, I revisited my notes as a catalyst for further discussion (e.g., can you tell me a little more about what you meant when you said that teenage motherhood was difficult?). I asked my participants questions from my Guiding Questions as a way of redirecting them or to elicit specific information about their educational and occupational goals, barriers and relevant life contexts. The interviews lasted between forty and seventy-five minutes for each participant. Due to time constraints, the interviews were transcribed by a professional transcriber. The interviews were transcribed verbatim, including all pauses and nonword utterances. A copy of the three complete transcriptions can be found in Appendix C.

Due to weather and transportation issues, as well as time constraints, one of my participant's interviews was conducted over the phone. Although this method of interviewing did not interfere with the data I collected, the lack of non-verbal communication impeded my participant's ability to provide a fluid narrative, and thus impacted her experience in telling her story. This "choppiness" may have consequently tampered with this particular participant's ability to make meaning of her narrative, which is one of the goals of Life Design.

Data Analysis

I analyzed the interview content using Connelly and Clandinin's (2000) interpretive-analytic guidelines for narrative inquiry.



Specifically, I began by archiving the data, which involved reading through each transcript and identifying key elements such as characters, themes and plots (e.g., characters and themes: due to a lack of family support and access to resources, a participant seemed uncertain about her chances of attaining her career goal), and restoried the content in chronological order (Connelly & Clandinin, 2000; Creswell, Hanson, Plano & Morales, 2007). I then proceeded to engage in narrative coding, which consists of categorizing the data from the participants according to such literary elements as time, interactions and places. During this stage, I also identified continuities and discontinuities, gaps and silences, and interweaving storylines within the narratives (e.g., interweaving storylines: two of the three participants found that expensive daycare was a primary cause of their financial strain and could potentially cause significant challenges when pursuing a career) (Connelly & Clandinin, 2000). Then, in the final stage of analysis, I interwove my personal field notes and observations with the data that I had collected from my participants. Resulting from this stage of analysis were individual summarizing stories, which I shared with my participants for their input, feedback, validation and modification. The following chapter offers the complete summarizing stories.

Rigor and Validation

Strategies. Polkinghorne (2007) describes a particular threat to narrative inquiry, stating that by virtue of a lapse in memory, disparities between individual's experienced meaning and the stories that they depict about this meaning may occur. I will go into further detail on how I addressed this particular threat by providing my participants with their summarizing stories for feedback and input later on. Furthermore, due to the nature of narrative inquiry, issues surrounding the validity often revolve around the objectivity and trustworthiness of what

is written (Polkinghorne, 2007). In hopes of addressing these issues surrounding objectivity and trustworthiness, Polkinghorne (2007) maintains that the validity of a claim is based on whether or not the reader is convinced by the evidence and argument presented. In hopes of convincing my audience, I not only presented the findings, I described my procedures for reaching my conclusions and linked my findings to existing research about career development in adolescent mothers. I also highlighted the ways that my claims are supported by and/or contrast with previous research. Furthermore, I sought to ensure that the study was conducted as an interactive and collaborative experience, where participants retained ownership of their individual story (Maple & Edwards, 2010; Trahar, 2009). I also utilized the iterative process of data collection and analysis, returning to my "participants to gain clarification and further [explore the] questions that arise[d] during the interpretative portion of the research" (Polkinghorne, 2007, p. 482). Only one of my participants asked for a modification to her summarizing story. The change was made to a sentence that was used to describe her boyfriend's secondary school pursuits.

My relationship with the **topic.** Evaluating the credibility of qualitative research can also involve considering the researcher's own relationship with the topic and pre-existing beliefs (Polkinghorne, 2007). My fascination with career development among teenage mothers stems from interacting with many teenagers who became pregnant during my high school years, and who subsequently dropped out of secondary school or chose to discontinue their academic or vocational career in order to raise their child. For example, upon my high school graduation, I knew more than a dozen teenagers who had given birth to children before graduating high school. After years of pursuing post-secondary and graduate studies, I often think about these women

who are approximately my age. Specifically, I wonder about their current academic or vocational situation and the barriers they faced throughout their pursuits. I also think of whether or not they are content with their current academic or vocational status, and if it at all reflects what they had hoped for and aspired towards as teenage mothers. My belief is that teenage mothers with little, if any, external support (e.g., financial, emotional and physical) would experience difficulty establishing a career, and that those who have more resources at their disposal would consequently struggle less. This belief is based on my experiences living in a small town, and seeing firsthand many of the struggles that some teenage mothers faced. These challenges that I witnessed revolved predominately around graduating from secondary school, and entering into the workforce.

