Pathways to Academic Achievement: Perspectives from Collectivist Cultures and Immigrant Experiences

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May 2023

A thesis submitted to McGill University in partial fulfillment of the requirements of the degree of Doctor of Philosophy in School/Applied Child Psychology

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General Abstract

Academic success is recognized as essential for students' psychosocial development and general welfare both globally and across cultures. Studies on the pathways to academic achievement among students from various non-Western nations are underrepresented in educational psychology research, despite representing an ethical and moral obligation as well as a risk factor in the context of high international migration flows and increasingly multicultural schools. Students who migrate from non-Western to Western societies are at risk of facing challenges associated with inconsistent approaches to learning as they tend to maintain collectivist values and practices that are incongruent with the individualist orientation typically favoured in traditional Western schools. These students are also at-risk of facing cultural challenges stemming from acculturative stress and bicultural identity integration difficulties that can occur during resettlement within an unfamiliar country. The main goal of the two manuscripts in this dissertation is to inform pathways to academic achievement among students who recently immigrated from various non-Western to Western regions of the world by exploring the relationship between psychosocial factors and academic outcomes. Manuscript 1 is a scoping review of the literature on the reciprocal relationship between self-concept and academic achievement among youth in collectivist countries. A total of 27 published empirical articles were included in this review and data regarding the relationship between self-concepts and academic achievement were evaluated qualitatively. The findings indicated that self-concept and academic achievement are mutually related, and more so when measured in relation to a specific academic subject. Manuscript 2 is a study on recently immigrated youth from various non-Western, collectivist countries who attended a Dutch school integration program considered to be rooted in individualistic values and practices. Given the finding from the scoping review that

self-concepts relate to academic achievement among youth from collectivist regions, the match or mismatch between their self-construal and the practices typically promoted in Western schools was investigated. The relationship between specific cultural migration challenges and different levels of academic motivation, an indicator of academic achievement, was also assessed. The findings from this manuscript reflected the interdependent cultural heritage of the youth and suggested a mismatch with independent values and practices that are typically promoted within Western schools. In the context of this mismatch, further findings revealed the risk of cultural isolation, discrimination, language challenges, and bicultural identity integration difficulties in fostering external forms of academic motivation that may be detrimental to the long-term academic success of immigrant youth. Overall, the findings from the two manuscripts included in this dissertation emphasize the importance of adapting school curricula and environments in a variety of ways, such as by including initiatives that promote students' academic self-concept, incorporating school-based interdependent values and practices, as well as identifying and intervening on acculturative and bicultural identity integration challenges. By doing so, school practitioners can create inclusive and welcoming schools that embrace diversity and accommodate the unique needs of vulnerable immigrant youth.

Résumé Général

La réussite scolaire est reconnue comme essentielle pour le développement psychosocial et le bien-être général des étudiants, tant au niveau mondial qu'interculturel. Les études sur les voies de la réussite scolaire chez les étudiants de diverses nations non-occidentales sont sous-représentées dans la recherche en psychologie de l'éducation, alors qu'elles représentent une obligation éthique et morale ainsi qu'un facteur de risque dans le contexte de flux migratoires internationaux importants et de contextes scolaires de plus en plus multiculturels. Les étudiants qui migrent des sociétés non-occidentales vers les sociétés occidentales risquent d'être confrontés à des défis liés à des approches incohérentes de l'apprentissage, car ils ont tendance à maintenir des valeurs et des pratiques collectivistes qui sont incompatibles avec l'orientation individualiste généralement privilégiée dans les écoles occidentales traditionnelles. Ces étudiants risquent également d'être confrontés à des défis culturels découlant du stress acculturatif et des difficultés d'intégration de l'identité biculturelle qui peuvent survenir lors de la relocalisation dans un pays étranger. L'objectif principal des deux études de cette dissertation est d'informer les voies de la réussite scolaire chez les étudiants qui ont récemment immigré de diverses régions non-occidentales vers des régions occidentales à travers le monde en explorant la relation entre les facteurs psychosociaux et les performances scolaires. Étude 1 est une revue de la littérature sur la relation réciproque entre le concept de soi et la réussite scolaire chez les jeunes des pays collectivistes. En total, 27 articles empiriques publiés ont été inclus dans cette revue et les données concernant la relation entre le concept de soi et la réussite scolaire ont été évaluées qualitativement. Les résultats indiquent que le concept de soi et la réussite scolaire sont mutuellement liés, et plus encore lorsqu'ils sont mesurés par rapport à un sujet académique spécifique. Étude 2 porte sur des jeunes récemment immigrés, originaires de divers pays

collectivistes non-occidentaux, qui ont fréquenté un programme d'intégration scolaire néerlandais considéré comme étant ancré dans des valeurs et des pratiques individualistes. Compte tenu de la conclusion de l'étude exploratoire selon laquelle le concept de soi est lié à la réussite scolaire chez les jeunes issus de régions collectivistes, nous avons étudié la compatibilité ou la non-compatibilité entre leur concept de soi et les pratiques généralement encouragées dans les écoles occidentales. La relation entre les défis spécifiques à la migration culturelle et les différents niveaux de motivation scolaire, un indicateur de la réussite scolaire, a également été évaluée. Les résultats de cette étude reflètent l'héritage culturel interdépendant des jeunes et suggèrent un manque de concordance avec les valeurs et pratiques indépendantes généralement promues dans les écoles occidentales. Dans le contexte de ce décalage, les résultats d'autres analyses ont révélé le risque d'isolement culturel, de discrimination, de difficultés linguistiques et d'intégration de l'identité biculturelle pour favoriser des formes externes de motivation scolaire qui peuvent être nuisibles à la réussite scolaire à long terme des jeunes immigrants. Dans l'ensemble, les résultats des deux études incluses dans cette dissertation soulignent l'importance d'adapter les programmes et les environnements scolaires de diverses manières, notamment en y incluant des initiatives qui favorisent le concept de soi scolaire, en incorporant des valeurs et des pratiques interdépendantes au sein de l'école, ainsi qu'en identifiant et en intervenant sur les défis d’acculturation et d’intégration de l'identité biculturelle. Ce faisant, les praticiens scolaires peuvent créer des environnements éducatifs inclusifs et qui accueillent la diversité et répondent aux besoins uniques des jeunes immigrants en situation de vulnérabilité.

Acknowledgements

The present dissertation was funded in part by the Joseph-Armand Bombardier Canada Graduate Scholarships – Doctoral Scholarship 752–2019-1912, awarded to Vanessa K. Weva, and a grant from Netherlands Organization for Scientific Research 453–11-007, awarded to Lydia Krabbendam. The research team that collected the data in Manuscript 2 as well as the educators and participants from the Dutch school integration programme who welcomed the study in Manuscript 2 are also acknowledged with gratitude.

I will forever be grateful towards the exceptional individuals who provided me with support and encouragement throughout my doctoral studies in the School/Applied Child Psychology program at McGill University. Their guidance and mentorship helped me to achieve my academic and personal goals, and I will carry the lessons I have learned from them throughout my life and career.

I am deeply humbled and filled with immense gratitude as I begin to express my appreciation towards Dr. Jacob (Jake) Burack, my research supervisor. Your faith in me and countless opportunities for academic and personal growth have contributed significantly to my personal and academic accomplishments. Your unwavering dedication to uplifting marginalized communities, through both hands-on work and research, has inspired me beyond words. The opportunities that you have provided me with over the years will forever be treasured, and I will carry the lessons I have learned from you for the rest of my life. A special thank you to my dissertation committee members. Dr. Mariëtte Huizinga, my deepest gratitude for sharing the data from the grant with me, which allowed me to explore this avenue of research. Additionally, your willingness to host me in Amsterdam provided me with an amazing opportunity to gain new insights into my research. I will forever be grateful for your extensive, supportive, and

constructive feedback which have significantly enriched the quality and rigor of both of my manuscripts, my entire dissertation, and my doctoral studies more globally. I am honored to have had the opportunity to collaborate with you. Dr. Michael Hoover, I would like to express my sincere gratitude for your support and invaluable contribution to my dissertation, with a particular emphasis on Manuscript 2. Your investment in this manuscript and dedication to providing expert feedback on the statistical analyses and methodology are highly appreciated.

I would also like to express my gratitude to the incredible members of MYST, who have been an integral part of my academic journey. Jenilee-Sarah Napoleon, over the years, you have grown to become so much more than just my best friend - you have become my family. I feel incredibly fortunate to have you in my life, and I look forward to continuing to share life's adventures with you and Wombo. Emily Stubbert, my dear friend and fellow New-Brunswicker, I am so grateful for your friendship and support as we closely navigated the final stages of our studies. Since day one, your presence in the lab, both in-person and virtually, represented a bright light that never went unnoticed. Thank you for being an incredible friend and mentor. Karen Arias Escobar, your thoughtful input and willingness to help have been invaluable. Thank you for being an amazing collaborator and for your dedication to Manuscript 1. To the colleagues who have been a part of MYST both in the past and present, including Reyhane Namdari, Samantha O'Brien, William Lum, Maya Ahia, and Jessica Lai, thank you for your support and for making MYST feel like a family. I also wish to extend my sincerest gratitude to the esteemed professors of the School/Applied Child Psychology program for imparting their expertise and for cultivating a rich academic environment. And to the SACP 2017-2018 cohort, I admire each one of you and am grateful for your support throughout the tumultuous journey of graduate school. Working and learning alongside such remarkable individuals has been an

incredible blessing, and I feel deeply honored to have had the opportunity to collaborate with every one of you.

Without the unwavering support from friends and immediate and extended family, undertaking this doctoral degree would have been an insurmountable challenge. To my parents, Kafiy Nzeya-Weva and Kabule Wetu-Weva, your unconditional love and support throughout my academic journey and your encouragement and sacrifices have been the foundation of my success. I am blessed to have you as parents. To my dear husband, Shelby Dalmacy, I cannot thank you enough for your love, support, and encouragement throughout my doctoral studies. Your belief in me never wavered, even during the toughest moments. To my sisters and brothers, your words of encouragement, love, and understanding have meant the world to me. Thank you for being my cheerleaders and for always believing in me. To the rest of my friends and family, your constant presence in my life has truly exemplified the notion that it takes a village, and I am forever grateful for your love and guidance.

Dedication

"Vie, aime et apprend, avec amour"

I dedicated my dissertation to these words, addressed to me throughout my childhood by my loving parents, Kafiy Nzeya-Weva and Kabule Wetu-Weva. Your unconditional abundant love and sacrifices are recognized, and I am forever grateful to you.

Contributions to Original Knowledge

The present dissertation includes several original contributions to the field of educational psychology. Overall, the findings add to our understanding of pathways to academic success among youth from various collectivist countries, and particularly vulnerable immigrant youth who recently relocated to a Western, individualist country. Specific to Manuscript 1, the relationship between self-concept and academic achievement among students across educational levels and from various collectivist countries highlights similarities with the findings from studies of Western students. Given the findings from Manuscript 1 that the self-concept self-perception relates to academic achievement, the focus of Manuscript 2 was a study about the self-construal self-perception, and the effects of acculturation and bicultural identity integration challenges on the different levels of academic motivation of recently immigrated youth from various collectivist countries who study in a Dutch school integration program. The results of this manuscript suggest a cultural mismatch between the interdependent cultural heritage of the recently immigrated youth and the Western school culture that is typically rooted in individualistic values and practices. Furthermore, specific acculturation stressors as well as bicultural identity integration processes were related to the development of different levels of academic motivation, notably external forms. Together, the findings from Manuscript 1 and Manuscript 2 highlight individual and contextual factors that can be assessed and supported in the efforts of educational stakeholders to adapt school curricula and environments to be inclusive and welcoming of immigrant youth from collectivist countries early on in their resettlement.

Contributions of Authors

This dissertation represents a collaboration among researchers from both McGill University in Canada and Vrije Universiteit Amsterdam in The Netherlands. I was the primary author of the two manuscripts included in this dissertation. I conceptualized and developed each manuscript, with the feedback and support from the co-authors. Dr. Jacob A. Burack, my doctoral supervisor and co-author, guided me in the conceptualization, development of research questions, resource selection, and reporting of both manuscripts. Dr. Mariëtte Huizinga, Associate Professor of Educational Science at Vrije Universiteit Amsterdam and member of my doctoral dissertation committee, initiated the collaboration with the Dutch academic integration program from which the participants in Manuscript 2 were recruited. Dr. Huizinga also provided extensive feedback on the conceptualization and reporting of the present dissertation and the two manuscripts. Dr. Michael Hoover, co-author of Manuscript 2 and member of my doctoral dissertation committee, provided extensive feedback on the statistical analyses and reporting of this empirical study. Dr. Lydia Krabbendam, co-author of Manuscript 2 and Professor of Developmental Psychology at Vrije Universiteit Amsterdam, and Dr. Jenilee-Sarah Napoleon, co-author of both manuscripts and MYST co-director, provided feedback and edits on the conceptualization and reporting. Co-authors Ms. Karen Arias Escobar (McGill University) and Dr. Eva Malkus (Het ABC Onderwijsadviseurs [The ABC Educational Consultants] in Amsterdam, NL) entered and coded the data from manuscripts 1 and 2, respectively.

Chapter 1: Introduction

International migration is one of the themes that will characterise educational psychology research in the twenty-first century, as the cultural diversity found within receiving nations is reflective of the academic settings that migrant youth inevitably attend (Schwartz et al., 2022). According to recent reports concerning international migration flows, the highest numbers of emigrants are from Southern and Eastern (i.e., non-Western) countries, whereas Western Europe and North America are the top immigration destinations (Batalova, 2022; World Population Review, 2022). These reports further highlight that approximately 4% of the inhabitants of the world (or 280.6 million people) live outside of their nation of origin, and that 13% of these international migrants are school-aged youth under 18 years old. While some immigrant youth thrive early on in their resettlement in foreign and culturally diverse learning environments, others confront a variety of adaptation challenges that may hinder their academic progress (Motti-Stefanidi, 2019, 2023). These challenges are recognized by governments from across the world who have explicitly expressed a desire to offer culturally inclusive and quality education that leads to academic success for all, including immigrant students (United Nations, Department of Economic and Social Affairs, Population Division, 2022). Educational stakeholders, therefore, acknowledge that an understanding of cultural diversity and its implications for facilitating school adaptation is a potential avenue to address the adaptation challenges and ultimately support the academic achievement of immigrant youth (Motti-Stefanidi, 2019; Motti-Stefanidi & Masten, 2017; Schachner et al., 2019).

Cultural Diversity and Education

Cultural diversity is defined as an umbrella term that refers to the reality of various coexisting social norms, structures, and behaviours, including beliefs, morals, laws, customs,

religions, languages, ethnicities, races, and nationalities (Lin, 2019). This umbrella term thus implies both superficial (e.g., skin colour) and deep-level (e.g., practices) human traits (Earley, 2006) that are reflected within culturally diverse schools. General guidelines for understanding cultural diversity educational research, provided by Cheong (2000), are presented in Table 1.

Table 1

Hierarchy of a Culture and Multi-level Cultures

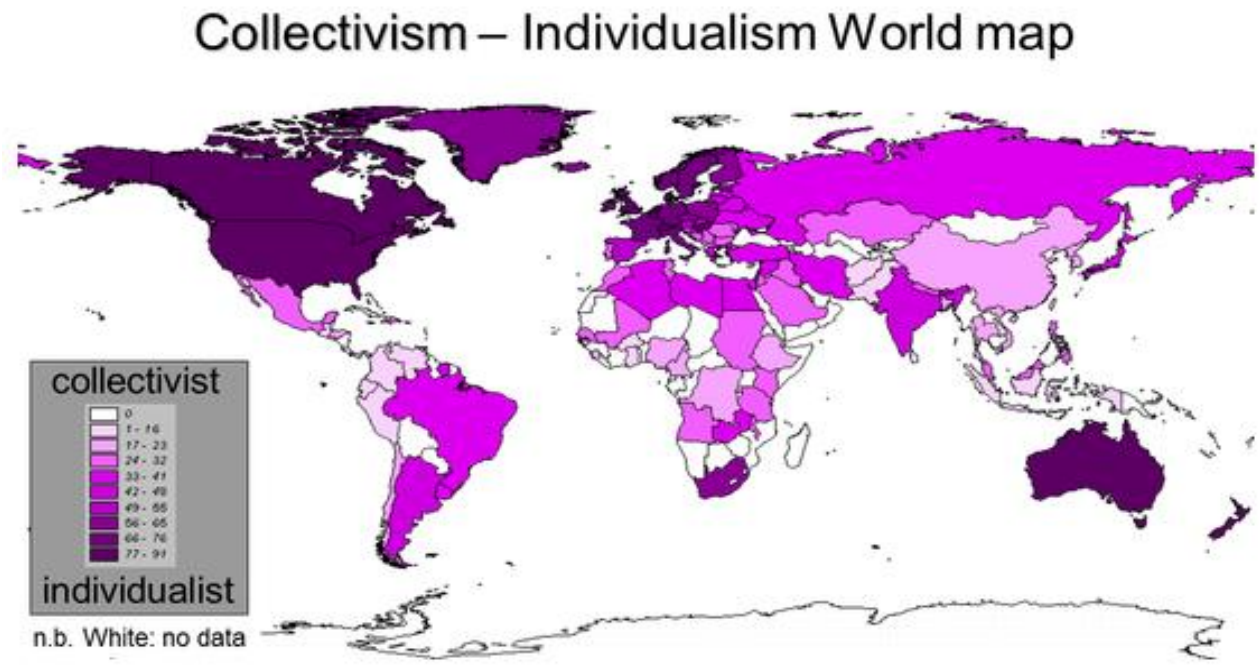
	Multi-level cultures			
Hierarchy of a culture	Classroom culture	School culture	Community culture	Societal/ national culture
Superficial	Classroom social norms	School social norms	Community social norms	Societal social norms
↕	Values shared in the classroom	Values shared in the school	Values shared in the community	Values shared in the society/nation
↕	Assumptions shared in the classroom	Assumptions shared in the school	Assumptions shared in the community	Assumptions shared in the society/nation
Deep				

Note. From "Cultural Factors in Educational Effectiveness: A Framework for Comparative Research," by C. Y. Cheong, 2000, *School Leadership & Management*, *20*(2), p. 210. (10.1080/13632430050011434). CC BY-NC.

