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Canadian Journal of Career Development
Revue canadienne de développement de carrière

The Canadian Journal of Career Development was established by its late founding editor, Dr. Robert Shea, in 1999, with the inaugural issue being published in 2002. The objective of this peer-reviewed and open-access journal is to present articles on areas of career research and practice that are of interest to career development researchers and practitioners in Canada and internationally. The Journal is multi-sectoral, and includes a range of methodological, theoretical, and best practices articles.

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La Revue canadienne de développement de carrière a été créée par son rédacteur en chef fondateur, le Dr Robert Shea, en 1999, et le premier numéro a été publié en 2002. L'objectif de cette revue à comité de lecture et à accès libre est de présenter des articles sur les domaines de la recherche et de la pratique en développement de carrière qui intéressent les chercheurs et les praticiens en développement de carrière au Canada et à l'étranger. La revue est multisectorielle et comprend un éventail d'articles méthodologiques, théoriques et sur les meilleures pratiques.

La revue est publiée à l'Université Memorial de Terre-Neuve, avec le soutien du CERIC grâce à une subvention de la Counselling Foundation of Canada. Les opinions exprimées sont celles des auteurs et ne reflètent pas nécessairement celles de la Revue canadienne de développement de carrière, de l'Université Memorial de Terre-Neuve ou des dirigeants, administrateurs ou employés du CERIC.

La Revue canadienne de développement de carrière est publiée deux fois par an, en janvier et en septembre. Elle est accessible à l'adresse suivante : www.cjcd-rcdc.ceric.ca. Des informations concernant les catégories de soumission et les lignes directrices sont disponibles à l'adresse suivante : https://cjcd-rcdc.ceric.ca/index.php/cjcd/about/submissions. Toute correspondance concernant les annonces et les demandes d'autorisation de réimpression doit être adressée à Jennifer Browne à l'adresse ci-dessous.

Canadian Journal of Career Development
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CANADIAN JOURNAL OF CAREER DEVELOPMENT | REVUE CANADIENNE DE DÉVELOPPEMENT DE CARRIÈRE

ARTICLES

Volume 24, Issue 1 2025

FROM THE EDITOR'S DESK | DU BUREAU DE LA RÉDACTRICE EN CHEF

Dr. Jennifer Browne Editor/ Rédactrice en chef

As the new year commences, it is an opportune moment to reflect on the dynamic and evolving landscape of career development. The release of a new edition of the Canadian Journal of Career Development, that aligns with the annual Cannexus conference, presents an exciting opportunity to share a diverse array of articles that shed light on critical themes, theories, and practical tools shaping the field today.

The present issue is curated to resonate with both scholars and practitioners, encompassing a range of topics from innovative digital self-help resources to the intersection of emotional intelligence and occupational transitions. A central theme that this issue explores is the application of career theories and models that are both practical and useful for career practitioners in their work. The theories and models reviewed identify key themes that link theory and practice, making it a valuable resource for scholars and practitioners alike.

Our contributors delve into attitudes of Human Resource professionals managing their personal career ambitions and shed light on modern career concepts and attitudes. Other contributors focus on international students and the impact of faculty influence on career trajectories. The article explores an intercultural teaching taxonomy for faculty that is student-centric, and it highlights five practices that can support international students' career development.

Another critical focus is on the transition from public safety occupations, a career pathway often marked by unique challenges. Public safety personnel's unique experiences and transition from these careers highlights the need for planning and support during this transition. As well, the role of emotional intelligence and the impact on career wellbeing of individuals is effectively explored. The article offers a deeper understanding on counselling practices that support clients with low EI and improving their ability to navigate and cope with their careers more effectively.

As we direct our attention toward the year 2025, we express profound gratitude for the unwavering support provided by CERIC. This support has enabled the formulation of ambitious plans for the future of the Canadian Journal of Career Development. These plans encompass a range of initiatives, including website enhancements, the establishment of an editorial board, the exploration of novel technologies, the pursuit of additional funding, of the augmentation of reviewer pools, the formalization of practices, and the development of

En ce début d'année, le moment est opportun pour réfléchir au paysage dynamique et évolutif du développement de carrière. La publication d'une nouvelle édition de la Revue canadienne de développement de carrière, qui coïncide avec le congrès annuel Cannexus, offre une occasion passionnante de partager une gamme variée d'articles qui mettent en lumière des thèmes, des théories et des outils pratiques essentiels qui façonnent le domaine aujourd'hui.

Le présent numéro est conçu de manière à toucher à la fois les universitaires et les praticiens. Il aborde une série de sujets allant des ressources numériques innovantes d'auto-assistance à l'intersection de l'intelligence émotionnelle et des transitions professionnelles. L'un des thèmes centraux de ce numéro est l'application de théories et de modèles de carrière qui sont à la fois pratiques et utiles pour les professionnels de l'orientation dans leur travail. Les théories et modèles examinés identifient des thèmes clés qui relient la théorie et la pratique, ce qui en fait une ressource précieuse pour les chercheurs et les praticiens.

Nos contributeurs se penchent sur les attitudes des professionnels des ressources humaines qui gèrent leurs ambitions de carrière personnelles et mettent en lumière les concepts et les attitudes modernes en matière de carrière. D'autres auteurs s'intéressent aux étudiants internationaux et à l'impact de l'influence du corps enseignant sur les trajectoires professionnelles. L'article explore une taxonomie de l'enseignement interculturel pour les professeurs qui est centrée sur l'étudiant et met en évidence cinq pratiques qui peuvent soutenir le développement de carrière des étudiants internationaux.

Un autre point essentiel est la transition des professions de la sécurité publique, un parcours professionnel souvent marqué par des défis uniques. Les expériences uniques du personnel de la sécurité publique et la transition de ces carrières soulignent le besoin de planification et de soutien pendant cette transition. En outre, le rôle de l'intelligence émotionnelle et son impact sur le bien-être professionnel des individus sont explorés de manière efficace. L'article offre une meilleure compréhension des pratiques de conseil qui soutiennent les clients ayant une faible intelligence émotionnelle et améliorent leur capacité à naviguer et à faire face à leur carrière de manière plus efficace.

Alors que nous nous dirigeons vers l'année 2025, nous exprimons notre profonde gratitude pour le soutien indéfectible apporté par le CERIC. Ce soutien a permis de formuler des plans a more comprehensive annual report. Concurrently, the CJCD has been experiencing a steady increase in submissions, necessitating the expansion of its reviewer base. Individuals interested in assuming the role of a reviewer are requested to contact Associate Editor Diana Boyd at diana.boyd@mun.ca for more information.

The Journal's mission remains steadfast: to facilitate communication between research and practice, equipping its readership with the tools and perspectives necessary to address current issues while preparing for future uncertainties. Readers are encouraged to engage with the ideas presented in this issue, whether through the implementation of new strategies in their own practice or the contribution of their own ideas to the ongoing dialogue in the field.

In this forthcoming year, it is imperative to acknowledge the growth, innovation, and collaboration in the realm of career development. In pursuit of this shared objective, it is incumbent upon us to continue our efforts to empower individuals to navigate their career journeys with confidence and clarity.

Wishing you much joy, health and happiness in 2025.

Dr. Jennifer Browne

ambitieux pour l'avenir de la Revue canadienne de développement de carrière. Ces plans englobent une série d'initiatives, notamment l'amélioration du site Web, la mise en place d'un comité de rédaction, l'exploration de nouvelles technologies, la recherche de financements supplémentaires, l'augmentation du nombre d'examinateurs, la formalisation des pratiques et l'élaboration d'un rapport annuel plus complet. Parallèlement, le CJCD a connu une augmentation constante du nombre de soumissions, ce qui a nécessité l'élargissement de sa base d'évaluateurs. Les personnes intéressées par le rôle d'examinateur sont priées de contacter la rédactrice en chef adjointe, Diana Boyd, à l'adresse diana.boyd@mun.ca, pour de plus amples informations.

La mission du journal reste inébranlable : faciliter la communication entre la recherche et la pratique, en dotant ses lecteurs des outils et des perspectives nécessaires pour aborder les questions actuelles tout en se préparant aux incertitudes futures. Les lecteurs sont encouragés à s'engager dans les idées présentées dans ce numéro, que ce soit par la mise en œuvre de nouvelles stratégies dans leur propre pratique ou par la contribution de leurs propres idées au dialogue en cours dans le domaine.

En cette nouvelle année, il est impératif de reconnaître la croissance, l'innovation et la collaboration dans le domaine du développement de carrière. Dans la poursuite de cet objectif commun, il nous incombe de poursuivre nos efforts pour permettre aux individus de naviguer dans leur parcours professionnel avec confiance et clarté.

Je vous souhaite beaucoup de joie, de santé et de bonheur en 2025.

Dr. Jennifer Browne

Etta St. John Wileman Award for Outstanding Achievement in Career Development

Prix Etta St. John Wileman pour les réalisations remarquables en développement de carrière

This award is designed to recognize and celebrate individuals who have made an outstanding impact in enhancing the field of career development, regardless of role or position within an organization.

It is given in the name of Etta St. John Wileman, a champion and crusader of career, work and workplace development in Canada in the early 20th century.

Consider nominating someone who is a mentor, educator, advisor, advocate and role model. CERIC encourages nominations of members of equity groups.

For full information on nominations and selection, visit **ceric.ca/wileman_award**.

Ce prix vise à souligner et à célébrer l'apport des personnes qui ont remarquablement amélioré le domaine du développement de carrière, peu importe leur rôle ou leur position au sein d'une organisation.

Ce prix honore la mémoire d'Etta St. John Wileman, pionnière et fervente militante du développement de carrière et de l'amélioration des conditions de travail au Canada au début du XXe siècle.

Envisagez de proposer la candidature de quelqu'un étant un modèle à suivre, un formateur, un conseiller, un porte-parole et ayant été un mentor.

Le CERIC encourage les candidatures de membres de groupes en quête d'équité.

Pour plus d'information sur les nominations et la sélection, visitez **ceric.ca/prix_wileman**.

Join us in being able to recognize the full spectrum of professionals making a meaningful difference in career development in Canada.

Rejoignez-nous pour reconnaître les professionnels qui font une différence significative dans le développement de carrière au Canada.

WATCH FOR NOMINATIONS TO OPEN IN SPRING 2025

LES NOMINATIONS SERONT OUVERTES AU PRINTEMPS 2025

Développement d’un outil numérique d’auto-assistance à la recherche d’information sur le marché du travail (IMT) pour les personnes conseillères dans le domaine de l’orientation scolaire et professionnelle

Annie Gourde, Michel Turcotte et Liette Goyer
Université Laval, Canada

Résumé

L’information sur le marché du travail (IMT) fait partie intégrante de la pratique professionnelle des conseiller.ère.s d’orientation, mais aussi des conseiller.ère.s en emploi et en développement de carrière. L’objectif de cette recherche appliquée de nature partenariale, était de créer une plateforme numérique destinée à faciliter l’utilisation de l’IMT pour les personnes conseillères et leurs client.e.s. Pour ce faire, nous ferons état des cinq étapes qui ont conduit à la conception et à la réalisation de cette plateforme numérique, soit : idéation et détermination des objectifs, fonctionnalités, besoins et clientèles cibles de la plateforme numérique, la coconception de son design, l’analyse des besoins des utilisateur.rice.s, le développement technique de la plateforme et l’appréciation auprès des personnes conseillères. Cette recherche a permis de ressortir que conformément à une étude réalisée par le Conseil de l’information sur le marché du travail (CIMT, 2019), les caractéristiques de l’IMT les plus importantes pour les personnes conseillères sont : l’actualité, la fiabilité, la facilité d’utilisation, l’exhaustivité et la spécificité. Cette recherche a également permis de déterminer que L’Accompagnateur numérique en IMT permet de répondre aux besoins des personnes conseillères en étant simple d’utilisation et en répertoriant un nombre appréciable de sites Internet (75) tout en les classant en différentes sections afin d’aider la recherche d’IMT.

Abstract

Labour Market Information (LMI) is an integral part of the professional practice of career counselors, as well as employment and career development counselors. The objective of this applied partnership-based research was to create a digital platform aimed at facilitating the use of LMI for counselors and their clients. To achieve this, we will outline the five steps that led to the design and development of this digital platform, namely: ideation and goal setting, determining the functionalities, needs, and target audiences of the digital platform, co-designing its interface, analyzing user needs, technical development of the platform, and gathering feedback from counselors. This research revealed that, in line with a study conducted by the Labour Market Information Council (LMIC, 2019), the most important characteristics of LMI for counselors are: timeliness, reliability, ease of use, comprehensiveness, and specificity. This research also found that the Digital Companion for LMI meets counselors’ needs by being easy to use and cataloging a significant number of websites (75), while organizing them into different sections to aid in LMI research.

Mots-clés : IMT, Orientation scolaire et professionnelle, technologies numériques, information sur le marché du travail, plateforme numérique

Keyword : LMI, career guidance, digital, technology, labour market information, online platform

Remerciements: Nous tenons à remercier monsieur Yves Larocque, économiste spécialisé en IMT, madame Marie-Claude Gagnon, D.Éd., directrice de la clinique en counseling et orientation, et madame Qian Qian Hou, mémorante en sciences de l’orientation pour leur participation à la réussite de notre outil numérique.

L’information sur le marché du travail (IMT) fait partie intégrante de la pratique professionnelle des conseiller.ère.s d’orientation, mais aussi des conseiller.ère.s en emploi et en développement de carrière. Dans le profil de compétences des conseiller.ère.s d’orientation (Ordre des conseillers et conseillères d’orientation du Québec [OCCOQ], 2004), on peut lire dans la compétence *Intervenir directement*, « 3.6 Utiliser l’information scolaire et professionnelle dans ses interventions, notamment la connaissance du milieu scolaire, des métiers et professions, du marché du travail, des contextes socio-économiques et de l’insertion professionnelle » (p.4). Il est donc important pour les conseiller.ère.s d’orientation d’utiliser l’IMT et de connaitre les sources possibles en fonction du contexte de l'intervention. Pour ce qui est des conseiller.ère.s en emploi et en développement de carrière, le Conseil canadien pour le développement de carrière (2012) stipule que les professionnel.elle.s doivent connaitre les informations sur le marché du travail, l'éducation et la formation ainsi que les ressources disponibles, ce qui inclut les informations en ligne. Il mentionne également que la personne professionnelle doit « actualiser ses compétences technologiques » (Conseil canadien pour le développement de carrière, 2012). Ainsi, il est judicieux de se pencher sur l'utilisation qu'en font les personnes conseillères et sur leurs besoins en termes d'outils pour accéder, utiliser et diffuser l'IMT.

Avec l'augmentation des sources d'IMT et des outils pour en faciliter l'accès, certain.e.s auteur.e.s ont interpellé la communauté du développement de carrière pour qu'elle s'investisse dans le développement d'outils numériques (Bright, 2015 ; Sampson et al., 2020). Le Conseil de l'information sur le marché du travail (CIMT) a lancé à l'hiver 2022 un appel de projets pour le développement d'outils numériques faisant usage de l'IMT[1]. Développer une nouvelle plateforme numérique permettant de regrouper l'ensemble des ressources d'IMT pertinentes pour le travail des professionnel.elle.s de l'orientation et du développement de carrière a plusieurs avantages et bénéfices possibles. Une plateforme numérique peut être un moyen efficace pour : 1) agréger et filtrer les informations sur les métiers provenant de différentes sources, ce qui permet aux conseiller.ère.s d'accéder rapidement à des données pertinentes et actualisées ; 2) s'assurer que les sites d'IMT consultés renferment des informations fiables et de qualité ; 3) offrir un classement des différents sites Internet d'IMT en fonction de grandes thématiques permettant aux personnes conseillères de trouver plus rapidement et facilement les informations recherchées ; 4) faciliter la communication et la collaboration entre les conseiller.ère.s, les étudiant.e.s et d'autres parties prenantes, en fournissant des plateformes interactives et des outils de partage d'informations ; etc. En résumé, l'objectif de ce type de plateforme est d'aider et soutenir les professionnel.le.s dans la recherche d'IMT.

Une équipe de chercheur.e.s de l'École de counseling et d'orientation de l'Université Laval a répondu à l'invitation du CIMT. Après une présentation sommaire de la problématique de l'utilisation de l'IMT en développement de carrière, nous nous attarderons à présenter comment, à travers une recherche partenariale, se sont réalisés la conception et le développement d'une plateforme numérique destinée à des personnes conseillères du Québec. Les auteur.e.s ont donné le nom d'*Accompagnateur numérique en IMT* à cette plateforme numérique. La présente recherche contribue à l'avancement des connaissances concernant les besoins des personnes conseillères en orientation, en emploi et en développement de carrière concernant les recherches d'information sur le marché du travail. L'IMT étant central dans le rôle des personnes conseillères avec les différentes populations, il s'avère nécessaire de trouver des moyens afin de les aider à naviguer à travers la grande diversité de sources d'informations, mais aussi à cibler les informations fiables et de qualités. Une plateforme numérique regroupant l'ensemble des sites d'IMT pertinents est une nouveauté et une avancée considérable dans ce désir de soutenir les professionnel.le.s en orientation, en emploi et en développement de carrière.

Cadre de la recherche

Information sur le marché du travail (IMT)

Il convient dans un premier temps de définir ce qu'est l'IMT et de jeter un regard sur la recherche effectuée concernant son utilisation dans le domaine de l'orientation et du développement de carrière. Au Québec, Limoges (1975) amenait une définition de l'information scolaire et professionnelle (ISEP) en précisant qu'elle incluait « l'ensemble des renseignements requis ou nécessaires pour l'orientation des gens » (p. 62). Ce type d'information s'est développé graduellement au cours des années en fonction de l'augmentation de la diversité des programmes de formation offerts et des métiers disponibles pour la population (Godbout, 1981). Grâce aux technologies, à l'informatique et à Internet, cette même information est désormais accessible pour toute la population et non seulement pour les personnes conseillères.

1 Voir l'annonce de cet appel de projets dans le rapport annuel du CIMT de 2023 : https://lmic-cimt.ca/fr/rapport-annuel-2022-2023/#toc2

L'ISEP fait partie intégrante de l'information sur le marché du travail (IMT). Le Groupe de travail sur l'IMT du Forum des ministres du marché du travail définissait l'IMT en 2012 comme « une information de qualité sur les emplois, le recrutement d'employés, les tendances des compétences exigées, la formation professionnelle, l'acquisition de compétences et l'évolution des milieux de travail » (p. 2). Ainsi, cette information est nécessaire pour aider les personnes dans leur prise de décisions et la détermination d'une trajectoire de carrière convenable. De son côté, le CIMT qui « est un organisme sans but lucratif créé pour définir et mettre en œuvre des priorités pancanadiennes afin de répondre au besoin d'une information plus uniforme et accessible sur le marché du travail pour les Canadiens et les Canadiennes » (CIMT, n. d.)[2] propose également une définition de l'IMT. Cette dernière est définie comme l'ensemble des « connaissances, faits, données ou aperçus que toutes personnes peuvent utiliser pour prendre des décisions concernant leur apprentissage, leur éducation, leur formation, leur emploi et leur lieu de travail » (CIMT, 2020). En complément de ces définitions, Gallant et al. (2016) amènent une précision concernant les différentes sources d'information. Il y a les sources formelles ou institutionnelles qui « regroupent les institutions gouvernementales et les établissements subventionnés par l'État, comme les organismes communautaires et les bibliothèques publiques » (p. 15). Il existe également les sources informelles ou non institutionnelles qui n'ont pas nécessairement été conçues pour donner de l'IMT, mais qui peuvent tout de même être utilisées. Ces sources informelles « se composent généralement des réseaux sociaux » (p. 15).

Turcotte et Hiebert (1999) déclaraient que, grâce au développement de l'informatique et du Web, « les conseillers d'orientation professionnelle et les clients qu'ils servent peuvent désormais accéder à des informations actualisées sur pratiquement tous les aspects du processus d'orientation professionnelle et d'emploi » (p. 146). Ainsi, les développements numériques déjà en cours dans les années 1990 permettent aujourd'hui un accès plus facile à l'IMT. Toutefois, cette émergence de sites Internet amenait Turcotte et Hiebert (1999) à prévoir qu'elle aurait pour effet d'augmenter la charge de travail des personnes conseillères. En 2007, Huteau mentionnait que pour le Canada, « il y a une dizaine d'années, plus de deux mille sites portant sur la carrière, l'emploi et l'éducation » (p. 418) ont été recensés. Déjà en 1986, Watts alléguait qu'il serait de la responsabilité des personnes conseillères de s'assurer que « les informations contenues dans les systèmes sont exactes, à jour, complètes, impartiales et pertinentes pour l'utilisateur » (p. 156). Ainsi, dans la foulée de l'augmentation de la présence d'informations, le Forum des ministres sur le marché du travail du Canada (FMMT) a élaboré des lignes directrices sur l'IMT afin d'assurer à la population une information de qualité, fiable et adaptée aux besoins (Groupe de travail sur l'IMT du FMMT, 2012).

À l'heure actuelle, au Québec, les personnes conseillères et la population en général ont accès à de nombreux sites Internet pour obtenir de l'IMT comme Québec.ca, Guichets-Emplois, REPÈRES, etc. (Gouvernement du Québec, 2023 ; Gouvernement du Canada, 2023 ; GRICS, 2023). Des médias sociaux peuvent également aider dans le cadre des interventions en développement de carrière, comme LinkedIn qui met « en relation des professionnels du monde entier pour les rendre plus performants et productifs » (LinkedIn Corporation, 2023). On y retrouve également Academos, qui connecte « les jeunes de 14 à 30 ans avec la réalité du monde du travail et les amener à concrétiser un projet de vie professionnelle épanouissant, afin de rendre notre société plus éduquée, qualifiée et prospère » (Academos, 2023). Cela vient confirmer ce que Sampson et al. (2020) concluent dans leurs recherches, c'est-à-dire que l'accès à davantage d'informations représente l'un des bénéfices qu'apportent les technologies de l'information et des communications (TIC), et ce, autant pour les personnes conseillères que pour la population.

Besoins des personnes conseillères concernant l'IMT

Le CIMT en 2019 a réalisé une enquête afin de connaitre les besoins d'IMT des personnes professionnelles œuvrant dans le développement de carrière au Canada. Pour cette enquête, 873 personnes issues des différentes provinces canadiennes ont répondu aux questionnaires entre juillet et novembre 2018 (CIMT, 2019). L'ensemble de ces professionnel.le.s en développement de carrière faisaient partie du réseau de professionnel.le.s de la Fondation canadienne pour le développement de carrière. Il ressortait que :

2 Consulté le 7 avril 2023 sur https://lmic-cimt.ca/fr/a-propos-de-nous

> De tous les professionnels en développement de carrière sondés, seulement trois sur cinq (60 %) croient que l'information sur le marché du travail est facile à comprendre, et moins de la moitié (43 %) affirment suivre des formations pour les aider à localiser cette information et à en tirer du sens. (CIMT, 2019, section Principaux constats)

Il apparait donc qu'un pourcentage substantiel de personnes conseillères ont besoin d'aide non seulement pour trouver l'IMT, mais également pour être en mesure de la comprendre et la partager aux personnes qui les consultent.

L'actualité de l'information et le fait qu'elle soit maintenue à jour se retrouvent parmi les caractéristiques de l'IMT les plus importantes identifiées par les personnes professionnelles du développement de carrière au Canada (CIMT, 2019). Viennent ensuite la facilité d'utilisation, la disponibilité, la gratuité et, enfin, la fiabilité. Ainsi, il est essentiel pour les personnes conseillères d'avoir confiance dans les informations recherchées afin de bien guider les personnes faisant appel à leurs services. Comme le CIMT, Kettunen et Sampson (2019) soulignent l'importance d'avoir une information accessible et à jour. De plus, Sampson et Makela (2014) ainsi que Sampson et al. (2020) soutiennent qu'il est important pour les personnes conseillères de vérifier la qualité des sources d'informations. En ce sens, il est de la responsabilité des personnes conseillères de connaitre les critères de qualité de l'IMT et de s'assurer que les informations trouvées pour venir en aide à leur clientèle respectent ces critères.

Malgré la prolifération des sites d'IMT grâce à Internet, Supeno et Mongeau (2015) soulignent, dans une étude auprès de 22 jeunes adultes non diplômés en situation de précarité, qu'outre la consultation des sites et des médias sociaux, ceux-ci font appel aux personnes conseillères afin de bien comprendre l'information en fonction de leur réalité. Les jeunes adultes dans l'étude identifient « dix-neuf sources d'information sur la formation, le travail et l'intégration sociale » (Supeno et Mongeau, 2015, p. 122).

> Les sources relationnelles font l'objet du plus grand nombre de déclarations (plus de 60 % du total). Parmi celles-ci, les personnes professionnelles (conseiller d'orientation, psychologue, conseiller en emploi, médecin, travailleur social, etc.) sont les plus déclarées (plus de 58 % du nombre de sources relationnelles). (Supeno et Mongeau, 2015, p. 123)

Ainsi, malgré la grande accessibilité de l'information, les personnes conseillères ont un rôle important à jouer dans la clarification et la transmission de cette information (Savard et al., 2002). C'est également le constat de Supeno et Pariseau (2018) et de Supeno et al. (2021). Dans leurs recherches, ces auteurs mentionnent que les personnes conseillères demeurent importante pour aider les personnes à trouver l'IMT et surtout à la comprendre à la lumière de leur projet d'orientation ou de recherche d'emploi. Les personnes conseillères « sont des médiateurs importants entre l'information et les jeunes adultes » (Supeno et al., 2021, para. 11) et permettent que « les jeunes adultes puissent avoir accès à des ressources professionnelles et spécialisées en matière d'employabilité » (Supeno et Pariseau, 2018, p. 220).

Turcotte et Goyer (2017) constatent, à la lumière de deux enquêtes réalisées en 2015 et 2016 auprès de 265 conseillers et conseillères d'orientation du Québec, l'importance de l'utilisation des technologies en lien avec l'IMT. Ces 265 conseillers et conseillères d'orientation du Québec avaient en moyenne 14 années d'expériences professionnelles et 81 % de l'échantillon était des femmes. Ces auteur.e.s mentionnent que « certaines finalités d'intervention semblent davantage faire appel à l'utilisation des TIC plus que d'autres, notamment celles qui portent sur : accéder et diffuser de l'information » (p. 9). Internet semble un facilitateur pour l'accessibilité et la transmission d'IMT (Bimrose et al., 2015). Les personnes conseillères doivent donc être outillées afin de pouvoir aider la population. Comme le souligne Goddard (2010), « permettre aux individus d'être plus autonomes dans leur recherche de ressources liées à l'information sur les carrières et d'utiliser adéquatement ces ressources est une étape importante pour soutenir le développement de carrière » (p. 3). En ce sens, mieux saisir les besoins et les enjeux des personnes conseillères lorsqu'elles cherchent de l'IMT ou lorsqu'elles invitent leurs clientèles à le faire se révèle comme un élément majeur à la mise en place d'outils pour les aider.

Avantages et inconvénients de l'IMT en ligne

Le fait que les TIC soient utilisées en grande partie pour les recherches d'IMT (CIMT, 2019 ; Savard et al., 2002 ; Turcotte et Goyer, 2017 ; 2018) apporte un lot d'avantages, mais également d'inconvénients pour les personnes utilisatrices. Les TIC permettent de rendre les informations plus accessibles et disponibles pour l'ensemble de la population (Huteau, 2007 ; Meloni, 2019 ; Paterson et al., 2017 ; Samson et al., 2020 ; Supeno et al., 2021 ; 2022). La multiplicité des plateformes (sites Web, réseaux sociaux, bases de données, applications mobiles, etc.) permet d'adapter l'information en fonction des personnes à qui elle s'adresse (Kettunen et al., 2013, 2015 ; Sampson et al., 2020).

Des inconvénients demeurent toutefois présents, peu importe le type de plateforme, et il importe d'en tenir compte. Imel et al. (2001) font ressortir cinq limites et problèmes liés à la présence de ressources d'IMT en ligne. La première concerne la *compétence des utilisateurs*. Plus précisément, « afin de pouvoir faire une utilisation efficace des informations en ligne, les personnes doivent être en mesure d'utiliser la technologie et de naviguer sur Internet » (p. 4). Certaines personnes n'ont pas développé des compétences pour utiliser les ordinateurs et mener des recherches sur le Web. Même si l'Académie de la transformation numérique (2021) mentionne que le « taux de branchement à Internet des foyers québécois est de 93 % en 2021 » (p. 11), des personnes ont des difficultés et ont encore besoin d'aide à ce niveau.

Une deuxième limite est liée à *l'équité d'accès* (Imel et al., 2001). Malgré le haut taux de branchement des foyers québécois, il reste encore des personnes ne pouvant pas avoir accès à Internet, ayant notamment des ressources financières limitées (Imel et al., 2001) ou vivant dans une zone où l'Internet n'est pas disponible. Une étude canadienne de Deloitte (2020) mentionne d'ailleurs l'importance de tenir compte des enjeux d'équité en lien avec la technologie. Il est, entre autres, question des défis que représente la numérisation de la société :

> Elle pourrait en effet exacerber les inégalités sociales déjà importantes. Les Autochtones du Canada, les ménages à faible revenu, les groupes racisés, les personnes âgées, les populations rurales, les nouveaux arrivants et de nombreux autres groupes sont parmi les plus exposés à l'iniquité numérique (Deloitte, 2020, p. 4).

La *qualité de l'information* constitue une troisième limite rapportée par Imel et al. (2001). En fait, ces auteurs mentionnent que « n'importe qui peut créer un site avec des informations sur la carrière » (p. 4), ce qui représente un défi supplémentaire pour trouver des informations fiables et valides de manière à répondre aux besoins des personnes. La quatrième limite associée à l'IMT en ligne concerne le *niveau d'avancement de l'utilisateur par rapport aux décisions relatives à son choix de carrière* (Imel et al., 2001). Plus précisément, ces auteurs mentionnent que :

> Les personnes plus avancées par rapport à leur décision retireront plus de bénéfices de l'information en ligne. Les personnes moins avancées dans leur processus de décision peuvent vivre des difficultés et ont souvent besoin de davantage d'aide pour clarifier des éléments, poser des questions et interpréter des résultats (p. 4).

Enfin, la dernière limite est reliée à *la justesse et la pertinence de l'instrument* (Imel et al., 2001). On fait référence ici aux questionnaires d'évaluation en ligne. Plusieurs de ces derniers sont utilisés par des systèmes informatiques autonomes qui génèrent automatiquement des résultats une fois le questionnaire complété, ce qui risque de communiquer des informations moins justes ou pertinentes et ainsi induire en erreur la personne ayant complété l'évaluation. Ce type d'évaluation doit donc être utilisé avec prudence. L'ensemble de ces avantages et de ces inconvénients requiert de la prudence chez les personnes conseillères et les encourage à rester informées sur l'IMT afin de pouvoir guider adéquatement les populations. C'est pourquoi il est important de les aider et de les outiller à naviguer parmi la multitude de sites disponibles.

Définitions des différentes plateformes numériques disponibles

Il apparait important de définir ce que sont les différents types de plateforme numérique afin de bien en comprendre les différences. Premièrement, selon l'Office de la langue française (OQLF) (2023), un site Web se définit comme un « site Internet qui rassemble généralement plusieurs pages Web reliées entre elles et qui est accessible par l'intermédiaire d'un navigateur Web et d'une adresse URL unique » (section Définition). Par exemple, beaucoup d'IMT disponibles en ligne sont accessibles gratuitement pour les personnes qui en ont besoin, dont les sites des gouvernements du Canada et du Québec, on retrouve des sites spécialisés tels qu'Avenir en santé, Monemploi.com et InforouteFPT. Deuxièmement, les réseaux sociaux se définissent comme des « communautés d'internautes reliés entre eux par des liens amicaux ou professionnels, regroupés ou non par secteurs d'activité, qui favorise l'interaction sociale, la création et le partage d'informations » (OQLF, 2019, section Définition). À titre d'exemple, Academos, un média social pour les jeunes de 30 ans et moins, leur permet d'avoir accès à des mentors pour leur poser des questions et trouver des réponses selon les métiers et professions qui les intéressent (Academos, 2023).

Troisièmement, les bases de données sont un « ensemble structuré d'éléments d'information, généralement sous forme de tables, dans lequel les données sont organisées de manière à permettre leur exploitation » (OQLF, 2021, section Définition). REPÈRES, élaboré par la GRIC (2023) est un exemple de base de données permettant de trouver de l'IMT. Quatrièmement, les applications mobiles sont « un programme (ou un ensemble logiciel) directement utilisé pour réaliser une tâche, ou un ensemble de tâches élémentaires d'un même domaine » (Wikipédia, 2024, para. 1). Une application est dite mobile lorsqu'elle est utilisée sur un téléphone intelligent ou une tablette. En orientation, il existe peu d'application mobile pour les recherches d'IMT. Un exemple au Québec serait le réseau social Académos qui permet également l'utilisation d'une application mobile sur les téléphones intelligents (Académos, 2023). Enfin, une plateforme numérique est un « espace virtuel permettant la création, le stockage, la diffusion ou la vente de contenu numérique en ligne » (OQLF, 2015, section Définition). À la lumière de ces définitions, il apparait important de préciser que l'*Accompagnateur numérique en IMT* est une plateforme numérique car il permet la diffusion de l'information.

Recherche appliquée de nature partenariale

Pour terminer cette section concernant le cadre de la recherche, il importe de définir ce qu'est la recherche partenariale afin de pouvoir comprendre le contexte dans lequel s'est déroulée cette recherche visant la création de l'*Accompagnateur numérique en IMT*. La recherche partenariale est une forme de recherche provenant de la famille des recherches-actions. Guay et Prud'homme (2018) amènent une définition de la recherche-action spécifiquement appliquée en sciences de l'éducation. La recherche-action est

> « une action de recherche et d'éducation visant la transformation finalisée d'une situation pédagogique dans le but d'y apporter des changements bénéfiques, de contribuer au développement professionnel des personnes qui y ont part et d'améliorer les connaissances sur cette situation » (p. 239)

Ainsi, la recherche-action implique une recherche de solution pour résoudre des problématiques ayant lieu dans des milieux précis où l'action, la pratique professionnelle, a lieu. Dans les différents écrits consultés, plusieurs appellations de recherches font partie des recherches-actions dont la recherche collaborative, la recherche participative et la recherche partenariale (Bussières, 2018 ; Fortin et al., 2017 ; Guay et Prud'homme, 2018). Cette dernière, la recherche partenariale implique la collaboration entre plusieurs partenaires, que ce soit des universités, des entreprises privées, des administrations publiques, des associations, etc. (Alberio et Fortin, 2017). Pour que ce genre de recherche se déroule adéquatement, il est important qu'une entente explicite, un contrat, soit signée entre les différents partenaires afin que les objectifs de la recherche soient clairs et compris par l'ensemble des parties impliquées (Bourdages, 2017 ; Fontan, 2017). Fontan (2017) ainsi que Guy (2017) mentionnent que les chercheurs et les praticiens impliqués dans une recherche partenariale peuvent avoir des objectifs différents en raison de ce qui les motivent à s'impliquer dans ce genre de recherche : certains voudront trouver des solutions aux problèmes rencontrés alors que d'autres souhaiteront participer au développement des connaissances. Un autre aspect important à considérer dans ce type de recherche est de s'assurer d'avoir un échéancier clair afin d'éviter les insatisfactions pour les différents partenaires (Fontan, 2017). Notre recherche est appliquée au développement d'un outil numérique à l'usage de l'IMT pour les personnes conseillères en orientation scolaire et professionnelle. Elle est de nature partenariale en impliquant la collaboration du CIMT et la firme de programmation *Code for Canada* (C4C).

Objectifs

Certains auteurs, notamment Bright (2015) et Sampson et al. (2020), ont interpellé les personnes conseillères à participer activement à l'élaboration d'outils numériques dans le domaine de l'orientation. En accord avec la *National Career Development Association* (NCDA), Sampson et al. (2020) voient même une obligation éthique d'évaluer les outils numériques mis au service des personnes conseillères et à la disposition de leur clientèle. Un des principes du Code d'éthique de la NCDA (2015) stipule notamment[3] :

> F.6.c Les qualifications des développeurs ou des fournisseurs de sites Web et d'autres services conçus pour aider les clients dans la planification de carrière et la recherche d'emploi doivent être développées avec la contribution de contenu de professionnels de carrière. Le service doit clairement indiquer les qualifications et les références des développeurs. (p.17)

C'est avec cette injonction en tête et la limitation concernant la qualité de l'information qu'évoquaient plus haut Imel et al. (2001), qu'une équipe de personnes chercheuses de l'Université Laval en sciences de l'orientation en collaboration avec un économiste expert en IMT ont élaboré une plateforme numérique, l'*Accompagnateur numérique en IMT* (Goyer et al., 2023). Le développement de cette plateforme a été réalisé dans le cadre d'une recherche appliquée de nature partenariale impliquant la collaboration avec le bailleur de fonds, soit le CIMT et une firme de programmation *Code for Canada* (C4C). L'objectif général était de créer une plateforme numérique qui regroupe en un même endroit l'ensemble des ressources disponibles pour la recherche d'IMT afin de faciliter le travail de recherche des personnes conseillères ainsi que des personnes qui les consultent. La plateforme a été pensée également pour une utilisation dans le cadre de cours du baccalauréat en sciences de l'orientation et des stages de maitrise à la Clinique de counseling et d'orientation de l'Université Laval. En lien avec l'objectif général de cette recherche, des objectifs spécifiques ont été établis :

1. Concevoir une plateforme numérique regroupant l'IMT utilisée par les personnes conseillères d'orientation, en emploi et en développement de carrière du Québec.
2. Analyser les besoins des personnes utilisatrices de l'IMT, soit les personnes conseillères d'orientation, en emploi et en développement de carrière.
3. Connaitre l'appréciation des personnes conseillères de la plateforme numérique, une fois la conception terminée.

Méthode

La réalisation de cette recherche appliquée de nature partenariale s'est échelonnée sur une période d'un an. Elle s'est déclinée en cinq étapes déterminées en collaboration avec les différents partenaires impliqués. La première étape a été consacrée à la recherche d'idées et la détermination des objectifs, des publics visés et des fonctionnalités désirées pour la plateforme numérique. La deuxième étape a visé le développement du design de l'outil numérique à partir de la conception de base élaborée par l'équipe d'expert.e.s de l'Université Laval. La troisième étape a consisté à faire l'analyse des besoins d'IMT des conseiller.ère.s d'orientation ainsi que des conseiller.ère.s en emploi et en développement de carrière. La quatrième étape, échelonnée sur près de six mois, a servi à rassembler les sites d'IMT les plus appropriés et à procéder à l'élaboration technique de la

3 F.6.c. Qualifications of the Developer or Provider Websites and other services designed to assist clients with career planning and job searching should be developed with content input from career professionals. The service should clearly state the qualifications and credentials of the developers.

plateforme numérique. Finalement, la cinquième étape a permis de connaitre l'appréciation de cet outil auprès d'un échantillon de personnes conseillères.

Étape 1 : Idéation et détermination des objectifs, fonctionnalités, besoins et clientèles cibles de la plateforme numérique

Dans le projet original soumis au CIMT par l'équipe de l'Université Laval, la première étape consistait à mener une enquête auprès des personnes utilisatrices des données d'IMT avant de démarrer le développement technique de la plateforme numérique. Toutefois, pour des considérations de calendrier et de disponibilité des ressources chez *Code for Canada*, la coconception du design de la plateforme et la conception technique ont dû démarrer avant de mener une enquête auprès des usager.ère.s. Dans ces conditions, l'équipe de l'Université Laval a suggéré que la conception technique soit développée à partir des idées que ses membres experts avaient en tête pour le design. Cette conception serait ensuite validée par les enquêtes menées auprès des personnes conseillères, après la période initiale de développement.

Quatre des membres de l'équipe sont des personnes conseillères d'orientation cumulant individuellement, en moyenne, une vingtaine d'années d'expertise dans la conception et l'utilisation de l'IMT en orientation. Ces membres experts ont également formé des intervenant.e.s en développement de carrière sur l'utilisation de l'IMT. Une de ces personnes occupe un poste de professeur titulaire en sciences de l'orientation et les trois autres sont inscrites dans un programme de doctorat. Le cinquième expert est économiste de formation et a été responsable pendant plus d'une vingtaine d'années de la conception et la maintenance d'une plateforme gouvernementale d'IMT au Québec. Les membres de l'équipe se sont réunis pour une session d'une journée visant à jeter les bases de la conception du design de la plateforme numérique.

Étape 2 : Coconception du design de la plateforme numérique

Cette étape a été réalisée conjointement par les équipes de l'Université Laval, du CIMT et *Code for Canada*. L'équipe de l'École de counseling et d'orientation de l'Université Laval apportait l'expertise de contenu[4], celle de *Code for Canada*, l'expertise de soutien au design et le développement technique de la plateforme numérique, alors que celle du CIMT finançait le projet et coordonnait la tenue des réunions pour cette étape du projet. Des rencontres ont eu lieu à intervalles réguliers pendant deux mois. Ces rencontres, généralement hebdomadaires, ont permis de clarifier les rôles et responsabilités de chacun des partenaires. Elles ont également permis aux équipes de parvenir à une compréhension commune des besoins auxquels répondre et des fonctionnalités à développer dans la future plateforme numérique.

Étape 3 : L'analyse des besoins des utilisateur.rice.s

Deux méthodes de collecte de données ont été menées afin d'analyser les besoins des personnes conseillères et étudiantes en matière d'utilisation et de diffusion de l'IMT, soit par l'entremise d'un questionnaire en ligne via *Microsoft Forms* et par des entrevues semi-dirigées auprès d'un échantillon de personnes conseillères et d'étudiant.e.s en sciences de l'orientation.

Personnes participantes et échantillonnage

Pour le questionnaire en ligne, la population visée était composée des conseiller.ère.s d'orientation, des conseiller.ère.s en emploi et en développement de carrière ainsi que des étudiant.e.s inscrit.e.s à l'automne 2022 au cours *Information et processus d'orientation* (*IPO*), ce dernier étant obligatoire pour toutes les personnes étudiantes au baccalauréat en sciences de l'orientation à l'Université Laval. Les personnes étudiantes ont été invitées à remplir le questionnaire par courriel par la chargée de cours et seulement les personnes volontaires l'ont fait, ce qui est un échantillonnage de convenance.

4 L'équipe de l'Université Laval était constitué de Liette Goyer, Michel Turcotte, Annie Gourde, Marie-Claude Gagnon, Yves Larocque et Qian Qian Hou.