As I was not a teenage mother myself, I do not know what it is like to be an emerging adult reflecting back on experiences as a teenage mother. However, I assume that many emerging adults who were teenage mothers are aware of the difficulties associated with establishing a career while parenting a child. This assumption is based on conversations that I have had with women I knew in high school who had children as teenagers, as well as comments that I have heard them state. Ultimately, prior to conducting this research, I believed that teenage mothers would be more likely to associate success with their experiences as a mother as opposed to their experience attempting to pursue a career. Despite my findings being transferable as opposed to generalizable, my experience interviewing my three participants has led me to maintain my belief that teenage mothers are more likely to attribute their overall success to their experience as a mother as opposed to their abilities to attain academic and/or vocational goals.



Findings

To depict the findings of this narrative inquiry, excerpts from the final individual summarizing stories of each participant are presented below. Although these summaries were written from the interview transcripts, they are the result of the analysis process rather than direct quotations from the original interviews. The summaries have, however, been reviewed by the participants and accepted as accurately representing their experience. Also, all personally identifying information has been removed, and pseudonyms are used throughout. The summaries presented below have been abbreviated due to page limitations.

Rachel

At that particular moment sitting in the bathroom, with the pregnancy test between my fingers, I decided to change my life for the better. I introduced myself to a more mature circle of friends, where I could avoid previous temptations, and subsequently regained motivation to graduate high school.

My mother and sisters, who had and continued to represent a powerful source of support, helped me as I struggled through my first and second trimesters of pregnancy while balancing school-related responsibilities. Noticeably absent during these trying months, however, was my boyfriend and my baby's father John, who had 'conveniently' decided to move to Alberta where he was offered employment. This is typical John - never there when I need him.

It was January, at five months pregnant, when I was told that I had met the requirements to graduate with an adult high school diploma. I felt like I was a burden to the system and was consequently 'pushed out' after having only completed the very minimal requirements.

After welcoming my daughter in May, my life changed beyond expectation. I knew [more than

ever] that I needed to continually strive to improve my life, not just for my sake, but more importantly for my daughter's sake. Consequently, I decided to apply to NBCC's Human Services program, [but soon found] out that the college would not recognize my diploma, despite my high school principal assuring me otherwise. [It has since been recognized, but I am now on a long waitlist]. Hoping to savor what little motivation I had left, I began job searching, which quickly resulted in me obtaining a less-thanfulfilling job as a health care worker at [a local health care facility].

John, who up to this point appeared uninterested in caring for our child any more than he had to, proclaimed that he could not babysit our daughter while I worked, [as he was too tired from his night shifts to watch her throughout the day. This worried me for several reasons. one of which included the financial strain that paying for a daycare would inevitably cause. Despite the daycare subsidy that is provided through the Department of Social Development, I had calculated that the income I would obtain through my job would only cover the daycare bills. In addition to my already bleak financial situation [the Department of Social Development had recently revoked all of my funding, except for a portion of the daycare subsidy when I got hired] the lack of time that I could allot to complete daily chores and errands would make my life that much more hectic. John has [also] continuously demonstrated little to any support in all realms of our life together. This lack of support coupled with his frequent bursts of frustration has made me feel like a single mother walking on eggshells. I have tried leaving him, but cannot financially sustain a life on my own.

I would [still] like to one day fulfill my dream career of working with autistic children by completing a university-level degree in Human Services, [but] anticipate that these goals will not be attained without challenges.

Kate

Grade eleven should have been an enjoyable and relatively stress-free time in my high school career. I would quickly learn that being young and pregnant, living in an unfamiliar environment and having recently become estranged from my mother would prove otherwise. Despite the valid attempts from my high school's staff and teachers at trying to help me succeed academically, school just seemed so irrelevant to me. The only courses that I felt motivated to attend were those relating to my pregnancy and the eventual birth of my child.

Almost immediately after I gave birth, my boyfriend's mother and older brother offered to watch my daughter during the day in hopes of motivating me to return to school. Similar to my pre-birth attitude towards school, [however], my courses only seemed to add stress to my life, and I seriously lacked motivation to complete any school-related tasks, which consequently began affecting my marks and my desire to graduate.

Despite not feeling motivated to do well in school, I know that graduating is necessary. I really don't know what I want to do in the future and I have absolutely no one to help guide me. I have found myself on two very different ends of a spectrum: one day I want to establish myself as a stay-at-home-mom, and the next day I want to pursue an interesting occupation where I can create my own schedule.

Perhaps the lack of urgency that I feel in terms of seeking a career stems from my current financial situation. I receive a monthly income through family allowance from the government as well as money from the Department of Social Development, which is more than enough. This income coupled with the small number of bills that I currently have to pay has allowed me to spend money on other things such as baby toys, baby clothes and fast food. My social worker, who visits me once a month to teach me basic skills such as budgeting, cook-



ing and cleaning, advised me to rethink my spending habits and to begin planning for my future. This enlightening conversation that I had with her has motivated me to slowly start planning for a life on my own, with my little family.