Among the cultural diversity traits that distinguish communities that migrate from non-Western to Western regions of the world, the main migration trajectory of the 21st century (Batalova, 2022; World Population Review, 2022), the degree of group integration among its citizens represents a deep-level human trait. Accordingly, the terms individualism and collectivism are typically used in social sciences to define and assess the degree of interconnectedness and self-perception strategies of members within a society (Triandis &

Gelfand, 2012). Hofstede (2010; 2011) broadly defines individualism as a preference for personal goals and wellbeing and collectivism as a preference for in-group goals and wellbeing. For example, people within individualistic nations tend to rate success as a function of their own and immediate family members' performances, whereas success is rated as a function of the collective performance of members from the in-group and extended family among people within collectivist nations. Hofstede's research further highlights that individualism is commonly valued in developed and Western nations, whereas collectivism is valued among developing and non-Western nations (Figure 1). Implications and perceived obligations for societies that adopt each of these cultural orientations are described in Table 2. They have been found to reflect the way that academic knowledge is perceived and disseminated across schools in Western-individualistic and non-Western-collectivist nations (e.g., Alfred, 2009; Cheong, 2000; Cvencek et al., 2018; Fryberg, Covarrubias, et al., 2013; Juszczyk & Kim, 2017).

Figure 1



(Hofstede, 2010)

Table 2

Ten Differences Between Collectivist and Individualist Societies

Individualism	Collectivism
Everyone is supposed to take care of him- or herself and his or her immediate family only	People are born into extended families or clans which protect them in exchange for loyalty
"I" – consciousness	"We" –consciousness
Right of privacy	Stress on belonging
Speaking one's mind is healthy	Harmony should always be maintained
Others classified as individuals	Others classified as in-group or out-group
Personal opinion expected: one person one vote	Opinions and votes predetermined by in-group
Transgression of norms leads to guilt feelings	Transgression of norms leads to shame feelings
Languages in which the word "I" is indispensable	Languages in which the word "I" is avoided
Purpose of education is learning how to learn	Purpose of education is learning how to do
Task prevails over relationship	Relationship prevails over task

Note. From "Dimensionalizing Cultures: The Hofstede Model in Context," by G. Hofstede, 2011, *Online Readings in Psychology and Culture, 2*(1), p. 11. (https://doi.org/10.9707/2307-0919.1014). Copyright 2011 by The Berkeley Electronic Press.

Academic Achievement and Adaptation

Academic achievement represents an important indicator of adaptation among immigrant youth around the world due to its role in fostering cultural integration and overall wellness (Motti-Stefanidi, 2019; Motti-Stefanidi & Masten, 2017). Although the specific factors that nurture academic achievement can differ throughout academic settings, academic achievement is generally thought to be fostered when the cultural orientation reflected in pedagogical practices is compatible with students' orientations and when schools represent welcoming and inclusive environments (Cross et al., 2011; Hecht et al., 2021; Klinger et al., 2018; Stephens et al., 2012; United Nations, Department of Economic and Social Affairs, Population Division, 2022). Immigrant youth from non-Western societies who study in Western schools are therefore at-risk

of facing academic challenges as they are more likely to experience learning in a school with individualistic practices and values that are inconsistent with the collectivist worldview that is typically valued in their home nations (Stephens et al., 2012). This cultural difference in educational practices and values is referred to as a cultural mismatch in education, and has been found to represent a risk-factor in the academic achievement of students across educational levels and from various collectivist cultural backgrounds, such as Native American youth (Fryberg, Covarrubias, et al., 2013) and first generation college students from working-class communities in North America (Hecht et al., 2021; Stephens et al., 2012, 2019).

The academic potential of immigrant youth from non-Western societies who study in Western schools may also be impacted by the acculturation challenges that they may face during their resettlement (Motti-Stefanidi, 2019). These challenges have been conceptualized in various models for understanding immigrant youth adjustment (for a review, see Juang & Syed, 2019). One comprehensive model in which the complexities of youth's psychosocial development are considered is Suárez-Orozco et al.'s (2018) integrative risk and resilience (IRR) model for the adaptation of children and youth of immigrant origin. This model incorporates psychosocial factors, such as individual and contextual level attributes, that are considered to contribute to the educational adaptation of immigrant youth, independently and mutually (see also Motti-Stefanidi, 2019). One example of such attributes concerns the processes of acculturative stress and bicultural identity integration, both of which may be affected by experiences of cultural mismatch in educational practices and values. To inform the experiences of resettlement and long-term adaptation of vulnerable immigrant youth around the world, researchers need to identify occurrences of cultural mismatch in education and the impact of specific psychosocial challenges on their academic progress.

This dissertation includes two manuscripts that represent a collaboration between researchers from McGill University in Canada and Vrije Universiteit Amsterdam in The Netherlands. The aim of these manuscripts is to inform pathways to academic success among vulnerable students from collectivist regions who immigrate to individualist regions of the world. To meet this endeavour, the relationship between specific psychosocial factors and indicators of academic achievement among students from non-Western and collectivist countries living locally and abroad was studied.

To begin, Chapter 1 of this dissertation includes an overview of contemporary international migration flows from non-Western to Western regions of the world, which reflects the cultural diversity within nations and school settings. Chapter 2 is a literature review of the key concepts included in Manuscript 1 and Manuscript 2, and how they relate to the experiences of immigrant students. Manuscript 1 (in Chapter 3) is a scoping review of the relationship between self-concepts and academic achievement among students from collectivist countries. This manuscript was motivated by the predominance of findings from student populations within Western, individualist nations that have been generalized to populations from non-Western, collectivist countries. Manuscript 2 (in Chapter 4) represents an empirical study of the cultural beliefs and values that immigrant youth from collectivist regions bring to a Western, individualist school, and how migration challenges that stem from various acculturative stressors and processes of bicultural identity integration relate to different levels of academic motivation. This study was conducted in Amsterdam, The Netherlands, between the years 2014 and 2016. Amsterdam is renowned as one of the most culturally diverse cities in the world, distinguished by its significant population of international immigrants (Statistics Netherlands, 2018).

Chapter 2: Literature Review

Views and Beliefs of the Self: Implications for Immigrant Students

Self-perceptions, which encompass self-concepts and self-construal orientations, have a significant influence in shaping students' academic achievement (Cross et al., 2011; Huang, 2011; Valentine et al., 2004; Wu et al., 2021). This relationship between self-perceptions and academic achievement is consistent with theories of learning and human development that support the notion that the self is considered a causal agent in one's academic progress (e.g., Bandura, 2012; Ryan & Deci, 2017). A detailed examination of how specific self-concept and self-construal orientations relate to the academic achievement of immigrant youth could thus inform pathways to academic success among this vulnerable student population.

Self-Concept

The construct of self-concept that is frequently used in educational psychology research is depicted by Shavelson et al. (1976) as a person's self views and descriptions that are formulated through one's interactions with their environment (see also Arens et al., 2021; Rüschenpöhler & Markic, 2019). Accordingly, self-concept is thought to be multifaceted and hierarchically organized to reflect various meaningful experiences (Arens et al., 2021; Byrne, 2002). These meaningful experiences are represented by the self-concept dimensions associated with general self-concept, which encompasses academic, social, emotional, and physical self-concepts, each of which furthermore encompass various subareas (Arens et al., 2021; Byrne, 2002; Shavelson et al., 1976). Compared to the other dimensions, academic self-concept is considered to be a better predictor of academic achievement, with positive perceptions being associated with school adaptation (Marsh & Martin, 2011; Wu et al., 2021).

In general, research findings on the global and academic self-concepts (e.g., general academic self-concept and math self-concept) of immigrant students highlight similar or better profiles (i.e., reports of a more positive view of one's academic ability) as compared to those of their native peers (Areepattamannil & Freeman, 2008; Busch et al., 2021; Céspedes et al., 2021; Ullman & Tatar, 2001). Yet, when self-concept profiles are examined among immigrant youth with various multicultural integration styles and compared to their native counterparts and immigrant students who endorse having an assimilated style, students with an integrated, separated, or indifferent integration style show inferior global, math, and verbal self-concepts (Lilla et al., 2021). These findings indicate that the way in which immigrant youth integrate their multicultural identities has an impact on their self-concept in academic domains. This self-concept in turn may impact their academic achievement, especially for students who strongly associate their self-concept with their academic performance (for a review, see Wu et al., 2021). Thus, how immigrant youth integrate their multicultural identities can influence how they perceive themselves academically, which can impact their academic achievement, especially if their self-concept is closely tied to their academic performance.

Self-Construal

Self-construal refers to the process through which one defines the self in relation to others (Cross et al., 2011; Giacomin & Jordan, 2017; Markus & Kitayama, 1991). Two processes are identified in the literature – interdependent and independent (Giacomin & Jordan, 2017; Vignoles et al., 2016). Interdependence reflects a dynamic self where the individual is seen as rooted in a social network in which significant relationships and social roles define them, whereas independence reflects a perspective of the self that is autonomous, self-directed, and separate from the social context (Cross et al., 2011). Although members of collectivist societies

tend to be interdependent and those of individualist nations tend to be independent, self-construal processes can vary depending on the context for individuals both across and within cultural groups (Green et al., 2005; Oeberst & Wu, 2015; Vignoles et al., 2016)

Collectivism and Individualism in Education

Students from collectivist cultural backgrounds are more likely to endorse interdependent values related to education and learning (e.g., Covarrubias et al., 2016; Cristina-Corina, 2012; Fryberg & Markus, 2007; Nguyen & Nguyen, 2020; Stephens et al., 2019; Vasquez-Salgado et al., 2021). When these interdependent values are reflected in school practices and curricula, some students report having psychosocial adjustment that can lead to academic achievement (Cohen et al., 2006; Fryberg, Covarrubias, et al., 2013; Walton & Cohen, 2007). For example, in a study of Latino middle school and college students, Covarrubias et al. (2016) highlighted the improvement of academic performance that results from learning activities that include greater interdependent, as compared to independent, affirmations. Conversely, a cultural mismatch in education has been linked to a diminished sense of belonging in school and academic underachievement, such as among North American college students from collectivist backgrounds who endorse greater interdependence, which is at odds with the independent values that predominate in most American educational institutions (Phillips et al., 2020; Stephens et al., 2012). Immigrant youth from collectivist cultural backgrounds who study in independent societies could also be at-risk of experiencing a cultural mismatch with the academic values and practices promoted within their new school. Nevertheless, the influence of cultural mismatch in education may be mitigated by the students' orientation toward academic motivation (e.g., Guay et al., 2010).

The Self-Determination Theory of Academic Motivation

Academic motivation, defined as the behaviours that support academic functioning, is a key indicator of school adjustment among students in most countries (Guay & Bureau, 2018; Howard et al., 2021; Vu et al., 2022; Wu, 2019). Academic motivation has also been found to mediate the relationship between academic self-beliefs and achievement among adolescents, such that a positive academic self-concept leads to the development of autonomous motivation, which in turn contributes to improvements in one's grades (Guay et al., 2010). Although several theories have been forwarded about the antecedents and consequences of academic motivation, they can be generally divided into two broad groups – those in which the values that underlie motivation are emphasized and those in which the expectations are emphasized (Vu et al., 2022). Among the theories in which the underlying values are emphasized, the self-determination theory (SDT: Ryan & Deci, 2020) represents a seminal conceptualization for understanding the relationship between different levels of motivation and academic achievement (Howard et al., 2017, 2021). According to the SDT, all humans possess the three fundamental psychological needs of autonomy, relatedness, and competence (Koenka, 2020; Vu et al., 2022). In SDT (Ryan & Deci, 2020). Autonomy is seen as a self-endorsement and responsibility of one's behaviour, relatedness as concerning feelings of human belonging and connections, and competence as a self-belief in one's ability to succeed and grow. Ryan and Deci (2017) contend that one's level of motivation depends on how well these three psychological demands are met in diverse social contexts, including schools. Accordingly, when students experience satisfaction in line with the three psychological needs addressed in the SDT, their academic motivation is thought to be autonomous (e.g., self-determined; Ryan & Deci, 2020). Alternatively, when psychological needs are inadequately met, students tend to experience controlled forms of academic motivation.

The autonomous and controlled nature of academic motivation is organized along a multidimensional continuum of self-determination, which encompasses amotivation, external motivations, and intrinsic motivation (Ryan & Deci, 2020). (1) Amotivation is primarily characterized by an intentional complete absence of desire to engage academically. Next along the SDT continuum is (2) external motivation which encompasses four sublevels that are based on actions taken in response to external or internal pressures to participate in learning tasks that can be, to a certain extent, uninteresting and unsatisfying. Accordingly, (2.1) external regulation is driven by external pressures, such as rewards and punishments, whereas (2.2) introjected regulation is driven by internal pressures involving consequences on self-esteem. Next, (2.3) identified regulation, is characterized by a certain level of autonomy and a personal recognition of value towards an academic activity. (2.4) Integrated regulation is the most self-determined form of external motivation as it relates to core values and interest, however, it is often not included in educational studies due to difficulties in distinguishing its measurement from identified regulation and intrinsic motivation (Howard et al., 2017). Last along the SDT continuum is (3) intrinsic motivation, the most autonomous form of regulation. Accordingly, intrinsic motivation is reflective of one's innate fulfillment and pleasure in undertaking an academic task. Thus, motivated behaviours can reflect impersonal engagement (amotivation), unpleasant external and internal pressures (external motivation), or inherent values, interest, and satisfaction (intrinsic motivation; Howard et al., 2021; Ryan & Deci, 2017, 2020). As summarized by Howard et al. (2021) in a meta-analysis on the SDT, motivation that is more self-determined (e.g., intrinsic motivation and identified regulation) leads to greater academic and psychosocial outcomes than less self-determined forms (e.g., external and introjected regulations). Notably, success relative to a school discipline is typically associated with

experiencing self-determined regulations specifically about the subject, whereas experiencing external regulations in the context of a discipline can have negative effects across all school subjects (Guay & Bureau, 2018).

Academic Motivation among Immigrant Students

Self-determined motivation has been found to decrease during the course of students' academic trajectories (for a review, see Scherrer & Preckel, 2019). This progressive decrease in self-determined motivation is concerning given its long-term benefits on academic achievement (for a review, see Vu et al., 2022). Immigrant students, who tend to have higher baseline levels of external motivation and amotivation compared to their native counterparts (e.g., Manganelli et al., 2021), are especially vulnerable to be impacted by this gradual decline in self-determined motivation (Howard et al., 2021). Examples of diminished levels of self-determined motivation and higher baseline levels of external motivation and amotivation have been documented in Canada (Areepattamannil & Freeman, 2008) and Italy (Manganelli et al., 2021) among immigrant high school students from Africa, the Caribbean, the Middle East, South and East Asia, and Europe, who reportedly experience poorer levels of identified regulation and greater external motivation and amotivation in comparison to their native peers. Similarly, when compared to their native counterparts in Italy, first- and second-generation immigrant children in primary school report experiencing greater levels of external regulations (Alivernini et al., 2018).

In line with the SDT, a weakening in self-determined motivation may reflect challenges experienced by school professionals in effectively supporting the development of several fundamental psychological needs (i.e., autonomy, relatedness, and competence) among diverse student populations (Ismail, 2019; Ryan & Deci, 2017), including immigrant learners whose acculturation experiences have been linked to these psychological needs and to subsequent

academic progress. For instance, in Germany, a sense of belonging and competence were found to mediate the relationship between second language challenges and academic achievement among immigrant learners in grade 7 from various backgrounds, including Turkish, Arab, and East European heritages (Kunyu et al., 2021). Similarly, also in Germany, perceptions of reading competence were associated with greater intrinsic motivation in reading among immigrant learners between grades 5 and 7 (Miyamoto et al., 2018).