Pour le recrutement des personnes conseillères d’orientation, en emploi et en développement de carrière, le recrutement s’est fait selon la méthode d’échantillonnage par réseaux, qui « permet de constituer graduellement un échantillon en utilisant des références obtenues des répondants recrutés initialement » (Fortin et Gagnon, 2022, p. 263). Pour ce faire, une invitation à remplir le questionnaire a été partagée auprès de différentes communautés dans le domaine de l’orientation et de l’employabilité sur Facebook ainsi que sur LinkedIn. Soixante-six personnes ont répondu au questionnaire en ligne, soit 57 personnes conseillères d’orientation, en emploi ou en développement de carrière et huit personnes étudiantes. Parmi les personnes conseillères, 24 travaillaient dans le secteur du développement de l’employabilité, 16 dans le secteur de l’éducation, huit en pratique privée, trois dans le secteur de la réadaptation, trois dans le secteur organisationnel/cabinet-conseil, deux dans les organismes communautaires et une personne dans le secteur de la santé et des services sociaux. Enfin, parmi l’ensemble des personnes conseillères, 53 % avaient de zéro à cinq ans d’expérience, 16 % de six à 15 ans d’expérience, 21 % de 16 à 25 ans d’expérience et 10 % de 26 à 35 ans d’expérience. Pour ce qui est des huit étudiants et étudiantes, ils.elles avaient tous de zéro à cinq ans d’expérience.

Pour les entrevues semi-dirigées, la population visée regroupait les personnes conseillères d’orientation, conseillères en emploi et en développement de carrière ayant plus de cinq ans d’expérience. Des personnes ayant au moins cinq ans d’expérience étaient un élément important pour l’équipe de recherche afin de donner une parole pertinente à des personnes avec une certaine expérience de l’utilisation de l’IMT, qui pourraient expliciter les différentes manières dont elles cherchent, trouvent, sélectionnent, diffusent et apprécient l’IMT ». L’échantillonnage par réseaux (Fortin et Gagnon, 2022) a été utilisé afin de cibler les personnes conseillères. Le réseau LinkedIn d’une des chercheuses a été utilisé pour recruter les participant.e.s. Une invitation a été envoyée à 20 personnes conseillères ayant plus de cinq ans d’expérience, selon ce qui était indiqué dans les profils des personnes. Treize personnes conseillères en emploi (deux), en développement de carrière (un) ou conseillères d’orientation (dix) ont répondu à l’invitation. Parmi ces personnes, trois travaillaient en employabilité, cinq en pratique privée, sept dans le secteur de l’éducation et une en réadaptation. Il est à noter que trois personnes exerçaient dans plus d’un secteur.

Collecte et analyse de données

La collecte de données s’est faite en deux temps. Le questionnaire en ligne a été envoyé en novembre 2022. L’objectif de ce questionnaire était de connaitre les besoins de personnes conseillères et étudiantes concernant leur utilisation de l’IMT afin de pouvoir faire des ajustements et ajouts dans *l’Accompagnateur numérique en IMT*. Pour ce faire, les questions touchaient les thèmes suivants : connaitre les besoins d’IMT, les sites les plus fréquentés ainsi que les difficultés rencontrées par les personnes conseillères et les personnes étudiantes, obtenir des suggestions pour l’élaboration d’une plateforme numérique et connaitre l’avis des participant.e.s sur l’importance d’avoir de l’IMT en français et en anglais. Ce questionnaire a été élaboré par deux personnes de l’équipe de l’Université Laval et a été validé par deux autres personnes de l’équipe suite à son élaboration.

Ce questionnaire était composé de plusieurs types de questions, totalisant 20 questions. De ce nombre, 13 étaient des questions fermées et sept des questions ouvertes. Parmi les questions fermées, il y avait quatre questions à choix multiples « comportant une série de réponses possibles » (Fortin et Gagnon, 2022, p. 301). Il y avait quatre questions dichotomiques pour lesquelles la personne devait se positionner entre « oui » ou « non ». Il y avait également quatre questions sous forme de liste de pointage, « constitué[es] d’une série d’énoncés parmi lesquels le répondant doit effectuer un choix » (Fortin et Gagnon, 2022, p. 301). Enfin, le questionnaire incluait une question à énumération graphique demandant aux personnes conseillères d’indiquer leur fréquence d’utilisation de certains sites Web sur « une échelle bipolaire dont les extrêmes sont des énoncés opposés » (Fortin et Gagnon, 2022, p. 301). De leur côté, les sept questions ouvertes permettaient à la personne d’ajouter des précisions ou des commentaires pour les réponses à des questions dichotomiques ou des questions à choix multiples. Une analyse de contenu a été réalisée pour les sept questions ouvertes du questionnaire afin d’en « découvrir les thèmes saillants et les tendances qui s’en dégagent » (Fortin et Gagnon, 2022, p. 333). Pour les questions fermées, une analyse de fréquence a permis de faire ressortir le nombre d’occurrences dans chacune des catégories proposées (Mazerolle, 2019) et ainsi pouvoir émettre différents constats.

En ce qui concerne les entrevues semi-dirigées, elles ont eu lieu entre le 28 novembre 2022 et le 22 décembre 2022. Les entrevues se sont produites en ligne via la plateforme Zoom, d’une durée entre 45 minutes et 1 h 30. Les différents thèmes abordés durant l’entrevue étaient les sites d’IMT les plus utilisés, l’importance pour les personnes conseillères d’avoir un site bilingue, les défis et les éléments importants dans la recherche d’IMT et les fonctionnalités qui seraient intéressantes dans une nouvelle plateforme numérique regroupant au même endroit tous les sites et offrant plusieurs fonctionnalités. Une fois les entrevues complétées, un document synthèse de l’ensemble des réponses a été produit afin de faire ressortir les principaux éléments abordés par les personnes conseillères interviewées et procédé à une analyse thématique. Ce type d’analyse « consiste à repérer, analyser et interpréter en profondeur des thèmes qui émergent dans les données qualitatives » (Fortin et Gagnon, 2022, p. 334). Pour réaliser cette analyse, le document synthèse a été lu à plusieurs reprises et des thèmes ont été ressortis pour chacune des questions abordées dans le questionnaire (Paillé et Mucchielli, 2021). L’objectif était de comprendre les besoins des personnes conseillères et étudiantes et de pouvoir améliorer le design initial de la plateforme l’*Accompagnateur numérique en IMT* afin de répondre à ces besoins.

Étape 4 : Le développement technique de la plateforme numérique

La réalisation de la plateforme numérique s’est déroulée en deux activités menées de manière concomitante, soit la recherche de sites Internet d’IMT et le développement technique de la plateforme à partir du design élaboré à la deuxième étape.

Recherche de contenus

Pour déterminer quels sites d’IMT seront intégrés dans la plateforme numérique, une personne de l’équipe a commencé par faire des recherches à l’aide de moteur de recherche tel que *Google, Bing et Yahoo*. Ces recherches ont été faites à l’aide des mots clés suivants : site d’information sur le marché du travail (imt) quebec, information sur le marché du travail québec, «site d’information sur le marché du travail (imt) quebec», «site d’information sur le marché du travail (imt)», site d’orientation professionnelle au Québec, «site d’orientation professionnelle au Québec», «site d’orientation professionnelle», sites d’information sur les métiers et professions au Québec, «sites d’information sur les métiers et professions au Québec», sites d’information sur les formations, sites d’information sur les formations au québec, et «sites d’information sur les formations au québec». Dans les moteurs de recherche, plusieurs millions de résultats ressortaient pour certains mots clés alors que pour d’autres il n’y avait aucun résultat. Les mots clés ne donnaient pas le même nombre de résultats selon le moteur de recherche utilisé. Dans les recherches menées sur Google, deux recherches ont permis de ressortir une centaine de sites chacune en utilisant les mots clés suivants : «site d’information sur le marché du travail (imt)» et sites d’information sur les métiers et professions au Québec.

Devant le trop grand nombre de résultats dans les moteurs de recherche, mais aussi devant le fait que ce sont pratiquement seulement les sites du gouvernement du Québec et du Canada qui ressortent dans les premières pages (Tableau 1), nous avons pris la décision d’utiliser les connaissances de l’équipe de l’Université Laval afin de compléter la recension de tous les sites connus. Ceci a permis, en août 2022, de ressortir une première liste de 24 sites portant sur l’IMT. 18 sites parmi ceux de cette liste font partie des sites Internet enseigner aux étudiant.e.s du cours IPO à l’automne 2022. Ensuite, lors de l’analyse de besoin réalisée auprès des personnes conseillères et étudiantes, 39 sites ont été ajoutés à cette liste. Enfin, au moment de l’appréciation, sept sites supplémentaires ont été proposés. Une personne de l’équipe, formée en économie, a également proposé une liste de 18 sites pour former la section de la bibliothèque. Ces sites permettent d’avoir des connaissances plus générales sur le marché du travail, la conjoncture économique et le développement de carrière.

L’ensemble des 281 sites Internet d’IMT répertoriés ont été évalués en fonction des caractéristiques de l’IMT importantes pour les personnes conseillères ressorties par le CIMT (2019) soient : il devait être à jour, facile à utiliser, disponible au grand public gratuitement et fiable. Ainsi, la liste de site d'IMT, a été réduite à 75 sites d'IMT qui respectant l'ensemble de ces caractéristiques. Par choix, l'équipe de l'Université Laval a pris la décision de ne pas inclure sur l'*Accompagnateur numérique en IMT*, les sites des établissements scolaires. On peut trouver ces sites par le truchement de d'autres sites ou en faire un projet en soi.

Tableau 1

Résultats d'une recherche sur Google pour trouver des sites d'information sur le marché du travail (IMT)

Google https://www.google.com	
Mots clés	**Résultats**
Site d'information sur le marché du travail (imt) quebec	50 400 résultats Sites gouvernement du Québec et du Canada, sites qui définissent l'IMT.
Information sur le marché du travail québec	43 000 000 résultats
"Site d'information sur le marché du travail (imt) quebec"	Aucun résultat
"Site d'information sur le marché du travail (imt)"	483 résultats Sites qui expliquent comment fonctionne l'IMT, site gouvernement du Québec, sites européens Les 100 premiers sites ont été conservés pour analyse
Site d'orientation professionnelle au Québec	4 020 000 résultats
"Site d'orientation professionnelle au Québec"	Aucun résultat
"Site d'orientation professionnelle"	35 000 résultats Sites majoritairement europée
sites d'information sur les métiers et professions au Québec	738 000 résultats Les 100 premiers sites (10 pages) ont été conservé pour analyse
"Sites d'information sur les métiers et professions au Québec"	747 000 résultats
Sites d'information sur les formations	35 000 résultats
sites d'information sur les formations au québec	Sites majoritairement européen
"sites d'information sur les formations au québec"	738 000 résultats
Sites d'information sur les formations	342 000 000 résultats
Sites d'information sur les formations au québec	10 300 000 résultats
"Sites d'information sur les formations au québec"	21 800 000 résultats

Note : La même recherche a été fait dans Yahoo et Bing mais les résultats étaient sensiblement les mêmes.

Développement technique de la plateforme numérique

À partir de la mi-novembre 2022 jusqu'au mois d'avril 2023, des réunions entre les trois partenaires ont été planifiées afin de s'assurer, tout au long du processus de développement, que la plateforme numérique se développait conformément au design sur lequel les partenaires s'étaient entendus. Ce suivi rigoureux permettait de rectifier le tir au besoin et d'établir des priorités. C'est l'équipe de *Code for Canada* qui prenait le leadership de l'organisation des réunions pour cette étape.

Étape 5 : L'appréciation auprès des personnes conseillères

Personnes participantes et échantillonnage

Pour réaliser la validation de l'*Accompagnateur numérique en IMT*, la méthode d'échantillonnage par convenance a été utilisée en raison de la facilité d'accès à certaines personnes s'étant portées volontaires (Fortin et Gagnon, 2022). Une liste de personnes volontaires a été identifiée lors de la collecte de données pour connaitre les besoins des personnes conseillères (étape 3). Les personnes qui remplissaient le questionnaire en ligne ou qui participaient aux entrevues semi-dirigées mentionnaient si elles étaient disponibles pour effectuer une appréciation de *l'Accompagnateur numérique en IMT* une fois le design complété. Les coordonnées de 49 personnes conseillères d'orientation, en emploi ou en développement de carrière ont ainsi été recueillies.

Ensuite, grâce à une offre de participation lancée dans un atelier présenté par des membres de l'équipe d'experts de l'Université Laval, dans le cadre du colloque de l'OCCOQ en juin 2023, 12 personnes conseillères d'orientation ont donné leur nom et leur adresse courriel pour participer à la validation. Enfin, une collaboration avec le Service du développement professionnel de l'Université Laval a permis d'envoyer une invitation par courriel à 26 conseillers et conseillères en emploi pour participer à la validation. Au total, 87 personnes conseillères ont reçu l'invitation pour la validation de l'*Accompagnateur numérique en IMT*. De ce nombre, 18 personnes conseillères d'orientation, en emploi ou en développement de carrière ont répondu au questionnaire. Cela représente un taux de participation d'environ 20 %.

Collecte et analyse de données

Pour effectuer la validation, un questionnaire en ligne via *Microsoft Forms* a été envoyé à l'ensemble des 87 personnes. Ces dernières devaient naviguer sur l'*Accompagnateur numérique en IMT* et ensuite répondre à 40 questions. L'objectif était de connaitre leur avis, les points forts et les points faibles de l'outil et d'identifier tout autre élément aux fins de l'amélioration de l'expérience utilisateur. Le questionnaire était divisé en sept sections comportant entre quatre et onze questions. Les sections avaient pour titre : 1) exploration de l'*Accompagnateur numérique en IMT* ; 2) exploration plus approfondie de la section *Mes notes* ; 3) exploration plus approfondie de la section *Liens d'IMT* ; 4) exploration plus approfondie de la section *Bibliothèque* ; 5) exploration plus approfondie de la section *Notes des personnes clientes* ; 6) exploration plus approfondie de la section *Carrefour des données* ; 7) conclusion — appréciation générale.

Les questions étaient principalement à développement. Il y avait également quelques questions à choix multiples et des questions à énumération graphique pour lesquelles la personne devait se positionner sur une échelle de zéro à dix (Fortin et Gagnon, 2022). Enfin, une des questions comprenait une échelle de Likert à cinq points où, pour les divers éléments mentionnés, la personne devait exprimer « son degré d'accord ou de désaccord » (Fortin et Gagnon, 2022, p. 303). L'ensemble des réponses aux questionnaires ont été analysées afin de relever les faits saillants et permettre d'informer l'équipe sur les besoins d'ajustement de l'*Accompagnateur numérique en IMT*.

Pour l'analyse des données du questionnaire, une analyse de contenu a été utilisée afin de faire ressortir les principaux thèmes abordés par l'ensemble des personnes répondantes (Fortin et Gagnon, 2020 ; Paillé et Mucchielli, 2021). Pour ce faire, les données ont été extraites dans un fichier Excel, ce qui a permis d'en faire une lecture approfondie et pouvoir ressortir des thèmes. Pour les questions à choix multiples et à énumération graphique, une analyse de fréquence (Mazerolle, 2019) a été réalisée ce qui a permis de ressortir les occurrences dans les catégories de choix proposés aux personnes répondantes.

Considérations éthiques

Pour terminer cette section sur la méthodologie, il s'avère important de mentionner que pour effectuer les étapes 3 et 5 de cette recherche, une autorisation du Comité d'éthique de la recherche en psychologie et en sciences de l'éducation de l'Université Laval a été obtenue le 14 novembre 2022 et cette demande était valide jusqu'au 1er décembre 2023 (# d'approbation 2022- 346/14-11-2022). Pour les entrevues semi-dirigées, un consentement libre et éclairé a été signé par l'ensemble des personnes participantes. Pour les questionnaires en ligne d'analyse de besoin et d'appréciation de l'*Accompagnateur numérique en IMT*, le formulaire de consentement était intégré dans l'introduction des questionnaires avec la mention suivante : le simple retour du questionnaire rempli sera considéré comme l'expression implicite de votre consentement à participer au projet. Ceci a permis d'obtenir le consentement de l'ensemble des personnes répondantes. Pour le recrutement des personnes étudiantes ayant répondu au questionnaire d'analyse de besoin, il est à noter qu'une personne de l'équipe était la chargée de cours pour *IPO* ce qui a facilité le contact avec les étudiants et étudiantes.

Présentation des résultats

Dans cette section, les résultats pour chacune des étapes de conception de la plateforme numérique *l'Accompagnateur numérique en IMT* seront expliqués.

Étape 1 : Idéation et détermination des objectifs, fonctionnalités, besoins et clientèles cibles de la plateforme numérique

L'équipe de l'Université Laval s'est rencontrée en personne le 18 juillet 2022 afin de discuter des options possibles pour la création d'une plateforme numérique en collaboration avec le CIMT et *Code for Canada*. Durant cette rencontre, il a été déterminé que l'outil serait pour les conseiller.ère.s d'orientation, les conseiller.ère.s en emploi et en développement de carrière ainsi que leur clientèle respective. Parmi les idées ressorties par l'équipe, il était souhaité que la personne qui fait des recherches puisse les sauvegarder dans la plateforme dans une « feuille de travail » afin de pouvoir y revenir à d'autres moments. Ensuite, il devait y avoir la possibilité de voir un didacticiel pour la navigation dans les différents sites, avoir un accès pour les client.e.s et un autre pour les professionnel.le.s. La plateforme numérique devait également être facile d'utilisation afin de permettre aux personnes ayant moins de compétence informatique de l'utiliser. Finalement, l'équipe souhaitait pouvoir donner un code de couleur aux sites d'IMT selon l'importance du site et la quantité d'information qu'il était possible de trouver sur ces derniers.

Étape 2 : La coconception du design de la plateforme

Les trois partenaires se sont rencontrées de août à octobre 2022 afin de déterminer la forme que prendrait la plateforme numérique. Le design a été conçu sur la plateforme *Figma* et a permis une visualisation rapide de l'élaboration de l'outil. Dans le design de la plateforme, une section pour consulter les liens vers les sites d'IMT a été conçue avec la possibilité d'examiner les sites selon quatre catégories soient : exploration des formations, exploration des métiers et professions, recherche d'emploi et tous les sites Web. De plus, il y avait une section permettant d'avoir accès aux dossiers des clients pour les personnes conseillères. Dans cette section, une personne conseillère pouvait voir le nom et prénom du client, la création du compte, la dernière visite dans la plateforme, voir les notes prises par la personne et supprimer le compte au besoin. Pour une personne conseillère, il était également possible de créer un nouveau compte afin d'inviter les personnes clientes sur la plateforme. Pour créer un compte, la personne conseillère devait entrer le courriel de la personne et cette dernière recevait un courriel lui permettant de se créer un nom d'utilisateur et un mot de passe. La personne conseillère avait également la possibilité de prendre des notes. Enfin, un onglet pour la création d'une bibliothèque de référence avait été créé, mais aucune fonctionnalité n’y avait été incluse. Il est à noter que pour une personne cliente, le design était différent, car il incluait seulement la possibilité de prendre des notes personnelles et de chercher sur les sites d’IMT.

Étape 3 : L’analyse des besoins des utilisateur.rice.s

Besoins répondus par les recherches d’IMT et caractéristiques de l’IMT les plus importantes

Dans le questionnaire, les personnes devaient choisir les trois principaux types de recherche d’information qu’elles réalisaient. Selon l’analyse des 66 réponses, il apparait que 47 personnes conseillères effectuent des recherches d’IMT pour l’exploration de professions et de métiers. Ensuite, en ordre décroissant, huit personnes conseillères font principalement de la recherche d’emploi, six se livrent à d’autres types de recherche et quatre explorent différents types et niveaux de formations. Pour les six personnes ayant mentionné réaliser d’autres types de recherche, plus de détails se retrouvaient dans les commentaires. Elles précisaient, entre autres, effectuer des recherches sur les métiers et les professions, la recherche d’emploi, les types et les niveaux de formation dans le cadre de leur pratique professionnelle.

Sites d’IMT les plus utilisés

En compilant les réponses « souvent » et « toujours » dans le questionnaire en ligne et en analysant les réponses des entrevues semi-dirigées, les sites d’IMT les plus fréquentés par les personnes conseillères sont Repères, InforouteFPT, le site sur les métiers et professions du gouvernement du Québec, la Classification nationale des professions (CNP), monemploi.com, AdmissionFP, Guichet-Emplois du gouvernement du Canada et les sites des trois services régionaux d’admission au collégial (SRACQ, SRAM et SRASL). Plusieurs autres sites d’IMT sont utilisés par les personnes conseillères dans le cadre de leur travail pour aller chercher des informations afin de répondre aux besoins des personnes clientes. Il semble que ces sites soient consultés en fonction de la spécialisation de la pratique professionnelle des personnes conseillères ou en fonction du type de personnes clientes rencontrées. Le Tableau 2 présente un inventaire de ces sites.

Il est important de noter que certaines personnes conseillères vont directement contacter la source de l’information, c’est-à-dire, une personne exerçant le métier sur lequel elles souhaitent obtenir des informations ou de l’établissement d’enseignement offrant le programme ciblé. De plus, des répondant.e.s indiquent que leur recherche d’information commence sur le site des différentes institutions d’enseignement, des entreprises ou des ordres professionnels. Enfin, plusieurs personnes participantes demandent à leurs client.e.s d’effectuer des recherches d’IMT de manière autonome. Ceci met en évidence une tendance générale, chez les personnes conseillères, à encourager l’autonomie.

Défis dans la recherche d’IMT

Plusieurs difficultés sont rencontrées dans les recherches d’IMT réalisées par les personnes conseillères. À plusieurs reprises, celles-ci ont mentionné deux défis en particulier. Le premier est l’utilisation d’un vocabulaire complexe par les sites d’IMT, souvent incohérent avec le marché du travail et difficile à comprendre pour les personnes clientes. De plus, la recherche par « mots-clés » est souvent compliquée, car il est difficile, pour les personnes conseillères et les personnes clientes, de savoir quels mots utiliser pour obtenir les résultats souhaités. En lien avec cet élément, les personnes conseillères ont ajouté que l’information est parfois peu détaillée, manque de clarté ou n’est pas mise à jour.

Le deuxième défi le plus rapporté combine plusieurs éléments : le manque de justesse par rapport aux informations sur les sites et la réalité du marché du travail, la présence d’informations contradictoires ou différentes sur certains sites (p. ex. : sur les salaires) et le fait qu’il y a tout simplement trop de sites différents. Cela pourrait se résumer par la difficulté à trouver la « bonne » information. De plus, des données générales sont souvent disponibles pour une grande région, mais manquent de précision pour aider la personne cliente.

Tableau 2

Sites d'information sur le marché du travail (IMT) les plus utilisés par les personnes conseillères consultées dans cette enquête

Site d'IMT les plus utilisés			
Academos	https://academos.qc.ca	Arrondissement.com	https://macommunaute.ca
Artère	https://www.arterequebec.com	Avenir en santé	https://avenirensante.gouv.qc.ca/
Barreau-mètre du Barreau du Québec	https://www.barreau.qc.ca/media/gadfrlil/barreau-metre-2022-faits-saillants.pdf	Career Cruising	https://public.careercruising.com/
Centre de recherche industrielle du Québec (ICRIQ)	https://www.quebecinternational.ca/fr/nouvelles/icriq-com-une-vitrine-exceptionnelle-pour-les-entreprises-quebecoises	Charity Village	https://charityvillage.com/
Comités sectoriels de main-d'œuvre (gouvernement du Québec)	https://www.cpmt.gouv.qc.ca/la-cpmt-et-ses-partenaires/partenaires/comites-sectoriels-de-main-doeuvre	Cursus	https://www.cursusenligne.com/
Destination université	https://www.destinationuniversites.ca	Emploi Avenir	https://www.guichetemplois.gc.ca/analyse-tendances/emploi-avenir-quebec
Espaces Parents (OCCOQ)	https://espaceparents.org/	Facebook	https://www.facebook.com/
Google	https://www.google.com/	Grand déclic exploration vidéo (région de Drummondville)	https://www.granddeclic.ca/explorer-les-professions/capsules-video/
Guide sur les carrières de la CNP	https://noc.esdc.gc.ca/GuideCarrieres/GcBienvenue	Indeed	https://emplois.ca.indeed.com/
Je m'oriente en live	https://www.jeunes-explorateurs.org/a-propos/je-live/	Jeunes explorateurs	https://www.jeunes-explorateurs.org/
Jobboom	https://www.jobboom.com/fr	Jobillico	https://www.jobillico.com/fr
Les Pages Jaunes	https://www.pagesjaunes.ca/	LinkedIn	https://www.linkedin.com/feed/
Métiers Québec	https://www.metiers-quebec.org/	Métiers semi-spécialisés (ministère de l'Éducation) :	http://www1.education.gouv.qc.ca/sections/metiers/index.asp?page=recherche
Mon retour au cégep	https://www.lecegep.ca/	Noovo	https://www.noovo.ca/
O*Net	https://www.onetonline.org/	Pygma	https://pygma.ca/
Québec métiers d'avenir	https://www.quebecmetiersdavenir.com/	Qui fait quoi	https://qfq.com/
Secrétariat du Conseil du trésor	https://www.tresor.gouv.qc.ca/		
Sites des cégeps et des universités		**Tableau de la relance du ministère de l'Éducation**	
Trouve ton métier	https://www.trouvetonmetier.com/	Trouver un stage	https://trouveunstage.com/
		Workopolis	https://www.workopolis.com/fr-CA
		YouTube	https://m.youtube.com/?gl=CA&hl=fr

D'autres difficultés sont également rencontrées dans la recherche d'IMT, comme le rapportent plus en détail 25 personnes ayant répondu au questionnaire. Par exemple, les changements d'interface des sites pour des raisons esthétiques représentent une difficulté lorsque des informations qui étaient utiles disparaissent (p. ex. : Répertoire des entreprises du Québec). Ces changements nécessitent que les personnes conseillères réapprennent à utiliser le site, à retrouver où se trouve les informations ayant été déplacé. Un autre élément mentionné concerne la présence trop élevée d'informations et de complexité dans les sites, contribuant à un sentiment de découragement et même à l'abandon des recherches, surtout chez les personnes clientes. De plus, celles-ci n'ont pas toujours les compétences informatiques nécessaires pour naviguer aisément sur les différents sites d'IMT. Enfin, une dernière difficulté rapportée par les personnes répondantes est le fait que l'information n'est pas toujours sur des sites sécurisés, ce qui peut provoquer des inquiétudes.

Caractéristiques les plus importantes de l'IMT

Les éléments les plus importants pour les personnes conseillères, lorsqu'elles effectuent de la recherche d'IMT, se résument à la possibilité d'avoir de l'information fiable, juste, complète, spécifique et actuelle. À ces critères s'ajoute la possibilité de naviguer aisément sur les sites et d'avoir des outils pour faciliter les recherches, tels que des filtres et des mots-clés plus intuitifs. La disponibilité et la gratuité pour le public ressortent également comme des aspects importants. Lorsque les personnes conseillères doivent effectuer des recherches sur les professions, les formations ou la recherche d'emploi pour les personnes qui les consultent, elles procèdent en majorité par mots-clés sur les sites d'IMT. Enfin, lorsque les personnes conseillères ne trouvent pas une information, le réflexe le plus nommé est d'aller chercher de l'aide auprès de leurs collègues, que ce soit dans leur milieu de travail ou sur les groupes Facebook. Elles peuvent également effectuer des recherches sur Google.

Suggestions pour une nouvelle plateforme numérique regroupant les sites et les outils d'IMT

L'ensemble des personnes participantes ayant répondu au questionnaire en ligne ainsi qu'aux entrevues semi-dirigées a mentionné, parmi les suggestions proposées, avoir de l'intérêt pour une plateforme numérique regroupant les sites d'IMT. Les éléments que les personnes conseillères aimeraient retrouver sur ce genre de plateforme sont, en ordre d'importance : des références vers des sites de recherche pour aider à la compréhension du marché du travail ; une section permettant d'avoir des trucs et astuces afin d'aider les personnes clientes à effectuer leurs recherches ; la possibilité de créer un accès client temporaire ; un espace de collaboration avec la personne cliente ; des tutoriels pour l'utilisation des sites ; un espace pour prendre des notes sur les recherches réalisées avec la personne cliente ; et un suivi des démarches entreprises par les personnes clientes lorsqu'elles explorent l'IMT (historique de recherche).

Pouvoir retrouver l'ensemble des informations pertinentes sur un même site, que ce soient les descriptions des emplois et leurs exigences, les indices de tempérament, la formation requise et le lieu où elle peut être suivie, le salaire, les perspectives d'emploi, etc., apparait comme une priorité pour les personnes ayant participé à l'enquête. Des suggestions supplémentaires ont également été apportées par les personnes conseillères dans l'éventualité où une plateforme numérique regroupant les sites d'IMT serait créée. Les personnes conseillères aimeraient qu'il y ait différents regroupements des sites en fonction des besoins des personnes qui consultent, qu'il y ait un accès à des liens entre les métiers et les offres ou stages actuels, qu'il soit possible d'incorporer les outils psychométriques comme la typologie du RIASEC de Holland et les fonctions de *Repères* comme le Porte-documents et la Comparaison de profession (GRICS, 2023). Enfin, quelques suggestions spécifiques ressortent particulièrement, telles que l'inclusion d'une fiche synthèse, d'un répertoire d'ateliers ou de jeux pour les personnes clientes plus jeunes ainsi qu'un indicateur des mises à jour de l'information pour mieux en évaluer la justesse.

Sur un autre registre, on demandait aux personnes participantes, dans le questionnaire en ligne, leur intérêt à consulter des données brutes concernant le marché du travail, disponibles sur des sites spécialisés comme celui de Statistique Canada[5] ou la Banque de données des statistiques officielles sur le Québec

5 Consulté le 1er avril 2024 : https://www.statcan.gc.ca/fr/sujets-debut/travail_

(BDSO)[6]. Quarante-et-une (62 %) personnes, sur les 66 personnes conseillères et étudiantes ayant répondu au questionnaire, aimeraient avoir accès à un site permettant d'obtenir des données brutes, telles que des taux de chômage selon le sexe ou l'âge, le niveau d'emplois par région, le nombre d'offres d'emplois par profession, etc. Parmi les personnes conseillères consultées, 24 (30 %) ne souhaitaient pas avoir accès à de telles données, mentionnant comme raisons la non-priorité, le manque de temps pour l'analyse et la non-utilité de ces données brutes dans le cadre de leur pratique professionnelle. Certaines personnes conseillères soulignent l'importance de la facilité de l'utilisation : « *Je préfère des données analysées, car c'est plus facile d'expliquer les données au client justement.* ». Finalement, d'autres expriment une confusion envers cette question parce qu'elles constatent que le site du gouvernement du Québec sur les métiers et professions répond déjà à ce besoin d'avoir des données brutes.

Possibilité d'avoir une plateforme numérique en français et en anglais

Parmi l'ensemble des 66 réponses, près des deux tiers des personnes conseillères ont indiqué qu'il serait utile d'avoir accès à une plateforme bilingue, afin de tenir compte de la dualité linguistique de la population canadienne. Dans les commentaires sur le manque de ressources anglophones, les personnes ayant répondu positivement soulignent avoir une clientèle diversifiée ou des contraintes en lien avec les services rendus, ce qui leur impose d'aller chercher des ressources canadiennes en anglais. Selon ces personnes, il serait facilitant d'avoir l'ensemble des ressources en langue anglaise répertoriées dans un outil. Ces mêmes personnes conseillères mentionnent d'ailleurs qu'il y a peu de ressources actuellement pour les personnes anglophones au Québec.

Principaux constats pour l'amélioration de l'Accompagnateur numérique en IMT

Les réponses des personnes conseillères d'orientation, en emploi et en développement de carrière ainsi que des personnes étudiantes ayant complété le questionnaire nous ont permis de confirmer le design déjà conçu de la plateforme numérique répondait aux besoins des professionnel.le.s et des étudiant.e.s. De plus, les suggestions de sites d'IMT proposés par les répondant.e.s nous ont permis des ajouts à la liste de site déjà ressorti par l'équipe de recherche. Enfin, même si pour le moment la version anglaise de l'*Accompagnateur numérique en IMT* n'est pas envisagée, il est intéressant de constater que cela pourrait faire partie des options à développer dans un autre projet de recherche.

Étape 4 : Le développement technique de la plateforme numérique

Dans l'esprit de l'équipe d'expert.e.s de l'Université Laval, la plateforme numérique devait s'adresser en premier à un public de personnes conseillères dans le domaine de l'orientation, de l'emploi et du développement de carrière. Ces personnes conseillères devaient, dans un premier temps, se créer un compte, et par le biais de leur compte, donner un accès à leurs personnes clientes. Ces dernières pouvaient ensuite se créer un compte, qui de facto était rattaché au compte maitre de leur personne conseillère.

Comme le démontre la figure 1, quatre grandes sections composent l'*Accompagnateur numérique en IMT*. La première, *Mes notes,* permet à la personne conseillère de prendre des notes lorsqu'elle effectue des recherches sur les sites d'IMT. La personne conseillère peut créer autant de notes qu'elle le souhaite et peut indiquer pour chacune un titre, écrire de différentes grosseurs, mettre en forme son texte avec des puces et des numéros. La personne conseillère peut supprimer les notes créées lorsqu'elle n'en a plus besoin. La personne cliente qui accède à l'*Accompagnateur numérique en IMT* a également accès à cette fonctionnalité.

La deuxième section se nomme *Notes des personnes clientes*. Elle permet à la personne conseillère de consulter les notes des personnes clientes à qui elle a donné accès à la plateforme. La personne conseillère peut ajouter des éléments dans les notes des personnes clientes selon les besoins de son intervention. Elle peut également lui créer une note.

6 Consulté le 1er avril 2024 : https://bdso.gouv.qc.ca/pls/ken/ken2121_navig_niv_1.page_niv1?p_iden_tran=REPERQ8Y73S26135840522224pu:x7&p_id_domn=261

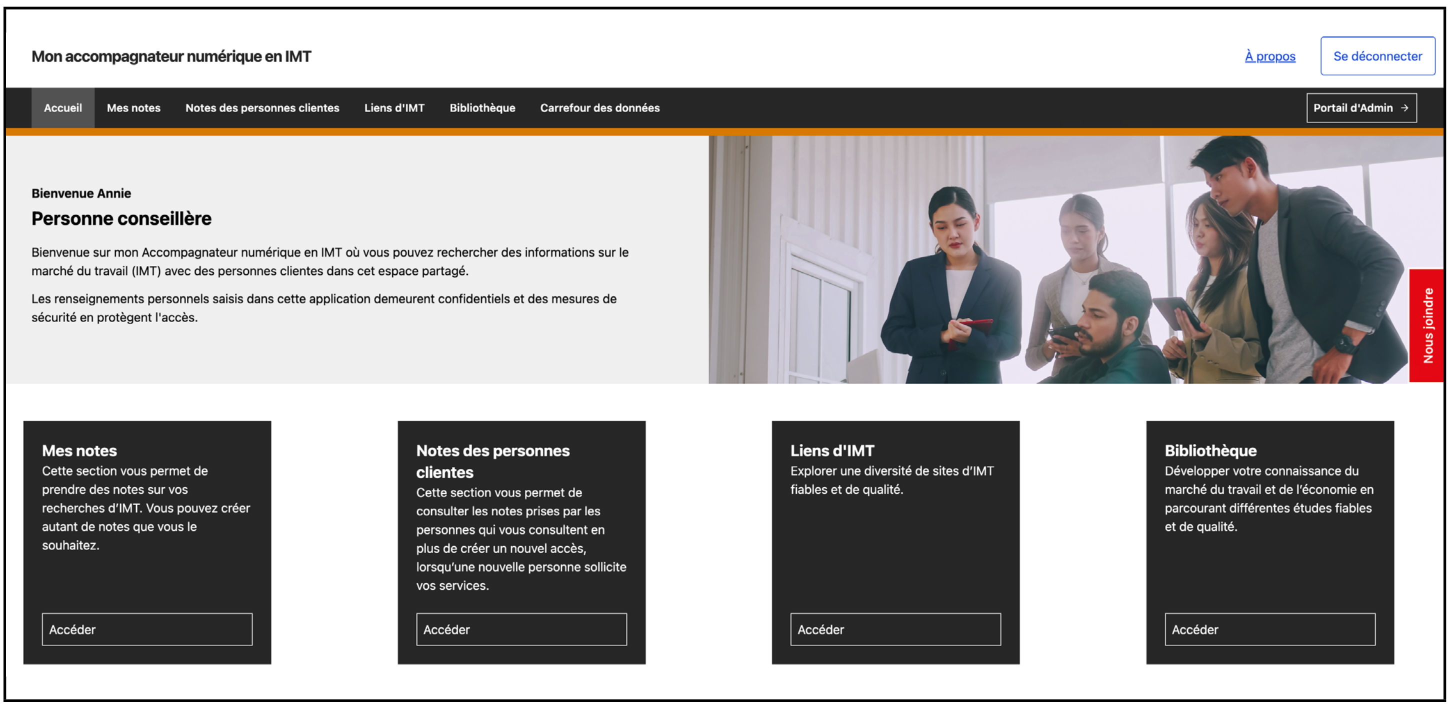
La troisième section s’intitule *Liens d’IMT*. C’est dans cette section qu’il est possible de retrouver 57 sites Web utilisés dans le domaine de l’orientation et du développement de carrière au Québec. Ces sites sont classés en trois catégories, soit *Exploration des formations, Exploration des métiers et professions* et *Recherche d’emploi*. Une quatrième catégorie permet de consulter la liste de tous les sites en ordre alphabétique. Les 11 sites les plus populaires, ressortis grâce à l’enquête réalisée par l’équipe de l’Université Laval, sont marqués d’une étoile jaune. Enfin, pour chacun des sites, une description de ce qu’il contient a été rédigée afin de faciliter les recherches d’information.

La quatrième section est la *Bibliothèque*. Cette dernière est accessible uniquement pour les personnes conseillères. Elle contient 18 sites Web permettant d’améliorer les connaissances du marché du travail et de l’économie. Les sites sont classés selon trois catégories : *Conjoncture économique, Marché du travail* et *Développement de carrière*. Une quatrième catégorie permet, comme pour la section précédente, de consulter la liste de tous les sites en ordre alphabétique. Un court texte décrit chacun d’eux afin d’en comprendre rapidement le contenu.

Une fois l’ensemble des fonctionnalités complétées, il a été possible de procéder à la l’appréciation de l’outil avec des personnes conseillères du Québec.

Figure 1

Visuel de l’Accompagnateur numérique en IMT



Étape 5 : L’appréciation auprès des personnes conseillères

Exploration générale de l’Accompagnateur numérique en IMT

En grande majorité, les 18 personnes conseillères ayant répondu au questionnaire mentionnent que le site de l’*Accompagnateur numérique en IMT* est simple à comprendre, clair et concret. Une personne conseillère décrit, entre autres, que « *Les onglets choisis par exemple, «Recherche d’emploi» dans l’IMT, sont très parlants et vraiment au point pour les besoins du conseiller et du client* ». Ensuite, les personnes conseillères spécifient que la navigation sur le site est facile, intuitive et conviviale.

La section *Liens d'IMT* semble avoir été celle qui a le plus attiré l'attention des personnes conseillères ayant répondu au questionnaire. D'ailleurs, 16 (89 %) personnes conseillères soulèvent que le point fort de la plateforme est le regroupement d'une abondance de sites d'IMT en un même endroit. Une personne conseillère mentionne d'ailleurs que « *Le rassemblement d'autant de ressources de qualité est sans contredit le point le plus fort pour moi* ». Le fait de retrouver tous les sites au même endroit, de les avoir divisés en section pour faciliter la recherche et d'avoir inséré un descriptif sous chaque lien a été apprécié par les personnes conseillères. L'une d'entre elles précise qu'elle a « *découvert des ressources d'informations que [elle] ne connaissait pas* ». Une seule personne conseillère n'est pas certaine que cette section réponde à ses besoins.

Sur le visuel de l'*Accompagnateur numérique en IMT*, quatre personnes ont émis des commentaires. Le fait que les couleurs choisies soient sobres et que le site soit épuré a été apprécié. Une personne conseillère mentionne d'ailleurs que le site « *donne une impression de sérieux (couleur, image)* ». Enfin, les nombreuses suggestions d'ajouts ou de modifications suivantes ont été apportées par les personnes conseillères : avoir un répertoire des entreprises par secteurs d'activités, code SCIAN (n = 3) ; créer sa propre liste de favoris parmi les sites répertoriés (n = 2) ; avoir un lexique français/anglais (n = 1) ; avoir la possibilité de créer des dossiers dans les notes (n = 1) ; avoir les informations sur les cotes de rendement au collégial[7] (n = 1) ; ajouter un volet connaissance de soi (n = 1) ; avoir un répertoire des événements liés à la carrière, des articles, témoignages ou vidéos de personnes professionnelles (n = 1) ; avoir des informations sur des professions qui ne sont pas listées dans la CNP, mais actuelles, par exemple : analyste des renseignements, conseiller.ère en relations internationales (n = 1) ; avoir une section sur l'entrepreneuriat qui regroupe plusieurs outils pour accompagner la clientèle (n = 1).

Exploration de la section Mes notes

Cette fonctionnalité est considérée utile, pertinente et intéressante pour 89 % des personnes conseillères. De plus, le fait de pouvoir partager les notes avec les personnes clientes est également ressorti comme une bonne idée pour 15 des 18 personnes répondantes. Toutefois, certaines personnes ayant participé à l'enquête mentionnent qu'elles ne l'utiliseraient pas, car elles ont déjà des outils en place pour le partage de notes avec leur clientèle. Parmi les suggestions d'amélioration rapportées, on retrouve la possibilité d'organiser les notes, de créer des dossiers et d'ajouter des favoris. Enfin, une personne mentionne qu'il serait intéressant d'avoir la date de création de la note à côté du titre de cette dernière.

Exploration de la section Liens d'IMT

Toutes les personnes conseillères (18) trouvent la section *Liens d'IMT* intéressante et utile. Une personne conseillère juge qu'il s'agit du « *cœur de l'application à mon avis* » et une autre « *adore la quantité de liens que cette section contient !* ». L'élément qui a particulièrement plu à cinq personnes conseillères est le classement des sites par catégories et l'accès à une grande quantité de sites regroupés au même endroit. De plus, la majorité des personnes répondantes (15/18) sont d'accord avec les catégories établies pour classer les différents liens. L'élément le moins apprécié (n = 3) est le fait que certains liens ne fonctionnent pas. Enfin, des personnes conseillères ont suggéré l'ajout de certains sites Web (voir Tableau 3). Une évaluation de ces sites sera réalisée afin de valider le contenu de l'information avant de les inclure dans l'*Accompagnateur numérique en IMT*.

Exploration de la section Bibliothèque

La quasi-totalité des personnes conseillères (17/18) considère que cette section est intéressante, pertinente et utile, particulièrement pour le développement de leurs connaissances du marché du travail.

7 « La cote de rendement au collégial combine pour chaque cours suivi par un étudiant trois informations : un indicateur de la position de cet étudiant en fonction de la note obtenue dans son groupe (la cote Z au collégial), un indicateur de la force de ce groupe et un indicateur de la dispersion de ce groupe » (Bureau de coopération interuniversitaire, 2020).