Ava

The daycare that my daughter is enrolled in], which is located within and associated with my high school, does not require payment, [and therefore] faces a long waitlist, and subsequently has a high turnover rate. The daycare administrators decided that newborn babies are of a higher priority, and that they should, therefore, be guaranteed a spot over older babies. In other words, once a new baby comes along, the oldest baby in the daycare has to leave. This upcoming June is my baby girl's turn to make room for a new baby.

This situation would not worry me if my finances were not so unstable. [My boyfriend] Gavin and I try to live the best we can off of the income that we obtain through the Department of Social Development and family allowance. With these two incomes, we are still only left with two hundred dollars at the end of the month for emergency spending money. After researching daycare costs, Gavin and I found out that after we factor in the subsidy provided through the Department of Education and Childhood Development, daycare will still cost us a total of two hundred and fifty dollars a month.

Ever since I was a child, I have been motivated to create the best possible life I can for myself. Consequently, I have always performed well in school, and knew that post-secondary education was something that I wanted to pursue. Even after finding out that I was pregnant, I knew that my plans for success would not be compromised, and I continued to flourish in school.

Although my desires to graduate high school, and to pursue post-secondary education are deeply engrained, I am currently unsure of how those plans will unfold. Without the certainty of a safe and affordable daycare service, my future as a high school graduate and as a pharmacy technician is up in the air. This reality makes me sick to my stomach.

Discussion

All three of my participants communicated, in some capacity, a desire to pursue a career that requires post-secondary education. The career goals included human service worker, pharmacy technician and nurse. Kate receives income from both the Department of Social Development and the government's family allowance. She has minimal financial responsibility as she lives with her infant's father and his family, and consequently appeared less pressured to establish a career. She was also the only participant who seemed uncertain in regards to her occupational goals. Rachel and Ava also both receive some form of financial assistance either through the Department of Social Development, Department of Education and Child Development and/or family allowance. They both live independently with their infants' fathers and consequently have more financial responsibility. Contrary to Kate, they both expressed an increased sense of urgency when they spoke of their desire to pursue a career, and were both more certain of the occupation that they wanted to obtain.

Within her narrative, Rachel expressed a number of positive experiences that stemmed from early motherhood. For example, she stated that becoming a mother had improved her life, which is something that Al-Sahab et al. (2012) and Clemmens (2003) maintained in their articles. Rachel mentioned that before becoming pregnant for the second time, she surrounded herself with people who she considered to be bad influences. After finding out she was pregnant once again, she quickly reconstructed her friendship circle to include people who would have a more positive influence on her life. In addition to Rachel's

daughter helping improve her life, her mother and sisters have played an important supportive role as well. Rachel also maintained how her sense of resiliency has increased since given birth. Among the positive aspects of her situation, Rachel also discussed a number of barriers prohibiting her from fulfilling her career goals. These barriers, which revolve around her personal demands, social networks and opportunity structures (Savickas, 2011) included lacking the qualifications necessary for admission into college and university programs related to her career goals. In addition, her infant's father has demonstrated volatile behaviors towards her and their child and has been generally unsupportive. This has increased her personal demands, which has resulted in significant time constraints. Stiles (2005) reinforced the unique challenges that teenage mothers experience as a result of balancing their varied demands (i.e. student, mother and employee). Lastly, as Stiles (2005) highlighted, many teenage mothers remain in abusive relationships because of a financial dependency. Unfortunately, Rachel is unable to terminate the unhealthy relationship she has with her baby's father because of her inability to financially sustain a life on her own. As Rachel maintained, daycare expenses and insufficient funding at the level of the government are predominant reasons why she experiences this financial turmoil, which has ultimately prevented her from fulfilling any career-related pursuits.

Similar to Rachel, Ava also mentioned positive aspects to her situation, which stemmed from early motherhood. For example, once she found out she was pregnant, Ava was able to register in a high school that catered to both pregnant and parenting teenage mothers. Consequently, throughout her pregnancy and into the first few months of parenthood, Ava's unique needs were adequately addressed by the high school personnel. One of the ways that this high school was able to address Ava's needs included providing her with free daycare, up to a



certain point. Among the positive aspects of Ava's situation included a number of barriers to fulfilling her career-related goals. Predominately, the lack of money for daycare expenses has and continues to act as a significant barrier to fulfilling her educational goals. Consequently, she has had to reevaluate and reprioritize the personal demands inherent in being a student and a mother (Savickas, 2011). For example, Ava must begin paying for daycare six months before she is expected to graduate from high school (she does not currently have to pay because the daycare that her daughter is enrolled in has a no-fee rule up to a certain age). She is uncertain as to whether or not she will have the financial means to keep her daughter enrolled in daycare at that time. She continued to explain that if she is unable to afford daycare, she will have to postpone completing high school, and consequently her postsecondary training to becoming a pharmacy technician.