Various strategies identified in the literature are effective in maintaining or improving self-determined motivation. These interventions involve several characteristics, such as supporting students in setting goals that are specific, challenging, and align with their values and interests, developing students' self-efficacy, referring to one's belief in their capacity to achieve, and encouraging student engagement in positive and reinforcing self-talk (Rowell & Hong, 2013). Other characteristics of effective interventions include self-monitoring one's behavior and progress toward a goal, as well as positive reinforcement that entails rewarding oneself for achieving progress toward an objective (for a review, see Xu et al., 2021). However, for immigrant youth, the strategies detailed in the studies among the general population (e.g., Brown, 2019) may be insufficient to address the various challenges specific to their resettlement experiences in a new educational context (Berry et al., 2011; Ismail, 2019). Such challenges include, but are not limited to, experiencing a cultural mismatch with the values and practices promoted within their new school, as well as facing acculturation and bicultural identity integration difficulties (Figueiredo et al., 2021; Fuller, 2021; Hecht et al., 2021; Kumi-Yeboah & Smith, 2017; Miller et al., 2011; Motti-Stefanidi, 2018).

Acculturation and Bicultural Identity Integration Challenges

Immigrant youth are at-risk of facing unique challenges related to the circumstances and characteristics of immigration, resettlement, and reception in the host society (Staudenmeyer et al., 2016). Acculturation stressors and the integration of a bicultural identity are two examples of such migration-specific challenges that are mutually related (Bae, 2020), and have implications for educational success. The acculturative stressors are triggered by difficult experiences of psychological acculturation that result from one's implicit and explicit involvement and interactions with a new culture (Berry, 2006). Among migrant students, experiences of various acculturative stressors can lead to maladaptive psychosocial outcomes that have implications for educational success (d'Abreu et al., 2019; Guo-Brennan & Guo-Brennan, 2019). For example, self-reported experiences of racism, second language acquisition challenges, and interpersonal cultural stressors (e.g., discrimination and isolation) are all associated with psychosocial challenges that can lead to academic underachievement among various populations of immigrant youth who study in individualistic societies (Katsiaficas et al., 2013; Kende et al., 2021, 2021; Kumi-Yeboah & Smith, 2017; Santiago et al., 2014). Conversely, when acculturation experiences are respectful and supportive of both the ancestral and host cultural practices and values, youth can experience adaptive psychosocial outcomes (Berry, 2017; Motti-Stefanidi, 2018).

Bicultural identity integration is thought to be associated with experiences of acculturative stress (Bae, 2020) and academic achievement (Baysu & Phalet, 2019). The processes reflect one's internalization of ancestral and mainstream cultures (Benet-Martinez & Haritatos, 2005). The dichotomous form of cultural compartmentalizing versus blendedness refers to the level of congruence experienced between the two cultural orientations, while cultural conflict versus harmony corresponds to the degree of compatibility (Huynh et al., 2018).

For bicultural students, such as immigrant youth, bicultural identity integration that is characterised by both blendedness and harmony is protective of their psychosocial development and academic outcomes because it draws on protective resources from both cultures and has the capacity to reconcile conflicts between them (Nguyen & Benet-Martínez, 2013). While such dual identities may be difficult to sustain during early and middle adolescence (Jugert et al., 2020), having both minority and majority peers who value bicultural identity and affirm its compatibility can be helpful (Cárdenas & Fleischmann, 2022; Fleischmann & Op De Weegh, 2021; Gharaei et al., 2018). In addition, access to bicultural resources, such as bicultural teachers and school staff, can also help bicultural students to develop a sense of belonging and to effectively integrate their dual identities (Gharaei et al., 2018). For example, teachers who are knowledgeable about both cultures and who value bicultural identity can help bicultural students to feel more connected to their school (Nguyen & Benet-Martínez, 2013). By understanding and embracing the diverse cultural backgrounds and resettlement experiences of their immigrant students, school professionals can thus create an environment that encourages and supports the development of psychosocial needs, thereby fostering self-determined motivation and ultimately academic success.

The focus of this dissertation is on the relationship between various psychosocial factors (i.e., self-concept, self-construal, acculturative stress, and bicultural identity integration) and the development of essential indicators of academic achievement, such as grades (in Manuscript 1) and various levels of academic motivation (in Manuscript 2), among students from collectivist countries living both locally and abroad. This specificity in the psychosocial factors explored and related academic outcomes is crucial to understanding the complex interplay among culture,

immigration, and education. Thus, the findings in this dissertation will help identify unique educational opportunities and challenges for youth from collectivist countries.

Chapter 3: Manuscript 1

Self-Concept and the Academic Achievement of Students from Collectivist Countries: A Scoping Review of Empirical Findings

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Weva, V. K., Napoleon, J.-S., Escobar, K. A., Hoover, M., Huizinga, M., Burack, J. A. (2023). *Self-concept and the academic achievement of students from collectivist countries: A scoping review of empirical findings*. Manuscript submitted for publication.

Abstract

The relationship between self-concept and academic achievement is primarily based on studies involving students from a wide variety of Western countries with individualistic societies. Thus, this relationship may not be the same for students from various non-Western countries, which are thought to largely adopt collectivist cultural values and behaviours that are inconsistent with the way students from individualist nations perceive and evaluate their academic functioning. This lack of clarity motivates the present scoping review about the relationship between self-concept and academic achievement among students from collectivist countries who study in elementary, secondary, and post-secondary schools. A final review of 27 empirical articles involving student populations across educational levels and from several collectivist countries provided support for the relationship between self-concept and academic achievement, as has been found in Western countries. The development of a favourable self-concept was thus associated with greater academic achievement. Notably, in some cases, this relationship was dependant on self-concept and academic achievement being measured in the context of a school-related discipline, and for the studies that investigated a reciprocal relationship, on the time interval between the examination of both variables. Our findings provide insight into pathways to academic success that are effective across cultures, and we offer considerations for successful academic self-concept interventions.

Keywords: self-concept, academic achievement, collectivist countries

Self-Concept and the Academic Achievement of Students from Collectivist Countries: A Scoping Review of Empirical Findings

Educational psychology scholarship mainly reflects researchers, authors, and participants from Western countries in North America and Western Europe (Begeny et al., 2018, 2020; Wang et al., 2020). This overrepresentation of empirical studies from the West limits the ways that the scientific knowledge can be applied more globally, especially in non-Western regions of the world. To more effectively practice internationalization, which refers to producing scientific research that transcends a specific country, area, or culture, Begeny et al. (2020) recommend investigating research questions more globally and multiculturally. They also recommend reviewing traditional scientific models claimed to be cross-culturally relevant, despite disproportionally stemming from studies among Western populations. One example of such models is the relationship between self-concept and academic achievement (Huang, 2011; Marsh et al., 2022; Rüschenpöhler & Markic, 2019), according to which self-concepts, particularly academic self-concepts, and academic achievement are thought to be correlated across different levels of education and various cultural groups (Arens et al., 2017; Guay et al., 2003; Huang, 2011; Marsh et al., 2016; Marsh & Martin, 2011; Marsh & O'Mara, 2008; Niepel et al., 2022; Sewasew & Schroeders, 2019; Valentine et al., 2004; Wu et al., 2021). The primary limitation in the almost exclusive use of studies undertaken in the West is that the conclusions are primarily based on populations from Western countries (Marsh et al., 2022; Marsh & Martin, 2011; Wu et al., 2021), who are typically considered individualistic in the ways that they perceive and evaluate their academic functioning (Zhang et al., 2020). The implications of the relationship between both constructs among students from non-Western regions of the world, which are considered to primarily adopt cultural values and practices that are rooted in collectivism

(Hofstede, 2011), are unclear and need to be better understood to inform educational best practices more globally. A global understanding of this relationship can also guide the efforts of many educational stakeholders who face challenges in fostering the integration of the growing rates of non-Western immigrant learners in Western schools (Batalova, 2022; Pomianowicz, 2021; Riederer & Verwiebe, 2015).

The main goal of the current review is to identify and summarize the evidence pertaining to the relationship between self-concept and academic achievement, specifically among students from non-Western and collectivist countries, including those found in Africa, Asia, the Caribbean, South America, Southeast Europe, and the Middle East (Hofstede, 2010). The findings will provide insight into the extent to which the relationship between self-concept and academic achievement transcends Western and individualistic cultures and is of relevance to students from a wide range of non-Western and collectivist backgrounds, living both locally and abroad.

Model of Self-Concept

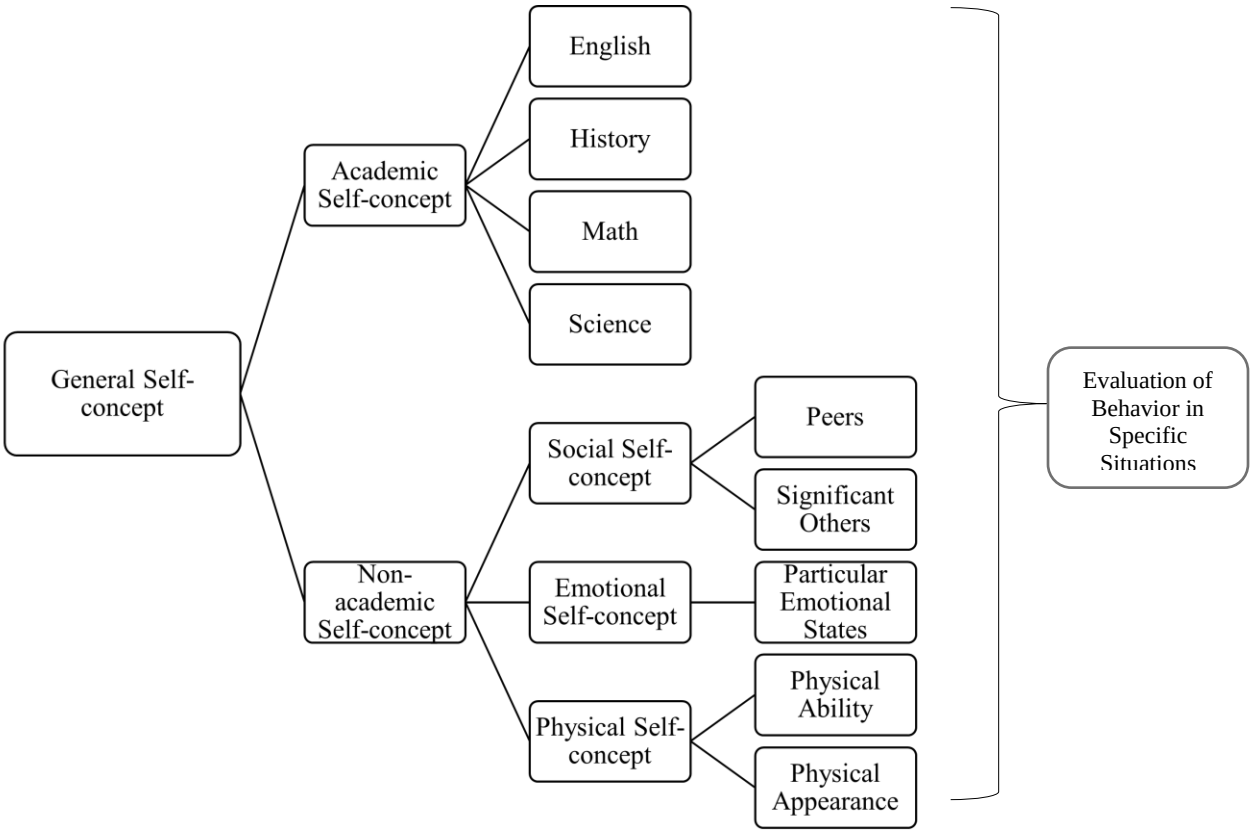
Shavelson et al.'s (1976) multifaceted and hierachical model of self-concept continues to be typically used in educational psychology research (Arens et al., 2021; Rüschenpöhler & Markic, 2019) In this model, an individual’s self-views, self-perceptions, and self-descriptions are formed through experiences with their environment and significant others. Based on this model, self-concept is a function of both self-esteem, feelings and values about the self, and self-efficacy, perception of capacity and competence (Valentine et al., 2004; Wehrle & Fasbender, 2019).

Shavelson et al. (1976) identify key features in their conceptualization of self-concept (see Figure 1). One, self-concept is organized and multifaceted, such that each facet represents

an experience that is considered to be meaningful. Shavelson et al. identified two categories of self-concepts: those that are related to academics (academic self-concept) and those that are not (non-academic self-concept). Academic self-concept is further divided into self-concepts related to specific academic subjects, while non-academic self-concept is comprised of social, emotional, and physical self-concepts. Two, this multifaceted structure of self-concept is hierarchically organized with general self-concept at the apex and domain specific experiences at the base, thus suggesting that general (i.e., global) self-concept influences domain-specific self-concepts. Three, whereas general self-concept is thought to be stable, self-concept becomes less stable as one descends the self-concept hierarchy toward specific facets or domains (e.g., academic self-concepts). Accordingly, changes in self-concept in a specific facet may not necessarily lead to changes in general self-concept. Four, self-concept is developmental in that as we get older, the construct becomes increasingly multifaceted and positive outcomes in a domain are expected particularly when one experiences positive self-concept within that corresponding domain. For example, a high self-concept in mathematics is expected to contribute to a high academic achievement in mathematics. Five, self-concept includes both affective (self-descriptions) and cognitive (self-evaluations) evaluations of the self that are considered to be favourable or unfavourable by an individual. Six, self-concept differs from the concepts with which it is related. For example, in terms of academic self-concept, perceptions of ability in one subject (e.g., mathematics) is thought to be more closely related to achievement outcomes in that same subject than outcomes in another academic subject (e.g., English).

Figure 1

Shavelson's Model of Self-Concept



Note. An adapted version of Shavelson's Model of Self-Concept (Shavelson et al.'s, 1976). Copyright 1976 by SAGE Publications.

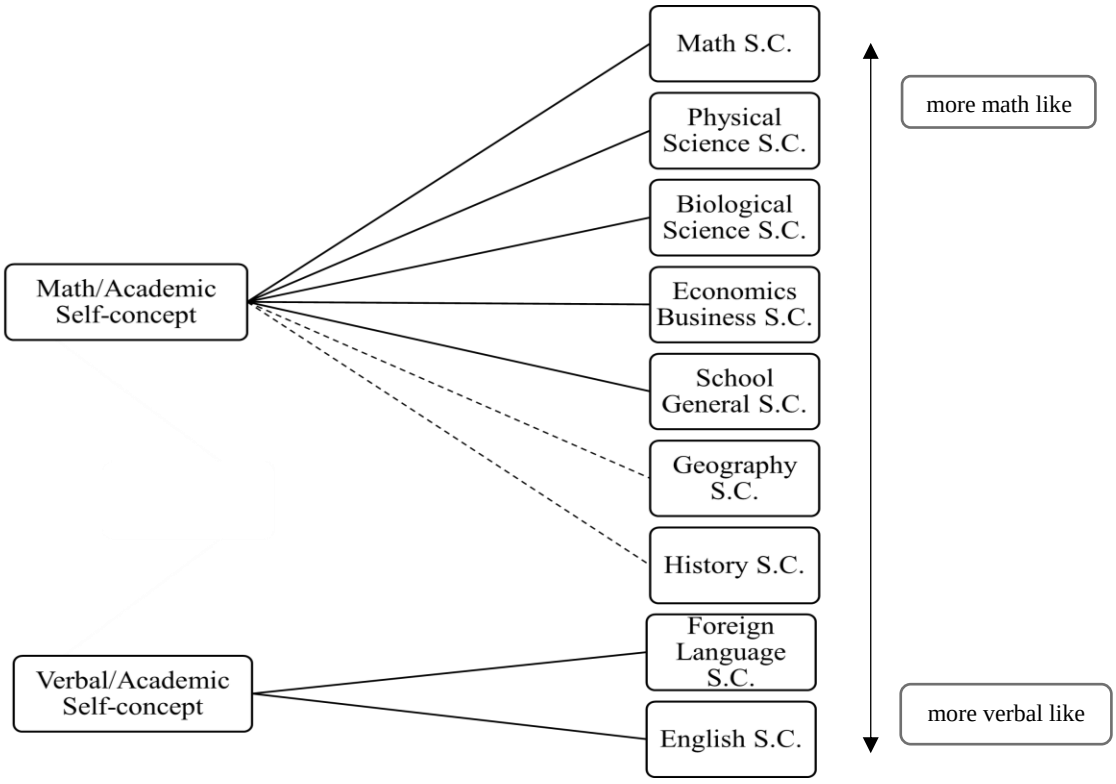
Academic Self-Concept

Shavelson's model of self-concept inspired various conceptualizations of academic self-concept (Brunner et al., 2010; Byrne, 2002; Marsh, 1990; Weidinger et al., 2019). In one extension, Marsh and Shavelson developed a model of academic self-concept that involves a hierarchy of two levels (Arens et al., 2021; Marsh, 1990). The higher global level includes the math-academic and verbal-academic self-concepts, whereas the lower is subdivided into academic subjects that are traditionally adopted in schools, ordered on a continuum ranging from

those that require pure math skills (e.g., math) at one endpoint to those that require pure verbal skills (e.g., English) (Figure 2). When applying this model across grade levels and in post-secondary education, students' academic achievement was found to be more closely correlated with academic self-concepts than with global and non-academic self-concepts (Marsh & Martin, 2011). These findings are based on a number of reviews of studies primarily involving students from a wide variety of Western countries, including Australia and those in North America and Europe, with only minimal representations of students from the East, particularly China and Hong Kong (Huang, 2011; Marsh & Craven, 2006; Marsh & Martin, 2011; Rüschenpöhler & Markic, 2019; Valentine et al., 2004; Wu et al., 2021).