Tableau 3

Suggestions de sites Internet à ajouter dans l'Accompagnateur numérique en IMT

Suggestions pour l'Accompagnateur numérique en IMT
• Plus de liens en fonction des formations/emplois en environnement et à l'international
• Montez de niveau : https://www.montezdeniveau.ca/?cst=advancedetcl=5etciecd=1
• CSSDM, info sur les TENS : https://www.cssdm.gouv.qc.ca/education-adultes/evaluations/tests-equivalence-niveau-scolarite-tens/
• Liste des métiers d'Emploi Québec : https://www.emploiquebec.gouv.qc.ca/citoyens/developper-et-faire-reconnaitre-vos-competences/qualification-professionnelle/liste-des-metiers/
• Collectif des entreprises d'insertion du Québec : https://collectif.qc.ca/les-entreprises-dinsertion/repertoire-des-entreprises/
• Des ressources d'aide et des dossiers en santé mentale au travail.
• Liens utiles par secteur du SDP de l'Université Laval : https://www.sdp.ulaval.ca/etudiants/marche/liens
• Répertoire des membres de la Chambre de commerce et d'industrie de Québec : https://cciquebec.ca/repertoire-des-membres/
• Données concernant l'entrepreneuriat
• Ressources pour la recherche d'emploi de l'Université Laval : https://www.bibl.ulaval.ca/ressources-par-categories/ressources-pour-la-recherche-demploi

De plus, la majorité des personnes répondantes (13/17) juge que les catégories pour classer les sites de la *Bibliothèque* sont adéquates. Quelques suggestions de sites ont été proposées comme ajouts à la section : l'INSPQ, Technocompétence, Québec international, lien vers les recherches faites dans les universités, liste d'outils concrets (connaissance de soi, quiz et tests pertinents, avec sous-catégories, permettant de rapidement découvrir ce qui existe sur les sites de confiance).

Appréciation générale de l'Accompagnateur numérique en IMT

En ordre d'appréciation, la section *Liens d'IMT* ressort comme la préférée des personnes répondantes. La section *Notes des clients* se classe en deuxième place, suivie de *Bibliothèque*, puis *Mes notes*. Le niveau de facilité à travailler dans la plateforme est évalué à 8/10. La possibilité d'avoir accès à un répertoire de plusieurs sources au même endroit et la facilité d'utilisation de l'outil ressortent comme les éléments préférés de l'*Accompagnateur numérique en IMT*. Les personnes conseillères répondantes mentionnent que l'*Accompagnateur numérique en IMT* serait utile pour toutes les clientèles (jeunes, adultes, nouveaux arrivants), mais également pour les conseiller.ère.s d'orientation ainsi que les conseiller.ère.s en emploi et en développement de carrière. Il pourrait également permettre d'explorer les formations, les emplois et le marché du travail de manière générale. Il permettrait aussi de répondre aux questions des étudiant.e.s de tous les niveaux de scolarité.

Discussion

À la suite de l'analyse des besoins des personnes conseillères et de l'appréciation de l'*Accompagnateur numérique en IMT*, il est possible de faire ressortir différents constats à l'égard de l'utilisation de l'IMT faites par des personnes conseillères d'orientation, en emploi et en développement de carrière. Ces éléments sont également cohérents avec ceux amenés par les différentes recherches sur lesquelles nous nous sommes appuyées pour éclairer la problématique de l'utilisation de l'IMT en orientation, notamment celles de Bimrose et al. (2015), CIMT (2019), Gallant et al. (2016), Goddard (2010), Huteau (2007), Imel et al. (2001), Kettunen et Sampson (2019), Limoge (1975), Meloni (2019), Sampson et Maleka (2014), Sampson et al. (2020), Savard et al. (2002), Supeno et Mongeau (2015), Supeno et Pariseau (2018), Supeno et al. (2021), Turcotte et Goyer (2017).

À ce stade, il appert important de rappeler l’objectif général de cette recherche, soit de créer une plateforme numérique destinée à faciliter l’utilisation de l’IMT pour les personnes conseillères et leurs client.e.s. Plus spécifiquement, cette recherche visait à concevoir une plateforme numérique regroupant l’IMT utilisée par les personnes conseillères d’orientation, en emploi et en développement de carrière du Québec, analyser les besoins des personnes utilisatrices de l’IMT, soit les personnes conseillères d’orientation, en emploi et en développement de carrière, et connaitre l’appréciation des personnes conseillères de la plateforme numérique, une fois la conception terminée.

Concevoir une plateforme numérique regroupant l’IMT utilisée par les personnes conseillères d’orientation, en emploi et en développement de carrière du Québec

Cette recherche appliquée de nature partenariale a permis de créer une plateforme numérique regroupant l’IMT utilisé par les personnes conseillères d’orientation, en emploi et en développement de carrière du Québec. La plateforme numérique regroupe 57 sites d’intérêt pour les recherches d’IMT et 18 sites dans la section *Bibliothèques* permettant d’aider à la connaissance du marché de travail et de l’économie. Pour la personne conseillère, la section *Mes notes* permet de prendre des notes diverses concernant les recherches d’IMT effectuées et la section *Notes des personnes clientes* permet de voir les notes des client.e.s et aussi de travailler en collaboration à travers la plateforme. Comme le soutient Huteau (2007), il apparait qu’une plateforme numérique répertoriant les sites d’IMT de qualité serait aidant et bénéfique pour les personnes conseillères.

Analyser les besoins des personnes utilisatrices de l’IMT soit les personnes conseillères d’orientation, en emploi et en développement de carrière

Grâce à l’analyse de besoin effectuée au cours de cette recherche, plusieurs constats ressortent et ont guidé la création de l’*Accompagnateur numérique en IMT*. Un premier élément concerne les caractéristiques les plus importantes de l’IMT. Plusieurs personnes conseillères, autant dans le questionnaire que dans les entrevues, considèrent qu’il est important d’avoir des informations actuelles, fiables, complètes, faciles d’utilisation, disponibles gratuitement et spécifiques. Cet élément est d’autant plus important, car une des difficultés rencontrées par les personnes conseillères dans leur recherche d’IMT est le manque fréquent de clarté de l’information en raison de la complexité du site ou du vocabulaire utilisé. Les personnes conseillères remarquent également un manque de justesse des informations par rapport à la réalité du marché du travail. Le fait d’avoir accès à des informations de qualité facilite leur travail et permet aussi aux personnes clientes d’obtenir des réponses à leurs questionnements (CIMT, 2019 ; Groupe de travail sur l’IMT, 2012 ; Imel et al. 2001 ; Turcotte et Hiebert, 1999). Cette importance accordée à la qualité des sources d’information est cohérente avec l’étude réalisée par le CIMT (2019) où il est mentionné que :

> Interrogés sur les caractéristiques de l’IMT les plus importantes pour aider leurs clients, presque tous les professionnels en développement de carrière (90 %) répondent leur actualité (c.-à-d. des informations à jour). Ils affirment aussi accorder une grande valeur aux informations conviviales (81 %) et fiables (80 %). De plus, ils préfèrent l’IMT offerte publiquement et gratuitement (78 %) (CIMT, 2019, section Tic toc : l’importance des données actuelles).

Un deuxième constat émis par les personnes conseillères concerne la trop grande quantité de sites d’IMT, ayant pour effet de compliquer les recherches pour les personnes clientes, mais aussi pour les personnes conseillères. Cette complexification de l’information met en lumière l’importance du rôle de la personne conseillère dans la recherche d’IMT afin d’être en mesure de mieux conseiller et intervenir auprès des différentes populations en les aidant à organiser les différentes options qui s'offrent à elles. Supeno et Mongeau (2015), tout comme Limoges (1975), ont fait ressortir dans leurs travaux l'importance du rôle de la personne conseillère pour aider les jeunes dans leur recherche d'information.

Un troisième constat révélé par les personnes conseillères ayant participé à l'enquête est l'importance accordée au développement de l'autonomie des personnes qui consultent en orientation scolaire et professionnelle. Pour ce faire, il est nécessaire que les sites soient disponibles et faciles à consulter afin de permettre aux personnes de trouver rapidement les informations recherchées. L'existence de plusieurs sites différents disponibles en ligne permet une plus grande accessibilité des informations (Huteau, 2007 ; Meloni, 2019 ; Supeno et al., 2021 ; Supeno et al., 2022). Toutefois, cela complique également la recherche d'information, les personnes ne sachant pas toujours si le site est digne de confiance, c'est pourquoi le fait de regrouper les sites principaux dans une seule plateforme numérique facilite la recherche d'information autant pour les client.e.s que pour les conseiller.ère.s.

Un autre constat concerne la croissance de l'autonomie des populations dans leur recherche d'IMT et l'aide qui leur est apportée pour développer leurs compétences à utiliser les TIC (Goddard, 2010; Sampson et Maleka, 2014). Des formations existent, mais la personne conseillère joue également un rôle important au moment de cibler les sites les plus pertinents à consulter pour répondre aux besoins de la personne. Avoir en main une plateforme pourrait faciliter ce rôle de formation et d'éducation auprès des différentes populations.

Connaitre l'appréciation des personnes conseillères de la plateforme numérique, une fois la conception terminée

Au moment de l'étape de l'appréciation des personnes conseillères, il est ressorti que le site de l'*Accompagnateur numérique en IMT* était facile d'utilisation, simple à comprendre, clair et concret, ce qui répond aux besoins des personnes conseillères selon l'enquête du CIMT (2019), mais également selon l'analyse de besoin effectuées dans cette recherche. D'ailleurs, le niveau de facilité d'utilisation de l'*Accompagnateur numérique en IMT* est évalué à 8/10 lors de la validation, 10 étant qualifié dans le questionnaire de « très facile ».

La possibilité d'avoir accès à une plateforme numérique regroupant 57 sites d'IMT a été mentionnée comme très pertinente et intéressante par l'ensemble des personnes conseillères. Lors de l'appréciation de l'*Accompagnateur numérique en IMT*, c'est l'un des éléments ayant été le plus apprécié par les personnes conseillères, de même que la division de l'information en plusieurs sections pour faciliter les recherches. Les sites d'IMT ont été choisis en fonction des critères des caractéristiques de l'IMT importante pour les personnes conseillères ressorties par le CIMT (2019) soient : il devait être à jour, facile à utiliser, disponible au grand public gratuitement et fiable. Le fait de retrouver tous les sites au même endroit, regroupés en différentes sections, s'est avéré l'un des points les plus appréciés par les personnes conseillères. La section *Liens d'IMT* est d'ailleurs celle qui a fait l'objet de commentaires les plus favorables de la part des personnes conseillères.

Lors de la validation de l'*Accompagnateur numérique en IMT*, la section *Mes notes,* où il est possible de collaborer avec la clientèle, a été perçue comme une bonne idée. Le fait de rendre l'accès aux sites disponible pour les personnes qui consultent en orientation scolaire et professionnelle permet de faire en sorte que cette clientèle devienne plus autonome dans leurs recherches, car les sites sont classés et ainsi plus faciles à trouver.

L'ensemble de ces éléments nous permettent de dire que les objectifs spécifiques de cette recherche ont été atteints. Cette recherche partenariale a permis de créer une plateforme numérique qui regroupe les sites d'IMT utilisés par les personnes conseillères d'orientation, en emploi et en développement de carrière en plus de faire une analyse des besoins de ces professionnel.le.s. Enfin, une fois la plateforme créée, il a été possible d'obtenir une appréciation auprès des personnes conseillères concernant son utilisation et les différentes fonctionnalités.

Conclusion

Ce projet de développement d'une plateforme numérique visant à faciliter l'utilisation de l'information sur le marché du travail a permis de constater que l'IMT est fortement utilisée par les personnes conseillères.

Avec l'avènement des technologies, elle est plus que jamais disponible et prête à être consultée sur un cellulaire, une tablette ou un ordinateur. Déjà, au début des années 1960, les premiers systèmes de recherche d'information utilisant un ordinateur faisaient leur apparition dans la prestation des services de carrière (Sampson et al., 2020 ; Watts, 2002). Certains chercheurs constatent que l'information est plus accessible grâce à la technologie et en conséquence, que le numérique est devenu essentiel dans la vie des gens pour répondre à des questionnements, que ce soit pour le travail, la vie personnelle, les loisirs, etc. (Gallant et al., 2016 ; Meloni, 2019). C'est d'ailleurs dans cette vision que s'intègre l'*Accompagnateur numérique en IMT*, car il avait pour ambition, grâce à la technologie, de faciliter le travail des personnes conseillères ainsi que les recherches de la population.

La recherche a été menée strictement auprès d'une population francophone de personnes conseillères du Québec. Lors des différentes étapes, une majorité de personnes conseillères ont mentionné qu'il serait intéressant d'avoir accès à un outil bilingue afin de pouvoir aider les personnes clientes anglophones telles que les personnes immigrantes, les personnes autochtones, etc. En ce moment, il est constaté que la majorité des sites sont unilingues français à l'exception les sites gouvernementaux. Être en mesure d'avoir accès à des informations dans sa langue est important pour faciliter les réflexions en orientation et permettre une meilleure compréhension (Imel et al., 2001). Le fait que l'information soit uniquement en ligne, mais aussi uniquement en français, peut empêcher des populations vulnérables d'y accéder comme les personnes autochtones, les groupes racisés, les nouveaux arrivants, etc. (Deloitte, 2020 ; Imel et al., 2001). L'équipe de recherche envisage la production d'un outil bilingue afin de répondre à ce besoin.

Cette recherche comporte une limite qu'il est important de spécifier. Le faible nombre de participants (66 personnes pour le questionnaire, 13 personnes pour les entrevues et 18 personnes conseillères pour l'appréciation) peut rendre la généralisation des résultats difficile. De plus, le fait que l'échantillonnage soit par réseaux et de convenance peut également être une limite. Un échantillonnage aléatoire aurait possiblement été préférable. Il serait important de réaliser davantage d'entrevues en s'assurant d'obtenir une meilleure représentativité des secteurs de pratiques de l'orientation scolaire et professionnelle et ainsi pouvoir atteindre une saturation des données (Fortin et Gagnon, 2022). Cela permettrait possiblement de dégager un portrait plus complet des habitudes par rapport aux recherches d'IMT en plus d'avoir une meilleure idée des difficultés rencontrées par les personnes conseillères. Une autre limite que nous constatons à la suite de cette recherche est le fait que nous n'avons pas séparé les données concernant les trois types de professionnel.le.s sondé.e.s soient les conseiller.ère.s d'orientation, en emploi et en développement de carrière. Si dans le questionnaire une question avait été ajoutée afin de connaitre le titre professionnel de la personne, cela aurait pu ajouter de la précision à certains résultats.

D'autres recherches seraient intéressantes à la lumière des résultats de cette démarche. Entre autres, à l'aide d'entrevues semi-dirigées avec les personnes conseillères, il serait intéressant de creuser davantage afin de connaitre les difficultés qu'elles rencontrent dans leur pratique professionnelle par rapport à l'IMT. Cela permettrait de mettre sur pied des formations, des outils afin de les aider à développer leurs compétences en lien avec cet élément essentiel à leur travail dans le domaine de l'orientation. Comme le soutiennent Sampson et Maleka (2014), il est important de développer des formations et des outils pour aider et soutenir les personnes conseillères par rapport à l'utilisation des technologies, ce qui inclut les recherches d'IMT. De plus, concernant spécifiquement l'*Accompagnateur numérique en IMT*, d'autres recherches pourraient être faites afin de pouvoir intégrer des sites pour le Canada et chacune des provinces. Présentement, seulement les sites destinés à un public québécois ont été répertoriés. Ainsi, cela permettrait de rendre la plateforme accessible en français et en anglais à un plus grand nombre de personnes. Dans une prochaine version de l'*Accompagnateur numérique en IMT*, il pourrait également être intéressant d'ajouter des éléments pour en faciliter l'accès aux personnes en situation de handicap qui ont besoin d'un logiciel pour lire ou pour mieux voir ce qui est inscrit à l'écran (contraste). Cela offrirait une meilleure accessibilité de la plateforme à toutes les personnes qui en ont besoin.

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Global Ambitions, Local Support: Understanding Faculty Influence on International Students' Career Development

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Abstract

International students' education and migration journeys have become more prominent in public discourse, often with stereotypes of students as low-wage workers rather than emerging professionals. When their own narratives are centred, however, international students emphasize their hopes for faculty and institutional support in reaching their career aspirations. These aspirations may also be linked to post-graduate work permits or migration plans. A student-centred faculty intercultural teaching taxonomy developed at a Western Canadian postsecondary institution highlights five faculty practices that support career development: (1) affirming students' skills, knowledge, and experience; (2) recognizing non-academic factors, including present work, in students' lives; (3) supporting transition to the labour market; (4) building connections with students; and (5) demonstrating cultural sensitivity. This web of practices highlights the faculty career influencer function. As career influencers, faculty can recognize the systemic barriers students face in their education and immigration journeys, guide students in questioning dominant narratives, provide support and advocacy in pursuing meaningful professional career paths, and serve as advocates. International students identify faculty as key career influencers. Institutional support and faculty development are required help faculty take a holistic view of students' career journeys and recognize their critical role as influencers, guides, and advocates.

The 2024 decision by Immigration Refugees and Citizenship Canada (IRCC) to implement a 35% reduction of international student visa approvals generated a storm of public attention regarding international student immigration and career trajectories. In announcing the policy, Hon. Marc Miller, Minister of Immigration, Refugees and Citizenship of Canada, stated, "through the decisive measures announced today, we are striking the right balance for Canada and ensuring the integrity of our immigration system while setting students up for the success they hope for." (IRCC, 2024). In the days following this announcement, national media stories frequently portrayed international students as those seeking "back door for entry into Canada, to work a low-skills and low-wage job" (Keller, 2024). In this context, a dominant narrative of international students seeking immigration by any means possible, rather than students as young global emerging professionals beginning their career trajectory, is shaping public perception.

For many international students, their choice to study in Canada is shaped by post-graduation work opportunities (Immigration, Refugees and Citizenship Canada (IRCC), 2018; Marom, 2023). Students who complete a two-year postsecondary program at a designated learning institution are eligible to apply for a post-graduation work permit (PGWP), which in turn can support application for permanent residency in Canada (IRCC, 2023). How should Canada and its postsecondary institutions define success for these learners? More importantly, how do international students define their own desired study and career trajectory? Often, the voices of government, institutions, academics, and business leaders shape public opinion, while voices of the students on their study and potential immigration journeys remain unheard.

Complex contextual realities cause many students to fill low-wage jobs with limited growth opportunities (Francis, 2023). However, students are also active agents with broader long-term goals that include professional pursuits. Postsecondary institutions typically offer career centres, experiential learning, and work-integrated learning opportunities. Faculty members, however, are the primary relational contact point for many students in their career journeys.

This paper seeks to add to current conversations about international student educational and career paths by listening to student voices. The literature review situates the study within current critical dialogues about international student education in neoliberal systems, including reflection on international student challenges in securing skilled pre-professional work. Next, the results of a mixed-methods study of internationally educated students perceptions of faculty intercultural teaching at a Western Canadian postsecondary institution are presented. We highlight students' perceptions about their career journeys and the role they believe faculty members play in assisting them in their journeys. We will then analyze these stories using two perspectives from the career development literature, namely Career Emancipation and the role of faculty as Career Influencers. Our discussion concludes by addressing the potential for faculty members to actively engage with students in career emancipation, challenging biased social narratives and unjust realities.

Literature Review

"Edugration", International Students and Canadian Career Paths

Brunner (2022) describes government policies with a strong link between education and future immigration as "edugration" (p. 79). "Edugration" may result in injustices arising from neoliberal education systems, such as students being viewed as institutional "cash cows" (Stein & Andreotti, 2016), students experiencing exploitation through agent-based recruitment systems (Marom, 2023), and the neocolonial positioning of Canadian education as "superior" to other global postsecondary systems (Brunner, 2022; Gyamera & Burke, 2018; Stein & Andreotti, 2017).

At the end of 2023, more than one million international students were studying in Canada, representing a 29% increase from the previous year (Canadian Bureau for International Education (CBIE), 2024). Federal government policy links this growth to broader national labour market goals, stating that "international education can help Canada meet current and emerging labour-market challenges" (Global Affairs Canada, 2019, p. 5). In a 2018 study, more than half of international students in Canada planned to apply for permanent residency, while 61 percent hoped to work in Canada post-graduation (Esses et al., 2018). In 2021, 72.5% of international students stated an intention to apply for a PGWP, with 60% planning to apply for permanent residence (CBIE, 2024). With this growth, and explicit links between international students and the Canadian labour market, increasing attention has been given to the career trajectories of students as they progress from their postsecondary programs into their careers.

Marom (2023) notes that education-immigration trajectories are often followed by international students with lower socioeconomic status, which in turn can create a path to lower-tier institutions and less specialized programs. Marom postulates that these students, perceived as predominantly immigration focused, may be directed to less-demanding academic programs, such as general studies diplomas. As a result of less-specialized academic pathways, former international students holding PGWP may find themselves in lower-skilled employment. Additionally, in a recent study of international students in British Columbia, more than 80% of those surveyed were currently employed, with most earning minimum wage; those earning more than 20 dollars per hour represented just ten percent of the population surveyed (Francis, 2023). Thus, international students find themselves employed in low-wage, low-skill sectors that are unlikely to naturally lead to higher post-graduate employment outcomes.

Choi (2021) highlights differential labour market outcomes between Canadian and international students, noting lower earnings for international students in the first five years post-graduation. Potential explanatory factors offered by Choi include fewer skilled work opportunities while studying, and more limited participation in work integrated learning. International students are ineligible to participate in government programs, such as the Canada Summer Jobs program. In summary, international students may experience limited access to professionally focused labour market experiences that contribute to more positive trajectories.

Many international students expect their postsecondary institutions to be key players in supporting their career and immigration journeys; Esses et al., (2018) found that 59% of international students expected support in making professional connections. However, international students in BC named a lack of career planning and direction, a lack of soft skills development, and difficulty finding work in their fields of study as significant challenges (Francis, 2023). The above challenges, while not exclusively within the purview of postsecondary institutions, may be significantly addressed through the work of faculty and the broader career support ecosystem during students' study programs.

Career Guidance as Emancipation

The challenges inherent in neoliberalism, particularly in the realm of career guidance for international students, necessitate a paradigm shift towards social justice and emancipation. This approach requires a comprehensive, inclusive, and critically reflective strategy, aimed at empowering students to both navigate and actively contest the systemic obstacles they encounter.

Neoliberal policies have profoundly impacted the global educational landscape and labor market. Hooley et al. (2018) underscore the transformation of education into a commodity within neoliberal frameworks, where its primary value is often perceived solely in economic terms. This perspective marginalizes the broader, more holistic role of education in fostering personal growth and societal transformation. The susceptibility of international students to neoliberal dynamics is pronounced; their career paths are frequently dictated by policies that favor economic objectives over educational or social equity (Global Affairs Canada, 2019). As noted earlier, Marom (2023) highlights that many international students in Canada are channeled into academic programs with limited future career opportunities, indicative of a systemic bias inherent in the neoliberal approach.

Hooley et al. (2019) propose a reorientation of career guidance to focus on social justice. This shift entails moving beyond a narrow emphasis on employment and economic outcomes, towards a comprehensive approach that considers students' diverse backgrounds, identities, and goals. In the case of international students, this means providing guidance that accounts for cultural differences, immigration-related challenges, and specific barriers encountered in the job market. Embracing and valuing diversity is essential in transitioning towards a more equitable and just system of career guidance (Blustein & Flores, 2023). This includes recognizing the diverse experiences and obstacles faced by international students from different socio-economic backgrounds and addressing the systemic biases that restrict their opportunities (Arthur, 2023).

Moreover, Hooley et al. (2019) advocate for career guidance that aids students in understanding the intricate relationships between education, career pathways, and broader societal frameworks. This involves equipping students with the skills to critically evaluate their position and possibilities within the neoliberal structure and to make informed decisions regarding their educational and career choices. The role of critical reflection in career guidance is crucial, as it encourages students to contemplate their personal experiences and ambitions, and how these intersect with larger societal trends and policies (CERIC & OneLifeTools, 2022). For international students, this might entail reflecting on their motivations for studying in Canada (and how these motivations have evolved since their arrival), their experiences within the educational system, and their future aspirations (Ho, 2021).

Ultimately, career guidance should serve as a mechanism for emancipation, challenging and reshaping the neoliberal status quo and advocating for policies and practices centered on equity and social justice. For international students, this involves advocating for more inclusive and equitable educational and labor market policies, as well as supportive systems that recognize and cater to their unique needs, by them and for them by their institutions. While addressing structural injustices, it is equally important to acknowledge the agency of students. International students often choose to study in Canada for various reasons, including career advancement and immigration objectives. Recognizing this agency is vital in providing career guidance that is respectful, empowering, and congruent with the students' personal aspirations.

Faculty as Career Influencers through Advocacy

Available literature on faculty relationships with students in internationalizing universities largely focuses on teaching, curriculum development, and general intercultural development (e.g., Arkoudis et al., 2010; Dimitrov & Haque, 2016; Killick, 2018; Lee et al., 2017), with little focus on faculty roles in student career development. However, faculty members play a vital role in a student-centred, emancipatory career education paradigm. Since faculty members interact most frequently with international students in their post-secondary education journey, they stand as pivotal career influencers. Ho (2019) defines career influencers as "individuals who informally provide career-related advice, guidance, and/or counselling" (p. 2) and furthermore, articulates seven career influencing functions that post-secondary professionals can hold to facilitate emancipation. These functions are advising, guiding, counselling, advocating, teaching, external liaising, and leading.

The relationship between faculty as career influencers and emancipation is profound. Faculty, through their multifaceted role, inadvertently or deliberately foster an environment of socially just career guidance. Their influence not only aids in the career development of international students but also contributes to their overall emancipation within the Canadian educational and professional context. Faculty members' commitment to these roles, whether accidental or intentional, plays a vital role in steering the narrative towards a more inclusive and equitable career pathway for international students, aligning with the broader goals of social justice in career guidance.

Methods

This paper reports and discusses perspectives on career development from internationally educated students at a postsecondary institution in Western Canada. This participant group includes both students on international student visas, and other students who completed secondary school outside of Canada, but who are institutionally classified as domestic students. Most (91%) of participants were international students, while 9% were domestic internationally educated students. The study received ethics board approval both at the institution where the study was conducted and institution to which the research was affiliated. Student perspectives shared in this paper are drawn from a broader qualitative-dominant, exploratory mixed methods study that aimed to develop a student-centred taxonomy of faculty intercultural teaching practices (Creswell, 2015; Onwuegbuzie et al., 2010). The primary research question asked was "what are faculty ways of being, knowing, and doing that effectively demonstrate faculty interculturality, as understood by internationally educated students?"

Mixed-methods methodology followed the transformative paradigm (Mertens, 2007), which focuses on centering participant perspectives throughout a research process that uses insights from both qualitative and quantitative data to facilitate social change. The transformative paradigm was also chosen for its potential to facilitate cultural relevance in research (Chilisa & Tsheko, 2014) by ensuring that participants' voices inform all phases of the study. The study began with qualitative interviews that formed the basis for a subsequent quantitative survey.

In the first phase of the research, qualitative data were drawn from interviews with 12 internationally educated students conducted via Zoom videoconferencing and using Appreciative Inquiry methods (Cooperrider & Srivasta, 1987; Whitney & Trosten-Bloom, 2010) (see Table 1). Appreciative Inquiry engages participants in change process by sharing stories that represent the best of what is, and visions of desired future outcomes. In this study, the definition of appreciation was extended to include appreciation of challenges and negative experiences when shared by participants (Grant & Humphries, 2006).

Sessions began with an introduction to interculturality, designed to provide participants with shared knowledge of key concepts (Liamputtong, 2011). This discussion included the definition of interculturality and statements from the institutions' academic plan about internationalization. Next, participants were provided with an opening generative lead-in to stimulate recall of stories on three topics: appreciation of cultural diversity, developing intercultural relationships, and providing equitable learning opportunities. Participants shared examples of faculty interactions and behaviours in each of these three areas. Participants then were asked to share a story of a challenging faculty interaction with their hopes for what might be different in the future. Next, participants shared their description of an ideal learning environment. The interview ended with an invitation to create a visual representation (typically a mind map) on the theme of faculty intercultural teaching.

Following the interviews, transcripts were shared with participants, and an inductive, eclectic coding process (Saldaña, 2021) was undertaken to generate a preliminary list of codes. Transcripts were initially hand-coded with marginal notes, and QSR Nvivo software was later used to further refine the coding framework. For example, discussions of provisions of references for student employment and internship support, each with single mentions, were later grouped together under the code "support student transition to the labour market". Additionally, positive and negative mentions of a similar faculty behaviour (e.g., demonstrates knowledge about cultures/ does not demonstrate knowledge of culture) were merged into a single code. This resulted in a provisional list of twenty-two themes. These themes formed the basis of a survey instrument co-created with three student participants to facilitate the creation of student-facing and culturally relevant questions. Survey questions emerged directly from qualitative interview themes, with at least one survey question generated for each theme. Most survey questions, co-written with interview participants, used Likert scales where students indicated their degree of agreement with statements about faculty teaching practice (e.g., I want my instructor to acknowledge the non-academic factors in my life (e.g., work, personal issues); I want my instructor to help me in easily transitioning from school to a full-time job/career). Following 44 Likert-scale questions, survey participants were provided with an open-ended prompt to share any other experiences or information.

Survey participants were recruited via emails sent from the International and Student Affairs units at the institution where the study was conducted. Data were cleaned to remove incomplete responses and those demonstrating inattention. Descriptive statistics were reviewed, including mean, median, and variances for each survey item, followed by an exploratory factor analysis to determine correlations between items using a multi-step procedure (Henson & Roberts, 2006)[1]. Initially, a principal component analysis (PCA) with oblique rotation was performed on 45 items to explore their correlations, but no factors showed correlations above 0.3. Additional data rotations offered 6-component and 4-component solutions as possible analyses. The 4-factor solution was chosen as the optimal representation of the data, confirmed both by a scree plot analysis and the fit of this solution with the qualitative data.

Mixed methods research creates opportunities to make meta-inferences and draw broader generalizations by integrating qualitative and quantitative findings (O'Cathain, 2010; Onwuegbuzie et al., 2009). Data integration occurred at two key points in this study. First, qualitative interview data were used to inform the development of the quantitative survey instrument (Fetters et al., 2013). The second stage integration occurred as analyzing interview data, participant mind maps, and quantitative survey results confirmed the four-factor solution as a solid foundation for the student-centered faculty interculturality taxonomy.

Participants

Twelve internationally educated participants – all students or recent alumni of the institution where the study took place – participated in the qualitative phase of the study. Nine participants named India as their country of origin; The three other participants were from Saudi Arabia, Nepal, and Brazil. All participants were in their second year of study or above; seven were in diploma or baccalaureate programs, while five were in post-baccalaureate programs (see table 1). Participants are identified with pseudonyms.

193 participants were included in the quantitative phase of the study. Like the qualitative phase, the majority (62.9%) named India as their home country. Data from quantitative participants, including open-ended verbatim responses, is reported anonymously without names in the results.

Results

Integration of the qualitative and quantitative data generated a four-domain framework of faculty intercultural teaching practice:

1. Develop an atmosphere of safety and respect;
2. Facilitate connectedness;
3. Create equitable opportunities for academic success, and
4. Recognize the whole person.

The four domains, along with the correlated items, are presented in Figure 1.

Within the context of career development, the recognize the whole person domain included many student stories that relate their educational journeys and relationships with instructors to their current career transitions and overall career development hopes. Therefore, this domain is the primary focus of this article

1 We would like to thank our colleague Dr. Chris Giles for his support in conducting the exploratory factor analysis.

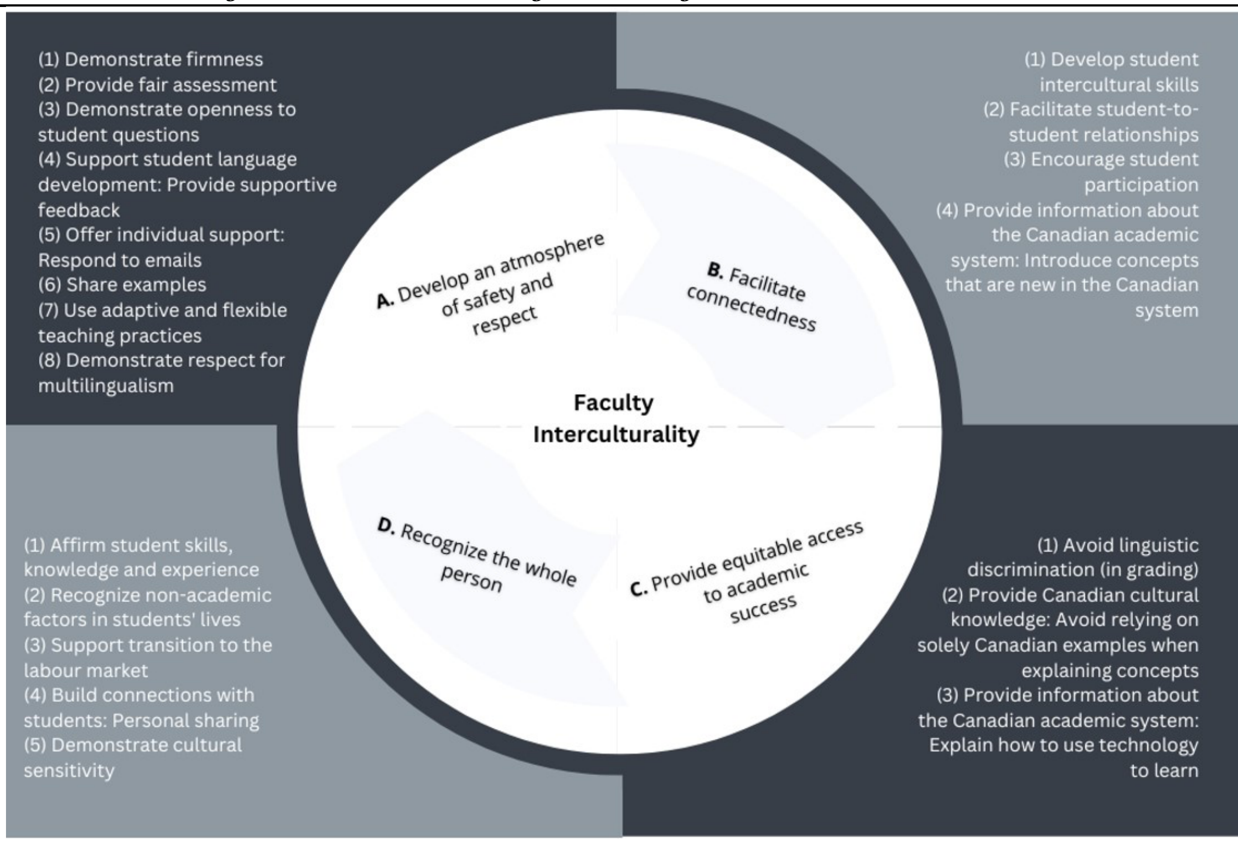
Table 1

List of Participants in the Qualitative Phase

Pseudonym	Level of Study at Time of Interview	Program	Country of Origin
Agam	Undergraduate (Year 2)	Psychology/ General Studies	India
Harseerat	Undergraduate (Year 2)	Biology/ General Studies	India
Isha	Undergraduate (Year 2)	Psychology	India
Loveen	Undergraduate (Year 4)	Math/Psychology	India
Tavleen	Undergraduate (Year 5)	Health Sciences	India
Jasveen	Post-Baccalaureate	Accounting	India
Matthias	Post-Baccalaureate	Human Resources	Brazil
Sadia	Alumni (Undergraduate)	Psychology/ Counselling	Saudi Arabia
Ranveet	Alumni (Post-Baccalaureate)	Accounting	India
Ashi	Alumni (Post-Baccalaureate)	Operations and Supply Chain Management	Sri Lanka
Ikbir	Alumni (Post-Baccalaureate)	Accounting	India

Figure 1

Student-Centred Faculty Intercultural Teaching Taxonomy



as it yields the most implications to inform career development practices when working with international students. The results below will first present descriptive statistics for each item in the *recognize the whole person domain*, followed by student stories that highlight their hopes for relationships with instructors in the context of career development.

Recognize Non-Academic Factors in Students' Lives

As outlined previously, many international students are engaged in an "edugration" journey, where completing academic programs is connected to overall immigration plans, and where part- or full-time work is necessary to meet the expenses of living and high tuition fees. As seen in Table 2 below, most participants expressed a desire for faculty members to acknowledge the complexities involved in this journey.

Table 2

Recognize Non-academic Factors in Students' Lives Survey Data

Field	Minimum	Maximum	Mean	Std Deviation	Variance
I want my instructor to acknowledge the non-academic factors in my life (e.g., work, personal issues	1.00	5.00	3.99	1.13	1.27
I want my instructor to recognize the challenges international students face when they transition to a new country.	2.00	5.00	4.57	0.66	0.43

Karampreet, an interview participant, shared the complexities facing many international students, including the many who transition directly from secondary school to more complex responsibilities. These students often take on postsecondary studies, work responsibilities, and independent living in a significant life transition on arriving to Canada. Karampreet explains, "international students are usually working because they have to arrange so much money for their fees and everything. And they are alone here. They have to do everything by themselves." She later expressed gratitude to faculty members who appreciated these challenges.

> I would appreciate them a lot, because I think they know what kind of things we go through in our daily lives. Cause we have to think about our family too, our food too, our work too, our studies too.

In these early stages of Canadian career journeys, students may also be seeking support in gaining student leadership positions, such as work as peer mentors/tutors, student orientation leaders, or positions in student government. These may provide them with more relevant employment experience than they may be offered in the community. Such positions often require support of faculty via the provision of references. Agam, seeking support in gaining one such position, noted his disappointment with an instructor who did not provide such support after he missed an assignment deadline. He describes his instructor's words, including statements such as:

> "You didn't submit your assignments on time, so I don't think you are a responsible person". Agam went on to clarify that "I'd given him the valid reasons that I was not healthy. I was sick. I had given him proofs [sic] that I was sick."

Agam contested his instructor's assessment of his character, emphasizing that he was affected by extenuating circumstances.

In addition to the significant transitions faced by more traditionally aged students, many mature students undertake a career journey that requires the same academic and career transitions, while managing the complexities of family life. Matthias, a mature student, shared a challenging encounter on this journey:

> But there was one instructor that always keeps saying always the grad students they do much more work than you guys. And that was like, okay, so and you know, we're coming from another country. We are studying. We are working. I have kids. So why are you saying that? It was a little frustrating.

Matthias' statement highlights the fact that student support from instructors should consider the full complexities of a life journey that may include family life, alongside work and study.

While participants often connected the recognition of life challenges to the need for support in succeeding academically, Karampreet noted that this support can create a broader sense of self-efficacy. She stated that such recognition "give[s] us confidence; it give[s] us the responsibility that yes, our professor did this for us, so we have to do much better than they expect from us." As Karampreet's comment illustrates, the desire for full recognition as persons with multifaced lives should not be interpreted as a request for undue leniency, but rather as an expression of how support promotes students' development and success in their journeys.

Affirm Student Knowledge, Skills and Experience

A persistent issue for all classes of new immigrants is a lack of recognition of prior learning and career experiences; this is also true of internationally educated students. As indicated in Table 3 below, internationally educated students value acknowledgment of the skills and experiences they bring to their Canadian education.

Table 3

Affirm Student Skills, Knowledge, and Experience Survey Data

Field	Minimum	Maximum	Mean	Std Deviation	Variance
I would like my instructor to acknowledge my previous work experience, life experience, and skills.	1.00	5.00	3.96	1.08	1.16

In the qualitative interview portion of the study, the desire for recognition of prior experience was particularly significant among post-baccalaureate students who were completing diploma programs having already earned prior bachelor's degrees, and often having prior work experience. In an open-ended question, a survey participant also clearly shared this sentiment:

> Sometimes, even though I'm 25 years old, already completed a bachelor's degree in another country, and already have many years of work experience, I am treated as a child simply because I'm new to Canada and haven't worked here yet. I would like instructors and staff to recognize that my previous expertise and knowledge acquired abroad is valid, and to consider it as a base I can improve upon.

This participant's statement provides a clear call for faculty to become more familiar with students' life and career journeys, shaping the classroom environment to support recognition and further career development.

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Support Transition to the Labour Market

The deep integration of students' educational journeys, immigration pathways, and career journeys is reflected in the hopes they have for instructor support in making the transition from student life to post-graduation employment. Table 4, presented below, demonstrates high participant agreement with the desire for specific instructor guidance in this transition.

Table 4

Support Transition to the Labour Market Survey Data

Field	Minimum	Maximum	Mean	Std Deviation	Variance
I want my instructor to help me in easily transitioning from school to a full-time job/career.	1.00	5.00	4.23	0.98	0.97

Interview participants shared a variety of ways that they positively experienced support from instructors, including mentorship, support in networking, provision of internships, and encouragement through the application process. Tavleen, a fifth-year undergraduate student with graduate school aspirations stated her appreciation for an instructor who provided support in understanding the academic pathway that would best support her intended goals.

> She [the instructor] insisted me to go for health sciences, because health sciences is more about research. And she said, after when you're done with your bachelor's, there are people that may go over your thesis again and again, and that will help you . . . So that's the positive experience and that you appreciate this is my weak point and I'm coming from this country, and this was my background, but she also gave me some kind of directions. And I'm very happy with that.

Internationally educated students new to the Canadian system may lack specific knowledge about how to best connect academic choices to career paths, and instructor support can be vital to building this understanding.

Support in networking was mentioned by several interview participants as a vital resource. Matthias viewed the relationships built with instructors as a key networking experience, explaining that he was able to build "a very professional relationship. A very good networking for us. I think, [this] was one of the best things that I found engaging." Participants also noted the availability of university networking as an additional source of support in building professional relationships. For example, Ikbir stated that "at the moment I think [the university] does have networking events which lead to career opportunities as well." At the same time, Ikbir went on to note that the provision of networking events by itself was not sufficient, and that students required additional instruction and guidance in order to effectively make use of the resources provided:

> But again, for the first or second semester students when they try to do networking, they don't tend to do that great in it, because they don't know how to do networking or how it's done because again, to most of the international students, these networking events are pretty new.

As Ikbir's comments highlight, additional support from faculty may be needed, particularly for younger undergraduate students, to facilitate the process of professional networking.

Participants also highlighted a range of supports that they view as helpful in transitioning to post-graduation employment. Ranveet shared that in her last semester of the program, her instructors provided consistent encouragement through the job application process. She stated, "I still remember I started applying for jobs and then it took me awhile. That time your instructor, they keep on motivating you. You have to do it." Ranveet also positively remembered a faculty member who "gave internship after studies to two or three students." Alongside these highlights of her experience, Ranveet also indicated that more support could be provided in the process of navigating a relatively unfamiliar job market. She hoped that faculty members could provide more information and support in mastering the interview process:

> I'll ask for market demand, what is required in the job, what kind of skillset or the mindset I would say. And then what qualities can make you a better person, because there are so many talented candidates outside. And especially with the interviewing skill, I think students need to [practice] at the first place. But I remember I went for so many interview[s], but then after a while I get to know how the thing have to go.

Considered together, participants' comments highlight both positive career development supports, and a desire that this support would be provided in greater depth by their instructors, particularly at key transition points, such as impending graduation, in their career journeys.

Build Connections and Cultural Sensitivity

The prior three items in the *recognize the whole person* domain have clear connections to career development. The exploratory factor analysis that shaped the development of the taxonomy indicated that demonstrating cultural sensitivity was correlated with the career-focused items discussed above. The practices named in this theme allow students to build enriching and satisfying relationships with instructors. Table 5 below presents students' responses to a question about instructors engaging in personal life sharing with students.