Positive aspects of Kate's narrative were also evident throughout the interview. Supportive figures, such as her boyfriend's family, high school personnel and her assigned social worker have significantly helped Kate throughout the first few months of motherhood. In terms of helping guide her in her personal life, Kate mentioned how influential and motivating her experience with a social worker has been. In addition to the understanding that school administration have demonstrated, Kate's boyfriend's family have acted as a key support in caring for the infant as Kate attends classes. Despite have several supportive figures, Kate discussed how the lack of knowledge and guidance pertaining to post-secondary education in particular, and the subsequent uncertainty that it has caused, has acted as a challenge to her career-related pursuits. Stiles (2005) and Zippay (1995) both reinforced how a lack of knowledge and guidance in terms of formal education can negatively impact teenage mothers' career-related pursuits. Kate also mentioned that her lack of

interest in school subject matter has resulted in a lack of motivation to graduate high school.

Overall, this pattern of findings reveals that, as suggested by the narratives of three teenage mothers living in urban areas in New Brunswick, teenage mothers do desire careers that require post-secondary education. For those participants who had more financial responsibility (i.e. living independently with their partner), there existed a sense of urgency to establish a career. For the teenage mother who resided with her boyfriend and his family, and who consequently had less financial responsibility, less urgency was expressed in regards to establishing a career. Furthermore, despite teenage motherhood acting as a general motivator to improve their lives, this population of at-risk youth also experienced a number of barriers, such as financial and time constraints, lacking motivation to graduate high school, uncertainty related to a lack of knowledge and guidance surrounding formal education, lacking qualifications and lacking supportive figures. These barriers appeared to interfere with the teenage mothers' attempts to pursuing their career goals.

Implications

Despite the varying rate of teenage childbearing across provinces in Canada, I believe that all provinces should consider implementing my suggestions in hopes of increasing support to this population of at-risk youth. My recommendations, which stem from the barriers presented by my participants, implicate both the daycare and education systems. As these systems are provincially regulated, it is the responsibility of the provincial governments to implement these recommendations. In the following section, a detailed account of these suggestions is offered.

Recommendations for secondary school counsellors as well as administrators at the school board level include providing parenting teenagers with access (whether

through their school or through correspondence) to courses that are relevant to their day-to-day life experiences (i.e. basic parenting skills, budgeting and time management). Incorporating courses that cater to this population of at-risk youth is likely to increase their interest and motivation to attend school. An additional recommendation stems from Zippay's (1995) discussion of the positive impacts that mentors have on parenting teenagers. Implementing a mentoring service within a high school would, in my view, help inform and guide teenage mothers in areas including: educational planning, educational and employment-related activities, and life skills (i.e. decision-making and problem solving). This belief is reinforced by Kate's positive experience with her social worker, who acted as a mentor for more home-related responsibilities. Lastly, it is crucial that school counsellors reach out to local colleges and universities in order to find out if the diploma with which a teenage mother is graduating qualifies her for admission into their institution. Alternatively, if the school diploma does not qualify the parenting teenager for admission into colleges or universities, the counsellor can inform the young mother of possible transition programs that are available that can help qualify her for admission into post-secondary programs.

Kennedy and Bennett (2006) maintain that school participation, both at the secondary and post-secondary level, can be compromised if the teenage mother is exposed to partner abuse. These authors continue by stating that "practitioners working with adolescent mothers should acknowledge the possible exposure to different forms of violence among many of these young women, identify its potential role as a barrier to school performance and participation, and tailor interventions and programs accordingly" (Kennedy & Bennett, 2006, p. 768). Carlson (1997) provides three general goals that a counsellor can use as a guide to



helping support teenage mothers who want to leave abusive partners but feel unable to because of a financial dependency. These goals include: (a) the development of a safety plan (e.g., a concrete plan that can be implemented when the abuse is imminent); (b) enhancing the teenage mother's decision-making and problem-solving skills (e.g., exercises that reinforce the woman's right to make decisions for herself, as well as highlighting existing options or alternatives); and (c) reducing isolation and increasing the teenage mother's social support (e.g., assisting the young mother in acquiring social support outside of therapy). Facilitating a referral to a local transition home for abused women may be a way of addressing the first and/or second of these goals ("Transition Houses for Abused Women," n.d.). As an extension to the third goal provided, Tutty, Bigood and Rothery (1993) suggest encouraging the teenage mother to attend a support group for women victims of domestic abuse. As Tutty et al. (1993) maintain, victims of domestic abuse who attended support groups showed "significant improvements in self-esteem, belonging support, locus of control, less traditional attitudes towards marriage and the family, perceived stress, and marital functioning" (p.