Figure 2

Marsh and Shavelson's Model of Academic Self-Concept



Note. An adapted version of Marsh et al.'s (1988) theoretical model of structure of academic self-concept. Copyright 1988 by the American Psychological Association. S.C. = self-concept.

The relationship between academic self-concept and academic achievement was conceptualized in Marsh and Craven's (2006) Reciprocal Effects Model (REM), according to which "prior self-concept affects subsequent achievement, and prior achievement affects subsequent self-concept" (p. 147). Academic self-concept and academic achievement are thus thought to be mutually reinforcing. Moreover, because academic self-concept is considered to be multidimensional (Arens et al., 2021), a higher academic self-concept that is related to a specific core subject (e.g., mathematics or language) has been found to be associated with a greater achievement in that same subject (Marsh & Martin, 2011; Möller et al., 2009, 2020; Valentine et al., 2004). Enhancing self-concept is thus considered a protective factor and a goal of education in most academic contexts (Trautwein & Möller, 2016).

Self-Concept and Academic Achievement among Students from Collectivist Countries

The findings from the studies supporting the relationship between self-concept and academic achievement have primarily been conducted among students from Western cultures, such as those found in Western regions of Europe, North America, and Australia (e.g., Marsh & Martin, 2011; Niepel et al., 2022; Valentine et al., 2004; Wu et al., 2021). These cultures are mainly individualistic in nature, as cultural values typically include placing an emphasis on the separateness and uniqueness of an individual (Greif, 1994; Hofstede, 2010). In contrast, many countries from South and East Europe, Asia, Africa, South America, and the Pacific islands, are thought to be mainly collectivist in nature, as individuals view the self as defined in major part by the wellbeing of members in their close relationships and community (Hofstede, 2010, 2011; Juslin et al., 2016; Markus & Kitayama, 1991, 1998; Singelis, 1994). As the cultural practices and values that citizens favour reflect how academic knowledge is acquired and disseminated in schools (Alfred, 2009; Cvencek et al., 2018; Fryberg et al., 2013; Juszczyk & Kim, 2017;

Stephens et al., 2012), the implications for the relationship between self-concept and academic achievement may differ between citizens of collectivist and individualist countries. Moreover, the measurement of self-concept in educational psychology is typically based on individualistic psychological constructs (Cokley & Patel, 2007) that may be at odds with the in-group reference point valued by people from collectivist societies (Hofstede, 2011; Stephens et al., 2012; Weva et al., 2022).

The goal of this scoping review is to examine the extent, range, and nature of the findings on the relationship between self-concept and academic achievement among students from collectivist countries and across educational levels, and to discuss implications for educational practice. Munn et al. (2018) report that:

> Scoping reviews conducted as precursors to systematic reviews may enable authors to identify the nature of a broad field of evidence so that ensuing reviews can be assured of locating adequate numbers of relevant studies for inclusion. They also enable the relevant outcomes and target group or population for example for a particular intervention to be identified. This can have particular practical benefits for review teams undertaking reviews on less familiar topics and can assist the team to avoid undertaking an "empty" review. (p.4)

In line with this endeavour, the present scoping review will provide a summary of the key themes, findings, and limitations of the research, that can inform the development of the research questions and inclusion criteria of future systematic reviews on self-concept and academic achievement.

Method

Objectives and Eligibility Criteria

The present scoping review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR: Tricco et al., 2018). This protocol includes 20 essential and 2 optional reporting items. In line with item 5, the current scoping review was preregistered on the Open Science Framework (osf.io/dr67v). With regard to items 4 (objectives) and 6 (eligibility criteria), the research question that guided the present review was, "What is the relationship between self-concept and academic achievement among students from collectivist countries who study in elementary, secondary, and post secondary schools?" To ensure that a broad variety of studies was captured, articles on self-concept, as measured by global, academic, or subject specific self-concepts, were included in the review. In terms of the identification of the collectivist countries included in this review, they were determined using recommendations from Hofstede (2010, 2011), a founder of comparative intercultural research who developed the 6-D model of national culture. This model is based on six combinations of cultural dimensions, including the dimension of individualism versus collectivism. Using Hofstede's country comparison tool (Hofstede Insights, n.d.), the degree to which a nation values individualism versus collectivism can be measured, and scores can be compared among different nations. Within this system, nations that score high on individualism (above 50) are typically Western, whereas nations that score high on collectivism (below 50) are typically developing and non-Western.

Information Sources and Search Strategy

In line with items 7 (information sources) and 8 (search), the articles reviewed were identified from an exhaustive search of electronic directories from the field of social sciences. The articles were chosen from the PsychINFO, MEDLINE, ERIC, and Scopus databases. The electronic search strategy was formulated under the supervision of a specialist librarian from

McGill University. Two groups of keyword combinations were used and adapted to each database. For example, in the electronic search in the PsychINFO database, the search term "Academic Achievement" was combined in an interactive manner with "Self-Concept" or "Academic Self Concept". The publication year was not restricted, and the search was conducted on January 6th, 2022.

Selection of Sources of Evidence

Regarding item 9 (selection of sources of evidence), the search and screening process was conducted by two independent reviewers (the first and third authors). First, study titles and abstracts were screened against the inclusion and exclusion criteria by both reviewers. Second, a number of studies were retained for full-text review by the screeners if they met the following inclusion criteria: (a) measured the relationship between self-concept and academic achievement, (b) included students from collectivist countries studying in a formal education setting, (c) included findings from quantitative analyses, (d) published in English, and (e) published in peer-reviewed academic journals. Further information on the inclusion and exclusion criteria are included in Table 1. If a record's title or abstract did not contain all of the information necessary to determine whether it met the criteria, it was kept for full-text review. The interrater reliability (IRR) was calculated by dividing the total number of agreed upon records in the screening phase by the total number of records identified for inclusion by both reviewers (Gunning et al., 2019). An original agreement level of 81% was attained in the screening phase. The reviewers then applied the inclusion criteria to the 59 full-text articles and agreement of 100% was obtained on the final set of 27 studies.

Data Charting

Data charting was completed in line with item 10 of the PRISMA-ScR protocol. Each study was summarized and analyzed in terms of the following characteristics: (a) author (year), (b) country, (c) participants, (d) self-concept and academic achievement measures, and (e) results of interests. The first author completed the data charting of the 27 articles included in the scoping review and the second author reviewed and summarized the reported table characteristics of 15 (55%) randomly selected studies, as per Tricco et al.'s (2018) recommendations. One hundred percent agreement was achieved on the IRR that was computed for the 75 elements derived from the 15 studies and the 5 data charting characteristics.

Table 1

Inclusion and Exclusion Criteria

Criteria	Inclusion	Exclusion
Time period	Unrestricted period	None
Study focus	The relationship between self-concept (global, academic, or subject specific self-concepts) and academic achievement (e.g., global or subject specific)	Descriptive studies measuring self-concept and academic achievement independently
Sample	Students from collectivist countries	Students from individualistic countries
Setting	Formal education settings (e.g., elementary school, high school. post-secondary education)	Informal or unidentified learning contexts
Study type	Quantitative empirical Studies	Qualitative studies, literature reviews, and case studies
Language	English	Languages other than English
Publication	Peer-reviewed academic journals	Dissertations, reports, and conference papers

Data Items and Synthesis of Results

Data was retrieved (item 11) for the following variables: global, academic, and subject-specific (e.g., mathematics, language, and sciences) self-concepts as well as global (e.g., grade point average) and subject-specific (e.g., test scores) academic achievements. The relationship between self-concept and academic achievement is summarized and presented (item 13) based on educational level (elementary, secondary, and postsecondary schools). The findings will contribute to assessing the ways that self-concept and academic achievement are related among students from various collectivist countries and in different educational levels.

Results

Sources of Evidence

The findings reported in this scoping review reflect the PRISMA-ScR protocol's five recommended items (14 through 18) for reporting research results (Tricco et al., 2018). A total of 7467 journal articles were identified in the search. EndNote 20 (The EndNote Team, 2013) was used to manage the references and remove duplicate records (n = 503). The remaining records (n = 6964) were uploaded to Rayyan (Ouzzani et al., 2016), an electronic collaboration and research tool that was used by the reviewers, who were blinded to each other's inclusion and exclusion decisions, to screen titles and abstracts. Fifty-nine articles were selected to be read in full text. Finally, a total of 27 articles met the inclusion criteria for the present review. The study selection process in a PRISMA flow diagram (Page et al., 2021) are summarized in Figure 3. The characteristics of the studies that are included in the present review are presented in Table 2. Most of the studies were published between 2012-2022 (n = 16), many studies included a measure of the relationship between subject specific self-concept and achievement in that same subject (e.g., self-concept in mathematics and achievement in mathematics; n = 12), and three

studies were longitudinal (Chen et al., 2015; Guo et al., 2021; Xu, 2018). In terms of geographical representation, the participants came from the following collectivist countries: Azerbaijan (*n* = 1), Botswana (*n* = 1), China (*n* = 5), India (*n* = 1), Korea (*n* = 1), Malaysia (*n* = 1), Nigeria (*n* = 2), Pakistan (*n* = 1), Philippines (*n* = 1), Puerto Rico (*n* = 1), South Africa[1] (*n* = 2), Spain[2] (*n* = 5), St. Lucia (*n* = 1), Taiwan (*n* = 2), and United Arab Emirates (*n* = 2). In terms of educational level, most studies included high school (or secondary school) students only (*n* = 17), four studies included postsecondary school (i.e., college or university) students only, and one study included elementary school (i.e., primary school) students only. The remaining studies (*n* = 5) included cohorts of students in different grade school levels (e.g., students in elementary and high school). The characteristics of the included studies are presented in Table 2.

[1] Although Hofstede's (2010) 6-D model classified South Africa as highly individualistic, their classification is thought to be primarily based on studies conducted among the White South African population as the Black population who participated in these studies is known to be highly collectivist (Adams et al., 2012; Eaton & Louw, 2000).

[2] According to Hofstede Insights (n.d.), Spain has a relatively high level of collectivism compared to most European countries, but a relatively low level of collectivism compared to the United States, Canada, and Australia, countries with the highest levels of individualism.

Figure 3

Identification of Sources of Evidence

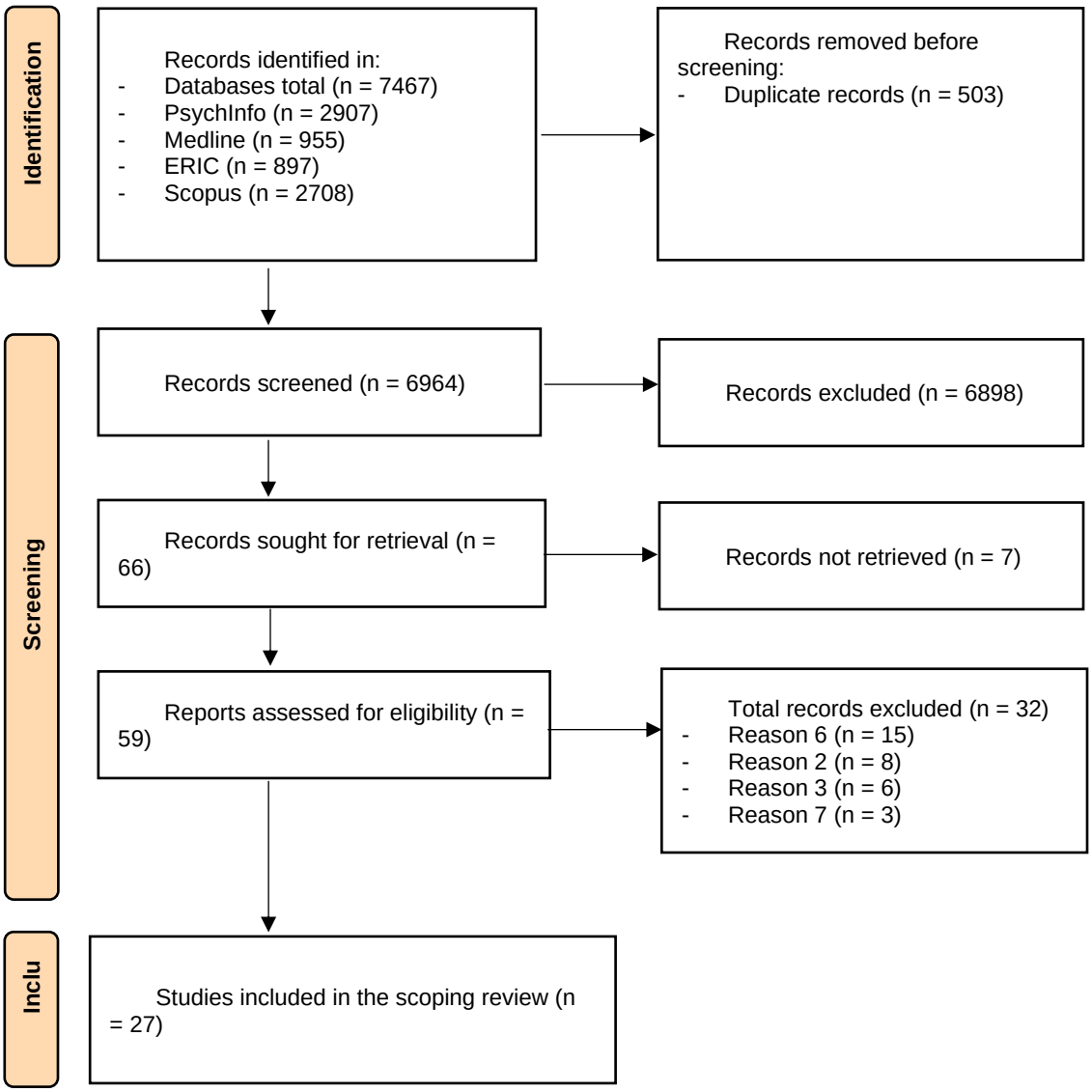


Table 2

Characteristics of Included Studies

	Author (year)	Country	Participants	Self-concept Scale and Academic Achievement Measure	Results of Interest
1.	Abadzi & Florez (1981)	Puerto Rico	Students in grades 4, 7, and 10	- Puerto Rico Self-concept Scale o Global self-concept - Academic achievement o GPA from previous year	Self-concept is positively correlated with students' GPA in their previous year.
2.	Abdullahi (2013)	Nigeria	Secondary school students between 15 and 25 years old	- Self Descriptive Questionnaire o Global self-concept - Achievement o Final mathematics exam grade	Self-concept positively predicts academic achievement in mathematics.
3.	Abu-Hilal (2000)	United Arab Emirates	Adolescent students in grades 6 and 9.	- Self-description Questionnaire-I o Mathematics self-concept - Academic achievement o A cumulative score for the mathematic grades obtained throughout the academic year	Self-concept in mathematics is positively correlated with achievement in mathematics.
4.	Ahmad et al. (2011)	Malaysia	University students between 18 and 27 years old	- Tennessee Self Concept Scale o Global self-concept - Academic achievement: o CGPA	Self-concept is not statistically correlated with CGPA.
5.	Anazonwu (1995)	Nigeria	Undergraduate university students with an average age of 24.1 years old	- Academic Self-description Questionnaire-II o Academic self-concept - Academic achievement:	Academic self-concept is positively correlated with achievement on a psychology statistic exam.

				○ Psychology statistics exam grade	
6.	Areepattamannil et al. (2017)	United Arab Emirates	Adolescent students with an average age of 15.85 years old.	- Mathematics Self-concept Scale ○ Mathematics self-concept - Academic achievement: ○ PISA 2012 mathematics test score	Self-concept in mathematics is positively correlated with achievement in mathematics.
7.	Awan et al. (2011)	Pakistan	Secondary school students in 9th grade.	- Academic Self-Description Questionnaire-II ○ English self-concept ○ Mathematics self-concept - Academic achievement: ○ English final grade ○ Mathematics final grade	Subject specific self-concept (i.e., in English and mathematics) positively predicts achievement in the respective academic domain.
8.	Bong et al. (2012)	Korea	Elementary school students in grades 5 and 6, between 10 and 12 years old. Middle school students in grades 7, 8, and 9, between 12 and 15 years old.	Elementary school: - Self-Description Questionnaire-II ○ Mathematics self-concept - Teacher rating of achievement in mathematics Middle school: - Self-Description Questionnaire-II ○ Mathematics self-concept ○ Language arts self-concept - Teacher rating of achievement in: ○ Mathematics ○ Korean	Subject specific self-concept (i.e., in mathematics and language arts) positively predicts achievement in the respective academic domain among both students from elementary and middle school.
9.	Chao et al. (2019)	China	Secondary school students between 8th and 11th grade.	- Self-Description Questionnaire-II ○ English language self-concept	Self-concept in both English and Chinese languages positively predict achievement in Chinese language.

			o Chinese language self-concept - Academic achievement: o English exam grade o Chinese exam grade	Self-concept in English language positively predicts achievement in English language. Self-concept in Chinese language was not a statistically significant predictor of achievement in English language.
10. Chen et al. (2015)	Taiwan	Business major students, with an average age of 19.75 years old, from national vocational colleges in Taiwan.	- Academic Self-concept Questionnaire - Academic Achievement Questionnaire	Academic self-concept is positively correlated with academic achievement.
11. Chen et al. (2013)	Taiwan	A two-wave (Time 1 and Time 2) study including two cohorts; Elementary school students who participated in 5th and 6th grade (Cohort 1), and high school students who participated in10th and 11th grade (Cohort 2).	- Academic self description questionnaire-II o Self-concept in Chinese language o Self-concept in mathematics - Academic achievement: o Chinese language school grade o Mathematics school grade	Subject specific self-concept (i.e., in Chinese language and mathematics) is positively correlated with achievement in the respective academic domain across timepoints among students in both cohorts 1 and 2. Self-concept in Chinese language and achievement in mathematics were not statistically significant across timepoints in both cohorts 1 and 2. Self-concept in mathematics and achievement in Chinese

				language are positively correlated across timepoints in cohort 1, but not statistically correlated in cohort 2.
12. Cherian & Moeketsi (1998)	South Africa[3]	Secondary school students in 12th grade between 15 and 25 years old.	- A 19-item self-concept questionnaire - Academic achievement: o Aggregated course grades score	Self-concept is positively correlated with academic achievement.