Table 5

Build Connections with Students: Personal Sharing Survey Data

Field	Minimum	Maximum	Mean	Std Deviation	Variance
I appreciate when my instructor shares about their personal life with me	1.00	5.00	3.93	1.10	1.20

Harseerat, an interview participant, shared a contrast between a class where she felt connected to her instructor, and one where she perceived personal connection as absent:

> Our instructor is really nice, my chemistry instructor, but she also kind of doesn't engage on a personal point with the students that much. I don't know how to put it to be honest. Whereas our microbiology teacher, whenever we meet in the halls we talk, and she keeps on asking us how is the day? Or we actually feel comfortable sharing things with her; we have a lot of study stuff going on, this test, that test.

Significantly, Harseerat's story illustrates that an instructor's outreach to share on a personal level with students can lead to reciprocal sharing, allowing faculty to understand their students' lives, experiences, and goals.

The desire for reciprocal relationship also extended to mutual intercultural learning in an atmosphere of cultural safety. Two practices, learning names and being sensitive towards culture, were viewed as desirable by most students, as illustrated in Table 6 below.

Several interview participants indicated a desire for mutuality in meaningful intercultural relationships. Sadia shared, "I'm just thinking from an intercultural lens, this awareness would work if it happens from both sides, from students and from teachers." Similarly, Agam, in a description of his preferred classroom environment, explains that "apart from what students are doing, the instructor also is from a different culture, and I am also from different culture. We also try to learn about each other's culture." Harseerat viewed learning student names as a key indicator of this relationship building, describing her ideal class as one where the "instructor is trying to remember all of their names of the students in one day." For study participants, cultural

Table 6

Demonstrate Cultural Sensitivity Survey Data

Field	Minimum	Maximum	Mean	Std Deviation	Variance
I would like an instructor who is sensitive towards my culture.	1.00	5.00	3.81	1.03	1.05
I want my instructor to learn my name.	1.00	5.00	3.96	0.93	0.86

sensitivity and mutual cultural learning are key practices that facilitate strong relationship building between faculty and students.

Conversely, stereotyping and assimilative expectations weakened the potential for strong faculty-student connections. Loveen described her perception of how internationally educated students are stereotyped, sharing that:

> I have heard from one or two instructors that they have, in their introductory courses, they have lots of international students and then the international students, they don't tend to complete their assignments on time and stuff. And then, I don't want to name anyone, but I have heard them saying there's this negative perception around international students in Canada.

Significantly, the stereotype Loveen names has moved beyond faculty-to-faculty discussions and appeared clearly evident to her as a learner. Tavleen adds to this understanding of practices that inhibit effective relationships by illustrating the impact of assimilative activities. She shared:

> But some of it, they're very particular they see this is what we are looking for and we don't care which country you come from. This is your problem; you have to learn to live here in the way that Canadians live.

While Tavleen's understanding of the negative impact of negation of cultural identity is situated within the classroom, links with career expectations for newcomers to Canada can be discerned, particularly when international work experience is devalued.

Recognize the Whole Person: Career and Relationship

The *recognize the whole person* domain allows educators to grasp the connection between strong, culturally sensitive relationships and supporting students in their career development. While much interaction with students is situated within the classroom context, most internationally educated students' lives are not solely focused on academic development. Rather, when building relationships with students, instructors may consider that these learners are not simply pre-career, but already involved in the full complexity of career development combining work and studies that often have a clear employment goal on a desired immigration pathway. This relationship allows consideration of the role of faculty as Career Influencers, as well as guides towards Career Emancipation.

Discussion

This study's findings shed light on the critical role faculty members play as career influencers for international students in Canada, aligning with the current literature emphasizing the intertwined relationship between international students' educational pursuits and their career trajectories. The findings reflect the significant challenges international students face, including navigating a new educational system, cultural barriers, and often a dual focus on academic success and future employment – a concept encapsulated in the term "edugration."

The study highlights ways faculty can mitigate these challenges, as the results underscore the multifaceted role faculty have in influencing the career paths of international students. This is in line with the literature that identifies faculty as pivotal in helping international students navigate the complexities of academic and career choices in the Canadian context.

To address these complexities, Hooley's (2019) framework of five signposts toward socially just career guidance offers a valuable lens for understanding the ways faculty can support international students' career development and success. By working to advance these signposts and also empowering students to do so themselves – building critical consciousness, naming oppression, questioning what is normal, encouraging people to work together, and working at a range of levels – faculty can mitigate the challenges international students face and foster more equitable career development.

Recognize Non-Academic Factors in Students' Lives

The study findings highlight the importance of faculty recognizing the intricate web of non-academic factors impacting students' lives. This recognition is crucial for supporting students' career and mental health (Ho et al., 2023), and for understanding their shifting priorities and aspirations, thus contributing to a more holistic approach to career guidance. The literature emphasizes the need for social justice and emancipation in career guidance, in particular aligning with Hooley's (2019) signpost to build critical consciousness. Faculty play a role as career influencers through the advocating function by encouraging international students to critically consider societal and organizational structures, and their relationships to these structures, so that they are not merely seen as economic contributors but as individuals with diverse backgrounds and aspirations.

Affirm Student Knowledge, Skills and Experience

A significant finding of this study is the importance of faculty recognizing and affirming previous learning, skills, and experiences of international students. Such recognitions and affirmations are pivotal in fostering a sense of belonging and respect, contributing to a more equitable educational experience. They are also important steps towards social justice and emancipation, challenging the often Eurocentric norms and power dynamics prevalent in post-secondary education. This resonates with Hooley's (2019) signpost to question what is normal, and echoes Stebleton & Ho's (2023) emphasis on purpose narratives, allowing students to integrate their past experiences into their current and future career trajectories. Institutions can better recognize and affirm students' previous experiences by providing training and resources that help faculty understand and appreciate the diverse backgrounds of their students, and how this understanding can inform their pedagogical and student engagement approaches.

Support Transition to the Labour Market

The study highlights the need for faculty to support students in transitioning from academic environments to the labour market. However, it also highlights that faculty members may not feel equipped to assume this responsibility, as many are not trained in career development topics and practices. To accomplish this, faculty can consult with their campus career centres, who can provide specialized support to international students, and connect faculty members with appropriate resources and referrals, thereby enacting the signpost of encouraging people to work together (Hooley et al., 2019). For instance, networking and relationship building are essential components of career support. Even if not all faculty members are adept at networking, they can still perform the career influencing function of external liaising by facilitating connections and mentoring students in building their professional networks.

Building Connections and Cultural Safety

Finally, an essential aspect of faculty influence is building meaningful connections with students, which involves more than academic instruction. Findings from this study suggests that teaching should be seen as relational and caring work, where the method of delivery enhances the content. Through teaching – their primary career influencing function – faculty members can model positive professional relationships through their interactions with students. Demonstrating reciprocity, learning about and respecting students' cultural backgrounds, and creating an inclusive classroom environment (e.g., knowing students' names and pronouncing them properly) are crucial for building trust and guiding students in their career journeys. These actions not only enrich the learning experience but can also equip students for professional environments. By demonstrating the characteristics of inclusive managers and workplaces, faculty can help international students become less vulnerable to unethical employment practices. Furthermore, they help students develop self-advocacy and critical thinking skills, enacting the signpost of naming and challenging potential oppression and discrimination in their future work environments.

Limitations

The data presented in this study are drawn from a single institution. While demographic profiles of participants broadly mirrored those of the institution where the study took place, students from India represent the majority of voices presented in this study. Additionally, the study took place during the emergency remote teaching environment of the COVID pandemic, which may have influenced students' relationships with faculty members and view of their career trajectories. While this limits the broader generalizability of the results, this study could be replicated in other contexts to broaden the demographic profile of respondents. This could include comparative research of undergraduate and graduate student views of their career trajectories. Perspectives of students in different institution types, including research institutions, primarily undergraduate teaching universities, and colleges could also be compared.

Implications and Directions for Future Research

Implications

The findings of this study have profound implications for pedagogical practices within higher education; they highlight the importance of fostering relational dynamics between faculty and international students to bolster engagement and learning outcomes, reinforcing that teaching is ultimately a relational activity. The narratives from the research participants underscore the necessity for faculty to recognize and affirm the diverse strengths and resilience international students bring from their life experiences. Given the challenges associated with adapting to new cultural and academic environments, faculty empathy and sensitivity are crucial. Furthermore, there is a need for faculty to engage in advocacy – a career influencing function – by role modeling how to challenge detrimental stereotypes and contribute to a narrative shift that values and leverages international students' contributions to academic and community settings. This advocacy becomes increasingly vital in light of recent governmental measures affecting international student undergraduate admissions, emphasizing the role of educational institutions in supporting these students amidst broader systemic pressures (Government of Canada, 2024).

The Role of Anti-Bias Education for Faculty

To recognize students holistically in support of their career journeys, faculty may benefit from bias awareness and anti-bias training. Bias arises from the basic brain-based process of dividing the world into categories, and thus should not be directly equated to prejudiced or racist behaviour (Eberhardt, 2020). However, awareness of the impacts of bias is needed. For example, recognition of facial and other differences across racial lines is weaker than in-group recognition, with lower levels of brain activity measured when viewing faces of individuals outside one's own racial group (Hughes et al., 2019). This can lead, for example, to faculty weakness in distinguishing fully between international students from the same racial or ethnic group. When this discrimination difficulty is paired with stereotyped perceptions about international students, failure to provide full recognition to each student can result. Awareness of this possibility can prompt faculty to consider ways of building fuller personal knowledge of their students, such as incorporating small assignments where students share personal identities and goals.

Additionally, students' performance may either rise or fall depending on the stereotypes they perceive about their groups: stereotype lift, where students internalize a positive bias about their ability to succeed can increase performance on academic tasks, where stereotype threat, resulting from the internalization of negative stereotypes, lowers performance (Hughes et al., 2019). Pervasive social narratives, conveyed via media or in faculty-to-faculty conversations that suggest international students are interested only in the immigration side of "edugration", rather than on their educational attainment, may develop into implicit biases subtly conveyed to students. As Marom (2023) highlights, students' perceived fear of academic failure, alongside potential implicit biases of institutional advising, may lead to choices of less rigorous academic programs, such as general studies diplomas, which may in turn limit future employment options.

Despite the brain-based nature of implicit bias, awareness of bias and implementation of bias-reduction practices can result in greater skill in challenging bias and recognizing individual difference more accurately. Practices to challenge and reduce bias include intentional intergroup contact, mindful reflection on gaps between intentions and behaviours, engaging in intentional counter-stereotype thought exercises, and participating in anti-bias education and training (Choudhury, 2021). Faculty members may reach greater effectiveness as emancipatory career guides by engaging in anti-bias training that broadens perspectives on the individuality of students and their journeys.

Networking and Role Modelling

While stereotype threat may challenge international students' vision of future success (Choudhury, 2021), one mitigating strategy may be connecting current students with opportunities to learn from successful alumni within the networking role of faculty career influence. Additionally, alumni can add their voice to career emancipation by naming instances of oppression and questioning the norm of lower-level service work faced by many international students. Additionally, building connections between faculty and alumni can create new ways for current students and those who are further on their journey to work together for more just and equitable futures.

Future Research

With respect to future research directions, the authors propose that a comprehensive examination of bias awareness training for faculty members, recognized as pivotal career influencers for international students, be undertaken. This initiative mirrors a typical intervention employed by human resources departments in post-secondary institutions aimed at mitigating hiring biases and discrimination. The research would entail conducting in-depth reflective interviews with faculty training participants to discern the key insights gained, the practical applications of these insights into their pedagogy, and the tangible short- and long-term effects on teaching practices. Such an analysis would provide a richer understanding of how bias awareness training influences faculty members' interactions with students, potentially transforming them into more effective career influencers.

Additionally, future studies can draw from Redekopp and Austen's (2015) pioneering work on the community helper model and apply it to post-secondary career influencers who work with international students. The model's premise, based on surveying high school students to identify trusted sources of career support and advice, lays the groundwork for nominating individuals for community helper training. Future research could replicate this model within a post-secondary context, assessing the impact of such training on career influencers' self-efficacy in providing career support to students and youth.

Conclusion

The current political situation has raised public consciousness about the "edugration" journeys of many international students. Understanding of these journeys, and how to truly move "edugration" towards an emancipatory model requires a shift away from dominant narratives. Media frequently present international students as seeking immigration by any means, rather than as skilled immigrants seeking meaningful professional futures through Canadian education. While academics, seeking justice, may highlight areas of potential vulnerability and exploitation, these narratives, if not balanced with student agency and voice, may reinforce stereotypes of international students as less able to chart a meaningful career path.

The career emancipation paradigm offers a framework for addressing systemic inequities faced by international students throughout their career journeys (e.g., Choi et al., 2021; Francis, 2023). This framework recognizes the systemic social factors that limit international student trajectories, while at the same time facilitating students' consciousness, perspectives, and horizons to what might be possible. Such an emancipatory approach recognizes that international students' unsatisfactory career outcomes should not be attributed to lesser abilities. Rather, current outcomes should instead call attention to systemic failures to achieve the stated aim of inviting international students to our country, that is, to benefit Canada through increasing our skilled and educated workforce (Global Affairs Canada, 2019).

At present, most faculty development programs that aim to support educators in teaching international students do not address the role of faculty as career influencer. This likely reflects siloed institutional structures where career development is separated from other aspects of pedagogy. This paper demonstrates that students view faculty as career influencers and value their input. Listening to students' needs and perceptions points to a critical gap. If we listen to our international students, understand their preferred futures, and aim to challenge systemic injustices, equipping faculty to support student career journeys strategically and systematically from the beginning of studies to graduation and beyond is a critical priority.

"Edugration" need not be a negative experience, either for students or for the Canadian economy. Career emancipation recognizes when inequities hinder preferred outcomes and provides a pathway towards change. By highlighting the successes of many past international students, and the high aspirations of current learners, "edugration" can be reframed as a place of emancipation, rather than injustice.

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An Axe and a Handshake- A Scoping Review of the Transition from Public Safety Occupations

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Abstract

Exiting a public safety occupation (e.g., paramedics, police, firefighters) and entering retirement is unique in many ways. There are heightened risks and demands associated with essential emergency services that involve personal sacrifices and commitment and the absence of this intense role is significant requiring an adjustment. Public safety personnel (PSP) leave their professions for various reasons including age-related retirement and forced retirement due to illness or injury and little is known about their experiences during the transition. The objective of this review is to summarize the existing body of research.

The methodology for scoping reviews outlined in the five-stage framework by Arksey and O'Malley (2005) was followed. Abstract screening of 5,801 papers yielded 128 studies for full-text screening. Forty-five papers were accepted by at least two of three reviewers for data extraction and analysis. High level themes emerged including cumulative impacts, separation from identity and culture, and buffers.

The study found that there is a need for planning and support for those exiting public safety professions. Financial planning is the focus of pre-planning when it exists and applied research is needed to further understand psychosocial risk and protective factors to support the development of acceptable transition strategies and resources.

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The departure from a public safety occupation (e.g., paramedics, police, firefighters) is significant given the intense commitment required while on the job due to a high level of accountability and responsibility essential for emergency services. Many public safety personnel (PSP) are exposed to cumulative trauma throughout the course of their career, work nonstandard hours, and are at risk of physical harm and stress-related illness due to occupational hazards and workloads. PSP transitioning into retirement must not only separate themselves from their role and intense commitment but also manage any accrued health consequences, which influence overall wellbeing. Entry into and exit out of public safety occupations require significant adjustments; however, there is little emphasis on how exit takes shape. As this scoping review illustrates, the transition from public safety occupations is unique and can be difficult for retirees to navigate when there are few tailored supports.

The transition of PSP to retirement has received limited attention by researchers as demonstrated in preliminary database searches showing a diverse focus concentrated on specific public safety sectors (i.e., police, firefighters). It was noted that retirees are often surveyed for their retrospective accounts of active service (e.g., Chiu et al., 2011) rather than their experiences exiting the professions. In a preliminary search, no reviews were found that focused on the transition to retirement for PSP and few reviews surfaced that accounted for the retirement transition in their search strategies. Lacking a coherent body of research on the transition of PSP to retirement, a scoping review was indicated to provide an overview of existing evidence and detect gaps (Arksey & O'Malley, 2005). The aim of this review was to summarize what is known about PSP as they transition from public safety work to retirement and other occupations and identify high level themes. This scoping review is foundational in identifying potential risk and protective factors associated with the transition to set agendas for applied research, and inform policy and practice.

Workers leave public safety occupations voluntarily when they complete a full career and are eligible for pensions or when they resign to pursue other career opportunities, and involuntarily through forced retirement including mandatory retirement (age and service-related policies) and medical retirement (illness or injury). The challenges associated with voluntary retirement, which is usually planned, are different from forced retirement which can be abrupt and exacerbated by illness, injury, or employment disputes. Research using Canadian longitudinal data for the general population has shown that a transition into retirement that is voluntary and at a pre-planned and anticipated time (i.e., "normal" retirement age) is associated with positive outcomes (Latif, 2011), whereas military veterans, limited by injury or illness and a skillset that is not transferrable, have reported considerable challenges (Blackburn, 2017).

PSP are exposed to significantly more trauma than the general public, which can have cumulative effects and the prevalence of mental health disorders related to trauma exposure is high among PSP in active service (Carleton et al., 2020; Regehr et al., 2021). Nontraumatic work stress such as administrative hassles, safety concerns, and workplace confidentiality combined with critical incidents, can also lead to poorer mental health outcomes (Ricciardelli, Carleton, et al., 2020). The cumulative impact of both trauma exposure and nontraumatic work stress over the course of a career compounded by the retirement transition itself as a major life change could have mental health consequences for PSP retirees. It has also been noted that stigma can be a barrier to receiving mental health support during the PSP career with help-seeking wrongly deemed antithetical to the helping role. Although there is evidence that this is changing through awareness and education (MacDermid et al., 2021; Price, 2017), the perception that help-seeking will be seen as a weakness (self-stigma) remains evident in public safety organizations (Grupe, 2023). For retirees experiencing difficulties during the transition, there is a risk that cultural stigma could perpetuate resistance to mental health support.

The perception of organizational support throughout the PSP career has an impact on job satisfaction and mental health (Ricciardelli, Czarnuch, et al., 2020). Due to the significant demands and requirements, there is an expectation of reciprocity and when PSP believe that their contributions are neither supported nor valued by an organization, they feel betrayed (Rodrigues et al., 2023). Morale within the workforce impacts job commitment which is critical for the organization and partly influenced by member recognition and organizational support related to retirement policies, particularly for those forced into early retirement by job-related illness or injury (Hilal & Litsey, 2020).

Aspects of public safety careers and the nature of exits make the transition to retirement for this population unique and challenging, a premise that has been expanded on in this scoping review. Themes emerged that set the groundwork to understand the transition process and highlight risk and protective factors. The methods used to guide the scoping review and the process followed are described in detail in the methods section followed by the results and a discussion of both high level themes and sub-themes. Gaps and limitations, a key feature of scoping reviews, were expressly stated in the research emphasizing the novelty of this area of inquiry and are summarized. Lastly, implications for research, policy, and practice are discussed along with a brief conclusion.

Method

The methodology for scoping reviews outlined in the five-stage framework by Arksey and O'Malley (2005) was applied as follows.

Identifying the Research Question

The research asked: *What does existing literature tell us about the experiences of PSP as they transition from the public safety career to retirement or other employment?* The concept of "retirement" was applied broadly indicating a permanent departure from public safety work for any reason (e.g., forced: mandatory, illness, or injury; voluntary: age-related normative, early retirement, resignation), and inclusive of both those who exit the paid workforce and those who leave to pursue other employment.

Identifying Relevant Studies

Search strategies were developed in consultation with two librarians, one within social science and the other within health science, to compare database suggestions and search strategies. To access a wider range of databases, online searches were conducted through three universities. Seven online databases underwent title and abstract searches including: Academic Search Premier, Criminal Justice Database, SocINDEX, PsycINFO, MEDLINE, CINAHL, and PTSDpubs. The librarians assisted with the piloting of search strategies to refine keywords that would include a range of public safety sectors (see Figure 1) and target those who have transitioned (e.g., "retired" or "quit") from PSP careers. Reference lists from selected studies were also hand-searched for relevant studies not identified in the database searches. The search was international but limited to articles published in English with no limitations on the date or type of publication. The inclusion of grey literature allowed for a more comprehensive search (Pedersen & Tingleff, 2024) ensuring that insights from reports, trade journals, and emerging scholars (i.e., dissertations) were incorporated. The articles yielded from the combined database searches were imported into Covidence (https://www.covidence.org), a software program that supports the screening process.

Figure 1

Boolean Search String

("ambulance attendant*" OR "ambulance worker*" OR "border service*" OR "coast guard*" OR "communications officer*" OR constable* OR "correctional officer*" OR "correctional personnel" OR "correctional service*" OR corrections OR "deputy chie*" OR detective* OR dispatcher* OR "emergency medical respon*" OR "emergency medical service*" OR "emergency medical technician*" OR "emergency personnel" OR "emergency respon*" OR "fire and rescue*" OR "fire fighters" OR "fire inspector*" OR firefighters OR "first responder" OR OR hazmat OR "high angle rescue" OR "indigenous emergency manager" OR "law enforcement" OR "marine rescue*" OR mountie* OR "operational intelligence personnel" OR paramedic* OR "parole officer*" OR police OR "prison guard" OR "prison staff" OR "probation officer" OR "public safety communicator*" OR "public safety officer" OR "public safety personnel" OR "r c m p" OR "rapid response team" OR rcmp OR "red serge" OR remand* OR "rescue personnel" OR "search and rescue" OR "tactical population*" OR "volunteer emergency service*" OR "911 dispatchers").ab.ti.
AND
(retire* OR retiring or resign* OR quit OR "leave the* job").ab.ti.

Study Selection

Inclusion criteria was refined for abstract screening. Articles were included that focused on workers from any public safety sector who had left the profession; health workers (i.e., emergency in hospital) and military personnel (except Canadian coast guard and RCMP) were excluded. The study sample or target population was either preretirement (perceptions or pre-planning) or retired from a public safety profession. In cases where PSP were preretirement, the reference to retirement was explicitly stated. Forced retirement including mandatory and medical retirement, as well as voluntary retirement including age-related normative retirement, early retirement, and resignations were relevant contextual factors. Articles that explicitly addressed psychosocial aspects of the transition were the focus and epidemiological studies, policy briefs, and retrospective retiree accounts directed at recruitment and retention were excluded. Based on the inclusion criteria, abstracts were independently screened by two reviewers to determine which articles would move to full-text screening with conflicts resolved by a third reviewer.

Charting the Data

The articles selected for full-text screening were entered into a table including the author(s), title, journal, year of publication, country, peer-review or grey literature, sector represented, retirement status (preretirement, retired), type of retirement (forced, medical, mandatory, voluntary, voluntary early, resignation), aim of the article, research design, findings, and themes. This charting method standardized data extraction for full-text screening and aided the review process. Further discussions ensued between reviewers to refine inclusion and exclusion criteria and studies were removed when there was consensus between at least two of three reviewers. The remaining articles were exported to MAXQDA (https://www.maxqda.com), qualitative data analysis software, for full-text analysis.

Collating, Summarizing and Reporting the Results

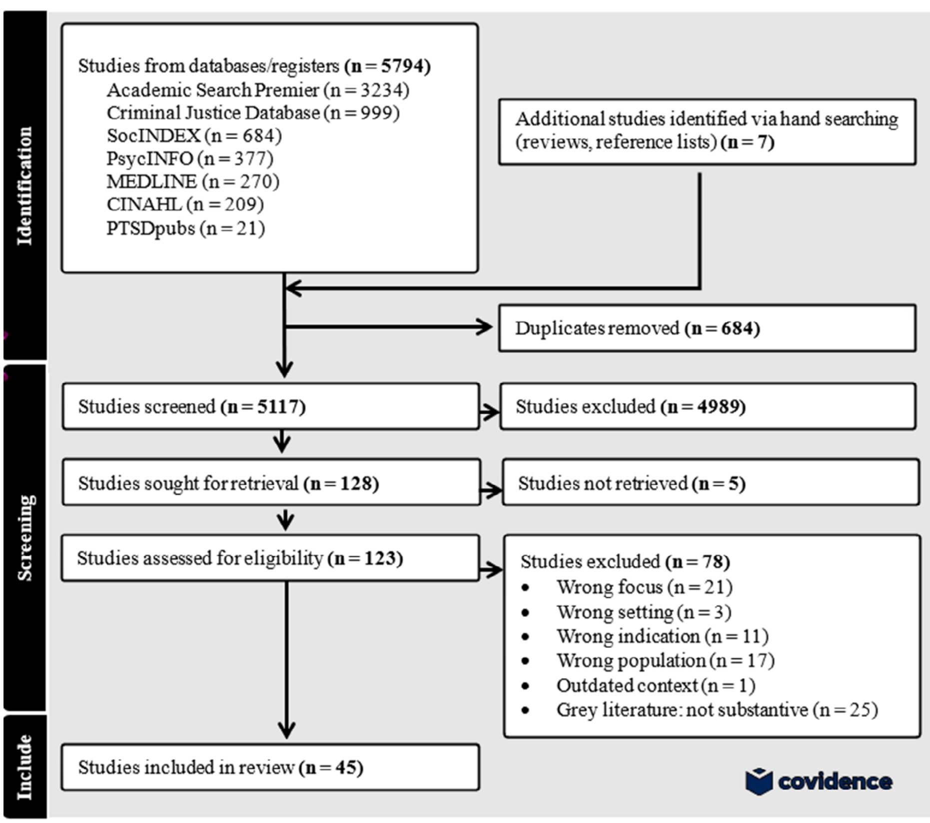
Analysis of the selected articles was facilitated by coding excerpts from the text and categorizing the themes and sub-themes that emerged in accordance with the research question. Visual tools in MAXQDA were used to illustrate connections and conceive high level themes. Summaries of the themes, sub-themes, and variables (i.e. publication date, sample) were merged into a report for reference and further analysis.

Results

Database and hand searches of titles and abstracts yielded 5,801 articles. Abstract screening reduced this number to 128 for full-text screening and consensus was reached to include 45 articles for full-text analysis (see PRISMA flow diagram in Figure 2). The majority of the selected articles were published in the last ten years (76%), spanned eight countries including the United States (44%), United Kingdom, Canada, Australia (11%), India, Israel, Nigeria, and Sweden. The peer-reviewed articles (71%) included quantitative (13), qualitative (10), and mixed methods studies (5) and reviews (3). Grey literature (29%) included public safety trade journals, PhD dissertations, and one report. Only a few articles focused on emergency service or first responders generally (13%) with the majority centred on the police sector (62%), firefighters (22%), and one study on paramedics. Samples used in the peer-reviewed research, PhD dissertations, and one report mostly surveyed those who had left a public safety profession (75%); six studies included both PSP preretired and retired; three studies interviewed PSP who were near retirement; and two quantitative studies compared PSP retirees with non-emergency retirees.

Figure 2

PRISMA Flow Diagram



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In the course of thematic analysis, three high-level themes emerged to encapsulate a range of themes and sub-themes developed through the coding process. There was a focus on the cumulative and lasting occupational impacts that influence retirement wellbeing; the effects of separation from an occupational identity and culture; and the buffers that were linked to positive transitions and outcomes. There were also suggestions by study participants and conclusions made by authors regarding how to move forward, which is discussed in the implications section. An author index in Table 1 shows the sample, methodology, and related sub-themes for each of the included studies and Figure 3 presents the central themes and related sub-themes.

Table 1

Author Index of Samples and Themes

Authors	Sample/Methodology	Sub-Themes
Alvarez et al., 2007	firefighters (retired after 9/11) interviews with counsellors. mixed methods	financial security, loss of peer support, over-identification, stigma, transition programs
Antonellis, 2007	firefighters grey literature	continuing connections, financial security, over-identification, stigma
Black et al., 2013	police retirees n=972 quantitative	career satisfaction, mental health, over-identification, ongoing threats, physical health, screening, trauma exposure, work-family conflict
Blackmon, 2014	police retirees n=226 grey literature: dissertation	adjusting to civilian culture, bridge employment, loss of peer support, maladaptive coping, mental health, over-identification, occupational symbols, pre-planning, social support
Bracken-Scally & McGilloway, 2016	firefighter retirees n=10 qualitative	career satisfaction, family wellbeing, financial security, leisure interests, loss of peer support, over-identification, ongoing mental health support, pre-planning, stigma, trauma exposure, work-family conflict
Bracken-Scally et al., 2014	firefighter retirees n=114; ambulance retirees n =55; non-emergency retirees n=140 quantitative	bridge employment, continuing connections, leisure interests, loss of peer support, ongoing mental health support, physical health, screening, trauma exposure
Bracken-Scally et al., 2016	firefighter preretirement n=6; ambulance preretirement n=8 qualitative	financial security, gradual transition, loss of peer support, maladaptive coping, over-identification, ongoing mental health support, pre-planning, screening
Brandl & Smith, 2013	police n=452; non-emergency n=6,873 quantitative	bridge employment, loss of peer support, maladaptive coping, over-identification, ongoing mental health support, physical health, pre-planning
Brister, 2010	police retirees n=29 grey literature: dissertation	maladaptive coping, over-identification
Bullock, Fielding, et al., 2020	police retirees n=460 mixed methods	abandonment, adjusting to civilian culture, bridge employment, financial security, leisure interests, mental health, over-identification, pre-planning

Continued... Author Index of Samples and Themes

Authors	Sample/Methodology	Sub-Themes
Bullock, Garland, et al., 2020	police retirees n=30 mixed methods	abandonment, exit recognition, financial security, gradual transition, loss of peer support, over-identification, pre-planning, stigma
Cameron & Griffiths, 2017	police retirees n=9 qualitative	abandonment, bridge employment, financial security, leisure interests, loss of peer support, mental health, over-identification, pre-planning
Carney et al., 2021	police retirees n=20 qualitative	bridge employment, family wellbeing, financial security, leisure interests, loss of peer support, over-identification, social support, work-family conflict
Charman & Tyson, 2023	police retirees n=27 qualitative	abandonment, adjusting to civilian culture, loss of peer support, mental health, over-identification, work-family conflict
Conn, 2015	preretirement n=13; police n=7; firefighters n=3; other emergency n=3 qualitative	adjusting to civilian culture, financial security, leisure interests, loss of peer support, over-identification, ongoing mental health support, pre-planning, social support,
Craft, 2019	police retirees n=10 grey literature: dissertation	adjusting to civilian culture, bridge employment, loss of peer support, maladaptive coping, over-identification, physical health, pre-planning, social support, stigma, trauma exposure, work-family conflict
Dopelt et al., 2019	preretirement n=333; retirees n=200; interviews (retirees) n=15 mixed methods	abandonment, mental health, over-identification, physical health, trauma exposure, work-family conflict
Easterbrook et al., 2022	focus groups (retirees/preretirement) paramedics n=9; police n=19; firefighters n=6; military n=10; correctional officers n=10; other n=7 qualitative	abandonment, adjusting to civilian culture, loss of peer support, over-identification, trauma exposure
Forcese & Cooper, 1985	police preretirement phone interviews n=183; mailed questionnaires n=117 mixed methods	bridge employment, financial security, leisure interests, pre-planning, stigma
Harvey et al., 2016	firefighters n=488; firefighter retirees n=265 quantitative	maladaptive coping, mental health, over-identification, ongoing mental health support, screening, trauma exposure
Hill et al., 2015	police retirees n=211 quantitative	bridge employment
Hudson, 2017	firefighter retirees grey literature	continuing connections, loss of peer support, maladaptive coping, mental health, transition programs, work-family conflict

Continued... Author Index of Samples and Themes

Authors	Sample/Methodology	Sub-Themes
Jones, 2022	police retirees n=19 grey literature: dissertation	adjusting to civilian culture, bridge employment, career satisfaction, exit recognition, family wellbeing, financial security, gradual transition, leisure interests, loss of peer support, maladaptive coping, over-identification, pre-planning, resilience training
Kelsey, 2022	police retirees n=10 grey literature: dissertation	bridge employment, family wellbeing, loss of peer support, maladaptive coping, mental health, over-identification, pre-planning, screening, stigma
Kragt, 2019	firefighter retirees n=8 firefighter preretirement n=32 mixed methods	bridge employment, career satisfaction, family wellbeing, financial security, gradual transition, leisure interests, loss of peer support, over-identification, physical health, pre-planning, work-family conflict
Lawn et al., 2020	paramedics, ambulance, volunteers, call-takers review - 39 articles	abandonment, over-identification, ongoing mental health support, screening, stigma, trauma exposure
Olofsson, 2013	firefighter retirees n=10 qualitative	continuing connections, family wellbeing, over-identification, social support, work-family conflict
Ozee, 2001	police retirees n=140 grey literature: dissertation	bridge employment, family wellbeing, loss of peer support, mental health, over-identification
Parnaby & Broll, 2021	police retirees n=932 quantitative	career satisfaction, family wellbeing, financial security, over-identification, trauma exposure
Parnaby & Weston, 2020a	police retirees n=45 qualitative	over-identification, occupational symbols
Parnaby & Weston, 2020b	police retirees n=45 qualitative	exit recognition, over-identification
Patterson et al., 2001	police retirees n=108 police retiree interviews n=20 mixed methods	abandonment, family wellbeing, financial security, maladaptive coping, mental health, over-identification, ongoing threats, pre-planning, screening, trauma exposure
Pepper et al., 2022	firefighter retirees n=315 quantitative	financial security, loss of peer support, maladaptive coping, mental health, over-identification, physical health, resilience training, trauma exposure
Pignataro, 2013	firefighters grey literature	mental health, stigma, transition programs, trauma exposure
Pole et al., 2006	police retirees n=21quantitative	abandonment, continuing connections, family wellbeing, loss of peer support, mental health, screening, trauma exposure, work-family conflict

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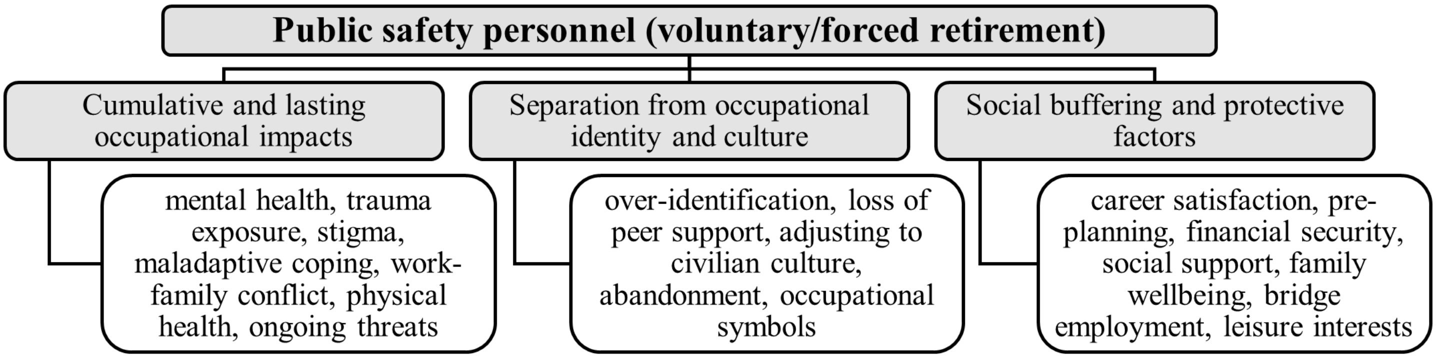
Continued... Author Index of Samples and Themes

Authors	Sample/Methodology	Sub-Themes
Robicheau, 2004	police retirees grey literature: dissertation	bridge employment, exit recognition, financial security, over-identification, pre-planning, stigma
Ruiz & Morrow, 2005	police retirees review	adjusting to civilian culture, career satisfaction, financial security, loss of peer support, maladaptive coping, mental health, over-identification, occupational symbols, ongoing mental health support, screening, stigma, work-family conflict
Singh et al., 2022	police retirees n=30; police preretirement n=30 quantitative	over-identification, mental health
Smith et al., 2021	first responders review - 56 articles	adjusting to civilian culture, mental health, occupational symbols, ongoing mental health support, resilience training, stigma, transition programs, trauma exposure
Sunderland, 2014	police retirees grey literature: dissertation	abandonment, adjusting to civilian culture, continuing connection, financial security, loss of peer support, over-identification, occupational symbols, stigma, transition programs
Testoff et al., 2022	firefighter retirees n=446; firefighter preretirement n=54 quantitative	mental health, trauma exposure
Tufano, 2018	police retirees n=204 grey literature: dissertation	adjusting to civilian culture, over-identification
Tuohy et al., 2005	police retirees n=1,334 quantitative	bridge employment, mental health, screening
Umukoro & Adejuwon, 2017	police retirees n=230 quantitative	career satisfaction, family wellbeing, financial security, loss of peer support, over-identification, physical health, pre-planning, social support
Violanti et al., 2011	police preretirement n=2,075 police retirees n=1,153 quantitative	mental health

Figure 3

Themes and Sub-themes



Cumulative and Lasting Occupational Impacts

Trauma Exposure

PSP retirees have had significantly more lifetime experiences of trauma and report more PTSD symptoms than the general population (Black et al., 2013; Bracken-Scally et al., 2014; Craft, 2019; Lawn et al., 2020; Pepper et al., 2022; Smith et al., 2021) underscoring the cumulative and long-term consequences of trauma exposure to health and wellbeing. Retirees in Bracken-Scally et al. (2014) experienced symptoms from traumatic events that had occurred an average of 19 years prior and PSP often exhibited symptoms of PTSD through vivid recall (Bracken-Scally & McGilloway, 2016; Pignataro, 2013), nightmares, and hypervigilance (Pepper et al., 2022). Police retirees in Craft (2019) responded to sounds and smells, "like popping sounds (gunfire), and shuffling or the sound of fast movement (fighting and attackers) … the smell of blood, or dead bodies … it just doesn't go away" (p. 93). PSP have higher rates of diagnosed PTSD compared to the general public (Bracken-Scally et al., 2014; Pepper et al., 2022), with retirees, in some cases, reporting higher rates than those currently serving (Harvey et al., 2016) corresponding to cumulative trauma exposure over the course of a career (Bracken-Scally et al., 2014; Harvey et al., 2016). Retirees with PTSD often retired early (Black et al., 2013; Patterson et al., 2001), struggled with the retirement transition, and reported more stress, anxiety, depression (Black et al., 2013; Harvey et al., 2016; Pepper et al., 2022; Smith et al., 2021), and sleep difficulties (Testoff et al., 2022).

Many PSP retirees reported experiencing symptoms of PTSD, depression, anxiety, and stress, with medical retirees reporting higher levels of these symptoms than those who retired voluntarily (Black et al., 2013; Blackmon, 2014). Forced and unplanned exits presented additional challenges including poorer mental health, as well as conflicts with spouses/partners (Cameron & Griffiths, 2017). Smith et al. (2021) noted that "[t]he unpredictable nature, cumulative stress, and fast-paced tempo associated with front-line first response can result in an inability to appropriately debrief, and therefore process, work experiences" (p. 475). Neglecting cumulative stress related to both critical incidents and nontraumatic routine events at times resulted in early retirement (Alvarez et al., 2007; Charman & Tyson, 2023; Dopelt et al., 2019; Kelsey, 2022; Ozee, 2001; Pole et al., 2006) and reportedly affected health and wellbeing in retirement (Lawn et al., 2020; Smith et al., 2021).

Suicide. Higher rates of suicide have been reported among firefighter (Pepper et al., 2022) and police retirees (Ruiz & Morrow, 2005) compared to the general population in the United States. Following several suicides among firefighters in the United States, Pignataro (2013) noted that it is not uncommon for firefighters to experience depression or anxiety after a traumatic event and the recall and the associated feelings years after these events can have an impact on retirees. Suicidal ideation for firefighter retirees is sometimes associated with painful memories resulting from trauma exposure. As Hudson (2017) noted "the quietness of the new schedule allows these memories to resurface … some refer to this season of remembering as "dancing with ghosts" (p. 47). Poor health, and the loss of peer support are additional risk factors for suicide associated with the transition (Hudson, 2017).

Stigma

PSP retirees, not anticipating the challenges associated with the transition, do not always seek help when they experience difficulties due to skepticism and stigma associated with mental health programs (Alvarez et al., 2007). Antonellis (2007) noted that job-related psychological injuries are often misunderstood, and medical retirees can be perceived or perceive themselves through a self-stigmatizing lens as "damaged goods" (Antonellis, 2007, p. 92). In one study, those who retired early with invisible psychological injuries had more difficulty transitioning, felt isolated from coworkers, and not supported by the organization compared to those who retired with physical injuries (Bullock, Garland, et al., 2020). When stigma deters or delays help seeking within public safety organizations, it diminishes opportunities for early interventions, putting retirees at risk of cumulative long-term consequences (Lawn et al., 2020).

Maladaptive Coping

One quarter of firefighter retirees surveyed in the United States reported alcohol or substance abuse disorders (Pepper et al., 2022) and smoking and alcohol dependency were identified as significant risks for police retirees, related to poor overall health (Ruiz & Morrow, 2005). Patterson et al. (2001) found that medical retirees smoked and were dependent on alcohol more than voluntary retirees. Maladaptive coping strategies such as alcohol misuse that persist into retirement, increase the risk of age-related health issues (e.g., cancer, diabetes).

Maladaptive responses prompted by occupational culture and heightened job demands contributed to poor health outcomes for PSP retirees (Blackmon, 2014; Brandl & Smith, 2013; Brister, 2010; Craft, 2019; Harvey et al., 2016; Hudson, 2017; Jones, 2022; Kelsey, 2022; Patterson et al., 2001; Ruiz & Morrow, 2005) and higher morbidity and premature death within the police sector in particular (Brandl & Smith, 2013). As Ruiz and Morrow (2005) note, police departments can be insular and "as a result, they [officers] lose the capacity to enable constructive coping skills when faced with stressful situations" (p. 1162). The prevalence of alcohol misuse is associated with trauma exposure, with higher rates found among firefighter retirees compared to those in active service and corresponding to an increase in the number of critical incidents reported (Harvey et al., 2016). Harvey et al. (2016) concluded that the loss of occupational identity and peer support combined with an occupational culture that endorses maladaptive coping cumulatively contributed to a prevalence of mental disorders among firefighter retirees.

Physical Health

PSP retirees reported lower satisfaction with physical health than non-emergency workers (Bracken-Scally et al., 2014). Studies have shown that police retirees die at a younger age compared to other public service retirees (Brandl & Smith, 2013) and many retirees experience health issues, including poor physical health, that develop post-transition (Black et al., 2013). Black et al. (2013) proposed that this prevalence is related to chronic demands during active service that postpone treatment and foster a pattern of neglect. The physical demands of the job were a key factor in early retirement for Israeli paramedics (Dopelt et al., 2019) and police in England and Wales (Bullock, Fielding, et al., 2020). The lingering effects of duty-related injuries such as arthritis and depression can limit retirees' activities of daily living, leisure activities, and overall wellbeing (Bullock, Fielding, et al., 2020; Craft, 2019; Umukoro & Adejuwon, 2017). Higher physical pain was also associated with more psychological dysfunction (Pepper et al., 2022). Sleep-related issues, including insomnia, impaired memory, and emotional regulation, were also found to be common among PSP retirees, particularly those with PTSD (Cameron & Griffiths, 2017; Pepper et al., 2022; Testoff et al., 2022).