Barriers, such as high daycare expenses, in addition to more general financial and time constraints, appeared to challenge my participants in their pursuit of a fulfilling career. For instance, daycare expenses caused a significant financial strain for two participants and consequently increased the stress involved in trying to balance personal demands (i.e. student, employee and mother). Daycare has also been identified as a barrier in previous research (Stiles, 2005; Zippay, 1995). Daycare-related barriers need to be addressed at the level of government policy. One recommendation is for governmental agencies to decrease daycare costs or increase the subsidy provided to teenage mothers in high school, as well as expand the subsidy to include young parents pursuing post-secondary endeavors. Providing more affordable daycare to teenage mothers is likely to substantially increase their chances of future career success. In order to provide adequate support for the members of this population who are most at-risk, an overall increase in financial assistance to teenage mothers living on their own and who are trying to establish themselves in the workforce should be implemented.

In addition to utilizing the above-mentioned recommendations aimed at decreasing the career-related barriers that teenage mothers face, counsellors working within or outside of the school system should also become aware of some of the positive experiences that may stem from early motherhood. As described by my participants, teenage motherhood has helped them cultivate a general desire to improve their lives through academic and vocational training in hopes of acquiring a fruitful career. In addition, particular participants also highlighted gaining an increased sense of resiliency and obtaining support through family, school personnel and governmental figures such as social workers. By understanding both the positive and negative experiences that may accompany teenage motherhood, counsellors will be equipped to provide a more complete picture of possible futures when working with these kinds of clients and provide them with a sense of hope in relation to their educational and occupational plans.

Limitations

The small number of participants in my study limits the application of my findings. Only including three participants in my study, as opposed to the four to six that is typically recommended in narrative research, limits the pool of people that may be able to relate to the stories depicted by my participants. In other words, fewer participants represent a smaller range of the kinds of experiences that may exist for Canadian teenage mothers. With this

being said, Caucasian Canadian teenage mothers who are between seventeen and nineteen years of age, who are currently enrolled in/or graduated from high school, and who are in a relationship with their infant's father are likely to find my results relatable.

Younger teenage mothers (i.e. fifteen and sixteen year olds), on the other hand, may think of career development and the issue of pursuing post-secondary education in a different way than my three participants. Similarly, teenage mothers from different cultures and ethnicities experiencing difficulty accepting my findings, as my participants are English speaking Caucasian Canadians living in Atlantic Canada.

Similar to the consequences related to the absence of younger teenage mothers in my study, the fact that all three of my participants were either enrolled in or graduated from high school eliminates the chances of understanding the unique challenges presented to those who have dropped out of high school. In addition to the career-related goals and anticipated/present barriers of this population of teenage mothers going unnoticed, teenage mothers who have dropped out of high school may not view my findings as relevant to their situation.

The fact that my participants were all in a relationship with their baby's father also makes it unlikely that this study adequately reflects the unique challenges presented to a single teenage mother. Rachel's description of the difficulties that she experiences as a result of living with a volatile and unsupportive boyfriend would, I believe, most closely resemble the challenges that single mothers face on a daily basis as the lack of support has resulted in her raising their child predominately on her own. However, a firsthand account of the struggles related to being a teenage mother without any involvement from the baby's father is necessary to more completely understand the full range of experiences that are possible for teenage mothers.



A final limitation was created when weather and transportation issues required one of the interviews to be conducted using the telephone as opposed to a face-toface meeting. I found that the necessary level of comfort conducive to obtaining an organic and evolving narrative was not attained with my phone interview. In other words, I found that the phone interview, at times, resembled more of a question and answer session than an opportunity for the participant to construct a fluid story. Despite my participant feeling the same way about our interview, she stated that email correspondence for any future communication was preferred because of her busy schedule. Although I do not believe that the telephone compromised the findings that emerged from this interview, I do believe that it interfered with the participant's experience in telling her story. Consequently, this participant may not have fully benefited from the meaning-making, career constructive component that is offered through the Narrative Inquiry method, as embedded in Life Design.

Future Research Directions

The preceding limitations clearly suggest that it would be beneficial to conduct additional narrative research on this phenomenon, but with a wider range of teenage mothers from across Canada. Specifically, future research could build on the present findings by exploring the educational and occupational goals of teenage mothers who are (a) younger than 17 years old, (b) from rural and Northern communities, (c) who have different cultural backgrounds, (d) who have dropped out of high school, and (e) who do not have any involvement with their baby's father. Conducting studies with these kinds of participants may reveal career development themes that were not part of the experience of the women in the present study.

Another potential future research direction is to study of the ca-

reer-related goals and barriers of adult mothers who had their children as teenagers. The present findings clearly revealed that these teenage mothers seek careers that require post-secondary education. My participants' ambition and strong desire to improve their lives by establishing a career was nothing short of uplifting. However, it is not clear whether and how these individuals will achieve their goals to pursue post-secondary education while parenting their children. Indeed, other researchers have suggested that early parenthood may prevent women from attaining post-secondary education (Dryburgh, 2000). Consequently, it would be fruitful and enlightening to extend the present study to the population of adult mothers who had her child as a teenager. Exploring adult mothers' previous career-related goals, current employment situation and the trajectory to reaching this current situation would be beneficial in shedding light on actual barriers that were encountered in attempting to enter and complete post-secondary education. It would also be advantageous to investigate how the now adult mother attempted to reduce or eliminate her experienced barriers in her pursuit of a desired career, and whether or not she was successful.