13. Gonzalez-Pienda et al. (2002)	Spain	Elementary (7th and 8th graders) and high school (1st, 2nd, and 3rd years) students, with an average age of 14.7 years old.	- Self-description Questionnaire-II
			  o Mathematics self-concept
			  o Verbal self-concept
			  o Self-concept in remaining academic areas
			- Academic achievement:
			  o Mathematics grade
			  o Verbal language grade
			  o Sum of grades in remaining academic areas
				Self-concept (in all three self-concept domains combined) positively predicts academic achievement (in all three academic areas combined);
				Higher reports of self-concept are associated with higher reports of achievement, and vice versa.
				Academic achievement (in all three academic areas combined) does not statistically predict self-concept (in all three

[3] The participants from this study were likely Black South Africans, and thus from a collectivist cultural background, as Blacks represented the majority (96 percent) of the South Africans who lived in the province from which the participants were recruited in 1998 (The Statistics Council, 1998).

				self-concept domains combined).
14. Guo et al. (2021)	China	A three-wave study, with a one-year interval, among university students with an average age of 20.16 years old.	- A five-item academic self-concept inventory o Academic self-concept at Time-2 - Academic achievement: o CGPA at Time-1 and Time-3	Time-1 academic achievement positively predicts Time 2 academic self-concept. Time-2 academic self-concept positively predicts Time-3 academic achievement.
15. Herrera et al. (2020)	Spain (the autonomous city of Melilla)	Primary school students, of Amazigh cultural origin, in grades 5 and 6.	- Self-Concept Test-Form-5 o Academic self-concept o Social self-concept o Emotional self-concept o Family self-concept o Physical self-concept - Academic achievement: o Natural sciences final grade o Spanish language and literature final grade o Mathematics final grade	Academic self-concept positively predicts academic achievement across the three school subjects.
16. Karimova & Csapo (2020)	Azerbaijan	Secondary school students in 8th grade.	- Self-Description Questionnaire-II o Mathematics self-concept o English language self-concept o Russian language self-concept language - Academic achievement: o TIMSS o Language proficiency test grade in English and Russian	Subject specific self-concept (i.e., in mathematics, English, and Russian) is positively correlated with achievement in the respective academic domain. Self-concept in English is not correlated with achievement in mathematics.

			○ Language proficiency test grade in Russian	Self-concept in Russian is positively correlated with achievement in mathematics. Self-concept in mathematics and English are not correlated with achievement in Russian. Self-concept in mathematics is negatively correlated with achievement in English. Self-concept in Russian is positively correlated with achievement in English.
17. Lone & Lone (2016)	India	Secondary school students in 9th and 10th grade.	- The Self-Concept Questionnaire - Academic achievement ○ Total school grades	Self-concept is positively correlated with academic achievement.
18. Maqsud & Rouhani (1991)	Botswana	High school students in 9th grade between 16-17 years old.	- Bhatnager Self-Concept Scale - Academic achievement: ○ English final grade ○ Mathematics final grade	Self-concept is positively correlated with achievement in English and in mathematics.
19. Mboya (1999)	South Africa	High school students between grades 8 -12 and between 14 – 18 years old.	- The Self-Description Inventory ○ Relations with family ○ General school ○ Physical abilities ○ Physical appearance ○ Emotional stability ○ Music Ability ○ Relations with peers ○ Health ○ Global self-concept - Academic achievement:	ıl school and global self-concepts are positively correlated with achievement in history, mathematics, and sciences.

			o English grade o History grade o Mathematics grade o Science grade	
20. McInerney et al. (2012)	China	High school students between secondary 1-3, with an average age of 13.56 years old.	- Academic Self Description Questionnaire o English self-concept o Mathematics self-concept - Academic achievement using the: o English Language Ability Calibrated Scale o Mathematics Vertical Scale	Self-concept in English positively predicts achievement in English and in mathematics. Self-concept in mathematics positively predicts achievement in mathematics but is not statistically related with achievement in English.
21. Perez et al. (2012)	Spain	High school students between 12 and 15 years old.	- Self-Concept Evaluation Scale for Adolescents o Academic self-concept - Academic achievement o Average grade of end-of-year class assessments	Academic self-concept positively predicts academic achievement.
22. Peteros et al. (2020)	Philippines	Junior high school students in 10th grade with an average age of 15.7 years old.	- An adapted version of the Survey on Students' Mathematical and Non-cognitive Skills o Self-concept as learned o Self-concept as organized o Self-concept as dynamic - Academic achievement: o Average mathematics grade from the first to the third school-year quarter	All forms of self-concept are positively correlated with achievement in mathematics.
23. Richardson & Lee (1986)	St. Lucia	High school students in 9th grade with an average age of 14 years old.	- The Coopersmith Self-esteem Inventory o General Self	All self-concept measures positively predict academic achievement, with school

			○ Social self-peers ○ Home-parents ○ School academic - Academic achievement: ○ CGPA	academics representing the strongest predictor.
24. Suarez-Alvarez et al. (2014)	Spain	Second year high school students with an average age of 13.78 years old.	- The Academic Self-concept Scale - Academic achievement: ○ Competence test score in mathematics ○ Competence test score in sciences	Academic self-concept positively predicts academic achievement in mathematics and in sciences.
25. Veas et al. (2015)	Spain	First and second year high school students with an average age of 12.5 years old.	- Self-concept Evaluation Scale for Adolescents ○ Verbal self-concept ○ Mathematics self-concept ○ Academic self-concept - Academic achievement: ○ Average grade of a full-term	All self-concept dimensions (verbal, mathematics, and academic) positively predict academic achievement.
26. Wang & Liou (2017)	Taiwan	Students in 8th grade from the TIMSS 2011 study.	- TIMSS 2011 motivational beliefs student questionnaire: ○ Science self-concept - Academic achievement ○ Science assessment score from TIMSS 2011	Self-concept in science positively predicts achievement in science.

27. Xu (2018)	China	A two-wave study, conducted at the beginning (Time 1) and the end (Time 2) of the school year, among middle school 8th grade students with an average age of 14.13 years old.	- Self-concept items o Self-concept in ability in mathematics and doing mathematics homework - Academic achievement: o A standardized mathematics achievement test score	Time 1 self-concept in mathematics (homework and ability) positively predicts Time 2 achievement in mathematics. Time 1 achievement in mathematics positively predicts Time 2 self-concept in mathematics (homework and ability).

Note. GPA = grade point average, CGPA = cumulative grade point average, PISA = Program for International Student Assessment, TIMSS = Trends in International Mathematics and Science Study.

Students in Elementary and Secondary Schools

Combined Groups. Four studies were conducted with combined groups of students in elementary and secondary schools. Both Abadzi and Florez (1981) and Abu-Hilal (2000) found that global self-concept was positively correlated with grade point average (GPA), and that self-concept in mathematics was positively correlated with achievement in mathematics among students in Puerto Rico. Among students in Spain, Gonzalez-Pienda et al. (2002) found that academic self-concept predicted academic achievement, but that achievement did not statistically predict academic self-concept. In Chen et al.'s (2013) two-year longitudinal study that included a cohort of Taiwanese students in elementary school (grades 5 and 6) and a separate one in high school (grades 10 and 11), subject specific self-concepts (in Chinese language and mathematics) were positively correlated with achievement in the respective academic domain across timepoints and among both cohorts. In terms of the relationship between self-concept and academic achievement in unmatched academic domains, self -concept in Chinese and achievement in mathematics were not statistically correlated in either group, whereas self-concept in mathematics and achievement in Chinese were positively correlated in the elementary school group only.

Elementary Schools. Two studies were conducted with students in elementary school, specifically in grades 5 and 6. In Korea, Bong et al. (2012) found that self-concept in mathematics was positively associated with achievement in mathematics among students. In Spain, Herrera et al. (2020) found that academic self-concept positively predicted academic achievement in natural sciences, Spanish language and literature, as well as mathematics, and to a greater extent compared to the other statistically significant self concept predictors (i.e., family and physical self-concepts).

Secondary Schools. In terms of the relationship between global self-concept and academic achievement (in mathematics, English, or overall) among secondary school students, the findings from four studies indicated a positive relationship between these variables among students in Nigeria (Abdullahi, 2013), South Africa (Cherian & Moeketsi, 1998), India (Lone & Lone, 2016), and Botswana (Maqsud & Rouhani, 1991). With regard to the relationship between subject specific self-concept and global academic achievement, Veas et al. (2015) found a positive relationship among students in Spain when self-concept was measured in terms of the verbal, mathematics, and general academic domains. In the other studies, academic self-concept was also found to be a positive predictor of global academic achievement in Spain (Perez et al., 2012) and St. Lucia (Richardson & Lee, 1986), as well as achievement in mathematics, sciences, and history in South Africa (Mboya, 1999) and Spain (Suarez-Alvarez et al., 2014). In a study of students in The Philippines, Peteros et al. (2020) provided the only study of global self-concept in terms of the underlying mechanisms that contribute to its development. Three underlying elements of self-concept were identified – learned, organized, and dynamic – and all three were found to be positively correlated with achievement.

With regard to subject specific self-concept and achievement, the outcomes from eight studies among high school students revealed positive relationships between matched self-concept and academic achievement in the United Arab Emirates (Areepattamannil et al., 2017), Pakistan (Awan et al., 2011), Azerbaijan (Karimova & Csapo, 2020), Taiwan (Wang & Liou, 2017), Korea (Bong et al., 2012), and China (Chao et al., 2019; McInerney et al., 2012; Xu, 2018). In the only longitudinal study of this relationship, Xu (2018) found that, over the course of an academic year, self-concept in mathematics positively predicted later achievement in mathematics, and vice versa, among high school students in China. In the other two studies among high school

students, the findings on the relationship between unmatched self-concept and academic disciplines (e.g., self-concept in English and achievement in mathematics) were mixed. Among students in China, Chao et al. (2019) found that self-concept in English positively predicted achievement in Chinese, but that self-concept in Chinese was not a statistically significant predictor of achievement in English. Among Azerbaijani students, Karimova and Csapo (2020) found that self-concept in Russian was positively correlated with achievement in mathematics and English, self-concept in mathematics was negatively correlated with achievement in English but not correlated with achievement in Russian, and self-concept in English was not correlated with achievement in mathematics nor Russian.

Students in Postsecondary Schools

Among students in college or university, the findings from three of the four studies indicated a relationship between self-concept and academic achievement. Among vocational college and undergraduate university students, academic self-concept was found to be positively correlated with general academic achievement in Taiwan (Chen et al., 2015) and achievement on a statistical exam in Nigeria (Anazonwu, 1995). In Guo et al.'s (2021) longitudinal three-wave study that was conducted in China with a one-year interval between waves, Time-1 achievement and Time-2 academic self-concept were positively related, as was Time-2 academic self-concept with Time-3 achievement. In Ahmad et al.'s (2011) study among Malaysian students, global self-concept and academic achievement, as measured by cumulative grade point average (CGPA), were unrelated.

Discussion

Given the role of culture in educational experiences and the underrepresentation of school psychology scholarship from non-Western and collectivist nations (Begeny et al., 2020; Cvencek

et al., 2018; Fryberg et al., 2013; Juszczyk & Kim, 2017; Wang et al., 2020), the goal of the present scoping review was to provide a more global and cross-cultural understanding of the relationship between self-concept and academic achievement among students across educational levels from collectivist countries. The 27 studies identified in this scoping review involved student populations in Africa, Asia, Europe, and the Caribbean. The findings from these studies are consistent with those from Western countries, in which self-concept was found to be related to academic achievement in elementary, secondary, and postsecondary institutions (e.g., Wu et al., 2021). Additionally, in some cases, this relationship was dependent on the match between the self-concept and academic domains measured (e.g., self-concept in mathematics and achievement in mathematics), as well as on whether the study was longitudinal.

In relation to the influence of matching self-concept domains with academic outcomes, the findings from our review highlighted that self-concept was more likely to influence academic achievement when measured in terms of an academic subject as opposed to globally or in relation to a non-academic domain (e.g., Ahmad et al., 2011; Herrera et al., 2020). For example, findings from three studies among elementary and high school students in Spain (Herrera et al., 2020), South Africa (Mboya, 1999), and St. Lucia (Richardson & Lee, 1986) underscore the stronger relationship between academic self-concept and academic achievement, in comparison to global and non-academic self-concepts (social, emotional, physical, and family) with academic achievement. In line with the benefits of a longitudinal study, Gonzalez-Pienda et al. (2002) found no evidence of a reciprocal relationship between academic self-concept and academic achievement when these were measured during the same moment in time in their study among elementary and high school students in Spain. Accordingly, academic self-concept predicted academic achievement, but academic achievement did not predict academic self-

concept. This failure to find a reciprocal relationship could be due to the fact that Gonzale-Pienda et al.'s study was based on data from only one point in time, a strategy that was criticized by Marsh and Martin (2011) who argued that longitudinal studies, across at least two time points, should be conducted to examine prior academic self-concept and subsequent academic achievement, and vice versa.

Strengths, Limitations, and Directions for Future Research

One of the main strengths of the scoping review is the transcontinental evidence highlighting the relationship between self-concepts and academic achievement among students from collectivist countries in Africa, Asia, Europe, and the Caribbean. This review also includes a developmental examination of the relationship between the constructs among students in elementary, secondary, and post-secondary schools. While our findings are consistent with those from Western populations, some limitations should be taken into account when interpreting our conclusions. This scoping review reflects the ongoing limitations in this area of research as expressed by Marsh and Martin (2011). One, only three studies were longitudinal, two, some did not include multiple indicators of academic achievement, and three, the measures were not consistently validated among the participants. Future studies and reviews on the link between academic self-concept and academic achievement among different cultural groups should follow Marsh and Martin's (2011) recommendations to allow for an in-depth and standardized examination of the relationship's cross-cultural relevance.

Conclusions and Implications for Educational Practitioners

The findings of the current scoping review highlight similarities between individualist and collectivist cultures in the way that self-concepts relate to academic achievement among students across educational levels. In addition to informing academic best practices across these

collectivist regions that are understudied in educational psychology (Begeny et al., 2020; Wang et al., 2020), our findings can inform practices for Western nations that struggle to meet the academic needs of the growing rates of immigrant learners from non-Western and collectivist nations (Batalova, 2022; Pomianowicz, 2021; Riederer & Verwiebe, 2015). As self-concept and academic achievement can both be the foci of effective intervention programs, particularly among youth who are considered to be at-risk due to a range of personal disadvantages (for a review on academic self-concept interventions, see O'Mara et al., 2006), educational stakeholders worldwide should explore ways in which they can improve the academic experiences of students throughout their educational trajectories.

Several guidelines have been recommended to foster the mutual relationship between academic self-concept and academic achievement through self-concept interventions. One, interventions should include self- enhancement or skill development training (O'Mara et al., 2006). Two, interventions should be subject specific, as global self-concept may not necessarily be related to academic achievement in the same way as academic self-concept or self-concept in a corresponding academic subject (Wu et al., 2021). Three, subject specific interventions should be based on a school topic that is meaningful and related to the academic experience of students at a given point in time (Awad, 2007). Four, educational professionals should address self-concept across disciplines rather than only on those in which students are having difficulties, because strengthening self-concept in one subject may negatively impact perceptions in another subject (Marsh et al., 2015).

Effective self-concept interventions can also target feedback, praise and performance-comparison practices. For example, appropriate feedback and praise from significant others, such as parents, teachers, and peers, has been found to be protective of a favourable self-concept

among students in Hong Kong (Leung et al., 2013), the United States (McPartlan et al., 2021), and Germany (Simonsmeier et al., 2020). Additionally, social and temporal comparison processes, that refer to how students compare their performance abilities on an interindividual and intraindividual basis, can have a positive effect on self-concept when the frame of reference is representative and appropriate (for a review, see Trautwein & Möller, 2016). This implies that the social or temporal indicators to which students compare themselves should coincide in terms of characteristics and abilities. Overall, these suggestions indicate that a supportive learning environment that is conducive to constructive feedback and self-reflection aimed at evaluating one's academic progress are essential to promoting self-concept among students from different backgrounds and of different ages.