Work-Family Conflict

Retirees reported that their public safety career was often incompatible with family life and work demands were given priority at the expense of family relationships (Bracken-Scally & McGilloway, 2016; Carney et al., 2021; Charman & Tyson, 2023; Dopelt et al., 2019; Olofsson, 2013) which, in some cases, precipitated early retirement (Charman & Tyson, 2023; Dopelt et al., 2019). For some retirees, the transition allowed more family time and the opportunity to reconnect (Bracken-Scally & McGilloway, 2016; Carney et al., 2021; Craft, 2019; Hudson, 2017; Jones, 2022; Kelsey, 2022; Kragt, 2019; Ozee, 2001). For others, the prioritization of careers had consequences in retirement such as divorce (Carney et al., 2021; Craft, 2019) which was more common among retirees with PTSD (Black et al., 2013) and was linked to suicidal ideation (Hudson, 2017; Ruiz & Morrow, 2005).

Separation from Occupational Identity and Culture

PSP retirees have described unique aspects of public safety work including combined physical demands, trauma exposure, stressful and hazardous conditions, unpredictability, and shiftwork that made their work distinct from other occupations (Bracken-Scally & McGilloway, 2016). The transition to retirement is described as a "disruptive process" when everything comes to an "abrupt halt" (Bullock, Garland, et al., 2020, p. 8). As one retiree said: "It was like going from one extreme to the other. One day you're going out, you don't know what's going to happen, you could be shot … anything could happen. The next day it's nothing, there's absolutely nothing" (p. 8).

The critical function and all-consuming persistent nature of public safety professions has the effect of diminishing other identities by thwarting other interests and opportunities to socialize outside the organization (Conn, 2015; Umukoro & Adejuwon, 2017). The intensity of the work role reinforces the work identity, making it difficult for retirees to develop other identities (e.g., new job, family, other interests); consequently, the transition requires conscious effort and time (Parnaby & Weston, 2020b).

Due to the persistence of the work identity, even those who plan their retirement experience some challenges separating from the work culture and relinquishing their work roles. Retirees in the studies experienced role residual, which is defined as continued identification with a former role (Ebaugh, 1988). As one interviewee explained, "I find myself correcting people at my [new] job, and I have to take a step back and say I'm not a cop anymore" (Jones, 2022, p. 68). Parnaby and Weston (2020a) reported that some police retirees recognized the incongruity between their past and present roles and made concerted efforts to change their behaviours. PSP retirees are particularly susceptible to role residual during the transition because, in their new non-work role, they can be exposed to the same contexts in their communities that they responded to in their work role (e.g., accidents, medical emergencies) erroneously eliciting an activation of their former work identity. Abandoning the role as a "helping professional", a valued aspect of the job, required significant adjustments (Bracken-Scally & McGilloway, 2016; Kelsey, 2022). As Parnaby and Weston (2020a) noted, "emotions, thoughts, and behaviours while on the job do not vanish when the retirement threshold is crossed" (p. 239). Jones (2022) noted, however, that role residual generally decreased over time as retirees acclimated to different roles.

Loss of authority and respect from coworkers and the public was identified and, in some cases, linked to a lack of purpose (Bracken-Scally et al., 2016; Brandl & Smith, 2013; Bullock, Fielding, et al., 2020; Cameron & Griffiths, 2017; Jones, 2022; Parnaby & Broll, 2021; Ruiz & Morrow, 2005; Sunderland, 2014; Tufano, 2018). Senior ranking police retirees forced to retire found that being stripped of their authority and an inability to influence outcomes stood in stark contrast to their prior role (Cameron & Griffiths, 2017). A retiree in Cameron and Griffiths (2017) described his experience in this way: "You are a person of influence, a person that can really contribute because things you say do, authorise, make a difference to someone somewhere, either a member of the organization or the public. … Now I am just a bloke sitting at home" (p. 57).

Over-Identification

The loss of identity for PSP retirees was noted in much of the literature with issues arising when the work identity had been prioritized over personal relationships and interests due to the intensity of roles and responsibilities. Charman and Tyson (2023) cite the incompatibility of work and non-work identities (e.g., police versus parent) as a reason for early retirement (i.e., resignations). For retirees who have maintained an organizational commitment throughout their careers and sidelined non-work identities, it can be more difficult to transition (Charman & Tyson, 2023; Conn et al., 2015).

Firefighters who had a strong commitment to the organization described being emotionally unprepared for retirement despite gradual and planned transitions (Kragt, 2019). Conn et al. (2015) interviewed PSP who were eligible to retire but reluctant to do so and found that "many participants feared a possible self without meaning" (p. 52). An officer in Conn et al. (2015) commented, "you lose a little bit of your identity I suppose … you're not a police officer … people aren't really interested in how many times you had to cut your lawn last month" (p. 52). The loss of a "sense of mission", the capacity to help, and collegiality among frontline workers, elements absent in many other professions, were expressed as regrets by Israeli paramedics who had resigned (Dopelt et al., 2019).

Retirees described their work as a vocation and were committed to the goals of the professions and roles as "helping professionals" and valued their relationships with coworkers (Bracken-Scally & McGilloway, 2016; Bullock, Garland, et al., 2020; Charman & Tyson, 2023; Craft, 2019; Jones, 2022). These jobs were often referenced as "a way of life" (Bracken-Scally & McGilloway, 2016; Brandl & Smith, 2013; Bullock, Garland, et al., 2020) and retirement meant not being part of the team and losing the ability to carry out the mission of the organization.

Loss of Peer Support

Solidarity and bonding among PSP have been attributed to hazardous working conditions requiring a cohesive workforce which promotes collective pride, loyalty, and commitment (Brandl & Smith, 2013; Bullock, Garland, et al., 2020; Charman & Tyson, 2023). There are repeated references to the workforce as a "family" (Brandl & Smith, 2013; Bullock, Garland, et al., 2020; Charman & Tyson, 2023) or "brotherhood" (Blackmon, 2014; Brandl & Smith, 2013; Conn et al., 2015; Craft, 2019; Easterbrook et al., 2022; Hudson, 2017; Ozee, 2001; Pepper et al., 2022; Ruiz & Morrow, 2005); however, as Bullock, Garland et al. (2020) found, these relationships are confined to the workplace, "… leav[ing] former officers without the support networks they had previously benefited from and so potentially vulnerable at this new stage of their lives" (p. 19). The loss of camaraderie in retirement can be profound for those who have not extended their network of social support beyond the workplace (Conn et al., 2015; Craft, 2019).

Adjusting to Civilian Culture

Worker camaraderie can extend to an *us versus them* discourse to entrench work roles and status and maintain solidarity among the ingroup (Charman & Tyson, 2023). This can help organizations build morale and compliance; however, this can also have a negative impact on retirees who find themselves no longer part of the ingroup (Conn et al., 2015). A culture of us versus them makes it difficult for PSP retirees to transition into civilian life; a loss of belonging and support and feelings of isolation and abandonment were reported by many retirees (Carney et al., 2021; Craft, 2019; Pole et al., 2006; Sunderland, 2014; Umukoro & Adejuwon, 2017). Becoming an "outsider" was reflected on as a loss of mattering or a *relevance deficit* (Cameron & Griffiths, 2017; Carney et al., 2021; Craft, 2019) which was described by some as a crisis, though short-lived, requiring a significant adjustment (Bracken-Scally & McGilloway, 2016; Carney et al., 2021).

Abandonment

Retirement "celebrations" vary from small gatherings to banquets for those with higher ranks (Parnaby & Weston, 2020b), with some retirees reporting no rituals other than a trail of paperwork (Jones, 2022; Robicheau, 2004). Exit interviews, when they were provided, were described as "brief and impersonal" (Robicheau, 2004, p.4) with some feeling slighted by a lack of recognition after many years of service (Bullock, Garland, et al., 2020; Jones, 2022). The routine procedures in place to collect the property angered some retirees and was met with resistance (Parnaby & Weston, 2020a; Smith et al., 2021). The process of returning property designated for active service such as a badge or radio, items that serve to distinguish PSP from the public, had an impact symbolizing the loss of authority and professional identity (Blackmon, 2014; Parnaby & Weston, 2020a; Ruiz & Morrow, 2005; Sunderland, 2014).

Medical retirees commented on a sense of betrayal from the organization, "…they squeeze as much out of you as they can, then when you break, they just throw you away" (Easterbrooks et al., 2013, p. 256). Retirees coping with physical injuries felt abandoned due to a lack of support for the sudden transition (Bullock, Fielding, et al., 2020). A "perceived breach of psychological contract" was an overarching theme in Cameron and Griffiths (2017) for senior officers forced to retire in the United Kingdom. Transitioning into retirement unexpectedly poses obvious challenges for financial stability and family welfare; however, it was abandonment despite years of service involving personal sacrifices, dedication, and risks that was linked to retirees' distress (Cameron & Griffiths, 2017).

Buffers For Positive Transitions And Outcomes

Career Satisfaction

Perceptions of career success and job satisfaction were linked to a positive retirement adjustment (Bracken-Scally & McGilloway, 2016; Kragt, 2019; Parnaby & Broll, 2021; Umukoro & Adejuwon, 2017). Despite the dangers and demands of public safety professions, retirees reported that they valued their careers and did not regret their choices (Black et al., 2013; Jones, 2022). Longer service and voluntary retirement (i.e., age-related normative transitions) were each linked to career satisfaction, and more years of service correlated with better psychological functioning in retirement (Pepper et al., 2022) and lower suicide rates (Violanti et al., 2011).

Pre-planning

Retirees who had plans in place and focused on the opportunity to enter a new stage in their lives either by changing careers or developing other interests experienced an easier transition (Bullock, Fielding, et al., 2020; Conn et al., 2015; Hudson, 2017; Kelsey, 2022). For those who retired voluntarily, planning was identified as a key factor in supporting the transition and supported health and wellbeing (Blackmon, 2014; Bracken-Scally & McGilloway, 2016; Bracken-Scally et al., 2016; Brandl & Smith, 2013; Jones, 2022; Kelsey, 2022; Kragt, 2019; Robicheau, 2004). Pre-planning allowed retirees to anticipate change, develop realistic expectations, establish meaningful goals, and have agency in the process and outcomes (Bracken-Scally et al., 2016; Craft, 2019; Kelsey, 2022; Patterson et al., 2001; Robicheau, 2004; Umukoro & Adejuwon, 2017).

Financial Security

Financial security was a significant factor in subjective wellbeing (Bracken-Scally & McGilloway, 2016; Carney et al., 2021; Parnaby & Broll, 2021; Umukoro & Adejuwon, 2017). Both financial planning and adjustments are needed as workers exit the security of paid employment (Eagers, 2019; Hansson et al., 2019). Financial issues were prominent in the research as a source of worry during the transition for both planned and unplanned exits, particularly when there were health issues and dependents (Bracken-Scally et al., 2016; Carney et al., 2021; Kragt, 2019; Ruiz & Morrow, 2005). Medical retirees reported financial difficulties associated with fewer years of service and reduced pensions, which contributed to poorer psychological wellbeing (Bullock, Fielding, et al., 2020; Cameron & Griffiths, 2017; Patterson et al., 2001; Pepper et al., 2022).

Social Support

Peers. Many retirees reported missing coworkers and had little if any contact with them in retirement (Alvarez et al., 2007; Bracken-Scally et al., 2016; Carney et al., 2021; Craft, 2019; Hudson, 2017; Jones, 2022; Kelsey, 2022; Kragt, 2019; Pole et al., 2006). Higher ranking officers were more apt to maintain relationships with peers than lower ranks, which provided support during the transition (Kragt, 2019; Ozee, 2001). Establishing friendship networks through community involvement helped mitigate the absence of coworkers and a *relevance deficit* experienced by some retirees during the transition (Carney et al., 2021).

Family. Family wellbeing was identified as an important resilience factor linked to retirees' subjective wellbeing (Carney et al., 2021; Parnaby & Broll, 2021). Opportunities to spend time with adult children and grandchildren were specifically noted and the absence of occupational stress helped retirees reconnect with families (Bracken-Scally & McGilloway, 2016; Carney et al., 2021; Kelsey, 2022; Umukoro & Adejuwon, 2017). Patterson et al. (2021) found that retirees who reported more family cohesion with structure and predictability reported less distress during the transition. Retirees in Carney et al. (2021) stated that relationships with spouses had improved after a period of adjustment and marital stability was related to positive outcomes for retirees (Bracken-Scally & McGilloway, 2016; Ozee, 2001; Pole et al., 2006).

Bridge Employment

Community involvement whether through volunteer or paid work served as a validation of retirees' abilities (Cameron & Griffiths, 2017) and extended social support which helped mitigate the *relevance deficit* and loss of camaraderie (Carney et al., 2021). PSP retirees who engaged in paid work or voluntary work rated higher in quality-of-life measures (Bracken-Scally et al., 2014) and reported a more positive transition experience (Carney et al., 2021; Jones, 2022; Ozee, 2001). Many retirees acquired bridge employment, paid work that *bridges* the gap between leaving careers and exiting the labour force altogether (Craft, 2019; Hill et al., 2015; Kelsey, 2022). Bridge employment was viewed by retirees as a positive aspect of retirement acclimation (Kelsey, 2022) and linked to lower levels of anxiety and depression (Tuohy et al., 2005). Securing paid employment instilled confidence (Cameron & Griffiths, 2017) and a sense of self-efficacy and control (Blackmon, 2014; Robicheau, 2004). Bridge employment was described as a way to stay active and connect with people and also a necessity for those who retired before they were eligible for their full pension (Jones, 2022). Hill et al. (2015) noted that opportunities for bridge employment encourages workers to retire voluntarily versus the organization invoking mandatory retirement and facilitates a gradual labour force exit. There are, however, challenges securing bridge employment due to limitations in transferable skills (Brandl & Smith, 2013; Cameron & Griffiths, 2017; Forcese & Cooper, 1985; Kelsey, 2022; Kragt, 2019) and health issues associated with medical retirement (Bullock, Fielding, et al., 2020).

Leisure Interests

For those who leave the professions voluntarily and do not pursue bridge employment, having leisure interests has contributed positively to transition and retirement outcomes (Bracken-Scally & McGilloway, 2016; Cameron & Griffiths, 2017; Carney et al., 2021; Forcese & Cooper, 1985; Jones, 2022; Kragt, 2019; Umukoro & Adejuwon, 2017). Retirees reported enjoying the freedom and time to participate in activities (hobbies, sports) and socialize (Bracken-Scally & McGilloway, 2016). Engaging in leisure activities and exploring other interests helped some retirees cope with some of the challenges associated with the transition (Jones, 2022). Having pre-retirement leisure interests supported the transition (Kragt, 2019); however, involvement in leisure activities was dependent on health status and not always an option for retirees with chronic illnesses or injuries (Umukoro & Adejuwon, 2017).

Implications

Transition Programs

The transition from public safety occupations has been identified as a significant adjustment (Jones, 2022; Kelsey, 2022) and retirees have emphasized the importance of pre-planning early in one's career (Blackmon, 2014; Jones, 2022; Patterson et al., 2001). The need for planning is underscored by preretirees who expressed discomfort with retirement and felt psychologically unprepared (Conn et al., 2015). Early planning is particularly important for unexpected exits with medical retirees reporting they were unprepared and dissatisfied with the support received (Bullock, Fielding, et al., 2020). Retirees who experience job-related injury or illness need additional support due to the sudden transition and often long and painful recovery (Pignataro, 2013). A general lack of organizational support for the transition was noted by researchers (Lawn et al., 2020; Robicheau, 2004; Smith et al., 2021).

Due to the physical and psychological tolls, hazards, and workloads associated with these essential roles, it is imperative that organizations prioritize the physical and mental wellbeing of PSP throughout careers and into retirement. Ongoing education about mental health, tailored to the professions, as well as policies and procedures to facilitate retirement transitions are needed (Bracken-Scally & McGilloway, 2016; Lawn et al., 2020). A pre-retirement curriculum should include recognition of unique job aspects, strategies for physical and emotional wellbeing, career planning, and investment planning (Robicheau, 2004; Sunderland, 2014). Ongoing resilience training sensitive to the occupational culture, critical incident debriefing, and pre-retirement seminars regarding finances, loss of identity, and separation from police culture are recommended (Jones, 2022; Pepper et al., 2022; Smith et al., 2021). Due to the unique culture associated with these professions, peer support has also been highlighted. Peer supporters are often considered approachable and trusted due to shared experience, can help destigmatize mental health, and serve as a conduit to mental health professionals (Robicheau, 2004; Sunderland, 2014).

There is considerable evidence that ongoing awareness and information is needed to support the psychosocial needs of PSP due to the intensity of the role from entry to exit but little research on how that will take shape (Lawn et al., 2020). Support is needed to enhance a sense of control and self-efficacy by normalizing the process and fostering realistic expectations (Parnaby & Broll, 2021; Robicheau, 2004). Retirees have reported that organizations focus too much on financial planning and neglect the psychological effects concomitant with the transition (Bullock, Garland, et al., 2020; Craft, 2019). Different types of support are presumably indicated for those who retire early and those who retire after thirty years of service. Some will need emotional support to cope with psychological aspects of the separation and change while practical help preparing for new careers might be a priority for others. Robicheau (2004) identified challenges to the implementation of transition programs including funding, resistance to change, stigma, clinicians rejected because they lack public safety sector cultural literacy, and peers rejected because they do not have the professional status of clinicians.

Screening

Due to work-related risk factors (e.g., trauma exposure), health screening is indicated for PSP focused on early detection and intervention to promote mental and physical wellbeing (Harvey et al., 2016). Screening throughout a career can promote health awareness and lifestyle changes for better outcomes in retirement (Bracken-Scally et al., 2016). It is recommended that screening begin early in careers to assess job-related psychosocial risk factors and foster resiliency (Bracken-Scally et al., 2014). Ongoing trauma screening (Harvey et al., 2016; Lawn et al., 2020; Patterson et al., 2001; Pole et al., 2006) and screening for anxiety and depression for susceptible medical retirees (Black et al., 2013; Tuohy et al., 2005) are needed to facilitate focused and timely interventions. Additionally, extending screening for depression and PTSD to include alcohol misuse has been recommended (Harvey et al., 2016). Ongoing screening is preventative and facilitates early treatment which benefits workers, organizations, and potentially leads to better outcomes for retirees (Ruiz & Morrow, 2005).

Gradual Transition

Retirees recommended "gearing down beforehand vs. falling off the edge" (Bullock, Garland, et al., 2020, p. 13) signalling that a gradual exit with reduced hours and workload is preferable to an abrupt exit (Bracken-Scally et al., 2016; Kragt, 2019). A structured and gradual transition to retirement has been identified as beneficial as a general practice as it allows workplaces to retain knowledge and expertise and simultaneously allows employees time to adjust to a new stage in their lives (Eagers et al., 2018). Historically, this has not always been an option in public safety professions (Bracken-Scally et al., 2016); however, more recently, firefighters in Australia who were given a reduced workload preretirement reported that it eased the transition (Kragt, 2019).

Continuing Connections

It is recommended that organizations establish a retirement community and a network of peers for both workers and families to ease the transition into retirement. Organizational support and recognition given to PSP exiting the profession not only impacts retirees and their families but also affects morale for those in active service (Antonellis, 2007). Continued connections have been facilitated through retired members associations affiliated with public safety organizations that offer peer support and extend social opportunities (Bracken-Scally et al., 2016; Pole et al., 2006). For example, in Lulea, Sweden, firefighter retirees can join a community of retirees who meet weekly in the basement of a firehall, encouraging ongoing camaraderie and maintaining a connection to both the organization and the physical location (Olofsson, 2013). As Pignataro (2013) noted: "We need to get involved with those who are about to retire instead of just giving them an ax or a party" (p.4).

Encouraging Other Interests

Retirement rituals are often focused on the end of a career rather than the transition to a new phase of life (Bullock, Fielding, et al., 2020; Charman & Tyson, 2023; Robicheau, 2004). Peer support and role models who encourage interests and hobbies outside of work have been identified as an effective means to address the psychological aspects of retirement (Bullock, Fielding, et al., 2020; Conn et al., 2015; Kragt, 2019). Assistance is also needed to enhance knowledge, skills, and abilities to support successful vocational transitions since many PSP retirees engage in bridge employment (Bullock, Fielding, et al., 2020; Hill et al., 2015). The transition into retirement requires attention to the psychological changes, financial implications, future employment, and the development of outside interests. Conn et al. (2015) suggested that policies for compulsory vacation leave and limited overtime are organizational changes that can help workers enrich their personal lives.

Gaps and Limitations

This scoping review was exploratory due to the lack of a coherent body of research on transitions from public safety occupations; as a result, we decided to include grey literature to best capture current scholarly discourse. Discussions with colleagues and reference librarians supported keyword searches, although it is possible that different keywords would return different results. The authors are confident, however, that the search strategy provided us with a body of literature that is strongly representative of the research question posed, if not exhaustive.

Many public safety sectors are absent in the literature or understudied. It was found that the police sector was overrepresented, followed by firefighters, with only a few studies sampling a mix of sectors. There was also lack of ethnic diversity with participants predominantly identified as "white". Women were also underrepresented; however, it is expected that increasing numbers of women in active service will facilitate comparative studies of retirees along gender lines in the future.

A self-selection bias (Parnaby & Broll, 2021) and social-desirability bias (Forcese & Cooper, 1985) were potentially responsible for an overrepresentation of healthy retirees who reported fewer difficulties with the transition. In contrast, Harvey et al. (2016) noted that their research may have had more relevance for those suffering and resulted in an overrepresentation of retirees with health issues.

Researchers identified the need for longitudinal research that looks at preretirement, transition, and post-transition to assess quality of life factors over time (Bracken-Scally et al., 2014). Tuohy et al. (2005) cautioned that cross-sectional studies can indicate cohort effects rather than developmental changes and studies reliant on a retrospective self-reporting are often considered less dependable than cross-sectional accounts (Bernard et al., 1984).

Regarding subject matter, much more research is needed on the psychosocial impacts of separation from workplace culture, work and non-work identities, and sleep patterns (shiftwork) and disruptions (PTSD symptoms).

There was consensus in the peer-reviewed articles that a coherent body of literature on the transition from public safety occupations does not exist; rather, information has been gathered from an array of multiple disciplines. An interdisciplinary rather than multidisciplinary approach is needed to address the complexity of the retirement transition to inform practice for pre-retirement PSP and transitioning retirees.

Conclusions

Research is limited on the experiences of PSP who leave their occupations. There is a need for planning and support for the transition from public safety occupations. Having a plan, a network of family and friends, bridge employment and/or hobbies and interests, and financial security were resilience-enhancing factors associated with a positive retirement transition.

Financial planning tends to be the focus of pre-planning when it exists. Resources to address issues associated with identity, social support, and the cumulative and long-term effects of trauma exposure are often lacking and critical for the health and wellbeing of workers leaving public safety occupations.

Workers who take ongoing risks throughout their careers for public safety deserve more than an axe and a handshake. An appreciation of the all-consuming nature of public safety occupations and an understanding of the experiences of workers during the retirement transition is needed to develop acceptable transition programs, shape retirement processes and policies, and provide ongoing mental health support to both PSP in active service and retirees.

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Emotional Intelligence and Career Wellbeing

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Abstract

Emotional intelligence (EI) refers to the human emotional aptitude that represents an inherent ability for learning or understanding in human interaction and interpersonal relationships. Research suggests that social and emotional competency, as represented by EI, are significant predictors of individuals' success in their lives and careers. To this end, this article addresses the role of EI in the context of vocational and career psychology. Guided and informed by major career theories, it will propose counselling interventions that may help individuals with low EI enhance their capacity to cope with their vocational life more effectively.

Keywords: emotional intelligence, career wellbeing, career theories, counselling interventions

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Emotional intelligence (EI) refers to the aptitude to perceive, identify, assess, and manage others' emotions and our own (Mayer et al., 2004; Serrat, 2017). It is the aptitude to understand oneself and others (Serat, 2017). EI is a more recent concept that has emerged within the study of psychology since the mid-1990s (Serat, 2017). It has also sparked much interest in other mental health disciplines, the broad social sciences, and the humanities. This increasing attention to EI is likely due to its influential role in influencing individuals' effective functioning in many situations.

Research on EI indicates a direct and clear correlation between individuals' level of EI and their capacity to achieve (Noor & Hanafi, 2016). As represented by EI, social and emotional competency are important predictors of individuals' success. Because people's work-life and career development are always essential parts of their life, EI can significantly affect the vocational aspects of their lives, enhancing or hindering their career well-being. The present article addresses the role of EI in the context of vocational and career psychology, focusing primarily on how to utilize the concept of EI in helping persons with a low level of EI improve their emotional competency, aiming to facilitate their vocational wellbeing. With this goal in mind, the article will first provide a conceptual overview of EI, illustrating some of the significant characteristics of EI and their negative impact on individuals with low EI in work-life and career experiences. Guided and informed by major career theories, it will propose some considerations that may help individuals with low EI enhance their capacity to cope with their vocational life more effectively, along with implications for career development practice and counselling interventions.

Words such as "career," "vocational life," "work," and "work-life" are used interchangeably in the discussion that follows. They all refer to individuals' vocational aspects of life in a more loosely defined and inclusive manner. Similarly, "individuals with low EI" and "low EI individuals" are also used interchangeably. They all mean persons with a low degree or level of emotional intelligence, i.e., individuals who possess low emotional competence and skills in their daily life functioning that embody various aspects of their career development experiences and vocational lives.

What is Emotional Intelligence?

A relatively new concept in psychology, emotional intelligence (EI) generally refers to the ability to monitor, discriminate, and manage one's own and other's feelings and emotions (Drigas & Papoutsi, 2018). EI is a competence that includes skills such as self-awareness, cooperation, and control of impulses that, in conjunction with psychological well-being, is predictive of strong interpersonal relationships (Agu & Nwankwo, 2019). EI represents one's overall capacity to reason about and regulate emotion (Drigas & Papoutsi, 2018). As a result, EI leads to better interpersonal problem-solving skills (Krishnakumar et al., 2019). Due to its clear interpersonal benefits, EI plays an essential role in fostering an individual's subjective well-being as it assists us in navigating life's social situations (Extremera et al., 2020; Sanchez-Alvarez et al., 2016).

How Does Emotional Intelligence Influence Vocational Wellbeing?

Individuals benefit from a high degree of EI; it equips them with emotional competence in dealing with various issues in their work life and they are less likely to engage in counterproductive work behaviours (Kundi & Badar, 2021; Makkar & Basu, 2019). Those with greater EI show restraint in using aggressive conflict resolution skills at work (Moeller & Kwantes, 2015). The positive correlation between EI and job satisfaction can be considered a product of these positive interpersonal benefits of EI in the workplace (Miao et al., 2017). However, individuals with low EI levels are vulnerable to workplace difficulties (Makkar & Basu, 2019). The state of low EI often hampers individuals in their communication with others in the workplace, negatively impacting their interpersonal relationships, which are of pivotal importance to the quality and success of their vocational well-being and workplace success (Makkar & Basu, 2019).

Four Branch Model of Emotional Intelligence

Mayer et al. (2004) proposed a model of EI based on four different "branches" of abilities. These four branches include one's ability to perceive, use, comprehend, and manage emotions (Mayer et al., 2004). According to Mayer et al., these four ability aspects appear to capture the essential characteristics of EI functioning. The branches are ordered in terms of integration; the first branch, perception of emotions, is the most easily included in one's basic psychological model. The fourth, the management of emotions, is the most difficult (Mayer et al., 2004). Using the four branches, the following describes the role of EI in one's vocational and career development in the world of work.

Branch 1: Perception of Emotions

The perception of emotions is considered the most basic function of EI. It refers to a person's ability to detect and decipher emotions in others' facial expressions, body language, and tone of voice. It also encompasses the basic capacity to identify one's emotions (Mayer et al., 2004). It is important to correctly interpret and comprehend the non-verbal emotional cues of others to avoid many disadvantages. Meanwhile, a lack of awareness and understanding of one's emotions causes similar, if not more, difficulties in interpersonal exchanges. As a result, low EI individuals often find themselves caught in conflict, misunderstanding, and confusion.

Constrained by low EI, these individuals› work lives can be negatively affected in various ways. They may need more support in their effort to seek employment. For example, low ability or inability to perceive even supposedly «trivial» emotional cues in a job interview may be regarded as a sign of incompetence in communication and thus jeopardizes one›s opportunity to compete with others whose other qualifications may not be as strong as the low EI applicant. Likewise, a low caliber to perceive emotions may limit workplace communication with coworkers and supervisors. Consequently, others might see a low EI worker as not being a cooperative and constructive team member. At best, this could pose unnecessary communication barriers between the low EI individual and others. At worst, this could lead to a damaged collegial relationship, low productivity level, and missed career advancement opportunities for the low EI individual.

Branch 2: Use of Emotions

A second issue for individuals with low EI is the inability to use emotions for optimal cognitive processing. According to Mayer et al. (2004), individuals with low EI have difficulties using emotions to facilitate thinking and problem-solving. Nevertheless, work requires that individuals utilize their emotions positively and productively. Therefore, emotions can be used effectively while approaching tasks and handling demands and challenges in the workplace. For instance, using both calmness and excitement in a balanced manner can be a requirement for a person to carry out a task, such as a professional presentation, at work. A calm mood helps the person concentrate better and be more meticulous and accurate, while being in an excited mood may help stimulate the individual to be engaged in the task with higher interest, working toward a more productive and creative end.

Individuals with low EI, however, have little or no sense of using their emotions to enhance their cognitive functioning in their work life. They have little self-efficacy or belief in accomplishing tasks involving emotions (Udayar et al., 2020). In the case of a job search, an individual with low EI may have a hard time thinking of and expressing a balanced mood while presenting and marketing oneself to the prospective employer. As a result, the low EI individual may be perceived by others as possessing little enthusiasm and initiative in the potential career opportunity. Such incidents may become repeated in similar contexts when individuals with low EI fail to demonstrate their basic emotional competence because they cannot harness their emotions at work. When this incompetence of using emotions optimally and effectively is recognized as a liability to the present or future job performance, one's vocational development and career success are adversely affected.

Branch 3: Comprehension of Emotions

The third aspect of persons with low EI is the inability to comprehend emotional language or to discern slight variations between emotions, such as frustration, irritation, sorrow, and depression (Mayer et al., 2004). Individuals with low EI possess little or no knowledge of a basic sense of empathy in interpersonal relationships. Empathy involves recognizing and understanding others' emotions, with the appreciation that these emotions may not be the same as ours (Cuff et al., 2016). High trait empathy is associated with various successes in the workplace, including pro-organizational behaviour and leadership emergence, among effective behaviours (Clark et al., 2019).

Individuals with low EI and low empathy often have difficulties comprehending emotions in the workplace (Clark et al., 2019). For example, when hearing a co-worker's grief, the low EI individual may react insensitively without showing the needed support, compassion, kindness, or understanding of the situation. Similarly, in discussing the allocation of a work assignment within the team, the individual with low EI may ignore what other colleagues in the situation have to say. Failing to understand how others would feel about the matter, the low EI individual may say things and act in ways that seem careless and disrespectful to other people's perspectives and emotions. Hence, others may interpret the low EI individual's lack of empathy as coldness, unfriendliness, and self-centeredness. The result of this interpretation may often lay the roots for a non-collegial atmosphere entangled with a lack of cooperation, mistrust, or even hostility and conflict in the workplace.

Branch 4: Management of Emotions

The fourth major issue concerning individuals with low EI is their inability to manage their emotions (Mayer et al., 2004). This means that these individuals often have difficulty controlling their emotions, which can jeopardize their ability to establish social networks. Mood regulation is the inward analysis of one›s emotions and the ability to control disruptive moods or impulses to promote improved judgement and coping skills in daily interpersonal exchange. Without the mental capacity and necessary skills to manage emotions, individuals with low EI often show low proficiency in managing relationships in the workplace (Adeoye & Torubelli, 2011). In work life, ineffective or low control of one's mood may make low EI individuals much more susceptible to situations of failure of communication, soured interpersonal relationships, suspicion of ill will, and other relational conflicts. As a result, they are likelier to have a lower organizational commitment to their employer and work team (Adeoye & Torubelli, 2011).

For individuals with low EI, failing to manage emotions can occur under any circumstances of their work life, regardless of the nature, scale, and consequence of such incidences. For example, in a job interview, a low EI individual may moodily ascribe his previous job loss to others' fault. Also, a low EI person may easily show verbal and bodily disinterest and impatience during a business encounter without letting the other parties finish the whole presentation of their views. Moreover, a person with low EI may not be able to control her temper and turn a simple disagreement on a task into a heated argument that is unnecessary and should have been easily avoided. To make things worse, an individual with low EI may be more prone to losing control of his temper and yelling at their boss over a slight difference in opinion. These conflicts may often poison the interaction between the low EI individuals and others around them in various vocational contexts, where increased tension and distress may negatively drain all parties involved in such emotional conflicts. Of note, this kind of interpersonal constraint can negatively affect the low EI individuals themselves as they feel they are disliked, misunderstood, and alienated.

The social and interpersonal aspect has become increasingly important in today's world of work. In other words, nearly all kinds of work require interpersonal contact to achieve organizational goals and objectives for workplace productivity, effectiveness, and efficiency. As most organizational tasks are accomplished in teams, possessing strong interpersonal skills has become essential for workers in most workplaces. Organizations seek individuals who can successfully interact with others and possess soft skills, such as effective communication, attentive listening, flexibility, creative thinking, and other people-oriented skills. Thus, the lack of self-management of emotions poses a considerable roadblock that can be hindering or even detrimental to low EI individuals' successful access to employment, ability to maintain a more desirable occupation, and opportunity to prosper and advance in their career prospects.

Strengthening Emotional Intelligence in Life-Careers

Many programs currently exist that claim to improve EI; however, current literature suggests they have a moderately positive effect on improving participants' EI. Three meta-analyses published between 2018 and 2019 (Hodzic et al., 2018; Kotsou et al., 2019; Mattingly & Kraiger, 2019) investigated the effectiveness of various EI training methods. Hodzic et al. (2018) analyzed 24 studies that looked at various EI teaching methods for adults and the various outcomes of these EI interventions. The EI interventions were based on a variety of theoretical models. Mayer and Savoy's model (cited as Mayer et al., 2004) was the most common intervention approach. These interventions applied the four branches of EI abilities discussed above (perception, use, comprehension, and management of emotions). Training models based on Mayer and Savoy's model (2004) had the greatest standard mean change between pre and post-intervention EI measures (Hodzic et al., 2018). However, all EI models (including mixed and trait) displayed moderate standard mean changes. Follow-up effects were also maintained. Hodzic et al. (2018) suggested that EI can be increased through training and interventions, with training models that use Mayer and Savoy's (2004) ability model having the greatest effect size.

A similar systematic review by Kotsou et al. (2019) found comparable results to Hodzic et al. (2018); there were moderate improvements in EI and other wellbeing outcomes because of EI training. Kotsou et al. (2019) provided recommendations for further research on EI training effectiveness including standardized pre- and post-intervention EI measures, peer and manager EI ratings more frequently versus self-reports, and longer-term follow-up (Kotsou et al., 2019). Mattingly and Kraiger (2019) analyzed both published and unpublished studies on the effectiveness of EI training, finding moderate positive effects on EI measures and other outcomes (well-being, psychological health, interpersonal relations) between pre- and post-intervention. Unlike Hodzic et al. (2018), Mattingly & Kraiger (2019) did not find any significant difference in the effect sizes of EI training based on the training model (i.e., ability-based, trait-based). In summation, the results of these three recent reviews on the effectiveness of EI training in the workplace indicate that moderate effects of these training programs appear to be present and that there is no conclusive "superior" training method.

A study by Nelis et al. (2009) provides a sample of a typical EI intervention using the Mayer and Savoy's (2004) model of EI. In the study, participants attended four training sessions, once per week, that were 2.5 hours long, based on the four branches of EI. The training sessions included readings, group discussions, short lectures, and role-plays.

Activities to improve the perception of emotion included "identifying one's emotions using three doors (e.g., physiological activation, cognitions, and action tendencies), facial expression decoding… and asking the right question and empathic" (Nelis et al., 2009, p. 40). These activities address the potential underlying causes of miscommunication and confusion by helping the student identify another person's feelings. Next, activities to improve the student's skills in using and comprehending their emotions were explained. For example, instruction on coping strategies, how to use them in response to intense emotions, and the effectiveness of these strategies were taught and discussed in a group setting. Mind-body awareness and relaxation exercises were also taught in this module to assist in regulating intense emotional responses. These lessons aimed to help control strong emotions by helping students become aware of their reactions and put space between feelings and responses, and then, if necessary, relaxation exercises are used to reduce intense emotions.

Finally, in the managing emotions module, Nelis et al. (2009) included a lesson on positive reappraisal. By helping the participants focus on a positive aspect of a situation instead of the negative, students experienced overall greater and more frequent positive affect, and therefore an increase in positive interpersonal experiences. All the managing emotion module activities helped establish and nurture social networks, which are also crucial for vocational success.

Overall, this EI intervention led to improvements in the "perceiving" and "managing" branches, according to the Mayer and Savoy (2004) model of EI. While no significant changes were found in the "understanding" branch, the researchers speculated that the reason for this may be because the lesson in emotion comprehension was not based on the framework related to the specific assessment of this EI branch (Nelis et al., 2009). The use of emotions was not measured in this study. Overall, these findings were consistent across all participants and did not depend on the participants' initial level of emotional intelligence. In a career counselling setting, if the counsellor could help low EI clients to at least perceive and manage their emotions, it could have a positive impact on the client's ability to secure employment and to be successful in their employment long-term.

Suggested Career Counselling Strategies: Using EI Within Current Career Theories

To effectively help individuals with low EI manage their work life, it will be essential to impart skills in as many of the four branches of EI as possible: perceiving emotion, using emotion effectively, comprehending the meaning of emotion, and successfully managing emotion. Two career theories that could adequately integrate these criteria include Cochran›s Narrative Career Counselling Theory and the Social Cognitive Career Theory. In both theories, there are opportunities for career counsellors to help individuals build EI skills while supporting the client›s self-efficacy at the same time.

Narrative Career Counselling

In Cochran›s Narrative Career Counselling approach, the client has seven steps: 1. Elaborating on a Career Problem, 2. Composing a Life History, 3. Eliciting a Future Narrative, 4. Reality Construction, 5. Changing a Life Structure, 6. Enacting a Role, and 7. Crystallizing a Decision. The first three steps focus on meaning-making, the second three on the client's action, and the final step on solidifying a final decision (Cochran, 1997).

In the first three steps, the client is encouraged to identify their career challenge(s), narrate a life history, and create a future narrative. When the client conveys past events and challenges in their life through narrative, the counsellor can get a clearer picture of how their client interacts with the world around them and what lessons they are taking from these interactions (Young et al., 2002; Young et al., 2007). Listening to the client's stories can also help a counsellor identify patterns of behaviour that may reveal meaning behind the client's interactions at work that the client may not be aware of (Cochran, 1997).

Using narratives, the client will also have an opportunity to create a more desirable future story with more focus on their personal values. Similarly, using narratives to create a future career story can help the client determine what behaviours they need to engage in to achieve their future goals. For example, the client may need to learn how to manage intense emotions or listen empathically if they wish to become a manager. This leads to Steps 4, 5 and 6.

With this information, the career counsellor can then tailor an appropriate intervention to include skill building in one or more of the four branches of EI. In Steps 4, 5, and 6, the counsellor will be able to suggest actions for the client to take to make progress toward the goals that were outlined collaboratively during the creation of a future narrative in the third step. During this process, the career counsellor can incorporate the client's thoughts and feedback on how specific EI skills can help to improve their work life. Encouraging the client to reflect on previous interpersonal experiences can also provide a source of valuable information to the client and directs the locus of control internally. By helping the client to see where they have control over their actions, a greater sense of self-efficacy is likely to emerge (Bandura, 1995; Lent et al., 2017).

In-session role-plays combined with psychoeducation will help illustrate practical ways of perceiving, using, comprehending, and managing emotion. Furthermore, it can help in developing a new skill "reality" for the client (Step 4). There are several possible techniques a career counsellor can employ. For example, to work on perceiving emotion, the career counsellor can show a variety of photographs with different facial expressions and ask the client to identify what the individual might be feeling. This will help the low EI client better understand others' non-verbal language. Role-play between the career counsellor and the client could help the low EI client to practice empathic responses and to discuss what it is like to understand someone else's point of view. Managing emotion will also be critical to building healthy workplace relationships. Relaxation exercises and practicing constructive responses to strong negative feelings (e.g., anger, disappointment, jealousy) may help individuals with lower EI learn how to respond in emotionally challenging situations. These exercises will assist in illustrating how perception, comprehension, and management of emotion contribute to building relationships in the workplace.

Practice and reflection over several weeks will ensure the client maintains the skills learned in the counselling sessions. Meeting with a career counsellor once per week will be most helpful if supplemented with homework assignments such as additional readings related to EI and keeping a reflection journal (Darce Pool & Qualter, 2012). By reading additional information on EI and keeping a journal, the client is more likely to reflect on how this information is relevant to their own life and the example of interpersonal situations in which EI can help to create a positive outcome. A reflection journal will also help the client to keep track of an emerging personal theme or career project. This further solidifies their new career life structure (Step 5).

In Step 6, Enacting a Role, the client can work with the counsellor by trying the new EI skills out in the workplace or during interviews. For example, the low EI client may begin by actively listening to their coworkers. An unemployed, low EI client may be able to practice active listening skills and manage emotions in interviews, such as nervousness. Feedback and support from the career counsellor during this time will be very important because the client may or may not be successful at first. Discouragement can lead to early dropout before the training is over and before the client can integrate the EI information they have learned. The counsellor's support during these challenges will assist the client in overcoming obstacles and maintaining confidence in their ability to develop EI skills.

Finally, in Step 7, Crystallizing a Decision, the client begins to understand which solutions are appropriate for their career problem. In the final stages of this process, the career counsellor helps the low EI client to identify which skills relating to the four branches of EI have been most helpful to the client in their journey to achieving their career goal. Using this information, the career counsellor can then help the client to solidify these EI skills by creating a plan in which they will be practiced regularly. The career counsellor can help the low EI client identify potential obstacles that the client may encounter and discuss how to overcome them should they arise. By anticipating future challenges along with the solutions to manage them, the client can gain confidence in their EI abilities.

The EI Blueprint is one exercise that mirrors the four branches of EI and lends itself to Cochran's Narrative Career Counselling approach (Brackett & Katulak, 2007). This process works well within Narrative Career Counselling because it effectively guides the client through a storytelling process. Using four questions, the EI Blueprint asks a client to describe the details an interpersonal interaction as they relate to the four branches of EI. The questions are:

1. How was each person feeling? (Perception of emotion)
2. What were you and the other person thinking about due to those feelings? (Use of emotion)
3. What caused each person to feel the way he/she did? (Comprehension of emotion)
4. What did you and the other person do to manage those feelings? (Managing emotion)

After the four questions have been answered, the participant is asked to reflect on the interaction and write out how the situation could have been handled effectively. This also aligns with Step 7 of the Narrative Career Counselling approach.