A further research direction could potentially involve identifying and evaluating existing initiatives aimed at removing barriers that teenage mothers face in pursuit of their careers across different provinces and different locations within provinces. The participants' accounts of their current and anticipated barriers to establishing a desired career indicates that existing services, even for women living in urban settings where there were educational and social programs designed specifically to assist teenage mothers, are either not advertised or accessible enough, or quite simply not enough of a support. Evaluating these services in hopes of understanding their level of effectiveness in supporting teenage mothers in Canada may help illuminate possible areas of improvement. In addition to

highlighting deficits in the services, it would also be informative and beneficial to conduct research on effective components of these services.

In summary, I believe that by conducting similar narrative studies with a wider range of participants, the varied career-related goals and barriers present among Canadian teenage mothers are likelier to emerge. In addition, by evaluating current services aimed at supporting teenage mothers in Canada as well as investigating the career-related trajectories of adult mothers who had their children as teenagers, an increasingly comprehensive understanding of ways to decrease barriers prohibiting fulfillment of teenage mothers' career-related goals will be attained.

Conclusion

Despite the variance in eagerness to enter the workforce, it was evident that all three of my participants desired to one day pursue a career outside of the home. All career-related goals that were discussed, which included human services worker, pharmacy technician and nurse, require post-secondary education. Upon reflection, my participants indicated that financial and time constraints, lacking supportive figures, lacking qualifications, lacking motivation to graduate high school, and uncertainty related to a lack of guidance and knowledge surrounding formal education were some of the barriers impeding fulfillment of their goals. Potential ways to overcome these barriers include: incorporating secondary-level courses that cater to the needs of teenage mothers, developing a mentorship service, guidance counsellors reaching out to post-secondary institutions to ensure that the diploma that the teenage mother graduates with qualifies her for admission, and increasing/expanding daycare subsidies and/or decreasing daycare costs.



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Cynthia Chaddock is a Masters of Education, Counselling graduate from the University of New Brunswick. Her academic background is in education, and she currently holds a teaching position in the Francophone Sud School District. Her current research interests include career development among teenage mothers, including examining the potential barriers they may face. This research was supported by a grant from Canada Graduate Scholarship-Master's (Joseph Armand Bombardier/SSHRC).

Publications

From My Perspective... A Guide to University and College Career Centre Management From My Perspective... A Guide to Career/ Employment Centre Management AUTHOR: MARILYN VAN NORMAN



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AUTHORS: CATHY CAMPBELL AND PEGGY DUTTON



I absolutely love this book! It combines up-to-date scholarship with practical examples and a great layout. The concept of 'career craft' fits well as an overarching strategy for change. While the focus of this book is on youth, the information and practical strategies have application to career counsellors working with clients of all ages. This book deserves to be read and re-read."

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Career Development Practice in Canada: Perspectives, Principles, and Professionalism

EDITORS: BLYTHE C. SHEPARD AND PRIYA S. MANI



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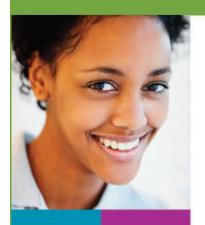
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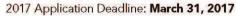


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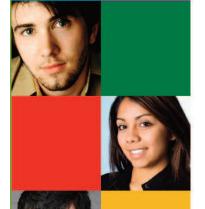
CERIC encourages the engagement of Canada's full-time graduate students whose academic focus is in career development or related fields. Faculty members are asked to help identify appropriate graduate students.

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Programme de mobilisation des étudiants(es) aux cycles supérieurs

Ce programme du CERIC encourage la mobilisation des étudiants(es) canadiens(iennes) aux cycles supérieurs dont la recherche porte sur le développement de carrière et/ou un domaine connexe. Nous demandons l'assistance du corps enseignant pour nous aider à repérer des étudiants admissibles.

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- rédiger des articles pour OrientAction ou ContactPoint, les communautés en ligne pour professionnels du développement de carrière;
- soumettre un article pour la Revue canadienne de développement de carrière, une publication académique évaluée par les pairs;
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Etta St. John Wileman Award Winner Interview

It is with great honour that the editors of *The Canadian Journal of Career Development* bring you a special series of interviews with past Etta St. John Wileman award winners. The Etta St. John Wileman Award for Lifetime Achievement in Career Development is designed to recognize and celebrate individuals who have devoted their lives within their professions; devoted their lives to the enhancement of career development practice, administration, research and education; and personify the role of researcher, educator, author, practitioner, and career leader.

These individuals have all contributed in their own way to the identity of the career development profession in Canada. It is through these interviews that our readers will get to see different persepctives, and perhaps gather some inspiration for their own work and career development.