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Bridge between Manuscripts – Chapter 3 and Chapter 4

The aim of the scoping review presented in Manuscript 1 (Chapter 3) was to investigate the findings from the literature on the relationship between global, academic, as well as subject specific self-concepts and academic achievement, specifically focusing on students across grade levels and from collectivist countries with interdependent educational values that differ from the independent values that are predominant in individualist societies (Hofstede, 2011; Zhang et al., 2020). The objective was to complement previous reviews that were primarily focused on student populations from individualist countries (Marsh & Martin, 2011; Wu et al., 2021). The findings from this scoping review are consistent with previous findings on the relationship between both constructs, in that self-concepts are related with academic achievement across grade levels, particularly when measured in relation to academic, rather than global self-concept, or in the context of a performance outcome related to a specific school discipline.

These findings from the scoping review have implications for immigrant youth from collectivist regions who resettle in independent societies (Batalova, 2022; Hofstede, 2011; World Population Review, 2022) which struggle to meet the youth's academic needs (e.g., Crosnoe & López Turley, 2011; de Winter-Koçak & Badou, 2020; Dimitrova et al., 2016; Guo-Brennan & Guo-Brennan, 2019; Schachner et al., 2017). To further inform educational best practices for these immigrant youth, the identification of the protective and risk factors that the youth bring to school are essential. In Manuscript 1, I investigated the potential protective role of self-concept, a self-perception outcome, in the academic adaptation of youth from collectivist societies who reside both domestically and abroad. In Manuscript 2 (Chapter 4), I examined empirically the cultural match or mismatch between the self-perception strategy typically adopted by immigrant youth from non-Western collectivist societies and compared it to the strategy commonly

promoted in Western schools. In this study of recently immigrated youth, I also explored their life expectations before and after migration, and how specific migration related challenges contributed to their development of distinct levels of academic motivation, an essential indicator of academic achievement. The findings from Manuscript 2 will be valuable for Western educational stakeholders seeking to support the academic success of immigrant youth from collectivist societies during their early resettlement in individualistic countries. When combined, the findings from Manuscript 1 and Manuscript 2 offer a substantial understanding of the academic experiences of collectivist youth from various non-Western countries that are underrepresented in educational psychology research. By bridging the cultural divide in this area of scholarship, the findings from this dissertation have the potential to inform best practices on a global and multicultural scale, ultimately benefiting educational contexts worldwide, including in Canada.

Chapter 4: Manuscript 2

School Adaptation among Immigrant Youth from a Dutch Integration Program: The Influence of Acculturative Stress and Bicultural Identity Integration on Academic Motivation

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Abstract

Academic motivation represents a psychoeducational construct that is associated with the academic success of youth. For some immigrant youth, however, their academic motivation may be affected by the various challenges that they face during their settlement in a culturally diverse school that promotes different self-construal values and practices. The main goal of this study is to investigate the cultural match or mismatch between non-Western immigrant youth and the self-construal orientation typically promoted in Western schools, as well as how specific challenges associated with migration contribute to the development of different levels of academic motivation during their recent settlement. We hypothesized that non-Western immigrant youth experience cultural mismatch in a Western school, and that greater reports of migration challenges are associated with increases in levels of external motivation and decreases in levels of intrinsic motivation. To test these hypotheses, the present study was conducted among non-Western immigrant youth between 12 and 19 years old in their first year of attending a Dutch academic integration program in The Netherlands. Our findings highlight that non-Western immigrant youth are mismatched with the self-construal orientations typically promoted in Dutch schools, and that there is specificity in the way that migration challenges relate to different levels of academic motivation. These findings should be considered by Western educational stakeholders who aim to foster academic success for immigrant youth early on in their resettlement.

Keywords: immigrant youth, academic motivation, migration challenges

School Adaptation among Immigrant Youth from a Dutch Integration Program: The Influence of Acculturative Stress and Bicultural Identity Integration on Academic Motivation

Global migration has significantly increased over the past decades, with Western Europe considered to be one of the regions in the world with the largest proportion of international migrants in comparison to its total population (International Organization for Migration, 2019; United Nations, 2021). International migrants, referring to individuals living in a country different from the one within which they were born (Statistics Netherlands, 2021), include a relatively large proportion of youth under 20 years of age (United Nations, 2019). Despite the vulnerabilities associated with migration during this developmental period of adolescence, youth can show resilience in their biopsychosocial adaptation to a society with different cultural practices and values (Motti-Stefanidi & Masten, 2017; Suárez-Orozco et al., 2018; Titzmann & Lee, 2018).

The changing demographics of Western Europe are evident in The Netherlands, one of the most culturally diverse countries in the world, with international migrants representing 23% of its total population (Statistics Netherlands, 2018). Approximately half of the immigrants are from non-Western backgrounds, with the largest groups from Turkey, Morocco, Suriname, and the Caribbean, while others include refugees from Iraq, Afghanistan, Iran, Somalia, Syria, and Eritrea. Considerable concerns have been cited because of the academic gap between the immigrant and non-immigrant youth in The Netherlands, as school achievement is a primary indicator of adaptation among immigrant youth because of its contributions to the promotion of cultural integration and wellbeing (Crosnoe & López Turley, 2011; Hernandez, 2012; Nolan, 2012; Suárez-Orozco et al., 2018).

As immigration continues to increase worldwide, the study of culturally diverse academic environments and strategies to promote adaptation among those most vulnerable, including immigrant youth, continue to be essential educational considerations for the long-term wellbeing of these students, as well as the wellbeing of their family and the sociopolitical success of the receiving nation (Motti-Stefanidi, 2019). In this study, we examined the academic adaptation of recently immigrated youth by assessing life expectations pre and post migration, the match or mismatch with the school's cultural practices and values, and how acculturative stress and bicultural identity integration relate to different levels of academic motivation among non-Western immigrant youth who attended a Dutch academic integration program in a secondary school in Amsterdam, The Netherlands, in which the disparity between the academic achievement of native and immigrant youth is consistently large (de Winter-Koçak & Badou, 2020).

Independent and Interdependent Self-construal

The risk that is associated with inadequately implementing the multicultural factors of education is addressed in the cultural mismatch theory, in which educational experiences and outcomes are thought to be affected by the incongruity between the ways that cultural minority communities approach education and learning, and the institutionalized educational values of their greater society (Fryberg et al., 2013; Fryberg & Markus, 2007; Stephens et al., 2012). Accordingly, cultural mismatch within an educational setting can be manifested through differences between the dominant self-construal orientation of a student and the orientation promoted within their school. Self-construal is described as the process through which one defines the self (Markus & Kitayama, 1991). It includes two constructs, independent and interdependent self-construal, which are thought to operate by defining the self in terms of

perceptions, evaluations, and behaviors (for a review, see Cross et al., 2011). Although patterns of independence and interdependence vary across and within cultures and contexts, cultural groups are thought to differ in the degree to which an independent or interdependent self-construal is dominant (Gardner et al., 1999; Oeberst & Wu, 2015).

An independent self-construal refers to a view of the self that is self-directed, unique, removed from the social environment, and independent of others (Cross et al., 2003; Singelis, 1994). The emphasis is on internal abilities, thoughts, feelings, and the promotion of one's goals (Markus & Kitayama, 1991; Matsumoto, 1999; Singelis, 1994). Western cultures, which include most northern and Western regions of Europe, North America, and Australia, typically place an emphasis on the separateness and uniqueness of an individual (Greif, 1994; Hofstede et al., 2010). In contrast, an interdependent self-construal entails a variable self in which the person is viewed as rooted in a social network where important relationships, group affiliations, social roles, and social positions within their community define them (Kitayama et al., 2017; Markus & Kitayama, 1991). In this view of the self, collective values are prioritized over individual characteristics, beliefs, and attitudes (Cross et al., 2003; Singelis, 1994). This perspective is mostly characteristic of non-Western, collectivist cultures, such as those in Asia, Africa, South America, and the Pacific islands (Juslin et al., 2016; Markus & Kitayama, 1991; Singelis, 1994).

Individuals from interdependent backgrounds who study in Western academic institutions, in which independent values typically dominate, are at-risk of experiencing a cultural mismatch (Stephens et al., 2012). The challenges associated with this type of cultural mismatch in an academic institution affect students across all grade levels (Benner & Graham, 2007; Benner & Yan, 2015; Stephens et al., 2012). As Dutch cultural practices are thought to primarily promote one's independence and autonomy (Hofstede et al., 2010; Leeman, 2008),

experiences of cultural mismatch are inevitable for the immigrant populations who come from the non-Western regions of the world that are thought to predominantly value practices associated with interdependence. However, one's academic motivation orientation may buffer the effects of cultural mismatch on the academic achievement of vulnerable immigrant youth during and shortly after their resettlement.

The Self-Determination Continuum

Academic achievement has been found to be particularly influenced by academic motivation (Guay & Bureau, 2018; Taylor et al., 2014; Vallerand & Ratelle, 2002), which has commonly been conceptualization within the framework of self-determination theory (SDT). According to SDT, the motivation to engage in behaviours and activities, is described as a multidimensional construct along a continuum encompassing three types of extrinsic motivation, – identified, introjected, and external regulations – and intrinsic motivation (Ryan & Deci, 2000b; Vansteenkiste et al., 2006), all of which vary in the degree to which they are self-determined. The constructs of extrinsic and intrinsic motivation are found at the polar ends of the self-determination continuum (Cokley, 2003).

Extrinsic motivation represents behaviour based on external rewards and social pressures to complete uninteresting tasks and assume a range of new responsibilities (i.e., lack of or limited self-determined motivation; Rubenfeld et al., 2007; Ryan & Deci, 2000). This type of motivation tends to be associated with poor academic effort and performance among the general youth population (Becker et al., 2010; Vansteenkiste et al., 2006), and higher levels have been found among non-Western immigrant students compared with their native Western counterparts (Areepattamannil & Freeman, 2008). The effects of extrinsic motivation on academic achievement vary in relation to the degree of extrinsic motivation involved in performing an

action (Guay et al., 2008). Specifically, external regulation, defined as the least self-determined form of extrinsic motivation on the continuum, refers to behaviors that are not autonomously driven, but rather are performed to comply with an external demand or reward contingency (Cascio et al., 2014). Introjected regulation involves behavior that has been partially, but not fully, internalized (i.e., to avoid guilt or anxiety), and in which self-control, ego-involvement, and internal rewards and punishments drive the motivation. Whereas introjected regulation is positively associated with exhibiting more effort, it is also associated with greater anxiety and maladaptive coping in the face of challenges (Ryan & Deci, 2002). At the far end of the external regulation continuum, identified regulation is thought to stem from demands that are imposed by internal pressures and is a more independent form of extrinsic motivation in which personal importance and conscious valuing is attributed to one's behavior. Thus, identified regulation is associated with more interest and enjoyment of school activities, practicing adaptive coping styles, and greater effort in the face of demands (Ryan & Deci, 2000a; Vansteenkiste et al., 2010).

Intrinsic motivation, the most self-determined form of motivation found at the end of the continuum, is described as motivation to perform due to inherent task pleasure and satisfaction (Ryan & Deci, 2000b). Among high school students in the general population, intrinsic motivation has been found to be more protective of one's academic achievement than external forms of motivation (for a review, see Taylor et al., 2014). Individuals who are intrinsically motivated have a natural inclination toward integration, mastery, spontaneous interest, and exploration of concepts, which represent various sources of gratification and vivacity that are crucial to healthy cognitive and social development throughout life (Ryan & Deci, 2002). Although individuals are predisposed with intrinsic motivational propensities, the preservation

and improvement of this predisposition can be hindered by numerous adverse circumstances (Ryan & Deci, 2000a). Such adverse circumstance may include the challenges associated with migration that migrant youth are at risk of facing during their early settlement (Motti-Stefanidi, 2019; Suárez-Orozco et al., 2018).

Acculturative Stress and Bicultural Identity Integration

Most immigrants generally seek a better life and are motivated to succeed in their new society (Becker & Ferrara, 2019), and migration is not inevitably associated with the development of psychosocial difficulties (Williams & Berry, 1991). Nonetheless, some migrants are at risk of experiencing challenges in relation to acculturative stress and bicultural identity integration, both of which can influence one's experience of integration and later adaptation within their new society. Acculturative stress is defined by Berry (2006) as a physiological and psychological state that stems from cultural-specific stressors. These stressors can stem from perceptions of discrimination, cultural isolation, and difficult intercultural relations, as well as difficulties in acquiring a second-language (Miller et al., 2011). Notably, when experienced among vulnerable immigrant youth during their early settlement, such challenges may be particularly detrimental to their academic experiences (e.g., Berry et al., 2006).

The construct of bicultural identity involves one's internalization of two cultures, one considered to be mainstream and the other ancestral. Benet-Martinez and Haritatos (2005) proposed a theoretical framework of bicultural identity integration that is the result of variations in the magnitude of dichotomies of cultural compartmentalizing versus blendedness and of cultural conflict versus harmony. Cultural compartmentalizing versus blendedness refers to the subjective level of overlap perceived between two cultural orientations, while cultural conflict versus harmony refers to the level of compatibility. As explained by Huynh et al. (2018), the

degree of compartmentalizing versus blendedness is thought to be linked to the cognitive and behavioural aspects implicated in the integration of two cultural orientations (e.g., developing language proficiency and dual cultural identities), while the degree of conflict versus harmony is related to the affective factors that encompass feelings and attitudes. Bicultural identity integration stemming from high levels of both compartmentalizing and conflict, rather than high levels of both blendedness and harmony, is understood as a risk factor that can lead to maladaptive psychosocial outcomes that have been found to be linked to academic underachievement (Benet-Martinez & Haritatos, 2005; Nguyen & Benet-Martínez, 2013).

Present Study

To better understand the academic adaption of non-Western immigrant youth in their first year of attending a Dutch academic integration program in a secondary school in Amsterdam, The Netherlands, we identified three objectives in this study that are related to the beliefs and values that they bring to school, and how migration challenges relate to their academic motivation. One, we assessed motivation for success by measuring the differences in students' life expectations in terms of their future possibilities, schooling experiences, and happiness before and after migration. Two, we examined the extent to which the immigrant youth were matched or mismatched with the cultural practices and values that are mainly promoted within Dutch schools. As such, we examined differences in their identification with interdependent compared with independent self-construal processes. Three, we assessed how various acculturation stressors (i.e., language skills, discrimination and prejudice, intercultural relation, and cultural isolation) and components of bicultural identity integration (compartmentalizing and conflict) related to the different types of academic motivation (i.e., external regulation, introjected regulation, identified regulation, and intrinsic).

Hypotheses

The following hypotheses were generated for the three research objectives. One, we anticipated that the recently immigrant students would report expecting greater future possibilities, schooling experiences, and happiness post- as compared to pre-migration. Two, we expected that the participants would report greater identification with interdependent self-construal processes compared with independent processes. Three, we predicted that increases in all acculturation stressors and in bicultural compartmentalizing and conflict would be associated with increases in external forms of motivation (i.e., external, introjected, and identified regulation) or decreases in intrinsic motivation.

Method

Participants

The participants were 63 recently immigrated youth (29 = male) between 12 and 19 years old (M_{age} = 15.77, *SD* = 1.64) from the Middle East (*n* = 25), Africa (*n* = 30), and Eastern Europe (*n* = 8). These youth attended one of the three academic integration programs intended for international adolescent students with a limited Dutch language fluency in a secondary school in Amsterdam, The Netherlands. The youth who attended the integration program for a minimum of 8 weeks were included in this study.

Measures

Demographics. A demographic self-report questionnaire was used to obtain personal information about the participants regarding age, gender, country of origin, language spoken at home, and level of education (see Table 1).

Expectations Pre- and Post-Migration. Six questions were formulated by the researchers to determine life expectations pre-and post-migration to Amsterdam, The Netherlands. The

participants were asked to rate the questions with a 5-point scale ranging from 1 (very low) to 5 (very high). The life expectation domains of interest were related to perceptions of future possibilities, schooling experiences, and happiness, pre- (e.g., expectations about schooling, before arriving in The Netherlands) and post- (e.g., expectations about schooling, now) migration. Cronbach's alpha values for the life expectation domains ranged between .75 and .84, indicating high reliability.

Self-Construal Orientation. The Interdependence-Independence Scale (IIS; Kato & Markus, 1993, 1994) was used to assess the students' level of identification with interdependent and independent self-construal processes. The students were asked to rate how well the 31 included statements described them using a 10-point scale ranging from 0 (doesn't describe me at all) to 10 (describes me very much). The ISS is comprised of two scales, both divided into two subscales. The Interdependence scale includes 9 items that are used to measure concern for others (COE; e.g., "I always care about what other people think of me.") and 7 items that are used to measure maintaining self-other bonds (MB; e.g., "I feel guilt when I say "No" when someone asks me for help."). Cronbach's alpha for the interdependence scale for this sample was .60, indicating good reliability. The Independence scale includes 8 items that are used to measure self-other differentiation (SOD; e.g., "Even though people around me hold a different opinion, I stick to what I believe in.") and 7 items that are used to measure self-knowledge (SK; e.g., "I usually make my own decisions by myself."). The variables of interest in the present study were interdependent self-construal and independent self-construal. Cronbach's alpha for the independence scale for this sample was .64, indicating good reliability.