Social Cognitive Career Theory

The Social Cognitive Career Theory (SCCT) is another career counselling approach that integrates EI skills training. SCCT posits that specific cognitive processes are responsible for influencing an individual's career behaviours (Lent et al., 2002; Lent & Brown, 2013; Lent & Brown, 2017). Specifically, the cognitive concepts of outcome expectations, personal goals, and self-efficacy can significantly impact an individual's behaviour and subsequent career success. Working with these three cognitive concepts, a counsellor can effectively teach EI skills that will also support the career development.

Outcome Expectations

Outcome expectations are an individual's estimate of the probability of an outcome. For individuals with low EI, misinterpreting interpersonal cues can skew their outcome expectations. For example, if an individual perceives their boss as being overly critical, they may expect a confrontational outcome. As a result, they may behave very defensively. This may affect their relationship with their boss, hindering their career success. Improving EI can help the client improve their ability to detect their boss' emotional cues. The counsellor will also work on the client's outcome expectations based on their improved emotional perception abilities. This will guide the client towards more desirable and emotionally intelligent responses.

Personal Goals

The counsellor can also use personal goal setting to encourage the client as they learn EI skills and put them into practice. The client's goals should be created after considering an initial assessment of EI, such as the EQ-i 2.0 by Multi-Heath Systems Inc or the Mayer-Salovey-Caruso Emotional Intelligence Test 2.0 (MSCEIT 2.0; Bru-Luna et al., 2021). A career counsellor may want to help the client establish concrete and meaningful goals and explain how EI can contribute to achieving those goals. Once the client understands the connection, they are more likely to behave in a way that will lead them toward their goal and employ the EI skills to help achieve it. The satisfaction of achieving goals is quite powerful and makes goals potentially self-motivating (Lent & Brown, 2019). Furthermore, as clients become more familiar with how to perceive, use, comprehend and manage emotions correctly, they may experience an intrinsic motivation to use their EI skills due to the more positive interpersonal interactions they create.

Self-Efficacy

Finally, to support the persistence it will take to learn how to perceive, use, comprehend and manage emotion, the counsellor can work directly with the client›s beliefs related to their EI self-efficacy. Individuals with low self-efficacy are more likely to feel overwhelmed and may not persist on difficult tasks (Lent et al., 2002; Lent & Brown, 2013; Lent & Brown, 2019). During this time, the individual may feel discouraged and not want to keep up with the assigned career counselling practice and homework tasks. By helping the client understand that building EI skills takes time, and providing feedback on improvements made, the counsellor can foster self-efficacy within the client as he or she progresses through the training. Using the reflection journal can also be helpful for the client to refer to moments when they have felt successful in applying EI skills, which can function as a reinforcement of their progress.

While having a high level of self-efficacy is helpful, it is important to note that self-efficacy is not a substitute for ability. The counsellor should mitigate a client's overestimation of their ability, if it should arise, to prevent discouragement when the client's outcome does not meet his or her expectations. The key to achieving this balance resides primarily in the first few sessions. Matthews et al. (2012) explained the importance of getting the client to buy into the process and having him or her set meaningful and realistic goals. By doing so, the client is prepared and motivated for the work ahead. By setting realistic goals, the career counsellor can create realistic expectations, whose achievement will support the client's self-efficacy. Discussing how achieving these EI goals will create positive change in the client's life will not only motivate the client but will also highlight the active role that the client needs to take. Both will further support the client's sense of career self-efficacy.

Conclusion

With the latest research outlining the importance of EI in career success and career well-being, EI training proves to be a precious tool in career counselling settings. Providing support in EI skills training particularly for individuals with low EI, career counsellors can help clients secure work and thrive in their workplace settings. Using experiential exercises, journaling, and support from the career counsellor, EI training can become a crucial tool in the career counselling profession. Therefore, career counselors should acquire training in emotional intelligence to offer additional guidance and counsel individuals who may struggle in interpersonal situations. As a result, EI training could take on a more central role in career counselling in general.

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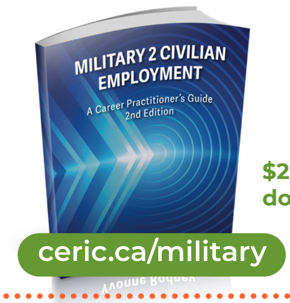

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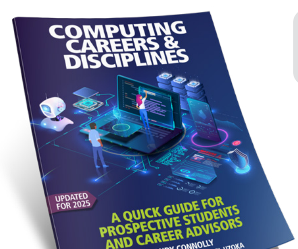

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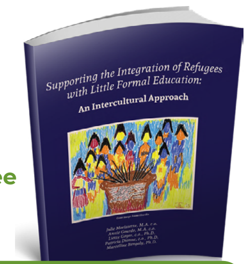

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Career Development Practices: What Theories and Models Have to Offer

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Abstract

Career theory serves as a crucial foundation for practice, yet its relevance is sometimes questioned due to a perceived gap between theory and its practical application. We contend that the practical utility of theory should be a central criterion in evaluating contemporary career theories and models. This study aimed to bridge the gap between theory and practice by analyzing the practical applications of 43 career theories and models featured in *Career Theories and Models at Work: Ideas for Practice* (Arthur et al., 2019). Through thematic analysis, eight foundational themes emerged that support theory-driven practice. We propose that, regardless of their theoretical orientation, career practitioners can benefit from understanding and applying these themes. The results are discussed with a focus on making career theories and models more accessible for integration into practice. Practice points developed by the contributing chapter authors are provided, illustrating how specific theories and models informed the eight themes. Suggestions are offered for aligning the themes with professional standards and guidelines, and for improving learning and supervision.

Keywords: career development theory, career development models, career development practice

Over the past century, numerous theoretical perspectives on career development have emerged. In the case of career theory, these perspectives come from diverse fields such as vocational psychology, education, social science, and organizational psychology. Explanations for career-related behaviours have included theory-based content, process, and frameworks that integrate both (Patton & McMahon, 2021). Beyond individual behaviours, career theories have also addressed specific populations, human factors, and workplace dynamics within organizations. Theories have informed new models of career practice, while emerging models have introduced novel concepts or integrated ideas across theoretical perspectives (Arthur et al., 2024).

Career development theory is pivotal for practice, guiding practitioners in case conceptualization, assessment, and interventions (McMahon, 2019). However, career theories have long been criticized for being inaccessible and difficult to translate into practice. To address this theory-practice gap, resources have been developed to provide practical guidance on applying theoretical concepts through case examples (e.g., Arthur et al., 2019; Arthur & McMahon, 2019; Swanson & Fouad, 2019). Although theories have often been classified according to explanations for career-related behaviour, no previous work has examined commonalities across the practice elements of multiple career theories and models. To fill this gap, we analyzed the practice points on specific chapters provided by chapter authors in *Career Theories and Models at Work: Ideas for Practice* (Arthur et al., 2019). Focusing on the practice points provided a fresh lens to identify the foundations of career development practice.

We begin by emphasizing the importance of theory-practice connections in shaping the career development field. We argue that utility and practicality should be central considerations for selecting and applying career theories and models. We then outline the method used in our study, focusing on the analysis of practice points from 43 career theories and models. Our analysis revealed eight themes that underpin a transtheoretical approach to career practice, offering guidance across diverse contexts and practitioner roles. Finally, we provide suggestions for future directions to strengthen connections between career theory and practice.

Theory Matters for Career Development Practitioners

The professionalization of Career Development Practitioners (CDPs) has seen progress in many parts of the world, including Canada (Canadian Career Development Foundation [CCDF], 2021; Godden & Borgen, 2024) and Australia (Career Industry Council of Australia [CICA], 2022). Despite these advancements, the career development sector continues to face challenges, including inconsistent training and the employment of individuals with varying educational backgrounds and work experiences (Challenge Factory, 2024). Consequently, many individuals working in the field, including front-line workers and supervisors, may lack familiarity with the well-established and emerging theories and models that inform contemporary career development practice. Even experienced practitioners can benefit from reviewing and updating their theoretical knowledge to challenge existing assumptions and to expand their repertoire of theory-practice applications (Matthews, 2017).

To recap, career theories provide explanations for understanding career-related behaviours. Theories serve as guides, models, or hypotheses that help explain specific phenomena (Brown, 2002; Lent, 2017; Solmonson et al., 2009). Nearly two decades ago, Krumboltz (1996) addressed the connection between theory and practical application, stating:

> The purpose of theory is to help us understand a complex domain so that we can take more useful and intelligent actions. A theory enables us to step back from the nitty-gritty details and see the big picture. A good theory is a simplified representation of reality, identifying relationships among the most crucial characteristics and ignoring the rest. (p. 56)

However, the purpose of career theory is sometimes questioned due to a perceived disconnect between theory and practice (Watson, 2019). A distinction can be made between the knowledge of theory and its purpose and the practical use of specific theories (Killeen, 1996). It is crucial for career practitioners to understand the role of theory in professional practice and to make informed decisions when selecting theories and models for practical application. Despite variations between educational levels and practical experience, workplace settings, and organizational cultures, the integration of theory can enhance practice. There are concerns about practitioners working without a theoretical base, relying on popular but ungrounded techniques, which poses risks for practitioners and clients. Theory provides a basis for case conceptualization, assessment, intervention planning, and evaluation of outcomes (McMahon, 2019). For example, narrative career counselling practices including life design (Hartung & Santilli, 2024), the story telling approach (McMahon & Patton, 2024), and career counselling based on contextual action theory (Young, 2024) are all founded in theory and supported by an evidence base. Also, greater attention has been paid to culture, contexts, and social justice perspectives in theories and models to inform career counselling (Arthur, 2024; Arulmani, 2024; Blustein et al., 2019).

The career development field has grown, accompanied by an expanding set of resources for practitioners. This includes an increasing number of theories and models, with revisions to time-honoured perspectives and the introduction of new and emerging theoretical approaches (Arthur et al., 2019; Arthur & McMahon, 2019; McMahon & Abkhezr, 2024; Patton & McMahon, 2021; Yates, 2024). We encourage career practitioners to stay updated through ongoing professional development. With such an abundance of theories and models available, it is essential to provide guidelines for reviewing and selecting resources that best inform and expand a practitioner's knowledge base.

Criteria for Evaluating and Selecting Career Theories and Models

In their review of career development theory, Watson and Stead (2017) identified four criteria traditionally used for evaluating theories:

1. The structure or framework of the theory and how well the concepts explain its purpose;
2. The conceptual scope of the theory, including the populations and contexts it addresses;
3. The measurement and testing of constructs through research; and
4. The logical consistency of the theoretical constructs, emphasizing simplicity where possible.

To reflect contemporary perspectives in the field, Watson (2019) provided six expanded criteria for evaluating career theories:

1. Articulate both commonalities and unique features compared to other theories and address contemporary issues.
2. Assess whether the theory aligns with practitioners' personal worldviews and practice contexts, as well as its applicability to their clientele.
3. Emphasize parsimony in the number of constructs used, ensuring the theory remains manageable within a practice framework.
4. Ensure that theories are culturally relevant and applicable to diverse populations and contexts.
5. Evaluate the adaptability of the theory, ensuring it can flexibly respond to changes in the world of work and evolving career issues.
6. Consider social justice, reflecting how the theory addresses inclusivity or exclusivity, honouring the historical roots of career development.

Career practitioners can use these six criteria to anchor their decision-making for reviewing, selecting, and comparing career theories and models.

The Utility of Theory in Practice

To reiterate, there is an increasing demand for theories that not only generate new knowledge but also provide clear implications for practice. Career practitioners, the primary consumers of these theories, are eager to understand how to apply them in real-world settings. As noted previously, as practitioners seek to strengthen their capabilities, they need theories that support their work in a wide range of practice settings.

Building on Watson's (2019) six criteria, we propose to integrate the main ideas into one overarching criterion to emphasize the practical utility of theories and models. This focus on utility in practice affords practitioners the flexibility to consider their workplace contexts and client needs, while selecting theories and models that best support their career development practices. Emphasizing utility also extends the evaluation of theory beyond a source of knowledge, in order to leverage and enhance theory-practice connections. Our exploration began by asking how well career theories and models emphasized practice applications. We found that many theorists tend to prioritize theoretical content, which led us to consider the potential for prioritizing theory-practice connections.

In response, we invited authors of career theories and models to clarify the practice points derived from their theoretical orientations in the book *Career Theories and Models at Work: Ideas for Practice* (Arthur et al., 2019). By analyzing the practice points, we examined theoretical applications through a practice-focused lens. Our research sought to address the following question: What are the foundations of career development practice?

In the following sections, we detail our method and key findings from an analysis of practice elements across multiple career theories and models. The themes and sub-themes from the results were integrated into career practice principles, which are further elaborated in *Career Practice Principles: Theories and Models at Work* (Arthur et al., 2024). In this article, we highlight the initial analysis of practice points and the eight themes that emerged, informing a transtheoretical approach to career practice.

Method

As noted, our project began by analyzing the practice points listed across the 43 chapters of *Career Theories and Models at Work: Ideas for Practice* (Arthur et al., 2019). Each chapter provided an overview of a different theory or model, followed by a practice-based case vignette, and concluded with several practice points illustrating how to apply it. These 296 practice points served as the qualitative data for our research. We employed an inductive thematic analysis, as outlined by Braun and Clarke (2006, 2021), to analyze the data. Inductive thematic analysis involves deriving themes directly from the data, without predefined codes or researcher biases (Braun & Clarke, 2006). This method is a reflexive, meaning-making process (Braun &

Clarke, 2019), and is valuable for organizing and describing qualitative data by identifying recurring patterns (Braun & Clarke, 2006). Themes represent significant ideas in the data "in relation to the research question," forming "patterned responses or meaning within the data set" (Braun & Clarke, 2006, p. 82). They are not solely determined by frequency but by researcher judgement regarding which concepts are central to the data's meaning (Braun & Clarke, 2006).

The data analysis followed the six phases outlined by Braun and Clarke (2006, 2021): a) data familiarization, b) coding, c) theme generation, d) theme review, e) the defining and naming of themes, and f) writing up the results. In Phase 1, each author independently coded the practice points. In Phase 2, we compared our coding results, discussed differences, and reached consensus. Phase 3 involved identifying patterns across the codes to generate overarching themes and sub-themes. Phases 4 and 5 consisted of further discussions to refine our shared understanding of the themes, taking the time to present our views and note the similarities and differences in how we organized and represented the content. Through iterative revision and reflection, we reached consensus on eight themes and accompanying sub-themes (See Table 1).

Thematic analysis provides several advantages, offering rich, detailed, and nuanced insights into qualitative data (Nowell et al., 2017). However, its flexibility can also present challenges, such as inconsistency and a lack of coherence (Nowell et al., 2017). To address these potential issues, we ensured the trustworthiness of our analysis by adhering to Braun and Clarke's (2006) criteria for good practice in thematic analysis and Lincoln and Guba's (1985) criteria for trustworthiness: credibility, transferability, dependability, and confirmability. Guided by Nowell et al.'s (2017) approach for conducting trustworthy thematic analysis, we implemented strategies such as an audit trail that detailed the steps of our data analysis in Excel files, reflectivity about our individual decisions, and regular meetings between the researchers to mitigate potential biases and arrive at consensus at every stage of the analysis to ensure the integrity of our findings.

Table 1

Eight Foundational Themes and Sub-Themes for Career Practice

Themes	Sub-Themes	
Reflective Practice	Reflection on self Reflection on practice	
Culture and Context	Client worldview Methods, tools, assessments	Organizations Multiple pathways
Working Alliance	Creating a safe space Assessment practices	Goal setting and decision-making Evaluating progress
Client Characteristics	Personal characteristics Competencies/skills	Motivation Readiness for change
Theory-Based Interventions	Evidence-based Range Format	Holistic Integrative Systemic
Professional Interconnectedness	Colleagues Lifelong learning	
Social Justic Advocay	Views of work Sociopolitical context	(In)Equity and access Professional Voices

Results

Table 1 lists the 8 foundational themes and their sub-themes that provide the structure for reporting the results. Each will be described in turn.

Given the word length restrictions of this article, a limited number of quotations from the data will be presented in quotation marks in the findings. Readers are referred to the Appendix for additional representative examples of practice points related to the themes and sub-themes.

Reflective Practice

Reflective practice underpins professional practice across many disciplines (Bassot, 2016; Neary & Johnson, 2016), informed by classical models of reflection (e.g., Kolb, 1984; Schon, 1992). The theme *reflective practice* concerns the personal awareness of career practitioners in relation to examining their personal worldviews and how their views of themselves, other people, and the world around them shape their professional roles. The sub-themes of *reflection on self* and *reflection on practice*, provide direction for reflection and will be presented in turn.

The reflection on self sub-theme is about the need for practitioners to be self-aware in relation to their personal worldview, and how that worldview has been shaped through their personal culture and life contexts.

> To what extent has your career progression to date been influenced by your social and economic background? What barriers have you overcome at career turning points and who/what have been the key influences on your career decisions? How important has community been for you? (Bimrose, 2019, p. 62).

Reflection about self includes gaining awareness about how personal assumptions are carried into our professional roles and interactions with other people. This might include reflecting about family and community influences on attitudes towards paid and unpaid work, desirable and undesirable jobs, etc. Reflection on personal identities (e.g., gender, culture, ethnicity, social class, religion, ability, affectional orientation, and their intersections) might include ways that experiences of privilege and/or lack of privilege have shaped practitioners' worldview and might be similar or different to the experiences of the clients they serve. Such self-awareness is important in practice and in relationships with others to guard against stereotypes and to "take responsibility for your own biases and prejudices" (Pope, 2019, p. 346).

The reflection on practice sub-theme is about the need for career practitioners to be mindful in their work and self-monitor themselves for the intrusion of personal views that could impede practice. Reflective practitioners emphasize collaboration with clients and consider the power relations that exist in practice. Reflections on learning with clients can help "to identify areas for growth and be intentional about seeking resources and professional development" (Arthur, 2019, p. 30).

Reflection and seeking feedback on practice may be actively sought through formal and informal supervision. This suggests the need for professional interconnectedness with colleagues within and beyond their workplace, seeking avenues for networking and collaboration through their professional associations. Career practitioners may seek additional feedback on their work from appropriate members of their support network, while being mindful about client confidentiality. Reflection on practice also occurs through engaging with lifelong learning, professional development, interdisciplinary learning, cross-training and continuing professional development. Career practitioners integrate reflection on practice into daily practices with all clients and across all practice contexts.

Culture and Context

The reflective practice theme focused on career practitioners and their worldviews. The *culture and context* theme focuses on clients and the influences they have absorbed through socialization in families, communities, schools, and workplaces. As noted by several chapter authors (Aravind & Arulmani, 2019; Arthur, 2019; Pope, 2019), culture permeates our notions of work and livelihoods, approaches to decision-making and perceived opportunities for future careers. The related sub-themes include *client worldview*; culturally relevant *methods*, *tools and assessments*; culture in *organizations*; and recognizing diverse and *multiple career pathways*.

The client worldview sub-theme recognizes that individuals' career behaviour is shaped alongside their life experiences within their specific cultural contexts. Exploring clients' values and beliefs can incorporate career assumptions and an assessment of their relevance for current and future goals. Some individuals may hold firmly onto prior understandings, while others seek guidance to resolve value conflicts and consolidate new perspectives. Remember to check personal assumptions. Career development practitioners are encouraged to "know the process of cultural identity development and use it" (Pope, 2019, p. 346) in exploration with clients in a process that "focuses on strengths rather than deficits" (Aravind & Arulmani, 2019, p.19).

The next sub-theme highlights how career practitioners support career exploration using both formal and informal methods, tools, and assessments. Culturally relevant tools must be carefully chosen for clients to consider diverse worldviews and experiences. For example, "view guidance methods from the cultural preparedness viewpoint. It is important to evaluate the cultural relevance of methods and tools used in career guidance when working with students to match their needs and abilities" (Aravind & Arulmani, 2019, p. 20). Informal techniques, such as active listening and collaboration, allow clients to share their experiences and find career solutions. Practitioners should adjust their language to suit clients and avoid generalizations, highlighting each client's unique life experience.

The sub-theme related to organizations represents the multiple ways that organizational culture – both explicit and implicit workplace norms – also influences people's career development. "It is equally important to understand structural, organizational, and policy aspects" (McCoy, 2019, p. 236) of an employment role and context. Career practitioners familiar with workplace expectations help clients to navigate performance goals, prepare for employment, or adjust to new environments. Listening to how clients perceive change at work can offer important clues about perceptions of workplace norms, current strengths, and potential areas for skill building "to mobilize resources for within-career transitions" (p. 236).

The multiple career pathways sub-theme refers to the openness of both career practitioners and clients in career exploration. As a starting point, "build culturally sensitive knowledge of family pathways. Continue to update yourself about educational and career pathways not just locally, but also regionally, nationally, and globally" (Bakshi & Fialho, 2019, p. 40). Discussions may include exploration of the ways that culture and context have been relevant for past career choices as well as current and future opportunities. Career practitioners guide clients in reflecting on how their roles, both paid and unpaid, influence preferred career pathways, helping them to expand and clarify possible options, while challenging expectations that there is a single, "right" career choice.

Working Alliance

Previous research has demonstrated the importance of the working alliance for supporting client change (Milot-Lapointe et al., 2021; Whiston et al., 2016). In the current study, the theme *working alliance* concerns the relationship between practitioners and clients. The sub-themes of creating a *safe place*, *assessment practices*, *goal setting and decision making*, and *evaluating progress* were identified and will be presented in turn.

The creating a safe space sub-theme is about establishing a working relationship that recognizes the potential vulnerability of clients in sharing their concerns and is built on trust in order that clients feel able to describe their situation and share their thoughts and feelings with a practitioner. Creating a safe space involves "taking the necessary time to listen, observe, and respond to each individual's story" (Neault & Pickerell, 2019, p. 281). A safe relationship facilitates collaboration, demonstrates support for clients, and features a transparent approach where career practitioners offer explanations in a language that is understood by clients rather than the jargon of the field.

The assessment practices sub-theme refers to the methods used by practitioners to garner relevant client information in order to facilitate learning and meaning making for clients. Assessment is ever-present in career practice and can draw on a range of quantitative, qualitative, formal, and informal instruments to obtain holistic knowledge about clients and their life histories. For clients, understanding themselves in relation to their work experiences and future options assists in the career transition process. As noted above, the cultural appropriateness of career assessment instruments is critical for practitioners to consider as inappropriate selection could result in unintentional harm to clients. Practitioners could consider clients' understandings of career practices, the power dynamics of career counselling, and the cultural background of clients including factors such as gender roles and how decisions are made in families and communities.

The goal-setting and decision-making sub-theme is about career practitioners and clients collaboratively making plans for the future in order to bring about meaningful change at an appropriate time. This may involve exploring past and present life, work, and learning experiences and considering a client's preferred future. Emanating from this process, agreement can be reached on "what is to be accomplished through counselling," practitioners and clients can "explore and clarify potential goals," clients can be encouraged to "commit to a new goal" (Vondracek & Ford, 2019, p. 441) and action steps planned. At this stage clients may need to be supported with relevant resources and to take action steps in their life context.

The evaluating progress sub-theme is about gauging progress within and across sessions with a view to appropriately catering for client's needs and improving practice. Such evaluation is an ongoing process that monitors client learning and changes that occur within and across sessions. This includes helping clients "to document their goals and plans and to develop a system to monitor progress regularly" (Niles et al., 2019, p. 293). Through noticing changes, clients may be encouraged to progress in their career transitions.

Client Characteristics

The *client characteristics* theme concerns the client and the emotional, cognitive, and physical resources they bring to the client-practitioner relationship and, beyond, to their learning and work experiences. The sub-themes of *personal characteristics*, *competencies/skills*, *motivation*, and *readiness for change* were identified and will be presented in turn.

The personal characteristics sub-theme has been the traditional focus of many career development professionals, especially when working with individual clients or groups. Many theoretical perspectives are linked to assessment tools, resources, or activities that can help clients to identify their skills, interests, values, and/or personal style. Other theories and models focus more on emotions, beliefs, or motivation – all of these can be important in facilitating an individual's self-reflection and deeper understanding about what personal characteristics they bring with them into the contexts of learning and work. From the perspective of current theories, "the self comprises the qualities of the individual. These may include cultural factors, demographic characteristics, psychological resources, and resilience" (Goodman, 2019, p. 134), taking the notion of personal characteristics far beyond a simplistic consideration of skills and interests.

Although competencies/skills could certainly be considered personal characteristics, as noted above, the amount of emphasis this sub-theme was given across theorists resulted in us listing it separately. From a strengths-based perspective, understanding and being able to articulate one's skills can instill confidence at work and in the job-search process. Career practitioners can also work with clients to realistically assess and ameliorate gaps in competencies/skills that might be blocking the way to career growth and sustainability. With an increasing recognition of the importance of lifelong career development, upgrading and learning new skills is always necessary. It is important to "identify skills individuals can target to bring their abilities in line with work-environment requirements. Work environments are always changing and people's skills need to stay in sync" (Woodend, 2019, p. 462). There are many generic competency frameworks such as *Skills for Success* (Government of Canada, n.d.) that can be helpful in prompting individuals to recognize their existing strengths and, also, to identify areas to work on, related to their career goals. A focus on transferable skills can also be important when supporting clients through career and other life transitions.

Another important sub-theme of client characteristics is motivation. Helping clients to identify meaning and purpose can strengthen their commitment to finding and keeping work, engaging in lifelong learning, and bringing their best selves to their work and other life roles. It is crucial here for career professionals to acknowledge and set aside their own biases – responses to questions like "Why is work important?" or "What do I want from work?" will vary greatly from one individual to the next, so it is important not to make assumptions. Self-efficacy is also linked to motivation, so it is essential to work with clients to understand what they believe they are capable of, in terms of finding work as well as in doing work. Some clients, for example, may feel very capable of doing the work they did in their last job but completely at a loss regarding how to find similar work or how to transition to a new career in situations where finding similar work is simply not an option. They may be highly motivated to work, but lack the skills, confidence, and, therefore, motivation to look for work. Outcome expectations, not surprisingly, impact motivation. As career professionals, one of your key roles can be to instill hope and optimism through supporting clients to identify viable career pathways and prepare for successful transitions. “Learn to read the level of hope in the people you work with. Be self-reflective: Are you increasing or decreasing people’s hope?” (Poehnell, 2019, p. 326).

Another sub-theme of personal characteristics is readiness for change. “Career counselling is all about life changes. Any career development intervention aims, above all, to help people make conscious and meaningful changes in their personal and professional lives” (Cournoyer & LaChance, 2019, p. 102). However, not all career or life changes are by choice, nor do they occur at conveniently scheduled times. There are many reasons that your clients may be unprepared for the changes they are facing or ill-equipped to navigate those changes. If clients seem stuck, disengaged, or unmotivated, consider if this could be related to change readiness. It may be necessary to slow down the transition process to boost your client’s self-efficacy and belief that positive outcomes are even possible.

Customized Practice

The *customized practice* theme captures the recognition across numerous theories and models that a one-size-fits-all approach simply does not work in career development. As highlighted throughout Maree’s (2019b) handbook, innovation is crucial and current theories reflect that. In our research, the practice points related to this theme clustered into three sub-themes as areas of focus for customization: *practice*, *clients*, and *process*.

Applying a customization lens to the sub-theme of practice, career development professionals are encouraged to take a holistic view of their clients and those clients’ complex and interconnected life roles. This can be expanded through a stance of curiosity. Rather than assuming clients’ goals, needs, priorities, or availability, practitioners are encouraged to ask relevant questions and then follow up by brainstorming and investigating possibilities together. Creative career professionals are far more likely to guide and facilitate their clients’ progress than to direct them; they are more inclined to ask than to tell. Customizing career development practice fits well with strengths-based approaches. Customization can remove programming redundancy, build upon existing strengths, and systematically dismantle barriers to employment success. It can also make learning memorable and fun! Practitioners are encouraged to integrate and expand upon their clients’ own metaphors, providing opportunities for clients to tell (and rewrite) their stories, and introducing engaging experiential activities, “find[ing] creative ways to help people who are stuck to discover alternatives and possibilities” (Poehnell, 2019, p. 326).

Career development practitioners may work with individual jobseekers, groups, or employers as clients. Customization at the client sub-theme level can stretch limited resources, saving time and money. It can help to maximize work-search success, workplace productivity, and, ultimately, contribute to improving the local economy. Through customization, practitioners are encouraged to “promote optimal career development” (Nauta, 2019, p. 270), considering how they might be able to build on clients’ strengths, bolster their agency (rather than ongoing dependency), and engage their own expertise as, together, they co-construct viable next steps for clients’ careers.

The customized process sub-theme reflects the numerous ways that theories and models can be applied, regardless of setting or context. The focus of this sub-theme is on how career practitioners engage with their clients. Not surprisingly, such practitioner characteristics as empathy and active listening were identified as crucial approaches. These can be foundational to customization; through empathy, for example, the practitioner can form a deep understanding of how to better connect with a client. Good communication strategies, including questions and prompts, can help to surface where customization may be most beneficial to fully engage clients, bolster their hope and confidence, and maximize their success. Customization models

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often emphasize adaptability and through such modelling, clients can be inspired and encouraged to also adapt when needed, at work and in their other life roles. Using immediacy when working with clients is another form of customization as it involves acknowledging what is happening in the moment, sometimes introducing interventions that can turn such moments into memorable learning opportunities. "Any time we are learning to tell a new story about our lives and what we are capable of, we are in a nonlinear learning process that takes time, involves emotions, and usually surprises us" (Lengelle, et al., 2019, p. 193). Career practitioners are encouraged to help clients identify themes and patterns that are influencing their career/life success and to engage in meaning-making together. To reiterate, adjusting language to avoid jargon and to be culturally appropriate can be an important customization strategy that helps to engage clients in learning and career-building activities.

Theory-Based Interventions

The *theory-based interventions* theme expands the application of theory as a foundation that influences all aspects of practice, such as the choices practitioners make about the approach they take, the strategies and interventions they employ, and the assessment instruments they use, if any. Through career practice, theory influences clients. The sub-themes of *evidence-based*, *range*, *format*, *holistic*, *integrative*, and *systemic* were identified as important elements of intervention planning.

The evidence-based sub-theme refers to the importance of applying theory in practice to provide a firm foundation for practice by providing it with an evidence base that can be further strengthened through research. Together, theory and research can move practice from a set of techniques and "good ideas" to interventions that are proven, well understood, and with outcomes that can be anticipated. By showing "the theoretical and scientific basis of your practices … credibility with stakeholders" (Viviers, 2019, p. 431) may be enhanced.

The range sub-theme is about acknowledging that practitioners can draw on a variety of interventions, provided that the interventions are relevant to the client's needs and consistent with the theoretical framework being applied (Domene & Young, 2019). This reinforces, as noted in the previous section, that theory-based interventions can be flexible and customized to suit individual clients.

The format sub-theme is about the nature of interventions which can range from individual to peer, or group processes. For example, many theories and models and the tools that were developed from them can be adapted to "be used in individual career counselling or in group counselling or career education workshops" (Healy & McIlveen, 2019, p. 157). Different formats could also include interventions in families and dual-career couples. The cultural appropriateness of the format of theory-based career interventions is critical to consider. Individuals could benefit from sharing with, and the support of, peers, family, and other group members. Considering the best format for interventions could stimulate the creativity of career practitioners and may require them to have skills and knowledge in individual intervention as well as those of group facilitation. In some cases, interventions may occur in community settings in collective projects.

The holistic sub-theme refers to important relationships between work and other facets of a client's life, their social and economic circumstances, and their relationships with family and others, in order to gain a comprehensive picture of a client's situation. The "work-based issues" that clients bring to career practitioners "are rarely separated from nonwork issues, social and economic factors, and relationships" (Blustein et al., 2019, p. 72). This should ensure that relevant information is not overlooked, and that interventions and action plans are appropriate for the client.

The integrative sub-theme is about the complementary nature of some theories and practices as well as taking an integrative view of clients and their circumstances. It suggests that practitioners familiar with a range of theories may be able to discern interventions consistent with their own theoretical background that are appropriate for clients. Alternatively, practitioners who are proponents of a particular theory may find that "other career theories could complement" (Watson, 2019, p. 452) their use of the theory.

The systemic sub-theme is about the importance of taking the whole context of clients into account, in order to maximize practitioner understanding of their situation as well as stimulate reflection by clients. Assessment can be accompanied with interventions, because "systemic influences can be powerful… [through helping] clients to view their concerns within larger systems influences to avoid internalizing blame and to address barriers" (Arthur, 2019, p. 30). For some clients, with their permission, interventions at a systemic level (e.g., within a work organization or a family) may be advantageous.

Professional Interconnectedness

The theme of *professional interconnectedness* refers to the recognition that career practitioners do not (and cannot) work in silos. Rather, as the adage goes, "It takes a village." Two sub-themes, *colleagues* and *lifelong learning*, are expanded upon in the following paragraphs.

Career practitioners typically do not work in isolation – rather, they work within a network of colleagues. Amundson (2019) encouraged practitioners to "be collaborative [asking] Are you trying to do too much by yourself?" (p. 10). From a systems perspective, effective networks include people who are closely connected (e.g., colleagues and supervisors), but also key collaborators who may be further removed (e.g., employers in the community, professional associations, leaders of business associations, other service providers and helping professionals, funders, and policy makers). Connectedness is multi-directional; career practitioners can learn from others and can also inform others, serving as advocates, advisors, mentors, or even trainers. It is common for career practitioners to serve on multi-disciplinary teams; understanding others' perspectives and being willing and able to represent their own unique areas of specialization (e.g., in case conferencing) results in a collaborative synergy that can be far more effective than working in silos or, worse still, at cross purposes. Sharing visions, advocating for needed resources, and seeking feedback from colleagues, clients, and community stakeholders are all additional benefits of connectedness.

Another important aspect of professional interconnectedness is captured in the sub-theme of lifelong learning, which includes "stay[ing] current" (Osborn et al., 2019, p. 306) and "study[ing] and understand[ing] the theory" (Sheu & Wang, 2019, p. 390) when incorporating new ideas into practice. Foundational to all professional roles is the need for ongoing professional development (sometimes referred to as continuing education). Career practitioners work within complex, dynamic, interconnected geo-political systems. To do their work well, they need to continuously hone their interpersonal/relational skills; enhance their cultural competency (and cultural humility!); deepen their knowledge and understanding of evidence-based and theory-grounded research in their field; stay current with changes in the local labour market and regional, national, and global economies; and continue to learn about the different occupations and sectors that their clients work within. Many career practitioners have chosen to belong to professional associations and have become certified as career development professionals. In most cases, maintaining such certification requires evidence of ongoing professional development.

Social Justice Advocacy

Working in career development inevitably involves interacting with individuals affected by social injustices (Irving, 2021; McWhirter & McWha-Hermann, 2021). The *social justice advocacy* theme refers to actions career practitioners take to address social inequities. Sub-themes include *views of work*, the *sociopolitical context*, *(in)equity and access*, and *professional voices*. Career practitioners address societal and structural barriers to education and employment through advocacy skills and strategies.

The views of work subtheme acknowledges the diverse ways people engage with work and its associated meanings. Access to work is a human right, essential for income, family support, and community contributions. For some, work is about survival, with job insecurity or unemployment threatening their basic needs. Career practitioners can help clients explore the role of work in their lives, often linked to other roles and relationships. This exploration may foster a stronger sense of agency and self-determination in shaping future career plans. Although paid employment is often emphasized, unpaid care and community work also hold value. Career practitioners engage clients to review the values associated with life roles, noticing signs of fulfillment or strain. Clients can also be supported to identify stressors and positive coping strategies for building resilience and positive mental health, while pursuing desired changes.

The sociopolitical context subtheme shifts focus from the individual to broader societal influences on career development. "Individuals are continuously interacting with their life contexts. Career development interventions must take this into account. Individuals are as much determined by their life contexts as by the actions they take within them" (Cournoyer & LaChance, 2019, p. 102). Career practitioners help clients to understand how structural factors shape their experiences and determine what is within their control. Ongoing assessment includes potential "influences of power, privilege, and/or oppression" (Popadiuk, 2019, p. 336).

The (in)equity and access sub-theme focuses on the distribution of social and economic resources, discrimination, and other forms of oppression. Career practitioners assist clients through highlighting how sociopolitical forces create challenges and persist over time, helping to shift blame from individual vulnerabilities to systemic barriers, while also generating potential solutions. Advocacy for social justice can be integrated into client conversations, sometimes supporting uncomfortable yet often necessary discussions to build on client strengths and help them to access resources. For example, when working in a school system, "find out what prevents a student from accessing career development resources and rights in an institution (e.g., review rules, measures, and methods of delivering development services). Identify the measures, information, or resources that help students to access those services"(Picard et al., 2019, p. 316). Career practitioners work across multiple intervention levels – directly with clients, on their behalf, and through professional networks – to address systemic barriers that impede people's career development.

The professional voices sub-theme relates to ways that career practitioners can build their knowledge and skills for social justice advocacy. Although individual influence is important, collective action through professional associations and interdisciplinary collaboration can be even more powerful in driving systemic change. For example, "on a macro level, representation through professional associations or unions could be sought to define and defend the work of your profession" (Viviers, 2019, p. 431). Social justice advocacy can be practiced at multiple levels; collective efforts to change policies and improve service provision can potentially improve conditions for many people.

Discussion

The inclusion of career theory application in the professional standards of various countries (e.g., Australia and Canada) and organizations (e.g., the International Association for Educational and Vocational Guidance [IAEVG]), is a testament to the importance of understanding and applying career theory. For instance, in Canada, knowledge of career theory has been positioned as a core competency; career development practitioners "draw from a wide variety of traditional and emerging career development theories, models, frameworks and approaches" to inform practice, research, and policies (CCDF, 2021). Australia's *Professional Standards for Career Development Practitioners* lists career development theory as a core competency, requiring practitioners to describe and apply "major career development theories, concepts, research, and associated models and frameworks" (CICA, 2022, p. 11). Similarly, the IAEVG's *International Competencies for Educational and Vocational Guidance Practitioners* (2018) assert that practitioners need the "skills, knowledge, and attitudes" to demonstrate the core competency of "integrating theory and research into practice in guidance, career development, counseling, and consultation." Indeed, career theory serves to differentiate career development from other professions with distinct theoretical frameworks.

Connections Between Foundational Themes and Standards of Practice

The eight themes identified in our research generally align with standards of practice, particularly the theme of theory-based interventions, which assist practitioners in applying and integrating theory into their practice. Further complementarities exist between professional standards and the other identified themes. For example, the themes of *culture and contexts* and *social justice advocacy* align with the diversity and inclusion competencies in these standards, while the themes of *working alliance*, *client characteristics*, and *professional connectedness* align with communication and interpersonal skills competencies (CICA, 2022), effective client communication (IAEVG, 2018), and client-practitioner relationships (CCDF, 2021). Additionally, the themes of *customized practice* and *reflective practice* complement competencies related to professional responsibility

(CCDF, 2021), professional practice application (CICA, 2022), and ethical behaviour (IAEVG, 2018).

Unlike professional standards, however, the themes we identified provide details for implementation through a set of sub-themes that offer practical insights. For instance, the theme *working alliance* and suggestions for implementation are elaborated through its sub-themes: creating a safe space, assessment practices, goal setting and decision making, and evaluating progress. Therefore, career practitioners can refer to the professional standards and seek ideas for practical applications from the eight themes and sub-themes that are based on theory.

Implications for Training and Supervision of Career Development Professionals

As noted, knowledge and application of career development theory is a core competency (CCDF, 2021) or standard of practice for career development practitioners (CDPs; CICA, 2022). However, in many jurisdictions, there is no formal, required training for entry-to-practice, resulting in many CDPs beginning their careers without knowing what they don't know. Their practice may be eclectic and atheoretical, lacking a solid understanding of what works, what doesn't work, and why not. Whether new to the field or more experienced, barriers such as a lack of awareness, avoidance, or a dislike of theory – often stemming from misconceptions, learning experiences, or the inaccessibility of professional resources – must be addressed. A key point to reiterate is that practice can be enhanced through the intentional selection and application of resources designed to bridge theory-practice connections. The eight practice principles were developed to establish a foundation for building expertise in specific theories and models that guide career development practice.

Although some CDPs pursue certification, which often requires coursework in career development theories, many certification programs still lack an emphasis on linking theory to practice. Some certification programs focus on competency assessments, without requiring formal education. As part of ongoing professional development, many CDPs seek additional training to strengthen their practice, but these programs often fail to clearly link theory with day-to-day practical application (Life Strategies, 2013). In many training programs, theory courses are separated from skills or practicum courses, and in others, a single theoretical approach is emphasized, leaving practitioners unaware of how different theories and models complement or contrast with each other.

The eight themes and related sub-themes identified in our analysis offer a comprehensive, theory-informed guide to practice. These transtheoretical themes, derived from the practical application of 43 different theories and models, can provide an integrative framework linking theoretical knowledge to practical interventions. This approach allows for bidirectional learning, where theoretical guidelines are clustered within the eight themes, and practitioners are given opportunities to see how these themes translate into practical interventions. Additionally, a career reflection practice guide has been developed to encourage continued professional learning across the eight themes (Arthur et al., 2024).

For example, in training, theories can be introduced alongside related interventions organized under the eight transtheoretical themes. Alternatively, the themes can be introduced first, with practice points traced back to their theoretical foundations. The Appendix to this article offers an example of this approach, providing a list of exemplars of practice points from each chapter of *Career Theories and Models at Work: Ideas for Practice* (Arthur et al., 2019). Similarly, these eight themes and sub-themes can serve as a strong foundation for the orientation and supervision of new employees, offering a practical conceptual framework for theory-informed practice as a whole and for targeted learning. Additionally, in our workshops based on these eight themes, participants have provided valuable feedback regarding their professional learning interests, which has informed the content of "live" workshops and the design of future training workshops.

Summary and Conclusion

In this article, we have emphasized the critical role of theory-informed practice in career development and highlighted the increasing range of resources available. However, "more" does not necessarily equate to "better"; it is crucial for career practitioners to understand and apply criteria for selecting theories and models. Criteria-based choices enable practitioners to be intentional about the "what," "how," and "why" of theory application with clients. From 43 different perspectives, we distilled eight themes that are rooted in theories and models but centred in practical applications. This transtheoretical approach can help practitioners deepen their general foundational knowledge and scaffold their specific theoretical and practical knowledge by building from each of the eight themes. Although the themes are presented individually, they are interconnected, allowing for nuanced, multi-dimensional applications in practice (Arthur et al., 2024). We encourage career practitioners to explore specific theories and models, compare and critique their utility, and continuously refine their theory-based practices.

In conclusion, theory informs practice, and practice, in turn, informs theory. This discussion has focused on enhancing both general knowledge about theory and specific knowledge of career development theories and models for practical application. In future, these eight themes could be used to create new knowledge and contribute to the ongoing revision and evolution of career theories and models. Further testing and refinement of these themes and sub-themes is essential to improving their utility and their potential to enhance client outcomes. We encourage career practitioners to share innovative ideas for applying these eight themes through ongoing learning, supervision, and professional development.