Marilyn Van Norman

Award Winner 2007

Marilyn Van Norman was the first award recipient of the Etta St. John Wileman Award in 2007. She has over 30 years of expertise and knowledge in career development, student services, and career centre and student services management. Marilyn is the author of numerous books and articles on career development. Through her hard work and dedication to her field, she has received many prestigious awards; such as the Award of Merit, Outstanding Contribution, Life Membership CACEE; The Contribution to Career Counselling, Ontario

College Counsellors; and The Joan Foley Award for Significant Contributions to Enhancing Student Life.

Marilyn is a highly respected professional and considered by many to be a veteran of the career development field in Canada. She is a wealth of information and is ready to converse on the topics she is most fond of. We are pleased to be able to bring you a short interview with this highly recommended woman.

~

CJCD: Hi Marilyn. Starting off, can you tell the readers a little about your own career development?

Marilyn: My career began as a RN working in a Montreal hospital ICU. From there I got into Health Promotion in schools and subsequently in a CEGEP (Pre-university college) in Montreal. I attained a B.A in 1978 from Concordia University. My position in Health Services led to one in Student Development and ultimately to my being Director of Student Services at that CEGEP.

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A move to Toronto in 1982 saw me joining the staff of the Career Centre at the University of Toronto as Manager of Administrative Services. Shortly thereafter, I

Marilyn: I was working in student development at Vanier College and felt that a Bachelor of Arts would be helpful to my work and career.

"Mentors can play a very significant role in career development, work satisfaction, and personal growth."

became Assistant Director and then Director. I was with the Career Centre for twenty years and during that period had the immense pleasure of Chairing NATCON in partnership with HRDC (Human Resources and Development Canada) and The Counselling Foundation of Canada from 1987-2002. I attained an M.A. at OISE (Ontario Institute for Studies in Education) while working at the Career Centre.

My next career move was as Director of Student Services at the University of Toronto. In 2007, I took early retirement from the University of Toronto. Then in 2008, I began working as a consultant parttime for CERIC and The Counselling Foundation of Canada.

I have been fortunate in receiving a number of awards during my career in addition to the Etta St. John Wileman Award – Award of Merit, Outstanding Contribution, Life Membership CACEE; Contribution to Career Counselling, Ontario College Counsellors; The Joan Foley Award for Significant Contributions to Enhancing Student Life, University of Toronto.

CJCD: You started out as an RN. What moved you to decide to complete a B.A?

CJCD: Throughout your career, as you undertook different positions, have there been mentors that have influenced your career development?

Marilyn: I have been very fortunate to have had a number of mentors in my career who have had significant impacts on me and my career.

CJCD: How did they influence you?

Marilyn: Through their guidance, insight, and example I was able to keep my career moving in the direction I wanted. I am very grateful to all of them and have tried to pay it forward with people I have mentored along the way.

CJCD: Did you search out these individuals specifically as mentors or did they become mentors over time?

Marilyn: Both.

CJCD: It sounds like you received many benefits from having mentors in your life. Would you recommend that career practitioners find a mentor for themselves?



Marilyn: Absolutely! Mentors can play a very significant role in career development, work satisfaction, and personal growth.

CJCD: Moving onto the next question. Being a plethora of information and experience yourself, what do you consider is the important milestones in Canadian career development?

Marilyn:

- 1851: YMCA opened in Mon-
- 1905: Etta St. John Wileman strong advocate for employment services
- 1918: Employment Service Council of Canada was formed as a result of Etta's work
- 1943: Gerald Cosgrove and Frank Lawson worked together through the YMCA to provide career development services to voung men
- 1949: UCPA formed now called CACEE
- 1959: Frank Lawson formed The Counselling Foundation of Canada
- 1975: NATCON began from 1987-2002 NATCON was done as a partnership between the University of Toronto, HRDC and The Counselling Foundation of Canada
- 1997: ContactPoint/OrientAction was launched as an on-line resource for career development practitioners
- 1980: Stu Conger formed CCDF
- 2003: Career Development Standards and Guidelines were established
- 2004: CERIC was launched
- 2007: Cannexus Canada's largest bilingual national conference on career development.

In addition to this, all of the work done by researchers such as



Norm Amundson, Nancy Arthur, William Borgen, Charles Chen, Sandra Collins, Edwidge Desjardins, Liette Goyer, Roberta Neault, Bryan Hiebert, Kris Magnusson to name just a few.

CJCD: From your perspective, what are some of the current career development thinking and/or research in being done in Canada today?

Marilyn: The issue of embedding hope and resilience into career development thinking.

CJCD: Sounds interesting. For anyone wanting to find out more about these areas, what individuals would you recommend they look up and follow?

Marilyn: Norm Amundson, Spencer Niles, and Tannis Goddard.

CJCD: We talked about historical milestones, and current thinking and research. Now I like to ask you what you think are the challenges facing career development in Canada?