Motivation. The Academische Zelf-Regulatie Vragenlijst [Academic Self-Regulation Questionnaire] (ZRV-A; Vansteenkiste et al., 2009), a Dutch version of the Academic Self-

Regulation Questionnaire (SRQ-A; Ryan & Connell, 1989), was used to assess academic motivation. Rather than asking for the participants' motives to engage in different educational activities, the adjusted version is limited to the question "Why are you studying in general?". The questionnaire included 16 five-point Likert items, ranging from 1 (totally not important) to 5 (totally important), that were used to measure the four types of motivation highlighted in self-determination theory: external, introjected, and identified regulations, as well as intrinsic motivation (Ryan & Deci, 2002). Cronbach's alpha values for the four motivation subscales were .58 (external regulation), .57 (introjected regulation), .51 (identified regulation), and .83 (intrinsic motivation), indicating between good and high reliability.

Migration Challenges. The Riverside Acculturation Stress Inventory (RASI; Benet-Martinez & Haritatos, 2005) was used to assess challenges associated with the youths' adjustment to the Dutch educational system. The RASI includes 15 items that are intended to tap into the 5 domains of acculturation stressors – language skills (e.g., "It bothers me that I have an accent"), intercultural relations (e.g., "I have had disagreements with people of my own cultural/ethnic group [e.g., friends or family] for liking Dutch ways of doing things."), discrimination/prejudice (e.g., "I have been treated rudely or unfairly because of my cultural/ethnic background."), cultural isolation (e.g., "I feel that there are not enough people of my own ethnic/cultural group in my living environment."), and work challenges. Considering the age of the participants, the work domain was omitted. The participants were asked to rate the items with a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The variables of interest were language skills, intercultural relations, discrimination/prejudice, and cultural isolation. Cronbach's alpha values for these four subscales were .65 (language skills), .84

(intercultural relations), .68 (discrimination/prejudice), and .53 (cultural isolation), indicating between good and high reliability.

The Bicultural Identity Integration Scale –Version 1 (BIIS-1; Benet-Martinez & Haritatos, 2005) was used to assess possible components of bicultural identity organization. The BIIS-1 includes 8 items that are intended to measure perceptions of cultural compartmentalizing (4 items, i.e., perceiving one's two cultural identities as separate and dissociated vs. hyphenate or fused) and cultural conflict (4 items, i.e., feeling torn between one's two identities versus feeling that they are compatible). The participants were asked to rate each item using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). For this study, Cronbach's alpha was computed with the compartmentalizing and conflict subscales having an acceptable to low reliability scores of .45 and .31, respectively.

Procedure

The participants' parents provided written informed consent for their children to participate in this study. Neither the participants nor the academic professionals received compensation for their participation. The research protocol was approved by the ethical committee of the Faculty of Behavioral and Movement Sciences at Vrije Universiteit Amsterdam, the Netherlands.

Data collection was performed as part of an assignment in the participants' Dutch language class, during which they filled out the questionnaires pertaining the topics of interest of this study (i.e., life expectations pre-and post-migration, self-construal orientation, acculturation stressors, bicultural identity integration, academic motivation). With the exception of the Dutch version of The Self-Regulation Questionnaire–Learning (ZRV-L;Vansteenkiste et al., 2009), all of the measures were translated into Dutch by native Dutch speaking research students using a

back-translation method. The administration of the questionnaires was fully standardized. When a participant had trouble filling out the questionnaires in Dutch, a researcher offered further explanation in Dutch or in English, the original language of the questionnaires as well as the second language spoken at school.

Results

IBM SPSS (Version 27) was used for the analyses. The skewness of the variables was first examined to determine if the data were normally distributed among each variable of interest. If the skewness of a variable was greater than +.50 or less than -.50, the variable was transformed using a logarithmic (log) transformation or a reflected log transformation, respectively. Four life expectation variables as well as the intercultural relation variable and the discrimination/prejudice variables required a log transformation to reduce skewness (see Table 2). For the future possibilities and the happiness variables pre-migration, a log transformation returned unacceptable skew values off 1.14 and .71, respectively. Therefore, these two variables were subjected to a square root transformation resulting in a skew value of .64 for future possibilities and .40 for happiness. All the statistical analyses were conducted using these transformed variables.

Differences in Life Expectations and in Self-Construal Orientations

In terms of the first objective of this study, dependent samples *t*-tests were conducted to measure differences in the participants' life expectations pre- and post-migration (see Table 3). The results of the dependent samples correlation analyses showed significant positive relations among all three life expectation domains. In terms of the *t*-test analyses, statistical differences between the participant's mean scores were significant only in the schooling experiences

domain. Consistent with our hypothesis, the results revealed that the students reported greater satisfaction with their schooling post migration compared with pre migration.

The second objective of this study was to measure differences among students' identification with independent and interdependent self-construal orientations during their first year of settlement in the Netherlands. Consistent with our hypothesis, the participants from this study reported greater identification with an interdependent (M = 102.54, SD = 15.02) compared with an independent (M = 95.44, SD = 14.46) self-construal orientation ($t_{(60)} = 2.80$, $p < .01$, $R^2 = .01$). Thus, they were considered to be mismatched with the independent values and practices that are typically promoted within Western schools.

Migration Challenges and Motivation

For the third objective of this study, the effects of the acculturation stressors (language skills, intercultural relations, discrimination/prejudice, and cultural isolation) and components of bicultural identity integration (compartmentalizing and conflict) on each type of academic motivation (external, introjected, identified, and intrinsic regulations) were assessed through four multiple linear regression analyses. The intercorrelation matrix for these variables, along with their means and standard deviations, can be found in Table 4. The regression model for introjected regulation was statistically non-significant ($F_{(6,56)} = 1.46$, $p = .21$, adjusted $R^2 = .04$). The regression models for external regulation ($F_{(6,56)} = 2.93$, $p < .05$, adjusted $R^2 = .15$), identified regulation ($F_{(6,56)} = 4.40$, $p = .00$, adjusted $R^2 = .24$) and intrinsic motivation ($F_{(6,56)} = 3.81$, $p = .00$, adjusted $R^2 = .21$) were statistically significant. The details of these results are described below.

External Regulation. The multiple regression for external regulation (see Table 5), revealed a positive association with perceptions of cultural isolation ($\beta = .32$, $t_{(61)} = 2.56$, $p = .01$)

and bicultural identity compartmentalizing (β = .28, $t_{(61)}$ = 2.25, p = .02), and a negative association with perceptions of discrimination and prejudice (β = -.28, $t_{(61)}$ = -2.06, p = .04). These findings suggest that greater reports of cultural isolation and bicultural identity compartmentalizing among the youth are associated with motivation that becomes more externally driven. Moreover, increases in reports of experiences of discrimination and prejudice were associated with a decrease in their levels of external regulation.

Identified Regulation. The multiple regression (see Table 7) for identified regulation revealed a positive association with reports of bicultural identity compartmentalizing (β = .32, $t_{(61)}$ = 2.72, p < .01) and bicultural identity conflict (β = .31, $t_{(61)}$ = 2.47, p = .01), although this last result should be interpreted with care given the low reliability for this scale in this group. As the participants reported greater difficulty in both their cognitive and affective bicultural identity integration, their identified regulation for academic motivation increased in that they reported greater motivation stemming from personal commitments that are partly self-determined.

Intrinsic Motivation. The multiple regression (see Table 8) for intrinsic motivation revealed a negative association with reports of language challenges (β = -.31, $t_{(61)}$ = -2.57, p = .01) and a positive association with perceptions of cultural isolation (β = .40, $t_{(61)}$ = 3.25, p < .01). These results demonstrate that reports of greater difficulty in acquiring the Dutch language are associated with a decrease in self-determined academic motivation, or academic motivation that stems from inherent task pleasure and satisfaction. Conversely, reports of cultural isolation contributed to an increase in self-determined motivation among the recently immigrated youth.

Discussion

In this study, we identified three objectives to investigate the academic adaptation of a group of non-Western immigrant students between 12 and 19 years old in their first year of

attending a Dutch academic integration program in a secondary school in the Netherlands. The findings provide insight into the consistent reports over the past two decades of the academic struggles experienced by non-Western immigrant youth in the Netherlands (Statistics Netherlands, 2018; Vasta, 2007), and specific migration challenges that can be targeted in interventions aimed at fostering academic success among immigrant youth more generally.

In our examination of the differences among the levels of satisfaction in relation to the life expectations reported by the youth post- as compared with pre-migration, the finding on the development of students' perception of their school experiences is consistent with our hypothesis that they would report experiencing an increase in their level of satisfaction post migration. Regarding the development of students' perceptions of future possibilities and feelings of happiness, no statistical differences were reported among these domains. This absence of statistical difference can be expected given the mean scores related to both the future possibilities and happiness domains which were found to be consistently high ($M = 4$) pre- and post-migration, thus indicating that the youth experienced persistent levels of satisfaction before and after arriving to the Netherlands.

In terms of the examination of the reported levels of independent and interdependent self-construal orientations, our findings highlight the potential for recently immigrated youth from non-Western countries to face being culturally mismatched with the practices and values that are typically promoted within Western schools. For example, the finding that the participants from this study reported greater identification with interdependent values than with the independent values that characterize Western schools is consistent with our prediction and suggests that these students are at-risk for academic underachievement (Stephens et al., 2012). Our findings also support the notion that individuals from non-Western regions of the world predominantly adopt

interdependent practices and values over independent one's (Hofstede et al., 2010; Kitayama et al., 2017; Oeberst & Wu, 2015; Stephens et al., 2012).

With regard to the development of the different levels of motivation, external regulation was found to be associated with three migration challenges. One, consistent with our hypothesis, reports of higher levels of cultural isolation contributed to the development of external regulation. This finding is also consistent with the essential notion of cultural mismatch theory that cultural isolation places students at-risk for academic maladaptation (Fryberg et al., 2013). Two, self-reports of discrimination/prejudice were unexpectedly associated with a decrease in students' levels of external regulation. This unexpected finding may be linked to a moderating factor, such as utilizing resources associated with resilience to become less externally regulated to learn, despite facing discriminatory and prejudicial injustices during their recent immigration. These types of resources may be associated with a strong sense of belonging to one's ancestry and trust in significant others, both of which have been found to moderate the relationship between discrimination and mental health problems among youth and adult immigrants (Straiton et al., 2019). Three, the finding that higher levels of bicultural identity compartmentalizing were associated with the development of external regulation is consistent both with our prediction and with the notion that processes of identity compartmentalizing are linked to knowledge about mainstream cultural practices (Huynh et al., 2018). For students who are not yet acquainted with the mainstream school culture, they may be more inclined to attend to academic tasks out of fear of external repercussions rather than acting in line with their personal values and interests.

As predicted, increased identified regulation was associated with higher levels of both bicultural identity compartmentalizing and bicultural identity conflict. While increased levels of identified regulation can lead to academic achievement, intrinsic motivation has been found to be

even more protective in the long-term development of academic achievement among high school students from Western countries (e..g, Canada and Sweden; Taylor et al., 2014). Thus, for the vulnerable recently immigrated high school students from this study, academic motivation that stems from identified regulation may not be sufficient to foster long-term academic success in the face of academic cultural mismatch.

Intrinsic motivation, the most self-determined form of motivation, was found to be associated with two migration challenges. One, contrary to our expectations, higher levels of cultural isolation were associated with the development of intrinsic motivation. This unexpected finding may be explained by factors that have been found to moderate experiences of social isolation among youth. For example, among adolescents from interdependent and collectivist regions of the world, close friendships have been found to moderate experiences of social isolation (Sauter et al., 2020). The quality of friendships during adolescence has also been associated with academic achievement (Crosnoe et al., 2003). Thus, our findings may highlight the importance of specificity in terms of clarifying from what or from whom youth feel isolated when measuring the impact of cultural isolation on academic motivation. Two, increases in reports of language challenges contributed to decreases in levels of intrinsic motivation among the participants who were Dutch second language learners. This finding is consistent with our hypothesis and Tsuchiya's (2006) finding that a low level of English language proficiency was associated with demotivation among second language learners in Japan. Conversely, successful acquisition of a second language is known to positively contribute to the development of one’s motivation in a learning environment (Gardner, 2007; Wu et al., 2011). Thus, our findings add to the literature on the benefits of language proficiency, specifically in predicting one’s intrinsic

motivation to learn, and in this case, among immigrant youth from non-Western societies who have been learning Dutch for less than a year.

Limitations of the Study

The primary limitation of this study is that the abilities of many of the participants to understand the questions may have been compromised as the questionnaires were in Dutch and many expressed experiencing difficulties in learning Dutch as a second language. As questionnaires could not be provided for each of the primary languages spoken by all the participants, their Dutch language difficulties were mitigated by offering the students who requested support further explanations in English, which was their second language of instruction and was more familiar to some. Another limitation concerns the number of participants which in turn limited the number of variables that could be entered into the multiple regression analyses, and therefore our demographic variables could not be included. More participants would also provide more power to detect subtle associations between the migration challenges and the different levels of academic motivation. While our statistically significant findings can be generalized, no conclusions should be drawn from any statistically non-significant result.

Conclusion and Implications

This study contributes to the literature on academic adaptation of vulnerable immigrant youth from different non-Western cultural backgrounds during their early settlement, which represents a critical period during which integration experiences can influence the remainder of the adaptation trajectory. The findings have practical implications for educational stakeholders in Western countries who continue their endeavors to foster the optimal integration of vulnerable non-Western immigrant youth from around the world (Solano & Huddleston, 2020; Statistics

Netherlands, 2018), whose adaptation depends both on personal efforts (Motti-Stefanidi & García Coll, 2018) and on community wide efforts aimed at creating welcoming academic contexts (Vedder & Motti-Stefanidi, 2016). Specifically, the findings from this study highlight the potential for non-Western immigrant youth to benefit from a multicultural curriculum that includes interdependent cultural values and practices, and a welcoming and inclusive school environment that fosters cultural contact, non-discriminatory or prejudicial attitudes, second language fluency, and the promotion of bicultural identity integration that stems from identity blendedness and harmony, rather than identity compartmentalizing and conflict.

Table 1

Demographic Information

Variable	Frequency	%
Age		
12	4	6.3
13	7	11.1
14	12	19
15	9	14.3
16	12	19
17	13	20.6
18	3	4.8
19	1	1.6
value missing	2	3.2
Sex		
Male	29	46
Female	34	54
Emigration Region		
Middle East	25	39.7
Africa	30	47.6
Europe	8	12.7
Language Spoken at Home		
Dutch	2	3.2
English	5	7.9

Other	56	88.9
Education Level		
Secondary	55	87.3
Selective Secondary	7	11.1
International	1	1.6

Table 2

Transformation of Skewed Variables

Variable	Skew of Raw Data	Skew after Log Transformation
Life Expectations Pre-Migration		
Future Possibilities	-2.20	1.14
Schooling	-.96	.51
Happiness	-1.32	.71
Life Expectations Post Migration		
Future Possibilities	-1.06	.43
Schooling	-.61	.03
Happiness	-1.11	.34
Acculturation Stressors		
Intercultural Relations	.68	.03
Discrimination/Prejudice	.97	.09

Table 3

Results of Paired-samples t-test and Descriptive Statistics for the Difference between the Life Expectations Variables Pre and Post Migration to the Netherlands

Variable	M	SD	n	95% CI for Mean Difference		t	df	r^2
				Lower	Upper			
Future Possibilities	-.00	.26	63	-.07	.06	-.11	62	28%
Schooling	-.10	.25	63	-.17	-.04	-3.24*	62	9%
Happiness	-.03	.25	63	-.03	.09	1.03	62	36%

Note. $*p < .01$.

Table 4

Mean, Standard Deviation (SD), and Correlation Matrix of Key Variables

Variable	M (SD)	1	2	3	4	5	6	7	8	9	10
1. External Regulation	3.79 (.66)	—	.46*	.38*	.59*	-.10	.00	-.14	.27*	.31*	.16
2. Introjected Regulation	3.57 (.63)	.46*	—	.65**	.61**	-.01	.02	-.04	.23	.19	.26*
3. Identified Regulation	3.57 (.63)	.38**	.65**	—	.58**	.12	.09	.11	.26*	.45**	.46**
4. Intrinsic Motivation	3.72 (.70)	.59**	.61**	.58*	—	-.15	.04	.08	.41**	.15	.29*
5. Language Skills	7.83 (3.09)	-.10	-.01	.12	-.15	—	.21	.20	.20	.10	.31*
6. Intercultural Relations	8.30 (4.13)	.00	.02	.09	.04	.21	—	.43**	.11	.12	.07
7.Discrimination/Prejudice	6.19 (2.79)	-.14	-.04	.11	.08	.20	.43**	—	.31*	.08	.19
8. Cultural Isolation	7.62 (3.06)	.27*	.23	.26*	.41**	.20	.11	.31*	—	.11	.31*
9. Bicultural Identity Compartmentalizing	13.73 (3.10)	.31*	.19	.45*	.15	.10	.12	.08	.11	—	.35**
10. Bicultural Identity Conflict	10.68 (2.91)	.16	.26*	.46**	.30*	.31*	.07	.19	.31*	.35**	—

Note. N = 63.