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Appendix

Examples of Practice Points that Informed Themes and Sub-Themes

Themes and Sub-themes	Examples
Reflective Practice	
Reflection on self	Practice what you preach. For the counsellor, it is necessary to know the core processes from personal experience. Practicing them (e.g., mindful listening) has positive effects on the counsellor's own psychological health, attitude, and competence. (Luken & de Folter, 2019, p. 205)
Reflection on practice	Pause. Take some time to step back and examine what is happening in the work you are doing. Are you making adjustments to fit with the needs of your clients or just following a traditional framework? Does your counselling space look like a creative space where collaborative work is being done? (Amundson, 2019, p. 9)
	Career counsellors must fine-tune their ability to pinpoint the origin of these shifts—which are delicate, fragile, and intangible—in their clients' perception of the world of work. They will then be better able to help their clients in their continuous career transitions. Career counsellors must pay particular attention to the very first moments of a shift, which are precursors to meaning and therefore precede any change in one's participation in this world. These moments are experiential prerequisites to a commitment to an important process, namely the continuous career transition process. (Riverin-Simard & Simard, 2019, p. 377)
Culture and context	
Client worldview	Acknowledge client expertise. Clients are the experts on their lives and the ways that their cultural identities and contexts may be relevant for their presenting concerns. (Arthur, 2019, p. 30)
Methods, tools, assessments	Consider cultural context. Clients' family and cultural backgrounds should be taken into consideration in selecting and administering assessments, interpreting assessment results, and designing SCCT-based interventions. Counsellors should also be aware of their own assumptions and biases toward different cultural groups. (Sheu & Wang, 2019, p. 390)
Organizations	Provide employees with the opportunity to share their visions and to have input into the organization's vision/outcomes. (Bernes, 2019, p. 52)
	Notice change. Be mindful of the ongoing changes in work-environment requirements and individuals' needs. This information can help individuals navigate discorrespondence as it arises. (Woodend, 2019, p. 454)
Multiple pathways	Explore previously unrecognized pathways. Career counsellors may identify potential educational or vocational/career pathways that are not apparent to the client. (Vondracek & Ford, 2019, p. 441)
Working alliance	
Creating a safe space	Make it safe for students/clients to feel and express thoughts and emotions. Creative introductions where people aren't asked about their career or social standing make for inspiring starts to the process. (Lengelle et al., 2019, p. 193)
	Establish a respectful, caring, trusting, and mattering relationship with clients. Seeking help, in general from someone they don't know, may expose individuals to a sense of vulnerability. Relationship building is not a single step but is essential to work on throughout the counselling process. (McMahon & Patton, 2019, p. 247).
Assessment practices	Ongoing assessment. All career development interventions must be based on an initial and ongoing assessment of an individual's personal resources, psychological functioning, and life conditions. (Cournoyer & LaChance, 2019, p. 102)
Goal-setting and decision-making	Choose small steps to begin the next chapter. Setting a goal is only as helpful as the actions that the client takes toward the goal. Help the client to identify two or three small steps, recognize that there may be obstacles, brainstorm resources that can be used to manage these obstacles, and monitor progress. (Brott, 2019, p. 82)
Evaluating progress	View guidance methods from the cultural preparedness viewpoint. It is important to evaluate the cultural relevance of methods and tools used in career guidance when working with students to match their needs and abilities. (Aravind & Arulmani, 2019, p. 20)

Themes and Sub-themes (cont'd)	Examples
Client characteristics	
Personal characteristics	Exploring constraints and opportunities. Explore how the properties of pathways (e.g., accessibility, mobility, prestige, extrinsic rewards) may be affected by client characteristics (e.g., gender, social circumstances, cultural identity) and context (e.g., historical time and place). Discuss meeting challenges. Engage in relevant advocacy. (Bakshi & Fialho, 2019, p. 40)
	Help counsellees represent their learning and progress. Use SPARKS systems and tools to help keep track of identified strengths and areas needing improvement, as well as desired qualities in future jobs. (Kattelus, 2019. p. 182)
Competencies/skills	Enhance career competency. Help clients gain, further, and polish concrete skills in building and managing their life-careers. The career counselling process reinforces and facilitates clients to become intentional, transformative, and life-long learners who are better equipped with pertinent skills to encounter issues, changes, and challenges in the real world of work. Helping clients form and use an accurate belief of career self-efficacy strengthens career competency. (Chen & Hong, 2019, p. 92)
	Skills can be learned. Effective career decision-making and problem-solving are teachable. (Osborn et al., 2019, p. 306)
	Consider ways in which you could creatively re-combine your/ your client's current knowledge, skills and abilities, that may lead to a new narrative and possibilities in the labour market. By changing one's perspective on one's experience and skill set, hitherto unappreciated transferable skills can be revealed. This can open up new and unexpected opportunities. (Pryor & Bright, 2019, p. 358)
Motivation	Assess motivation. A subjective investigation of your client's personal interests, passions, and desires is needed. (van Brussel, 2019, p. 422)
	Support empowerment. Counsellors can be facilitators and cheerleaders for their clients, encouraging them to build resilience, to become cognizant of their strengths, and to advocate for themselves. (Tang, 2019, p. 410)
Readiness for change	Transitions are universal and a common part of life. Everyone experiences transitions throughout life, some big and some small. They are common to all, yet unique to each individual. (Goodman, 2019, p. 134)
	The two most reliable predictors of navigating change are hope and confidence. Constantly seek ways to provide behavioural-descriptive feedback (to develop confidence) and identify bridges to possibility (to develop hope). (Magnusson & Redekopp, 2019, p. 216)
	Transitions are normative and non-normative. The HAC model outlines normative transitions that an athlete is likely to experience. However, it may also be useful for practitioners to explore athletic career transition literature to become familiar with non-normative transitions that athletes may face. (McCoy, 2019, p. 236)
Customized practice	
Practice	Encourage adaptability. Teach clients not to be slaves to goals and plans. Encourage them to be open and flexible while keeping in mind their highest priority in life. (Niles et al., 2019, p. 293)
Clients	Start with what the client wants. It is essential that clients choose their own direction for the interview. The practitioner may ask one or more of the following: What hopes do you have for today? [To establish a goal for the session]; What hopes do you have from today? [To describe a preferred future]; What will tell you that coming here was a good idea? (Miller, 2019, p. 259)
Process	Connect to daily life. Career counselling is only effective if in-session work is connected to the client's daily life. Counsellors should explicitly focus on this task throughout their work. (Domene & Young, 2019, p. 124)
	Process of career development. Students should progress in their understanding of the processes involved in career development. Learning that there is a process involved in choosing and obtaining jobs may be facilitated by field trips or career days that allow children to learn about why and how others chose their jobs and how they pursued them. At the later levels of reasoning, children are able to understand specific steps involved in career development and attainment and to grasp the importance of career adaptability. (Howard & Dinius, 2019, p. 169)

Themes and Sub-themes (cont'd)	Examples
Theory-based interventions	
Evidence-based	Change can be enhanced via evidence-based practice. Using theory and research from the PWF and PWT, counselling can enhance specific change elements such as fostering critical consciousness and career adaptability. (Blustein et al., p. 72)
Range	Consider a range of career interventions. . . For instance, if the client is in the exploration stage or has recycled to that stage, you could consider from among the many exploration activities that are suggested in the career literature. (Watson, 2019, p. 452)
Format	Realizing a collective project. The project completed by the group met the needs of a community. It helped counter isolation and allowed participants to be seen in terms of their skills. It also fostered learning and empowerment. (Dionne & Dupuis, 2019, p. 113)
	MCC can be used with groups. MCC can be used in individual career counselling or in group counselling or career education workshops. In group settings, there are added opportunities for peer feedback and social support. (Healy & McIlveen, 2019, p. 157)
Holistic	Acknowledge complexities in people and environments. People and environments can have characteristics of several RIASEC types. Practitioners encourage clients to consider environments with any combination of RIASEC types they resemble, not limiting their exploration to environments with an exact match to their Holland codes. (Nauta, 2019, p. 270)
	Practice your capability to view the client and the counselling event in a holistic manner. Acknowledge that "everything affects everything else." (Spangar, 2019, p. 400)
Integrative	Listen "for" stories. Use the integrated approach of career construction counselling to listen "for" clients' career-life stories rather than "to" these stories. (Maree, 2019a, p. 226)
	Connect the concepts. The concepts of connection, disconnection, and reconnection provide a basic way of organizing your client's career story. (Popadiuk, 2019, p. 336)
Systemic	Consider both internal and external resources. Not all problems (or solutions) reside within the individual. Changes in a variety of interconnected systems may help individuals to re-engage. (Neault & Pickerell, 2019, p. 281)
Professional interconnectedness	
Colleagues	Create professional alliances. Alliances can help you to stand your ground in multidisciplinary teams, to inform colleagues about your profession and the role you play in your organization, or to claim the conditions or resources required for the professional practice of counselling in your workplace. (Viviers, 2019, p. 431)
Lifelong learning	Adopt cross-training as part of your life-long learning strategy. If you are working with increasing diversity, the sources you typically use may not address all of the issues you face. Reading outside your field may provide helpful insight into thoughts or activities that others have used to address some of the issues you are working with. For example, some helpful areas to read about include creativity and imagination, cross-cultural communication, posttraumatic growth, neurocognition and brain plasticity, and story. (Poehnell, 2019, p. 326)
Social justice advocacy	
Views of work	Describe one's optimal work situation in the context of one's current life. (Goyer & Dumas, 2019, p. 146)
	In talking to clients about their work, be sure to encompass care work in personal lives as well as market work. Calling attention to care work can validate this typically unconsidered and/or devalued aspect of clients' life experience. (Richardson, 2019, p. 368)
Sociopolitical context	How familiar are you with the social factors in your society that are most strongly associated with social inequality? Understanding the primary sources of inequality and how these interconnect and compound disadvantage (for example, gender with ethnicity) is a necessary step to developing a practice approach that responds to inequality. For example, examine rates of unemployment and the social characteristics of the most vulnerable in your society. (Bimrose, 2019, p. 62)

Themes and Sub-themes (cont'd)	Examples
(In)Equity and access	Examine the resources and the formal rights pertaining to guidance services. Consider whether or not students from targeted populations (e.g., female, socioeconomically disadvantaged group, ethnocultural group, or students with disabilities) are impacted by any inequality or have different access to, or use of, educational rights and resources, compared to those of their peers. (Picard et al., 2019, p. 316)
Professional voices	Provide positive social advocacy for clients who are culturally diverse. (Pope, 2019, p. 346).
	More voices count. Collectively speak out for your profession so as not to individualize the challenges and the effort needed, which could require an excessive amount of energy. (Viviers, 2019, p. 431).

Assessing the Fidelity of STEM Professional Identity Statuses using Cut-Off Scores for Small Populations

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Abstract

This study utilized a cross-sectional research study design to compare identity status assignments based on the Professional Identity Status Questionnaire (PISQ-5d) categories scores for affirmation, in-depth exploration, practices, commitment, and reconsideration of commitment via both cluster analysis and cutoff scores with respect to the two-factor, three-factor, or five-factor identity status models proposed by Marcia, Crocetti, and Kelly, respectively. The purpose of this study was to determine if cutoff scores could be utilized in lieu of cluster analysis for smaller populations. It was found that cut-off scores aligned with Marcia's framework were aligned with more robust statistical cluster analysis.

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The Science, Technology, Engineering, and Mathematics (STEM) workforce is a crucial component of a nation's innovative capacity, contributing to improving living standards, economic growth, and global competitiveness (Okrent et al., 2021). Concern for the shortage of skilled STEM professionals persists (Waite & McDonald, 2019), despite the US focus on STEM innovation and development. It is projected that there will be 3.5 million STEM jobs in the US by 2025, yet 2 million of those jobs are projected to be unfilled (Red Pen Content Creation, 2023). Previously, it was believed that 99% of STEM employment required a postsecondary degree (Fayer et al., 2017). Although this value may have shifted slightly since it was reported in 2017, institutions of higher education remain in a pivotal role for STEM workforce development.

One area of focus in addressing this shortage and a key challenge for institutions of higher education has been on the retention of STEM majors (Olson & Riordan, 2012). The literature indicates that students from historically marginalized groups (Hispanic, Black, American Indian and Alaskan Native) and females have been historically underrepresented in the STEM disciplines, partly due to lower retention rates (Chang et al., 2014; Cooper, 1983; Hill et al., 1990; Levine, 1985). In the 18-34 age range in the U.S., 37% of the population were from historically marginalized groups, yet, they only accounted for 26% of bachelor degree recipients in a cohort of science and engineering students in 2020 (National Science Foundation [NSF], 2023). Furthermore, the National Science Foundation (NSF, 2009) reported that despite Latino and African American undergraduates being just as likely as their Caucasian counterparts to enter college with the intention to major in STEM, they were much less likely to earn a degree in those majors. According to the National Center for Educational Statistics, less than 8% of the STEM degrees conferred in 2022 went to black students (Institute of Education Sciences National Center for Education Statistics, 2022). Attracting historically marginalized populations to STEM is not the primary concern as it has been shown that underrepresented students in STEM declare their interest in STEM at the same rate as other students (National Academies of Science, Engineering, and Medicine, 2022). Therefore, the focus must be on the retention of these individuals, and in fact all individuals who declare a STEM major.

Numerous factors have been identified to impact the retention of STEM majors. Over time the research has shifted its focus from understanding cognitive factors to affective factors (such as self-efficacy, motivation, and more recently STEM identity) and their effect on retention in STEM majors. This paper focuses on STEM identity as it is influenced by numerous affective characteristics. STEM identity is defined as one's self-recognition or recognition by others as a STEM person (Carlone & Johnson, 2007) and often correlates with participation in specific practices affiliated with that affinity group or community of practice (Carlone & Johnson, 2007; Gee, 2000). Someone with a strong STEM identity feels that they fit in within the STEM field whereby they see themselves as STEM learners and contributing to the STEM field (Center for the Advancement of Informal Science Education, 2018). Unfortunately, literature indicates that many ethnic minority youths are not exposed to the same science experiences or STEM-related hobbies outside of school as their Caucasian classmates, so they enter college with less science capital (Jones et al. 2021)STEM

Experiences, and Tool Access. Furthermore, lack of STEM role models who look like them can diminish the development of STEM identity (Marx et al., 2009; Starr et al., 2020)classroom experiences (felt recognition as a scientist and perceived classroom climate. In the same vein, professional identity is defined by Mancini et. al (2015) as, "one's identification with the groups and social categories to which one belongs by virtue of one's job." Research has shown that the development of a strong STEM identity results in greater persistence and retention in STEM majors (Chemers et al., 2011; Martin-Hansen, 2018; Perez et al., 2014; Simpson & Bouhafa, 2020) positive science, technology, engineering, and mathematics (STEM. Simply put, if one is not able to envision themselves in a STEM role, they will not continue to pursue a STEM career. Therefore, by understanding and employing teaching practices that foster the development of a strong STEM identity, we may slow or stop the leaking of the STEM professional pipeline by increasing the retention of STEM majors.

Current practices that have been reported to impact the development of a student's STEM (professional) identity have focused on the need for diverse role models and career development activities (Buunk et al., 2007; Marx & Ko, 2012). A long-term goal the authors seek to understand is how various teaching practices that are employed within STEM content courses impact a student's STEM identity. There are several instruments that exist in the literature that measure STEM identity (Hazari et al., 2013; Waite & McDonald, 2019; Young et al., 2013), however the Professional Identity Status Questionnaire (PSIQ-5d) includes a unique set of five factors (*affirmation, in-depth exploration, practices, identification with commitment, and reconsideration of commitment*). Each factor, defined in Table 1, has the potential to inform which teaching practices may most impact students. Collectively, identity practices are mapped onto identity statuses, the method of which has evolved over time and is discussed in greater depth in the Theoretical Framework section. The current downside of using the PISQ-5d is that the assignment of a student's STEM identity status had been determined by using cluster analysis. To date, the use of the instrument separate from utilization in a cluster analysis, particularly the instruments' application to smaller populations has not yet been reported. Therefore, the goal of the present research is to understand if a simplified method of assigning identity statuses can be used for smaller populations.

Table 1

Definitions of Practices That Contribute to Identity Formation

Identity Practice	Definition
Affirmation	The value an individual places on being part of the profession.
In-depth exploration	The active questioning and weighing of various identity alternatives before making decisions about the values, beliefs, and goals that one will pursue.
Practices	The behaviors a person may exhibit when engaging in a career.
Identification with commitment	Making a relatively firm choice in an identity domain and engaging in significant activities oriented toward the implementation of that choice.
Reconsideration of commitment	The comparison of present commitments with alternative commitments because the current ones are no longer satisfactory.

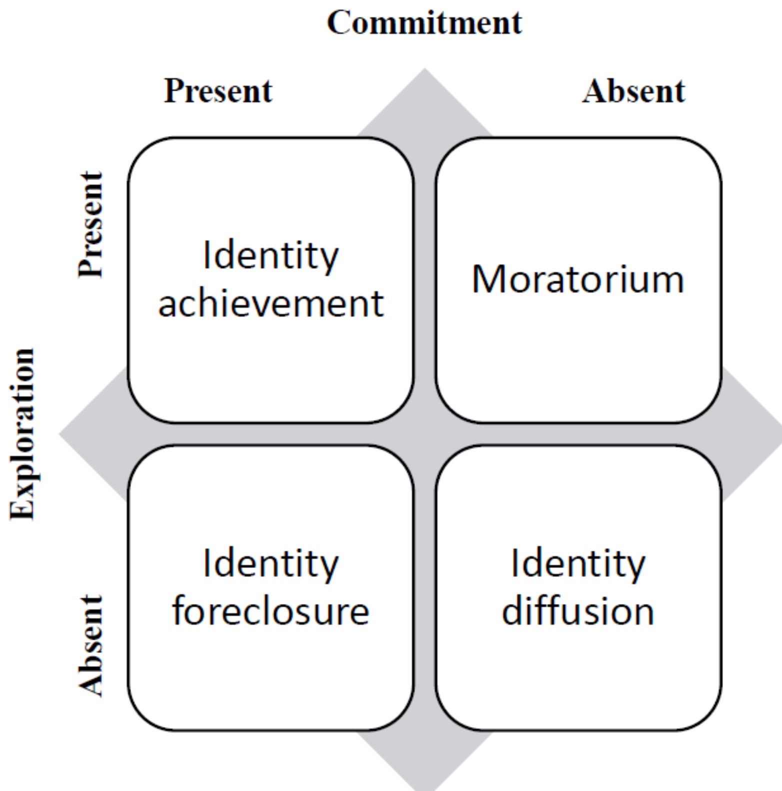
Theoretical Framework

The most recent literature related to STEM identity has focused on the strength of one's identity as measured by instruments that evaluate factors that contribute to the development of their identity. However, the authors of this paper have sought to focus on professional identity status research and the related theoretical frameworks to shape this current research study. This approach allows students to be classified by identity status which allows an instructor to understand an individual's commitment to a future profession and how these could be further shaped by instruction, advising, or other educational interventions. This section will summarize the iterative research process that has contributed to the most recent framework for identity statuses.

Identity status research is situated on the seminal research of James Marcia (1966). His research sought to elaborate further on what Erickson (1950) posited regarding the pivotal transition from childhood to adulthood during a stage of ego identity formation. Based on empirical evidence, Marcia (1966) proposed a framework, as shown in Figure 1, that describes an individual's identity status relative to two dimensions: *exploration and commitment*.

Figure 1

Marcia's Identity Status Model



Exploration is described as active questioning and consideration of alternative identities before adopting an identity will be taken on to guide an individual's values, beliefs, and goals. *Commitment* is described as making a firm choice about an identity domain which would guide the activities in which a person would choose to become involved. Thereafter, participation in activities and practices affiliated with that identity domain would serve and enhance the confidence of the individual within that chosen identity domain. Along these two dimensions emerges four identity status. The strongest identity status is *achievement*, whereby individuals have made a strong commitment to an identity status following a period of exploration. Opposing this is *diffusion* where there is much uncertainty regarding a specific identity domain and as a result there has been a lack of exploration and no commitment to an identity domain. The *foreclosure* identity status is used to characterize individuals who have made a strong commitment to an identity domain with little or no prior exploration. Lastly, the *moratorium* status describes individuals who have not made a commitment to an identity domain but are actively exploring multiple identity domains (Figure 1). A summary of each of the professional identity statuses as they align with the identity practices is provided in Table 2.

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Table 2
Comparison of Identity Status Criteria

		Affirmation	In-Depth Exploration	Practices	Commitment	Reconsideration of Commitment
Marcia	Achievement		High		High	
	Foreclosure		Low		High	
	Moratorium		High		Low	
	Diffusion		Low		Low	
Crocetti	Achievement		High		High	Low
	Foreclosure		Low		High	Low
	Moratorium		Low		Low	High
	Diffusion		Low		Low	Low
	Searching moratorium		High		High	High
Kelly	Achievement	High	High	High	High	Low
	Foreclosure	High	Low	Low	High	Low
	Moratorium	Low	Low	Low	Low	High
	Diffusion	Low	Low	Low	Low	
	Searching moratorium	High	High	High	High	High

Since the development of Marcia's identity status framework, numerous researchers (Bosma,1985; Luyckx et al., 2006; Meeus, 1996; Meeus et al., 1999) have explored the various types of commitment and exploration that contribute to one's identity status. Collectively this research served to demonstrate the social natures of identity formation and most importantly the malleability of one's identity. As a result, Crocetti and coworkers (Crocetti et al., 2010) 975 have proposed a revision to Marcia's model to incorporate a third dimension: *reconsideration of commitment*. This dimension describes the degree to which an individual is comparing the identity domain that they are currently committed to alternatives, since the current domain is no longer fulfilling.

Table 2 depicts how each identity status would be defined using the three dimensions. Due to the addition of this third dimension, *exploration* is reclassified as *in-depth exploration* to describe only the process of reflecting on the current identity domain one is committed to and seeking out information for this current identity domain. The introduction of a third dimension has led to further refinement of the *moratorium* identity status. The previous definition focused on individuals who had not committed to an identity domain and demonstrated a need to introduce a fifth identity status, *searching moratorium*. *Searching moratorium* is defined as an individual who has high commitment to an identity domain following a period of extensive *in-depth exploration* but is actively reconsidering their commitment to the identity domain to a great extent. Individuals with this identity status are best described as fluctuating between the *achievement* and *moratorium statuses* (Stephen et al., 1992) (Figure 1).

As the identity status frameworks have evolved over time, the focus has been on personal attributes that shape one's identity status. However, Social Identity Theory (Tajfel, 1981) highlights the significant role that interactions an individual has with the group members shape their self-concept and directly impact their identity development. As a result, the dimensions used to identify one's identity status have been expanded. The new framework included five dimensions with the addition of *affirmation* and *practices*. *Affirmation* is defined as the importance one places on being a part of a professional group and the sense of pride it brings to oneself which originates from intergroup interaction (Mancini et al., 2015). The practices dimension also highlights the interaction one has with a professional category by measuring the degree to which one engages in activities that are characteristic to that profession. The new practice is differentiated from *in-depth exploration* in that the individual is actively engaged in the exploration process, while *in-depth exploration* can be passive exploration such as watching videos of what a person in the profession does or reading reports published by professionals in the field. Table 2 summarizes how the five dimensions are used to assign the five identity statuses previously described.

The research presented herein steps through each of these frameworks for defining an individual's identity status to determine the most appropriate framework for assigning identity statuses. Therefore, this paper seeks to propose a new method of assigning a student's STEM professional identity status based on the use of cut-off scores by answering the following research questions:

1. How does professional identity status assignment based on cutoff scores compare to cluster analysis results for smaller populations?
2. Do the demographic characteristics of the participants from the various identity statuses provide evidence for criterion validity based on previous literature?

Methods

This study administered the Professional STEM Identity Status Questionnaire (PISQ-5D), along with some additional demographic questions, to a sample of two cohorts via Qualtrics Survey Solutions Online Survey Software. This research was approved by the Institutional Review Boards of both Kennesaw State University (KSU) and Oakland City University (OCU). Participants from each university were recruited verbally by instructors of their STEM courses and granted informed consent before completing the online questionnaire. The sample included 360 undergraduate students. A total of 203 females and 124 males participated from KSU, while a total of 24 females and 9 males participated from OCU. The sample consisted of students from Science (279), Technology (10), Engineering (39), Mathematics (1), and other (29) majors.

Questionnaire

The Professional Identity Status Questionnaire (PISQ-5d) was developed and validated by Mancini et al (2015) to measure the process of psychologists' professional identity status construction. Kelly (2020) adapted the PISQ-5d to measure the process of undergraduate STEM students' professional identity construction by replacing the word psychologist with the term STEM professional in each item. The instrument includes twenty items, with four items pertaining to each of five categories: *affirmation, in-depth exploration, practices, identification with commitment, and reconsideration of commitment*. The participants utilized a Likert-scale range to report how important each item was to them (1 = Not at all through 5 = Very much).

Data Collection Procedures

Participants from both institutions completed the online questionnaire at the end of the fall term. The responses were downloaded from Qualtrics into an Excel spreadsheet and cleaned in the following manner: (1) any duplicate questionnaire responses from a single participant were removed, keeping the first completed questionnaire; (2) participants younger than 18 were removed; (3) incomplete questionnaires were removed; (4) text-based responses (i.e. class standing) were assigned nominal variables; and (5) the education earned by parents/guardians question was translated into First-generation college student or not First-generation college student.

Data Analysis Procedures

Additional columns were added to the Excel spreadsheet to tally the five category scores. Each category score was then translated to a dichotomous value of "high" or "low" relative to an identified cut-off score. The "high" or "low" values for each category, were then compared, using if/then formulas in Excel, to the literature reported definitions for each of the three identity status models (Marcia, Kelly, and Crocetti) as per Table 2 to assign each participant an identity status. Any participant whose High/Low category scores did not correspond to an identity status definition were left blank.

Results

Sample Demographics

A chi-square test of independence was performed to compare the genders of the participants from the two institutions. The relation between these variables was not significant, indicating that the proportion of males to females at Kennesaw State University and Oakland City University were comparable (124:203 at KSU versus 9:24 at OCU). A chi-square test of independence was performed to compare the ages of the participants from the two institutions. The relation between these variables was significant, $\chi2$ (12, N= 360) = 49.614, $p< 0.05$. Older students (25+ years old) were more likely to attend Kennesaw State University than Oakland City University (2% versus 0%). A chi-square test of independence was performed to compare the races of the participants from the two institutions. The relation between these variables was significant, $\chi2$ (5, N = 360)= 20.116, $p < 0.05$. Participants from Kennesaw State University (7% Asian, 22% Black/African American, 44% White, 17% Hispanic/Latino, 8% Multiracial, 2% Other/Preferred not to say) were more diverse than those from Oakland City University (0% Asian, 18% Black/African American, 82% White, 0% Hispanic/Latino, 0% Multiracial, 0% Other/Preferred not to say). A chi-square test of independence was performed to compare the ethnicities of the participants from the two institutions. The relation between these variables was not significant, indicating that the proportion of Hispanic/Latino participants to Not Hispanic/Latino participants at Kennesaw State University and Oakland City University were comparable. A chi-square test of independence was performed to compare first generation college student status of the participants. The relation between these variables was significant, $\chi2$ (2, N = 360) = 25.507, $p < 0.05$. Participants from Kennesaw State University were more likely to be first generation college students than those from Oakland City University (39% versus 85%).

A chi-square test of independence was performed to compare the majors of the participants from the two institutions. The relation between these variables was not significant. The highest percentage of participants by major from Oakland City University were Biology and Psychology (50% and 10%), while the highest percentages of participants by major from Kennesaw State University were Biology and Engineering (48% and 12%, respectively). (Note: Oakland City University does not offer Chemistry, Computer Game, Cybersecurity, or Nursing majors.) The study population was predominantly comprised of first-year students (65%), with 23% sophomore, 7% juniors, and 5% seniors. A chi-square test of independence was performed to compare the living arrangements of the participants from the two institutions, which indicated that the relation between these variables was not significant, indicating that the proportions of participants at Kennesaw State University and Oakland City University living off campus alone or with friends (22% versus 15%), living off-campus with family (41% versus 27%), or living on campus (37% versus 58%) were comparable.

A Mann-Whitney U test was performed to evaluate whether the PISQ-5d dimensional scores differed by institution (Table 3). The results indicated that there was no significant difference between the dimensional scores of the participants from Kennesaw State University and Oakland City University. Therefore, the participants PISQ-5d dimensional scores were pooled as a single sample for further analyses.

Table 3

Professional Identity Status (PISQ-5d) Dimensional Scores

	KSU N= 327		OCU N= 33		Total N= 360	
	Mean	**St. Dev.**	**Mean**	**St. Dev.**	**Mean**	**St. Dev.**
Affirmation Total	16.17	3.448	15.27	3.394	16.09	3.448
In depth exporation Total	14.40	3.162	13.12	2.997	14.29	3.165
Practices Total	12.04	3.546	11.88	3.324	12.03	3.522
Identification with commitment Total	14.69	4.171	14.48	3.554	14.67	4.114
Reconsideration of commitment Total	10.59	3.995	9.73	2.625	10.51	3.895

Research Question #1:

The use of cut-off scores to assign an identity status improves upon the practicality of the PISQ-5d instrument, since it reduces the need for statistical software to assign the STEM professional identity to individuals. In addition, the criteria for each cluster do not change for each unique sample that may be analyzed. Cut-off scores that ranged from 13-18 were explored, so that anything above the cut-off score would be considered high for the identity practice. Thirteen was chosen as the minimum score to explore since this would correspond to selecting a 4 on at least one prompt and 3, or neutral, on the remaining three prompts for identity practice.

Upon assigning the identity statuses using Kelly's definition using cut-off scores between 13 and 18, as shown in Table 4, there was a sizable portion of the sample (ranging between 59.9% and 32.3%) in which an identity status could not be defined. This phenomenon occurred because the number of permeations for five categories with two variables exceeds the number of defined identity statuses. Therefore, the original method of utilizing the results of the PISQ-5d instrument to assign identity statuses based on cut-off scores had to be abandoned. It did, however, cause the researchers to explore the results for each category more closely.

Table 4

Composition of Sample Based on Identity Status Using Cut-off Scores and Kelly's Definition

	Cut-off Score					
Identity Status	**13**	**14**	**15**	**16**	**17**	**18**
Achievement	84 (23.3%)	63 (17.6%)	40 (11.1%)	24 (6.7%)	9 (2.5%)	5 (1.4%)
Moratorium	10 (2.8%)	11 (3.1%)	9 (2.5%)	12 (3.3%)	12 (3.3%)	9 (2.5%)
Searching moratorium	29 (8.1%)	18 (5.0%)	8 (2.2%)	3 (0.8%)	1 (0.28%)	1 (0.3%)
Foreclosure	18 (5.0%)	28 (7.8%)	47 (13.1%)	51 (14.1%)	62 (17.3%)	51 (14.2%)
Diffuse	16 (4.4%)	24 (6.7%)	42 (11.7%)	70 (19.4%)	114 (31.8%)	177 (49.3)
Unassigned (Blank)	203 (56.4%)	215 (59.9%)	214 (59.4%)	200 (55.6%)	161 (44.9%)	116 (32.3%)

The mean and standard deviation of the overall student responses for each identity practice were *affirmation* (M = 16.1, SD = 3.4); *in-depth exploration* (M = 14.3, SD = 3.2); *practices* (M = 12.0, SD = 3.5); *identification with commitment* (M = 14.7, SD = 4.1); reconsideration of commitment (M = 10.5, SD = 3.9). *Affirmation* scores were severely skewed, with 87.9% of students ranked as high for *affirmation* when a cut- off score of 13 is used. *Affirmation* as it relates to the PISQ-5d may be described as one's sense of pride for the profession or the value one places on being a part of a profession. It is believed that these high scores for *affirmation* may be a residual effect from the importance and value society has placed on STEM professions. As a result, this may be interpreted that the first-year students in this sample lacked knowledge of what it means to be a professional in their desired field and therefore overestimated the personal value towards being a part of the profession.

Due to the skewed results for *affirmation* scores, the researchers considered how the data from the PISQ-d could be applied to past frameworks for defining one's professional identity status. Prior to Kelly's definition for each STEM professional identity status based on the five identity practices explored above, Crocetti defined the same five professional identity statuses using three constructs, including: *in-depth exploration, identification with commitment, and reconsideration of commitment*. Table 5 displays the professional identity status assignments for the sample using only those factors from the PISQ-5d responses that corresponded to Crocetti et al definition. It became apparent that the reduction in identity practices from five to three improved the assignment, however a large portion of individuals still had no professional identity status assigned.

Table 5

Composition of Sample Based on Identity Status Using cut-off Scores and Crocetti's Definition

	Cut- Off Score					
Identity Status	**13**	**14**	**15**	**16**	**17**	**18**
Achievement	165 (45.8%)	145 (40.3%)	119 (33.1%)	87 (24.2%)	45 (12.5%)	24 (6.7%)
Moratorium	19 (5.3%)	16 (4.4%)	11 (3.1%)	15 (4.2%)	14 (3.9%)	12 (3.3%)
Searching moratorium	56 (15.6%)	36 (10.0%)	21 (5.8%)	10 (2.8%)	6 (1.7%)	4 (1.1%)
Foreclosure	37 (10.3%)	55 (15.3%)	69 (19.2%)	73 (20.3%)	81 (22.5%)	69 (19.2%)
Diffuse	36 (10.0%)	57 (15.8%)	83 (23.1%)	122 (33.4%)	173 (48.1%)	228 (63.3%)
Unassigned (Blank)	47 (13.1%)	51 (14.2%)	57 (15.8%)	53 (14.7%)	41 (11.4%)	23 (6.4%)

Upon consideration, the data presented in Table 5, depicts a much more effective assignment of professional identity statuses when the Crocetti model for professional identity statuses was used. However, when a two-step cluster analysis was also performed to compare the results obtained using the cut-off method, five distinct identity status could not be found. Full cluster results are reported in the Supplemental Material.

Due to the poor agreement between the cut-off assignments and the cluster analysis assignments, the researchers returned to the original framework to define professional identity statuses proposed by Marcia. The Marcia identity status model defined four professional identity statuses (*achievement, foreclosure, moratorium,* and *diffuse*) based on only two constructs: *identification with commitment* and *in-depth exploration*. Using the same PISQ-5d responses for these two identity practices and the cut-off score method, all students were assigned a professional identity status. The composition of the sample in which identity statuses for each cut-off score are shown in Table 6.

Table 6

Composition of Sample Based on Identity Status Using cut-off Scores and Marcia's Definition

	Cut-Off Score					
Identity Status	**13**	**14**	**15**	**16**	**17**	**18**
Achievement	221 (61.4%)	181 (50.3%)	140 (38.8%)	97 (26.9%)	51 (14.2%)	28 (7.8%)
Moratorium	44 (12.2%)	49 (13.6%)	51 (14.2%)	51 (14.2%)	39 (10.8%)	22 (6.1%)
Foreclosure	40 (11.1%)	57 (15.8%)	75 (20.8%)	75 (20.8%)	83 (23.1%)	70 (19.4%)
Diffuse	55 (15.3%)	73 (20.3%)	94 (26.1%)	137 (38.1%)	187 (51.9%)	240 (66.7%)

The two-step cluster analysis also produced improved results as shown in Figure 2. To determine which cut-off score was optimal, a comparison of the cut-off score assignment and the cluster analysis assignment was made. The percent agreement for each cut-off score is shown in Table 7. It was concluded that using a cut- off score of 15 for each identity practice produced the greatest alignment with cluster analysis assignments.

Figure 2

Composition of Participants by Class Standing

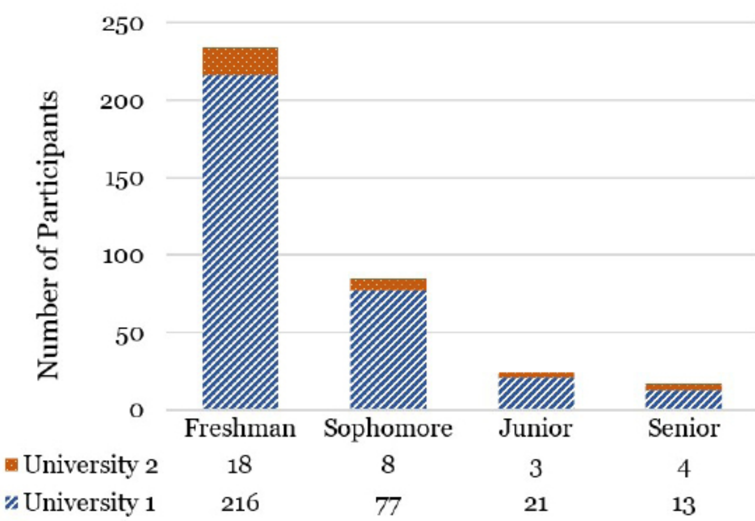


Table 7

Agreement Between cut-off Assignments and Cluster Analysis Results

Cut-off Score	% Agreement
13	66.6
14	76.7
15	83.6
16	73.6
17	49.7
18	34.4

Research Question #2:

The proportion of assigned identity statuses were then analyzed with respect to nine demographic variables, including: gender, age, race, ethnicity, first-generation status, major, discipline category, and class standing. A multiple linear regression was calculated to predict identity status based on gender, age, race, ethnicity, first-generation status, and major. A significant regression equation was found ($F(6,351) = 2.261$, $p<0.05$), with an R^2 of .037). Participants' predicted identity status is equal to

2.020 -.348 (gender) + 0.60 (race) – .003 (ethnicity) - .196 (First-generation status) + 0.036 (age) - .005 (major), where the only significant independent variable is the participants' gender ($p<0.05$).

The largest differences in proportion of identity status category by gender were the *achievement* and *diffuse* identity statuses (see figure 3). Namely, 46.6% of female participants versus 34.4% of male participants were categorized in the *achievement* identity status, while 24.0% of female participants were categorized in the *diffuse* identity status versus 35.2% of male participants.

Figure 3

Identity Status by Gender

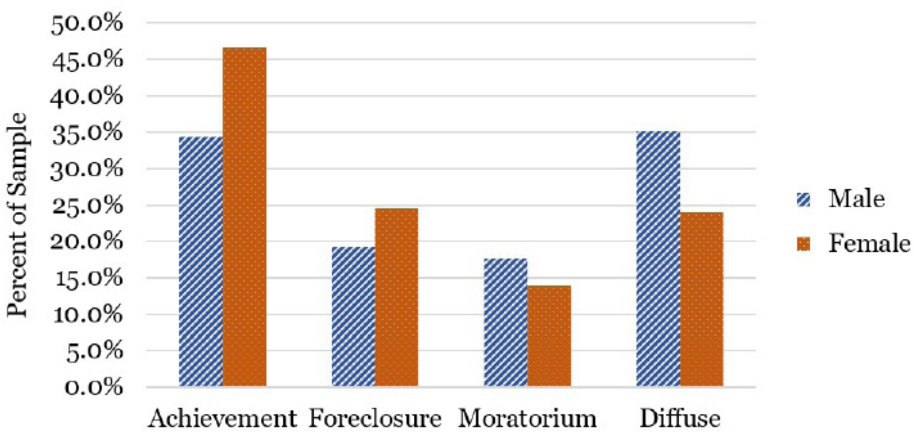
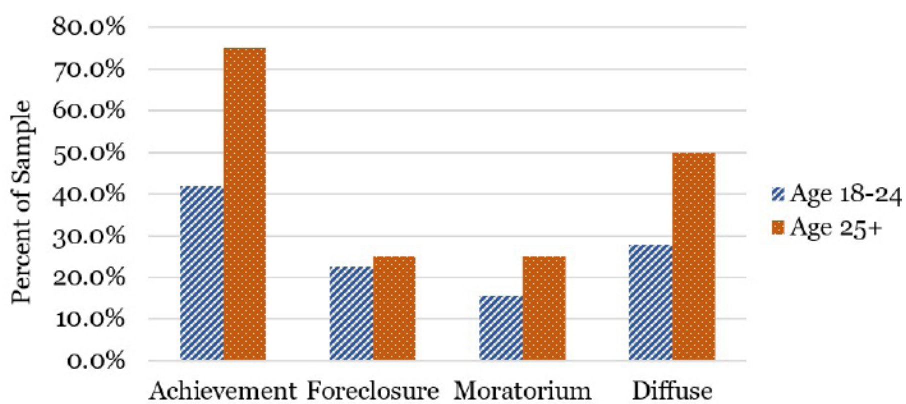


Figure 4

Identity Status by Age



When the participants were categorized by age group (see figure 4), the percentages of participants 18-24 years of age categorized in the *achievement* identity status was slightly lower than those 25 years and older. The reverse is observed for the *foreclosure* status in which case a slightly larger number of 18-25 years of age make up this status when compared to those who are 25 years of age or older. The two groups were comparable with respect to *moratorium* and *diffuse* identity statuses.

Figure 5 indicates that the proportion of the four identity statuses were comparable for Black/ African American, White, Multiracial and Unknown race categories, while the participants who identified as Hispanic were more often classified in moratorium and less often categorized as *diffuse*. Likewise, the participants who identified as Asian had notably higher proportions of *achievement* and *foreclosure*, minimal *diffuse*, and *no moratorium* identity statuses. As shown in Figure 6, First-Generation students were categorized in the achievement, foreclosure, and moratorium identity statuses in higher proportions than their Not First-Generation counterparts, who were more likely to identify in the *diffuse* identity status.

Participants in Science, Technology, or Engineering majors were classified in the *achievement* identity status in comparable proportions (see figure 7), although the proportion of *foreclosure* identity status participants was much higher among the Engineering majors than Science or Technology majors. Furthermore, Engineering majors were classified as *diffuse* less than half as often than the Science or Technology majors. The researchers refrain from comparing the proportions of each identity status for the one Math major participant. The 29 participants listed as "Other" in Figure 7 identified as pursuing a variety of major focuses, including architecture, criminal justice, elementary education, interdisciplinary, and undeclared. It is not surprising to find a larger proportion of *diffuse* students in the "Other" category, since the sampling of students in the study occurred within lab-based STEM coursework.