Marilyn: The main challenges facing career development in Canada to me are decreasing funding, a lack of public awareness and appreciation of the potential impact of career development services, and the replacement of retiring career professionals. Other challenges include stratification of the industry, technological advances and the integration of career education into public schools and the resulting effect on the work of career professionals.

CJCD: What, in your opinion, can current career practitioners do to help overcome some of these challenges?

Marilyn: We all need to work together to enhance the profile of career development in Canada. The

"We all need to work together to enhance the profile of career development in Canada."

more people are aware of the benefits of career development, the higher the profile will be. Advocating for integrating career development into the K-12 curriculum is one step towards both increasing the profile, but more importantly introducing students to the life long process of career development.

CJCD: Wise words indeed. If you could look into a crystal ball and see what the future holds for career development in Canada, what would that future look like to you?

Marilyn: What the future holds for career development in Canada...... Boundary-less, protean careers, and transformational workplaces.

What would it look like or what would I like it to look like. The latter is easy to answer – I would like to see the majority of Canadians taking advantage of well-funded and recognized career development services.

CJCD: Lastly, do you have any advice for up-and-coming career development practitioners and researchers?

Marilyn: Work together to ensure on-going funding for career development services and to enhance the profile of career development in Canada. Always stay on top of current literature and research. And be entrepreneurial and agile in your own career. Contribute to RRSPs.

CJCD: Thank you very much Marilyn for your wonderful insight and information about your own career development. Hopefully your words will help someone in their own career path or spark an interest.



D'une carrière militaire à un emploi civil : guide de l'intervenant en développement de carrière AUTEURE : YVONNE RODNEY

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En parcourant ce guide pour l'intervenant en développement de carrière sur la transition d'une carrière militaire à un emploi civil, il est rassurant de constater que la communauté académique et scientifique se mobilise et investie ses ressources pour mieux comprendre les femmes et les hommes qui ont sacrifié leur jeunesse pour servir notre beau pays. Je m'incline devant tous les artisans de cette superbe initiative. »

 Colonel G.J. Blais, Directeur-Gestion du soutien aux blessés et Commandant Unité Interarmées de soutien aux personnel, Forces armées canadiennes

Élaboré par le CERIC en partenariat avec La Compagnie Canada et en consultation avec les Forces armées canadiennes, Anciens Combattants Canada, Services aux familles des militaires, ainsi qu'avec des employeurs favorables à l'embauche de militaires et des professionnels de la carrière de première ligne.





Nous souhaitons remercier particulièrement les champions des connaissances en matière de développement de carrière qui nous ont aidés à la réalisation de ce guide.











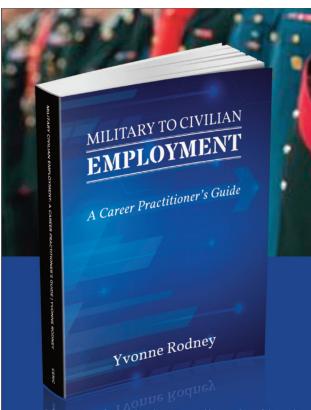








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AUTHOR: YVONNE RODNEY



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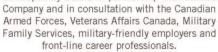
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Reading through this Career Practitioner's Guide on Military to Civilian Employment gives me great comfort that the education and research community is moving to mobilize precious resources to better understand the men and women who have dedicated their youth to serve our great nation. I salute all the artisans behind this superb initiative."

- Colonel G.J. Blais, Director Casualty Support Management and Commanding Officer Joint Personnel Support Unit, Canadian Armed Forces

Developed by CERIC in partnership with Canada front-line career professionals.







A special thank you to the Knowledge Champions for career development who helped to make possible the publication of this guide.



















NOTES

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- 4. Language and format (headings, tables, figures, citations, references) must conform to the style of the *Publications Manual of the American Psychological Association 6th Edition (APA)*.
- 5. All figures and tables must appear on separate sheets and be camera-ready.
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- 7. The evaluation of manuscripts include criteria such as: significance and currency of the topic; contribution to new knowledge in the field; appropriateness of the methodology or approach; and the clarity of presentation. The review process normally does not exceed three or four months.
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REMARQUES AUX AUTEURS

- 1. Les manuscrits doivent être tapés à double interligne sur du papier 8 ½ x 11 de qualité. Les articles ne devraient pas dépasser 30 pages (y compris les références, les tableaux, les graphiques, les annexes).
- 2. La première page doit contenir le titre de l'article, le nom de l'auteur, l'affiliation, l'adresse postale, le courrier électronique et les remerciements (s'il y a lieu). Pour assurer l'anonymat du processus d'évaluation, le nom de l'auteur ne doit apparaître à aucun autre endroit sur le manuscrit.
- 3. Les deuxième et troisième pages devront contenir une version française et une version anglaise du résumé dont la longueur ne dépasse pas 200 mots.
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