**. significant at the 0.01 level (2-tailed).

*. significant at the 0.05 level (2-tailed).

Table 5

Multiple Linear Regression Analysis Assessing the Relationship Between Migration Challenges and External Regulation

Predictor	B	SE B	β	95% CI	
				Lower	Upper
Language Skills	-.03	.02	-.16	.08	.01
Intercultural Relations	.24	.39	.08	-.53	1.02
Discrimination/Prejudice	-96	.46	-.28	-1.89	-.02
Cultural Isolation	.07	.02	.32	.01	.12
Bicultural Identity Compartmentalizing	.06	.02	.28	.00	.11
Bicultural Identity Conflict	.01	.03	.05	-.04	.07

Table 6

Multiple Linear Regression Analysis Assessing the Relationship Between Migration Challenges and Introjected Regulation

Predictor	B	SE B	β	95% CI	
				Upper	Lower
Language Skills	-.02	.02	-.11	-.07	.03
Intercultural Relations	.16	.40	.05	-.63	.96
Discrimination/Prejudice	-.52	.47	-.16	-1.48	.42
Cultural Isolation	.04	.02	.21	-.01	.10
Bicultural Identity Compartmentalizing	.02	.02	.11	-.03	.07
Bicultural Identity Conflict	.04	.03	.21	-.01	.10

Table 7

Multiple Linear Regression Analysis Assessing the Relationship Between Migration Challenges and Identified Regulation

Predictor	B	SE B	β	95% CI	
				Upper	Lower
Language Skills	-.00	.02	-.04	-.05	.04
Intercultural Relations	.10	.35	.03	-.60	.80
Discrimination/Prejudice	-.09	.42	-.02	-.93	.75
Cultural Isolation	.03	.02	.14	-.02	.07
Bicultural Identity Compartmentalizing	.06	.02	.32	.01	.11
Bicultural Identity Conflict	.06	.02	.31	.01	.12

Table 8

Multiple Linear Regression Analysis Assessing the Relationship Between Migration Challenges and Intrinsic Motivation

Predictor	B	SE B	β	95% CI	
				Upper	Lower
Language Skills	-.07	.02	-.31	-.12	-.01
Intercultural Relations	.22	.40	.07	-.57	1.03
Discrimination/Prejudice	-.24	.47	-.06	-1.20	.71
Cultural Isolation	.09	.02	.40	.03	.14
Bicultural Identity Compartmentalizing	.01	.02	.04	-.04	.06
Bicultural Identity Conflict	.06	.03	.25	-.00	.12

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Chapter 5: Comprehensive Discussion of Findings

In educational psychology, multicultural research is needed to guide best practices within culturally diverse learning environments (Begeny et al., 2020; Wang et al., 2020). The emergence of this consideration coincides with the expanding diversity of educational environments worldwide, brought on by increased international migration, notably of school-aged youth (Migiro, 2019; World Population Review, 2022). Knowledge of the individual and cultural experiences that can influence their academic progress is essential to appropriately address the unique psychosocial challenges faced by these vulnerable immigrant students within unfamiliar learning environments (Motti-Stefanidi, 2023). Within this perspective, the overall goal of the two manuscripts that comprise the present dissertation was to expand the scope of multicultural research to include an exploration of the effects of specific self-perceptions as well as migration-related challenges on the academic progress of immigrant youth from collectivist countries, early on in their resettlement in individualist nations.

The objective of Manuscript 1, a scoping review, was to extensively review the literature on the relationship between global, academic, and subject specific self-concepts and academic achievement among students across educational levels who reside in collectivist countries. The findings from the 27 articles identified in this review were consistent with the findings from previous reviews, as the self-concepts were associated with academic achievement across educational levels, particularly when measured in relation to academic self-concept or in the context of a specific school discipline (Marsh & Martin, 2011; Wu et al., 2021). These findings depict a protective factor, self-concept, in the academic progress of youth from collectivist cultural backgrounds living locally and abroad.

To complement the findings from Manuscript 1, Manuscript 2, an empirical study among a group of non-Western recently immigrated youth between 12 and 19 years old, was designed to address three issues. One objective was to investigate and compare students' satisfaction with three life expectation domains (schooling, future possibilities, and happiness) pre- compared with post- migration. A second focus was on the cultural match or mismatch between the students' and school-endorsed self-construal orientation (independence versus interdependence). The third area of emphasis was on the relationship between migration-related challenges (i.e., language skills, discrimination and prejudice, intercultural relation, cultural isolation, and bicultural identity compartmentalizing and conflict) and the development of different levels of academic motivation (i.e., external regulation, introjected regulation, identified regulation, and intrinsic motivation).

The findings from the examination of immigrant students' perceptions of satisfaction in relation to three life domains demonstrated that they are pleased with schooling in their new country, as they report experiencing an increase in their level of satisfaction post- compared with pre- migration. In terms of future possibilities and happiness, the students reported consistently positive perceptions in both life domains before and after migration. This suggests that they maintained a high level of satisfaction in these aspects of their lives even after moving to a new country. In relation to students' self-construal orientations, a self-perception strategy, they reported greater identification with interdependent values than with the independent standards that characterize Western schools. This finding is consistent with our prediction and previous findings that immigrant students from non-Western and collectivist cultural backgrounds are at-risk for academic underachievement in Western, individualist schools (Fryberg, Troop-Gordon, et al., 2013; Oeberst & Wu, 2015; Stephens et al., 2012). The findings from the investigation of

the relationship between migration challenges and different levels of academic motivation underscore specificity in the way that these difficulties relate to extrinsic and intrinsic motivations. Accordingly, external regulation was expectedly associated with greater reports of cultural isolation and bicultural compartmentalizing, but unexpectedly with perceptions of discrimination and prejudice. The latter finding suggests a moderating factor that protect immigrant youth against the known detrimental consequences of experiencing discrimination and prejudice, such as having a strong cultural identity and trust in significant others (Straiton et al., 2019). As expected, identified regulation was related to greater reports of bicultural identity compartmentalizing and conflict. This finding suggests that the potential benefits of identified regulation on academic achievement (Howard et al., 2021) may not be sufficient for recently immigrated youth. As anticipated, intrinsic motivation was associated with fewer language challenges. Conversely, the finding that cultural isolation contributed to increases in intrinsic motivation was unexpected and may be explained by the finding of a moderating factor, such as close friendships (Sauter et al., 2020), that protects recently immigrated youth from experiencing isolation that negatively affects their self-determined academic behaviours. Having close friends may thus protect recently immigrated youth from experiencing cultural isolation in a way that negatively affects their self-determined academic behaviors. Together, the findings from the scoping review and empirical study indicate that self-perceptions (self-concepts and self-construal processes) as well as acculturation and bicultural identity integration challenges have the potential to influence the academic progress of recently immigrated youth, thus providing valuable insight into their academic journeys and informing policy and practice for supporting them early on in their resettlement.

Recommendations for Educational Practitioners and Stakeholders

The findings from the current dissertation have implications for educational practitioners in Western countries who endeavour to promote the optimal integration of immigrant youth from collectivist cultural backgrounds. These implications involve the common theme of creating welcoming and inclusive school environments for these immigrant students. To work toward accomplishing this goal, various effective strategies have been utilized within multicultural learning contexts in the West (e.g., Patel et al., 2023).

Among the recent suggestions for creating welcoming and inclusive schools (e.g., Brown, 2019; Patel et al., 2023), Guo-Brennan and Guo-Brennan (2019) recommend eight actions (see Table 1). The eight actions include leadership engagement, shared vision, open and inclusive process, link to existing priorities, empowering newcomer students, community engagement, professional development, and celebration. These actions involve engaging various educational stakeholders, such as school staff, students, and families, in the identification of the challenges and potential remedial services to foster immigrant youth's academic success. Moreover, Guo-Brennan and Guo-Brennan argue that this holistic approach to addressing challenges that are context specific can be particularly useful to immigrant populations in culturally homogeneous communities with limited specialized resources.

Table 1

Welcoming and Inclusive Schools for Immigrant Students

Leadership and engagement	Leadership and engagement from administrators, teachers, and students in integrating culturally relevant and meaningful educational opportunities.
Shared vision	Shared vision among stakeholders that education and adaptation is essential for all students, regardless of their cultural background.

Open and inclusive process	Perspectives of all stakeholders are considered throughout the process to develop welcoming and inclusive schools.
Link to existing priorities	New welcoming and inclusive initiatives are linked to current school priorities to maximize the possibility of achievement for all students.
Empowering newcomer students	Empowering immigrant students by fostering their resilience in facing the various immigration challenges.
Community engagement	Partnering with migrant agencies, parents, and the community (e.g., media) to promote a welcoming and inclusive social context inside and outside the school.
Professional Development	Professional development for administrators and teachers to foster cross-cultural competence.
Celebration	Publicly celebrate and recognize efforts in developing welcoming and inclusive schools with all stakeholders.

The findings from this dissertation are consistent with Guo-Brennan and Guo-Brennan's (2019) key points. As the development of a favourable global and academic self-concept has been found to promote students' academic success (in Manuscript 1), evidence-based interventions to bolster these self-concepts should be offered to immigrant students. For example, the findings from Trautwein and Möller's (2016) review of the determinants of an effective academic self-concept intervention underscore the benefits of giving students the confidence to believe they are academically talented, as well as emphasize the advantages of nurturing this skill. The findings from their study also highlight that academic self-concept can be improved indirectly by targeting self-efficacy, value beliefs, and attributions, all of which can be done within schools. Other findings from a meta-analysis by O'Mara et al. (2006) on the effectiveness of self-concept interventions for youth 18 years old or younger suggest that these interventions can be effective for improving self-esteem and academic performance among

youth, and can be implemented by a variety of practitioners in different settings (e.g., mental health professionals, teachers, school counselors, and other non-professionals). O'Mara and colleagues also found that all students including those who are most vulnerable, such as students with pre-existing low self-esteem or learning challenges, can benefit from self-concept interventions, notably when these interventions are combined with specialized skill training, praise, and feedback that is based on temporal rather than social comparisons.

The findings from Manuscript 2 indicate that immigrant students from collectivist countries primarily endorse interdependent cultural values that are typically inconsistent with the independent values that dominate among members in the West. Creating culturally responsive schools and pedagogies may thus mitigate the risks associated with this cultural mismatch. The objective of a culturally responsive school is to encourage and support the academic achievement of all students by differentiating the curriculum and educational experiences to be multiculturally relevant (Richards et al., 2007). Such approach to education has been found to be protective of the academic progress of culturally marginalized students (for a review, see Piazza et al., 2015). Cultural responsiveness can also be applied to the broader social context beyond curriculum or learning experiences, and the term culturally responsive leadership is typically used to address this broader context (Johnson, 2006). As such, the effects of the immigration related challenges identified in Manuscript 2 (e.g., those related to language skills, discrimination and prejudice, intercultural relation, cultural isolation, and bicultural identity compartmentalizing and conflict) can be mitigated by culturally responsive leadership that addresses language challenges and systems of oppression in schools (Brown et al., 2022; DeMatthews & Izquierdo, 2020; Khalifa et al., 2016).

Educational practitioners can take certain measures to help students who may face the immigration challenges identified in Manuscript 2, which could negatively impact their academic progress. These measures involve addressing family and peer support systems as well as the development of second language proficiency among immigrant youth. For example, parental autonomy support has been found to be associated with the development of bicultural identity integration that stems from harmony and blendedness among immigrant youth and young adults (Ferrari et al., 2019; Kaniušonytė & Žukauskienė, 2018). Moreover, peer and other social supports (e.g., family and school) can buffer the psychosocial risks associated with facing various acculturative stressors (e.g., discrimination and isolation) among youth and young adults from various cultural backgrounds (Brown, 2019; Burack et al., 2013; Kristiana et al., 2022). In a review of the importance of an inclusive school climate for healthy student development, Brown (2019) highlights that a multicultural student-body, in which quality interactions are fostered, can reduce negative peer interactions (e.g., discrimination experiences) and promotes a sense of belonging which is protective of the academic progress of youth. Brown further notes that such quality intergroup contact must represent a goal of education and be implicitly and explicitly integrated in the curriculum.

In terms of developing second language proficiency for immigrant youth, both psychological and social interventions can be effective. An example of a psychological intervention concerns the mindset of students in relation to their second language development (Khajavy et al., 2021). Second language mindset refers to one's beliefs about their competence to learn a new language (Lou & Noels, 2017). A growth mindset describes a belief that one can develop their language skillsets, while a fixed mindset suggests believing that language skills are not malleable (Dweck, 2015). Fostering a growth mindset, as opposed to a fixed mindset, is

protective of one's long-term second language development (for a review, see Lou & Noels, 2019). Second language development can also be fostered through psychosocial approaches, such as social and emotional learning (SEL; Atkinson, 2014; Gabrys-Barker, 2013). This approach encompasses the five competencies of self-awareness, self- management, social awareness, relationship skills, and responsible decision making that can lead to the development of knowledge and prosocial behaviours that are beneficial to both classroom and other community-based settings (Elias et al., 2017). Accordingly, SEL applied to second language development represents a framework that allows youth to build various relationships in various formal and informal social contexts, while using both their native and national languages (e.g., Symons & Ponzio, 2019). This framework can be fostered in both specialised and inclusive mainstream classrooms, and when integrating throughout the curriculum, the development of a welcoming and inclusive school environment is supported (Adams & Richie, 2017).

Challenges in Creating Inclusive School Environments for Multicultural Students

Several challenges can be anticipated in the integration of the effective strategies and interventions that will contribute to creating welcoming and inclusive school environments for multicultural student bodies. These challenges can interfere with the efforts to integrate the recommendations in line with the findings from Manuscript 1 and Manuscript 2, and involve the expert-support available to various educational practitioners. For examples, Brown (2019) highlights that teachers and school administrators have the responsibilities of embracing and encouraging multiculturality, which requires them to create meaningful experiences for students. However, this requirement may interfere with other goals of instruction that stem from standardized tests and programs of study or represent an obstacle for practitioners who are left to make adjustments without expert support.

Other challenges in the creation of welcoming and inclusive schools are related to the professional training of school practitioners. For instance, Lopez and Bursztyn (2013) argue that school psychology programs do not effectively prepare psychologists to respond to the needs of multicultural societies in North America. To address the growing needs for culturally responsive services, they recommend incorporating multicultural perspectives into the philosophical frameworks of all school psychology training programs, examining the educational and psychological theories presented to students from a culturally sensitive lens, identifying the multicultural scope of diversity, and determining the multicultural competencies that need to be acquired in order for students to become competent school psychologists. Other challenges that have been identified in European and North American countries include the cultural homogeneity among school administrators, who predominantly come from the majority cultural group within their society (Brown et al., 2022; OECD, 2018). The presence of school administrators from multicultural and multilingual backgrounds has been found to foster immigrant youth's sense of belonging and self-esteem, as well as native learner's perspectives of immigrants and cultural diversity among school leaders (Brown et al., 2022; Goghari & Kassan, 2022). Finally, school educators must believe in the benefits of cultural diversity in education in order to initiate the development of welcoming and inclusive schools (Nelson & Guerra, 2014), and such beliefs can be cultivated through training and professional development programs in which opportunities for experiential learning are offered (Civitillo et al., 2018).

Final Summary and Conclusions

Immigration is a profoundly transformative cultural transition that involves facing many challenges that have an impact on youth's academic experiences and subsequent adaptation (Motti-Stefanidi, 2023). Without considering the individual and cultural elements implicated in

the immigration process, educational practitioners and scholars who engage with, and conduct research involving, immigrant youth may overlook their psychological needs or pathologize their experiences (Rogers-Sirin et al., 2014). Thus, educational practitioners must have some understanding of the effects of the experience's that immigrant students bring to school in order for them to provide meaningful and culturally relevant education.

The findings from Manuscript 1 and Manuscript 2 of this dissertation inform educational practitioners on the pathways to academic success that can foster subsequent socioemotional adaptation and wellbeing among vulnerable immigrant youth from collectivist countries who migrate to individualist societies. Both individual and contextual factors were identified as potential protective or risk factors in the academic achievement of these immigrant youth. Taking into account the broad representation of collectivist societies among the immigrant populations in the West, both studies include participants from several collectivist regions. The findings from Manuscript 1, a scoping review, depict that a positive global and academic self-concept is associated with the development of academic achievement among students in various collectivist countries and in various educational levels. This finding reflects a potential protective factor in the academic achievement of youth from collectivist cultural backgrounds living both locally, and abroad in independent nations. Manuscript 2 was an empirical research which highlighted the interdependent cultural heritage of immigrant youth and suggested a mismatch with the independent values and practices that are typically promoted within schools in the West. Moreover, specific acculturative stressors as well as bicultural identity integration that stem from compartmentalizing and conflicting processes were associated with different levels of academic motivation, including external forms that may be detrimental to the long-term academic success of immigrant youth. Overall, these findings about the influence of self-perceptions and migration

related challenges on essential indicators of academic achievement shed light on the factors that can be addressed by educational practitioners in their efforts to create welcoming and inclusive school environments that will benefit both immigrant youth from various collectivist countries and other cultural minority students (e.g., Black, Indigenous, and People of Color as well as religious or linguistic minorities) in various Western countries, such as Canada.

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