Figure 5

Distribution of Identity Status by Race and Ethnicity

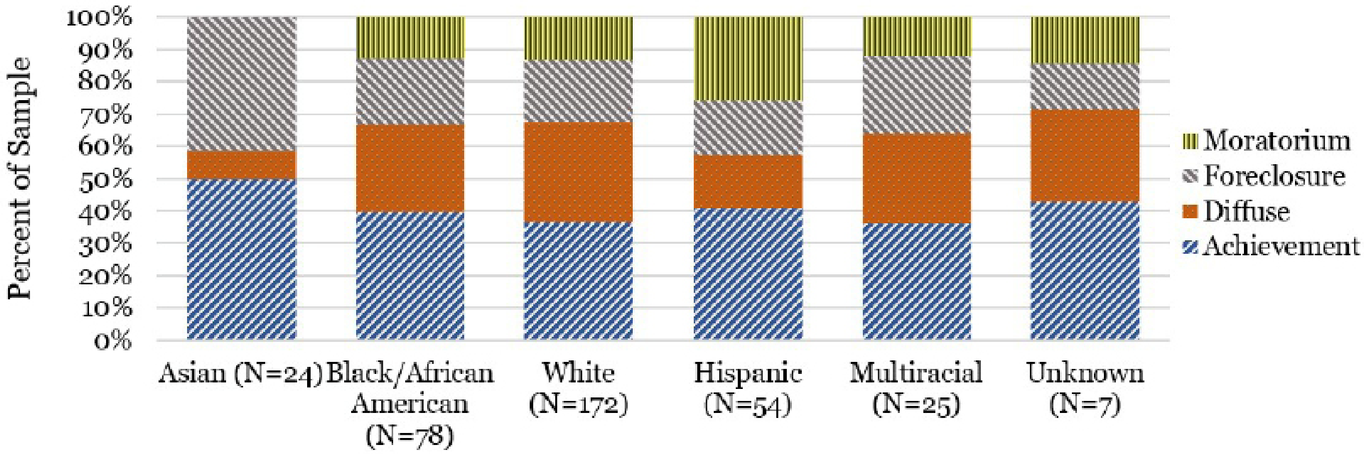


Figure 6

Identity Status by Generational Status

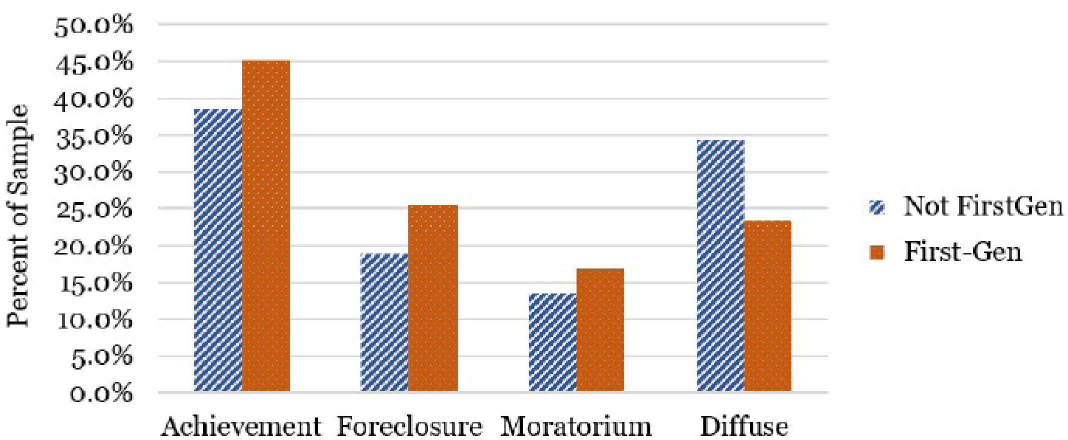
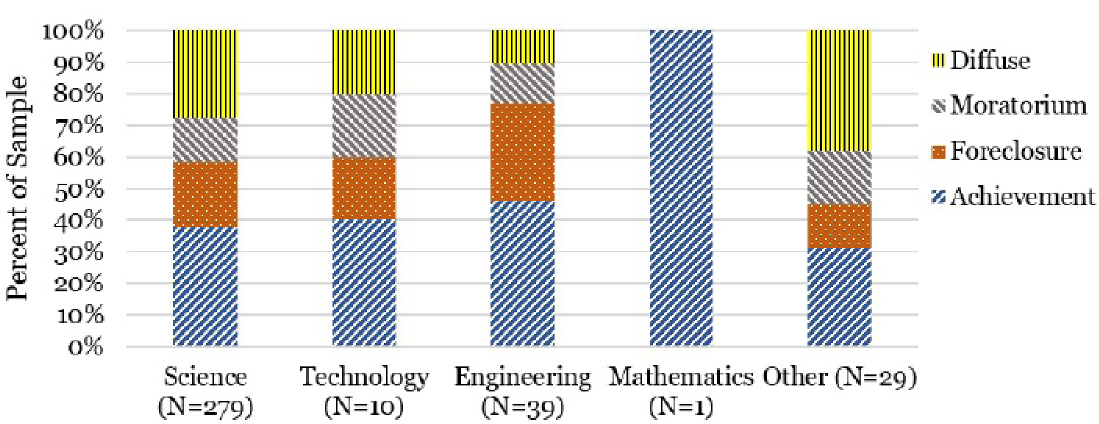


Figure 7

Identity Status by Discipline Category



Summary of Main Findings

- The use of a cut-off score of 15 for i*dentification with commitment* and *in-depth exploration* questions from the PISQ-5d instrument aligns with two-step cluster analysis results to assign the four professional identity statuses (*achievement, foreclosure, moratorium, and diffuse*) proposed in the Marcia identity status model.
- There was a significant difference in the proportion of males and females assigned to each identity status, with females being higher in *achievement* and *foreclosure* and males being higher in *moratorium* and *diffuse*.
- Participants who identified as Black/African American, White, Multiracial, or unknown race has a comparable proportion of the four identity statuses (~40% *achievement*; ~25% *diffuse*; ~20% *foreclosure*; ~15% *moratorium*). Participants who identified as Hispanic were more often classified as *moratorium* and less often categorized as *diffuse* than their Black/African American, White, or Multiracial counterparts. Participants who identified as Asian had notably higher proportions of *achievement* and *foreclosure*, minimal *diffuse*, and no *moratorium* identity statuses.
- First-Generation students were categorized in the *achievement*, *foreclosure*, and *moratorium* identity statuses in higher proportions than their Nor First-Generation counterparts, who were more likely to identify in the *diffuse* identity status.
- Participants in Science, Technology, or Engineering majors were classified in the *achievement* identity status in comparable proportions, although the proportion of *foreclosure* identity status participants was much higher among the Engineering majors than Science or Technology majors. Furthermore, Engineering majors were classified as *diffuse* less than half as often than the Science or Technology majors.

Discussion and Implications

In planning this research, the authors envisaged that the five-factor PISQ-5d instrument would enable the assignment of participants' STEM identity status among five identity statuses (*achievement, foreclosure, moratorium, searching moratorium, or diffuse*), but the percentages of unassigned identity statuses were unacceptably high when either the five-factor Kelly definition or three-factor Crocetti definitions of identity status models were utilized. Furthermore, the participants' *affirmation* question scores from the PISQ-5d instrument were skewed to such a degree that the authors became skeptical that these undergraduate students, most of whom were first-year students, were prepared to reflect on their identity as STEM professional yet. Thus, we narrowed the identity status definitions to include only the two constructs from the original identity status model by Marcia (1966): *identification with commitment* and *in-depth exploration*. Then, not only were all the participants assigned an identity status, but there was also good agreement (83.6%) between the assignment of identity status by two-step cluster analysis and by use of the *identification with commitment* and *in-depth exploration* cut-off scores of 15. Thus, the researchers have demonstrated that a simplified version of the PISQ-5d with cut-off scores of 15 for *identification with commitment* and *in-depth exploration* sections can be utilized to assign undergraduate students' identity statuses.

These findings, therefore, suggest that academic advisors can utilize the abbreviated PISQ-5d instrument to identify the current identity status of undergraduate STEM majors, then respond with appropriate interventions to support the next stage in the development of each student. For example, a students' classification in the *diffuse* identity status could prompt the enrollment of the student in a career counseling initiative in which the student would take a skills, talents, and interest assessment, learn about careers in a variety of disciplines, and participate in internships or job shadowing. Similarly, students' classification in the *foreclosure* identity status could prompt the arrangement of internships, undergraduate research, and job shadowing to help them transition from being certain without investigation (*foreclosure*) to more certain of their career trajectory (*achievement*). Lastly, students' classification of *moratorium* could initiate students' participation in more purposeful guided inquiry about careers in fields of interest.

Furthermore, administering the abbreviated PISQ-5d instrument annually to each student would enable academic advisors to assess and intervene as necessary to ensure students are career-ready by graduation.

Our findings indicated that there were comparable proportions of the four identity statuses among Black/African American, White, and Multiracial participants suggests that identity status is not a useful classification to determine whether or not a student is likely a retention risk. Instead, other cognitive, affective, or socioeconomic factors should be considered. In contrast, our finding that Asian participants were rarely categorized in the *diffuse* identity status and not categorized in the *moratorium* identity status aligns with previous literature that various cultural factors such as "ethnic identity, internalization of Asian American stereotypes, Asian values, parental influences, and perceived barriers" (Kantamneni et al., 2017:649) and honoring "parental expectations of narrowly defined acceptable academic and career achievement" (Dundee et al., 2009:135) seem to be powerful motivators to select and retain a specific STEM career choice. Therefore, academic advising of Asian students would benefit from the inclusion of an array of STEM career information, typical salary ranges, and available graduate research opportunities that can be shared with both parents and students.

Interestingly, our findings indicated that non-first-generation students were more likely to be categorized in the *diffuse* identity status, which contradicts earlier research that reported that "being a first-generation college student…predicted lower levels of certainty of career choice" (Pulliam et al., 2017:89). The authors suggest that our finding is an indication that in this environment of falling college enrollment, individuals from families who have not attended college may have a higher hurdle to enroll in college than the historical expectation of high school graduates (Choy, 2001).

Based on our findings that the two-factor PISQ-5d questionnaire responses could be categorized into four identity statues that aligned with literature definitions via both cluster analysis and cut-off score approaches, we suggest that the PISQ-5d survey be abbreviated when utilized for undergraduate student populations for the purpose of assigning STEM professional identity statuses. This suggestion can also be explained as necessary since the PISQ-5d was designed for use with advanced professional individuals, not novices exploring their identity and career choice. The remaining factors of the PISQ-5d that are not used to assign identity status may still provide value to instructors and advisors to better understand an individual's experiences and self-concept. For example, it would be useful to know the extent to which an individual may be exploring other profession (*reconsideration of commitment*), the degree that one has engaged in practices of the profession, or how they perceive interactions with others to help them validate their career choice (*affirmation*).

Conclusion

Overall, when looking at the results across both research questions and using the STEM professional identities generated using the cut-off scores the expected outcomes, based on previous literature reports, were obtained for various demographic groups. This demonstrates criterion validity, thereby making a modified PISQ-5d survey a much more practical tool for practitioners to utilize to inform their classroom practices. Although the PISQ-5d was reduced to using only two of the five factors (*identification with commitment* and *in-depth exploration*), collecting student data from the remaining three factors (*affirmation*, *practices*, and *reconsideration of commitment*) may be valuable in determining other attributes related to a student's involvement in their career exploration. The results of this paper open many avenues for scholarship of teaching and learning for instructors to better grasp how their specific practices may influence the way student's see themselves in a profession or have engaged in building an understanding for what job responsibilities and job culture are like for a desired profession.

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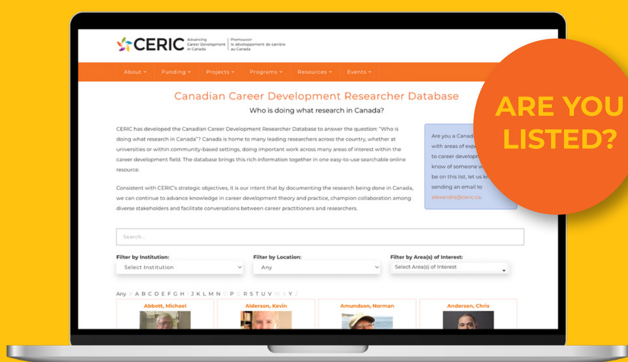

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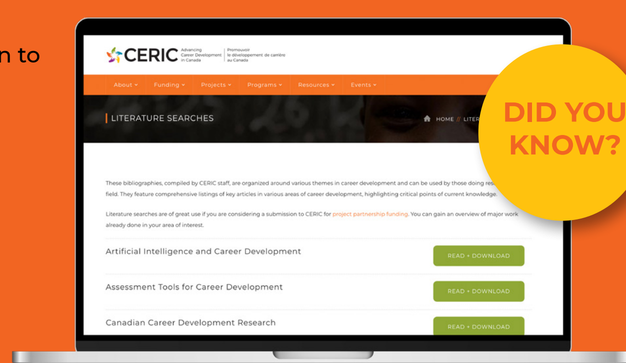

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Career Prospects for Human Resource Management Professionals in Portugal

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Abstract

The research conducted aimed to analyze the attitudes of human resource professionals towards managing their careers. The attitudes of protean and boundaryless careers were investigated, and the extent to which sociodemographic factors, such as salary, gender and academic degree, influence these attitudes. A total of 732 human resources professionals working as employees in private companies in Portugal participated in the study. The methodology involved a non-probabilistic convenience sampling approach, with a detailed survey covering dimensions like self-managed career attitudes, values-driven career attitudes, boundaryless career attitudes and mobility facilitating career attitudes. The results show that most professionals have protean and boundaryless career attitudes. Other research findings show that: (1) those with higher salaries have higher levels of protean and boundaryless career attitudes; (2) male professionals and (3) those with higher education show a higher prevalence of protean and boundaryless attitudes compared to female professionals and those with no higher education. This study sheds light on Portuguese HR professionals' career attitudes. The findings significantly contribute to our understanding of modern career concepts, suggesting avenues for future research.

Keywords: protean career; boundaryless career; career management; human resources management; human resources management professionals; Portugal.

Changes in the labor market have led to changes in the way professionals manage their careers. With a decrease in full time employment opportunities in companies, an increase in temporary work, and the emergence of different forms of work, there is a growing interest in the self-management of professional careers. Workers are primarily responsible for managing and developing their own careers (Arthur, 1994; Hall, 2002). This phenomenon is set out in various theories, such as the theories relating to protean careers (Hall, 1976, 1996, 2002) and boundaryless careers (Arthur, 1994; Arthur & Rousseau, 1996).

The study attempts to address the question "To what extent do human resource professionals working as employees in private companies in Portugal display attitudes characteristic of the protean and boundaryless career models?". The central objectives of the present research were: (a) to identify to what extent human resource (HR) professionals in Portugal have protean and boundaryless career attitudes; (b) to what extent there is a positive correlation between these two types of attitudes towards career in this group of professionals; (c) to what extent socio-demographic factors have an influence on their protean and boundaryless career attitudes.

This study focuses on the analysis of HR professionals working as employees in private companies in Portugal. From a theoretical point of view, the research seeks to extend the study initiated in 2006 by Briscoe (Briscoe et al., 2006) which aimed to identify the relationship between the protean career models (introduced by Douglas Hall in 1976) and boundaryless careers (initially presented by Michael B. Arthur in 1994) (Arthur, 1994; Hall, 1976). From a practical point of view, the research sheds light on how sociodemographic variables can influence HR professionals' attitudes towards their careers.

The study provides both theoretical and practical contributions within the professional realm of Human Resources Management (HRM) in Portugal. Theoretically, it extends the research by Briscoe et al. (2006) on protean and boundaryless careers, serving as a foundation for future investigations across various professional domains. Moreover, it addresses a literature gap concerning career management among HR professionals in private Portuguese companies, filling a void evident in the existing literature. This study also contributes to profiling HR professionals working in private enterprises in Portugal, understanding their motivations for changing or staying in their current positions. Additionally, it has the potential to inform the development of initiatives aimed at talent retention within the HR profession in Portugal, an aspect hitherto unexplored in the literature.

Literature Review

The literature review presents human resources professionals and human resources management, the protean career and boundaryless career models, as well as the relationship between these two models (Briscoe et al., 2006).

Human Resources Professionals and Human Resources Management

HRM professionals play a crucial role in modern organizations and are responsible for a wide range of functions, including recruitment, selection, training, development, performance management and industrial relations (Armstrong & Taylor, 2020). The evolution of HRM has been marked by a transition from an administrative focus to a more strategic role, where the HR is seen as a business partner, contributing to the formulation and implementation of organizational strategies (Ulrich & Dulebohn, 2015).

According to Dessler (2024), HRM is the process that involves acquiring, training, evaluating and compensating employees, as well as managing labor relations, employee health and safety, and promoting fairness in the workplace. HRM is fundamental to ensuring that organizations have the right talent, with the necessary skills, and that they are motivated and engaged to achieve organizational goals. Dessler (2024) also points out that HRM is essential for all managers for several reasons, namely to provide knowledge that helps avoid common HRM mistakes (such as inappropriate hiring, high turnover and legal problems related to discriminatory practices), to contribute to improving organizational performance and employee satisfaction (since managers with adequate training can motivate, evaluate and develop their teams more effectively) and to ensure that the organization's strategic objectives are aligned with the needs and capabilities of its human capital, especially in a context of global competitiveness and technological advances. This synergy between HRM and organizational strategies is fundamental to the long-term success of any organization (De Vos & Cambré, 2016).

The career management of HRM professionals can be analyzed from two perspectives: management by employers and management by the professionals themselves. It is essential for companies to manage the careers of these professionals to guarantee their own long-term continuity. However, there are associated risks due to the unpredictability of the career choices of the professionals themselves, who may choose to change companies for various reasons.

Companies play an important role in managing their employees' careers, offering opportunities for development and career progression. Professional development programs aligned with employees' interests, skills and competencies are some of the strategies used by companies to retain and develop employees, as well as to reduce employee turnover (Susanto et al., 2023). The literature suggests that implementing effective career management practices can increase job satisfaction and talent retention, as well as being associated with organizational performance (De Vos & Cambré, 2016). On the other hand, professionals themselves are increasingly proactive in self-managing their professional career so that it is more aligned with their skills and interests, so self-direction in career management is an increasingly evident attitude (De Vos & Cambré, 2016). Adopting protean career attitudes, where individuals manage their professional careers according to their personal values, has been associated with higher levels of satisfaction and career success (Hall, 2004).

Protean Career

The term "protean career" was first introduced by Hall in 1976 in his book "Careers in Organizations" (Hall, 1976), where the author identified a new type of self-managed career. The main characteristic is the fact that the professional career is managed by the individual himself and integrates a set of experiences that have been acquired in various organizations. For Hall (2004), the protean career was constructed as the antithesis of the organizational career, distancing itself from the traditional approach, in that the individual: (a) starts to take responsibility for the development of his/her own career; (b) is guided by values such as freedom of career self-management and growth (knowledge, skills and attitudes developed intentionally throughout the career); (c) presents a high degree of mobility; (d) is guided by subjective success criteria, such as job satisfaction and commitment to the job (intrinsic rewards), rather than only aspiring to rise up the hierarchy of the organization. Hall (1996) states that the 21st century career will be predominantly protean, driven by the professional him/herself and reinvented according to the changing person and environment, and not by the organization.

Briscoe and Hall (2006) indicate that the protean career is characterized by two dimensions: (a) it is self-managed (the professional controls and manages his/her career path, creating his/her own professional development opportunities) and (b) it is value-driven (the professional, in controlling and managing his/her career, takes into account and prioritizes his/her own personal values; these are intrinsic variables rather than external variables, such as salary, new professional opportunities or promotions).

To be successful in his/her protean career, Hall (2004) indicates that the professional must have two meta-competencies:

1. Self-knowledge (personal values guide career management and enable the professional to evaluate his or her success) and,
2. Adaptability (the professional's ability to adapt to the external environment).

The conjugation of the different possible combinations between the two mentioned meta-competencies gives rise to four career categories. Each category has a designation depending on the possession of higher or lower levels of self-knowledge and adaptability. Only one of these patterns is representative of the protean career. According to Hall (2004) these four categories are:

1. Reactive career - has high levels of adaptability competency and low levels of self-knowledge competency. In this career pattern, individuals have the necessary skills to adapt to changing contexts but are unable to behave proactively in the face of change because they don't have a high level of self-knowledge, so they do not take the initiative for change, but simply react to the context. They are described by Hall (2004) as individuals with chameleonic behavior;

2. Dependent career - low levels of adaptability competency and high levels of self-knowledge competency. These individuals tend to have a very acute sense of self, but do not perceive themselves as competent to deal with change, and therefore avoid making career decisions;

3. Rigid career: low levels of adaptability competency and of self-knowledge. Here, individuals do not have a clear self-awareness. They define their identity based on the work they do and do not perceive themselves as competent to deal with change, and are therefore very resistant to it;

4. Protean career: in this pattern, there are high levels of adaptability competence and self-knowledge, and individuals have an attitude of career self-management, managing their career proactively, with flexibility, independence and the awareness they need to achieve a successful professional career (Briscoe et al., 2006; Hall, 2004). It is in this career pattern that there is a need for each individual to be the actor in the construction of their own career path, with a view to obtaining their subjective success (Briscoe & Hall, 2006).

Protean careers have been studied by several authors, including those who have evidenced that a protean career orientation is positively related to job satisfaction (Baruch, 2014; Baruch & Quick, 2007; De Vos & Soens, 2008; Herrmann et al., 2015). However, the protean career model has been subject to criticism, namely regarding the association of the protean career with a profile of successful professionals. This point was explored by Vardy and Kim (2007), mentioning that the individualized emphasis of the protean career characterizes professionals who always find work, as if it were a natural logic. However, professionals who have a protean orientation can also be unsuccessful. Notwithstanding this, according to Vardy and Kim (2007), the literature only highlights the profile of the professionally successful.

Boundaryless Career

In accordance with what was mentioned earlier, a concept that has gained prominence is the "Boundaryless Career". This concept is similar to the concept of protean career and aims to highlight the continuous adaptation of professionals to organizational changes. Here we see a multifaceted phenomenon that transcends various boundaries and levels of analysis, physical and psychological, and objective and subjective (Briscoe & Hall, 2006). Physical mobility is understood as the movement across boundaries in the organizations where the professional is. In turn, psychological mobility is understood as the perception the professional has about his or her own ability to achieve this physical mobility.

For these forms of mobility to occur, according to Sullivan and Arthur (2006), four assumptions are necessary:

1. That the professional is independent from the organization;
2. That there is an exchange relationship between the two agents (individual and organization);
3. That the professional has the opportunity to expand his or her network of contacts outside the organization;
4. That there is a change in the traditional perspective regarding the individual's expectations of professional progression within the same organization.

According to Arthur and Rousseau (1996), the success of the boundaryless career is based on three competences:

1. Know-why, which refers to the values, identities and interests that give meaning to, and support the activities developed, i.e., the way individuals understand their own motivation, meaning and identification with their career;
2. Know-how, which consists of the set of skills and knowledge acquired throughout life to succeed beyond organizational boundaries in a logic of continuous learning; and
3. Know-whom, which is the set of networks of contacts that enhance career opportunities.

Sullivan and Arthur (2006) developed a typology of the boundaryless career, consisting of four distinct career patterns, according to the greater or lesser degree of physical and psychological mobility achieved along the individual's career path. These four patterns of different combinations of mobility are characterized by four quadrants:

1. Low physical and psychological mobility: there is no crossing of boundaries in the organizations where the professional is, due to the awareness of the absence of this ability or the lack of awareness of this ability; (2) High physical mobility and low psychological mobility: there is a willingness to cross boundaries in the organizations where the professional is, but the professional wants this to be accompanied by similarity or continuity with the function performed where he/she is;
2. Low physical mobility and high psychological mobility: there is a perception of low capacity to achieve physical mobility, despite having the will to do so;
3. High physical and psychological mobility. Here individuals go through many physical changes (example: frequent job changes) and also change their psychological career orientation frequently.

Several authors have studied boundaryless careers, such as Wolff and Moser (2009), whose goal was to understand better the relationship between networks and career success, and the authors indicated that their findings may also be useful for career counseling and coaching. Some authors view the boundaryless career as positive, indicating that in work environments with uncertainty, these career attitudes help the individual to cope with uncertainty and to seek external support (Briscoe et al., 2012), including engaging in activities during unemployment (Waters et al., 2014a). Volmer and Spurk (2011) report that the boundaryless career is associated with objective career success (for example, annual salary and promotions). At the same time, the model of the boundaryless career has been criticized, particularly with regard to the loss of stability and financial security, causing negative consequences for the psychological health of the worker (Mirvis & Hall, 1994). It can also be considered a way to legitimize organizational restructuring and the reduction of career opportunities currently offered in the labor market (Cohen & Mallon, 1999).

Relationship Between Protean and Boundaryless Career

The concept of protean career, created and developed by Hall, was a theoretical concept without empirical evidence. To overcome this limitation, Briscoe et al. (2006) constructed a scale, with two subscales, to measure protean career attitudes. One subscale measures self-managed career management attitudes and the other measures career attitudes motivated by individual values. In addition, part of this study involved the construction of a scale to measure boundaryless career attitudes consisting, also, of two subscales. The first (psychological mobility) measures general attitudes towards working across organizational boundaries and the second (physical mobility) measures attitudes towards staying in single or multiple organizations (Oliveira et al., 2010).

Three studies were conducted by Briscoe et al. (2006). Their results show consistent positive correlations between protean and boundaryless career attitudes. By combining the aforementioned four categories of the protean model with the aforementioned four quadrants of the boundaryless career model, one can find 16 possible combinations of protean and boundaryless careers (theoretical career profiles). After analyzing these profiles, Briscoe et al. (2006) reduced these 16 theoretical profiles to eight profiles likely to be found in a work context today. These eight likely career profiles are more or less salient in four areas, the first two belonging to protean career and the remaining two to boundaryless career (broad sense):

1. Self-managed career;
2. Value-driven career;
3. Boundaryless career (psychological mobility);
4. Career facilitating mobility (physical mobility).

The relationship between protean career and boundaryless career has been the subject of studies by other authors. Among them are Direnzo et al. (2015). These authors hypothesize that individuals with protean and boundaryless career orientations have more adaptive behaviors. Second, they argue that protean and boundaryless career attitudes reflect a psychologically healthy response to uncertain career environments (Arthur & Rousseau, 1996; Waters et al., 2014b). In addition, they indicate that protean and boundaryless career attitudes are beneficial for career outcomes by helping individuals to cope better with their career experiences.

Greenhaus et al. (2008), O'Sullivan (2002) and Segers et al. (2008) treat protean and boundaryless career attitudes as synonymous, while others consider them as related but distinct, as in the case of Briscoe and Hall (2006), Inkson (2006) and Wiernik and Wille (2018). These authors refer to the existence of several studies that report positive results on the validity of protean and boundaryless career attitudes, to predict important career outcomes (Baruch, 2014). However, according to the authors, it is still unclear whether these attitudes have replicable and generalizable validity for satisfaction, mobility, extrinsic success, and other criteria of interest to individuals. In parallel, there are other authors who mention that protean and boundaryless career orientations may thrive in cultures where collectivism predominates (Segers et al., 2008), and there are authors who question the applicability of protean and boundaryless careers in Asian societies (Bernardo & Salanga, 2019), indicating that it is necessary to explore the validity of the concepts and measurements in different cultural and work contexts.

Research Hypotheses

The study proposes three groups of research hypotheses. In the first group, the objective is to identify the extent to which HR professionals in Portugal have protean and boundaryless career attitudes. The hypotheses are:

H1: There is a positive correlation between self-managed career attitudes and values-driven career attitudes among HRM professionals.
H2: There is a positive correlation between boundaryless career attitudes and mobility facilitating career attitudes among HRM professionals.

In the second group, the objective is to identify the extent to which there is a positive correlation between protean and boundaryless career attitudes among HR professionals in Portugal. The hypothesis is, H3: There is a positive correlation between protean and boundaryless career attitudes among HRM professionals.

In the third group, the objective is to identify the extent to which the socio-demographic aspects of HR professionals in Portugal, working as employees, influence their attitudes towards protean and boundaryless careers. The hypotheses are as follows:

H4: HRM professionals who have higher salaries show a prevalence of protean and boundaryless career attitudes compared to those with lower salaries.
H5: There is a prevalence of protean and boundaryless career attitudes among male HRM professionals compared to females.
H6: HRM professionals with higher education show a prevalence of protean and boundaryless career attitudes compared to those without higher education.

These hypotheses aim to provide a comprehensive understanding of the career attitudes of HR professionals in Portugal and how these attitudes are influenced by various factors. The findings of this study could have significant implications for HR practices and policies in Portugal. From a practical point of view, this study contributes to (a) identifying the profiles of HR professionals working as employees in private companies in Portugal; (b) characterizing these professionals by stratifying the sample, making it possible to verify (b.1) what motivates them to change companies, (b.2.) what motivates them not to change companies, and eventually contributing to (c) developing organizational initiatives to retain HR talent. Further research is needed to validate these hypotheses and explore their implications in more detail.

Methods

Research Techniques

For this research, quantitative research was carried out, using the questionnaire as a privileged research technique. Statistical analysis was conducted to explore the relationships between the studied variables. A questionnaire with 59 items was applied, which grouped three questionnaires, the first two created by Briscoe et al. (2006) and the third created by the authors with data on the sociodemographic characterization of the respondents.

The method used entails a questionnaire survey for data collection. It is composed of scales and dimensions that involve various aspects. The protean attitudes questionnaire includes the protean career attitudes scale developed by Briscoe and Hall (2006). This scale is divided into self-managed career attitudes with 8 items, including items such as "When development opportunities have not been offered by my company, I´ve sought them out on my own." and "I am responsible for my success or failure in my career." Also included are values-driven career attitudes with six items, including items such as "I navigate my own career, based on my personal priorities, as opposed to my employer's priorities" and "It doesn´t matter much to me how other people evaluate the choices I make in my career."

The boundaryless attitudes questionnaire includes the boundaryless career attitudes scale, also developed by Briscoe and Hall (2006). This scale is divided into boundaryless career attitudes (psychological mobility) with eight items, including items such as "I seek job assignments that allow me to learn something new" and "I would enjoy working on projects with people across many organizations", It also included mobility facilitating career attitudes (physical mobility) with five items, including items such as "I like the predictability that comes with working continuously for the same organization." and "In my ideal career I would work for only one organization." The questionnaire also includes the characterization of the HR professional/ sociometric data with nine items, including items such as "What is your age?" and "What is your current role in HR?", as well as the characterization of the company where the HR professional works with 11 items, including items such as "What is your annual gross salary?" and "In your current job, do you have a permanent (indefinite) employment contract?" In total, the questionnaire consists of 59 items.

Considering the absence of adaptation for the Portuguese population of the Protean Attitudes Questionnaire and the Boundaryless Attitudes Questionnaire, these two measurement instruments were translated into the Portuguese language by a professional of Portuguese nationality, a university professor of English, at the School of Hospitality and Tourism of Estoril (researcher at the Center for Anglo-American Studies at the University of Lisbon, who holds a Ph.D. in English Literature and Culture).

The method used in choosing the sample was non-probabilistic by convenience. The sample for the study was composed of HR professionals working as employees in private companies in Portugal. Data collection for the research was conducted through a questionnaire survey, with Google Forms and LinkedIn serving as the primary channels for disseminating the study and distributing the questionnaire link. This approach aimed to gather responses from the targeted professional cohort. In the introduction of the Google Forms questionnaire, participants were informed that their participation would be voluntary and that the confidentiality and anonymity of their responses would be guaranteed. Furthermore, it was stated that the collected data would be used strictly within an academic context and for the purpose of scientific dissemination. The questionnaire survey was online, open to receiving responses from August 6 to September 6, 2020. There were 787 responses, of which 732 were valid. Only valid responses were considered for the sample analysis. The inclusion criterion for the validation of responses was applied whenever respondents answered affirmatively to the following item: "Do you work in the Human Resources field, as an employee, in a private company in Portugal?" The data analysis was performed using Microsoft Excel software.

In the study, a statistical treatment was employed, involving the use of Cronbach's alpha coefficient to analyze the internal consistency of each of the subscales of the protean and boundaryless career attitudes scales; Pearson's correlation was used to analyze the correlational relationships between the dimensions of the variables. This included subscales of protean and boundaryless career attitudes, as well as specific analyses for socio-demographic variables such as salary, gender and level of education. In addition, comparative analyses were also carried out based on the characterization of the HR professional, the sociometric data and the characterization of the company where the HR professional worked. This approach ensured a thorough exploration of the data and provided valuable insights into the career attitudes of HR professionals who are employed by private companies in Portugal.

Internal consistency

The internal consistency of each of the subscales of the protean and boundaryless career attitudes scales was analyzed by Cronbach's alpha coefficient. The reliability of internal consistency, measured by Cronbach's alpha, measures the correlation between the responses of a questionnaire by analyzing the answers given by the respondents, showing an average correlation between the items. In this study, almost all the results obtained were between .61 and .80 so that, according to Landis' classification, the internal consistency is substantial. The exception was in the subscale of boundaryless attitudes, in which the result obtained was .87, so here the consistency is almost perfect (Landis & Koch, 1977).

Results

Socio-demographic Characterization

To have a better understanding of the sample studied, some socio-demographic data of the sample are presented. Regarding age and gender, the females predominate with 79.51% of the sample, compared to 20.49% of males. The predominant age group was 25 to 35 years old, representing 52.46% of the total sample, followed by 36 to 50 years old, comprising 35.11%. The under-25 age group accounted for 8.47%, while the 51-65 age group covered 3.83%. Only 0.14% of the sample is made up of individuals aged over 65.

For academic training, 718 of the professionals in the sample have higher education (98.09%), with 50.68% of the respondents being undergraduate. Regarding the type of higher education, the most commonly recorded one is training in HRM (44.43%). For their current position, 52.05% are Human Resource Technicians (HRT), 24.59% are Human Resource Managers (HRM), 15.03% are Human Resource Directors (HRD), and 8.33% are Human Resource Administrators (HRA). Regarding the annual gross salary per function, the salary bands per function were as follows:

1. HRD: from €30,001 to €50,000 (36.36% of HRDs);
2. HRM: from €20,001 to €30,000 (33.33% of HRMs);
3. HRT: from €10,000 to €14,000 (33.07% of HRTs);
4. HRA: from €10,000 to €14,000 (44.26% of HRAs).

For the activity sector, most of the HR professionals work in the tertiary sector (80.46%). In addition, 40.85% work in national private companies and 40.44% in multinationals based abroad. It was also found that about 40.03% have between 1 to 5 years of experience in the HR area.

Hypothesis Test

In relation to the research hypotheses, all of which focused on the analysis of HRM employees working as employees in private companies in Portugal, the following results were obtained.

Hypothesis 1

There is a positive correlation between self-management career attitudes and value-driven career attitudes of HRM professionals. Calculating Pearson's correlation coefficient between the responses obtained, it was found that the coefficient is .996, so it is very strong. Thus, H1 is validated.

Hypothesis 2

There is a positive correlation between boundaryless career attitudes and mobility facilitating career attitudes of HRM professionals. Pearson's correlation coefficient is .991, and H2 is validated.

Hypothesis 3

There is a positive correlation between protean career attitudes and boundaryless career attitudes of HRM professionals. Pearson's coefficient is .968, so it is very strong, validating H3.

Hypothesis 4

HRM professionals who have higher salaries have a prevalence of protean and boundaryless career attitudes compared to those who have lower salaries. To test this hypothesis, we considered as higher salaries those with an annual value greater than €30,000. Analyzing the answers given to the options "4. Considerably" and "5. Very much", it was found that there were 573 (78.28%) HR professionals with salaries up to €30,000 and 159 (21.72%) with salaries over €30,000.

Grouping the responses to the questionnaires Protean Career Attitudes and Boundaryless Career Attitudes, we found that 69.83% of HR professionals with salaries over €30,000 responded to items 4 and 5, against 62.48% of HR professionals with salaries up to €30,000. Thus, this analysis also shows that HRM professionals with higher salaries have a prevalence of protean and boundaryless career attitudes, globally considered, compared to those with lower salaries, so H4 is validated.

Hypothesis 5

There is a prevalence of protean and boundaryless career attitudes of male HRM professionals compared to female HRM professionals. To study this hypothesis, the highest response options "4. Considerably" and "5. Very much" were analyzed. After the analysis, it can be seen that the hypothesis posed is true in the protean attitudes questionnaire (men: 63.38%; women: 57.24%; difference in percentage points: 6.14), as well as in the boundaryless attitudes questionnaire (men: 73.44%; women: 69.22%; difference in percentage points: 4.22), and in the grouping of the two questionnaires (men: 68.22%; women: 63.01%; difference in percentage points: 5.21).

Hypothesis 6

HRM professionals with higher education show prevalence of protean and boundaryless career attitudes compared to those without higher education. To study this hypothesis, the highest response options "4. *Considerably*" and "5. *Very much*" in the questionnaires of protean and boundaryless attitudes (taken as a whole) were analyzed, as well as the sum obtained by combining the responses to these questionnaires. After the analysis, it was found that the hypothesis posed is true both in the questionnaire of protean attitudes (with higher education: 58.75%; without higher education: 45.41%; difference in percentage points: 13.35) and in the questionnaire of boundaryless attitudes (with higher education: 70.26%; without higher education: 60.99%; difference in percentage points: 9.27); in the pooling of the two scales (with higher education: 64.29%; without higher education: 52.91%) a difference was found in percentage points of 11.38.

Discussion

With the results obtained in this research, it can be observed, in relation to H1, that the HRM professionals in the sample show a prevalence of self-managed career attitudes and of career attitudes motivated by their personal values, characteristics that make up the protean attitudes of professional careers (Briscoe & Hall, 2006; Briscoe & Filkelstein, 2009). In this sense, they tend to take control of their own career path, creating their own professional development opportunities in line with their personal values, to the detriment of variables that are external to them, namely salary, new professional opportunities or promotions (Briscoe & Hall, 2006). The results obtained may mean that professionals want their careers not to be "hostage" to the company they work for. They prefer to have the freedom to choose the options that they consider most appropriate for their career and that these options are aligned with their own personal values, rather than choosing a professional context in which there is a dissonance between personal and organizational values. This situation may lead to possible conflicts, manifest or latent, with negative implications at both professional/personal and organizational levels.

As for H2, there was a positive correlation between boundaryless career attitudes (narrow sense: psychological mobility) and career attitudes facilitating mobility (physical mobility). Grouping the two subscales, the percentage is 70.08%, which leads to the conclusion that HR professionals in the sample tend to show a preponderance for the boundaryless career - broad sense, both in boundaryless career attitudes (psychological mobility), as well as in career attitudes facilitating mobility (physical mobility). Thus, these professionals tend to have both psychological and physical mobility, placing them in quadrant 4 (Sullivan & Arthur, 2006). This quadrant states that professionals go through many physical changes (e.g., frequent job changes) and psychological career changes (intentions to achieve physical mobility). With the results obtained, it can be concluded that the professionals under study tend to have attitudes of professional movement, both psychologically and physically. These moves, if they are within a single company, are more likely to happen in large companies and multinationals. These are companies that, due to their size and structure, tend to provide greater possibilities for mobility.

However, in contributing to these mobility attitudes, the characteristics of the labor market in Portugal may also have an influence. Particularly noteworthy are the low salaries (mainly at the beginning of the professional career), the precariousness of employment contracts and the effects of the 2008 crisis, where many professionals continue to expect, and are looking for jobs with the conditions they had before the crisis. The majority group aged 25 to 35 in 2020 was between 12 and 23 in 2008. For a better understanding, it is useful to outline the other age groups and their percentage representation. In 2020, those aged under 25 corresponded to individuals aged under 12 in 2008, representing 8.47% of the sample. The 36 to 50 age group in 2020 corresponded to people aged between 24 and 38 in 2008, representing 35.11% of the sample. Those aged between 51 and 65 in 2020 were aged between 43 and 57 in 2008, representing 3.83% of the sample. Finally, those aged over 65 in 2020 were aged between 51 and 65 in 2008. These data indicate that in 2008, 39.08% of the HR professionals studied were aged 24 or over, suggesting that a significant part of the current workforce experienced the difficulties of the 2008 crisis period. At the same time, even younger professionals, who in 2008 were not yet in the labor market and therefore did not directly experience the crisis, can shape their current compensation expectations based on the experiences and reports of previous generations. This may reflect an influence of the economic context on their attitudes towards their professional careers. This dynamic may intensify the search for working conditions like those that existed before the 2008 crisis, both on the part of professionals who were already in the labor market in 2008 and on the part of those who entered the labor market after 2008. This is also the issue of work overload, with working hours outside the normal working period, a situation that tends to get worse when this work is done clandestinely, i.e., imposed by the company (not recorded in the worker's individual file, nor taken into consideration for salary purposes). This situation is aggravated when a healthy balance between professional and personal life is compromised, implying a clear loss for the worker in contrast to a clear benefit for the company and a lack of compliance in the legal labor relationship existing between the company and the worker, which may lead to the emergence of burnout. Other possible reasons may be the possible lack of alignment between the boss, leadership, company ethos and organizational culture.

As for H3, we observed a positive correlation between the protean and the boundaryless career attitudes of HRM professionals. Grouping these two scales, the percentage of answers in options 4 and 5 was 64.08%, which leads to the conclusion that HRM professionals in the sample tend to show a preponderance for both types of careers, the protean and the boundaryless. Thus, of the eight likely career profiles today (Briscoe & Hall, 2006), HR professionals in the sample tend to be characterized by the career profile "Protean career architect", managing their careers through their personal values and with great physical and psychological mobility. These results may possibly be explained by the possibilities presented above.

Concerning H4 and aggregating the answers to protean and boundaryless career attitudes, it was found that 69.83% of HR professionals with salaries above €30,000 responded to items 4 and 5, against 62.48% of HR professionals with salaries up to €30,000, which leads to the conclusion that the career profile "Protean career architect" (Briscoe & Hall, 2006) tends to be related to higher salaries. As for the salary issue, this was the most referenced dimension in this study regarding the motivation to change companies, a dimension included in the discussion of results in H2.

Regarding H5, protean and boundaryless career attitudes show higher values in male HR professionals in all analyses (6.14 in the protean attitudes questionnaire, 4.22 in the boundaryless attitudes questionnaire and 5.21 when grouping the data from these two scales). This slight difference, regarding career attitudes facilitating mobility (physical mobility) may possibly be related to motherhood in the female gender.

Finally, considering H6, the study shows that HR professionals with higher education have a higher prevalence of protean and boundaryless attitudes, compared to those without higher education. This fact may possibly be associated with these professionals' greater ambition, desire for autonomy, and greater professional opportunities.

Conclusion

The results of this study have important implications for understanding the protean and boundaryless career attitudes of HRM professionals working as employees in private companies in Portugal. The results obtained suggest that: (a) there is a positive correlation between their self-management career attitudes and their values-driven career attitudes; (b) there is a positive correlation between their boundaryless career attitudes (psychological mobility) and their mobility-facilitating career attitudes (physical mobility);

(c) there is a positive correlation between their protean career attitudes and their boundaryless career attitudes; (d) those with higher salaries show prevalence of protean and boundaryless career attitudes compared to those with lower salaries; (e) there is a prevalence of protean and boundaryless career attitudes of male HRM professionals compared to females; (f) those with higher education show prevalence of protean and boundaryless career attitudes compared to those without higher education.

This study has some limitations, including the fact that the data were obtained in the context of the COVID-19 pandemic (which may have affected the perception of the respondents) and that the sample was a convenience sample, so the results cannot be generalized. However, despite the observed limitations, this study is relevant and aims to fill some gaps in research of this nature in the national literature. Thus, this research contributes to the acquisition of a deeper knowledge about the contemporary concepts of protean and boundaryless careers applied to HR professionals working as employees in private companies in Portugal.

For future research, we suggest (a) a more in-depth statistical analysis of each item that makes up the two attitude questionnaires, as well as (b) extending the present research to other professional classes in Portugal and making a comparative analysis of the results obtained. In parallel, we also suggest (c) replicating the present study to the same target professionals and making a comparative analysis of the results.

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