

## **Visualization Analysis of Research on Chinese Cultural Identity Based on CiteSpace (2013–2022)**

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### **ABSTRACT**

Though extensively examined, research on Chinese cultural identity lacks systematic categorization, leading to uncertainties about evolving research priorities. This study addresses this gap by comprehensively analyzing Chinese Cultural Identity (CCI) development trends using the Web of Science database and CiteSpace, a scientific literature visualization and analysis tool in bibliometrics and scientometrics. This study examines Chinese cultural identity development from 2013 to 2022, encompassing research trends, global distribution of research institutions, and emergent hotspots. It uncovers a two-phase progression in Chinese cultural identity research: initial gradual exploration followed by rapid advancement. While research in this field is concentrated in China, the United States, Australia, the United Kingdom, Canada, Singapore, and Malaysia, it is noteworthy that research institutions are globally distributed. Three focal points (Chinese culture examination, cultural identity investigation, and cultural identity determinants) highlight the subject's multifaceted nature. Additionally, emerging research frontiers include the empowerment of women in Chinese cultural identity, the role of information

in shaping Chinese cultural identity, and the globalization of Chinese cultural identity, pushing the boundaries of understanding in this field. Further studies are encouraged to explore dissemination dynamics, adopt interdisciplinary approaches, and conduct in-depth case studies.

*Keywords:* Chinese cultural identity, Citespace, research hotspots, visualization analysis

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## INTRODUCTION

Cultural identity refers to the true consciousness of a collective that shares a common history and ancestry, which is the deepest level of identity and the basis of cohesion of a cultural community (Hall, 2015). The study of cultural identity holds immense significance in various academic disciplines, including anthropology, sociology, psychology, cultural studies, and communication (Dervin, 2012). Understanding cultural identity allows researchers and scholars to explore the complex interplay between individual experiences and broader societal contexts. Cultural identity shapes social bonds and community while triggering conflicts (Sung, 2022). Multiculturalism, globalization, and migration impact identity negotiation. It influences personal identity formation and is linked to colonialism's legacy (Sengupta, 2023). Migration prompts identity adaptation, which is relevant for integration and resilience.

While existing studies have discussed Chinese cultural identity, there is a lack of research that utilizes visual analysis tools like CiteSpace to map out and explore the interconnectedness, trends, and evolution of key themes within this complex field (Q. Wang, 2022). Few studies have delved into the visual analysis of Chinese cultural identity literature across a specific temporal scope, such as the past decade. This gap hinders a comprehensive understanding of how research hotspots and trends have evolved over this period. Moreover, some studies may focus on established themes

within Chinese cultural identity. However, there is a potential gap in recognizing and analyzing emerging and emerging themes, perspectives, or controversies within the last decade.

There is a call to investigate longitudinal patterns across decades, uncovering cyclical themes within Chinese cultural identity discourse to enhance understanding. Comparative analyses with similar studies in diverse cultural contexts can illuminate cross-cultural similarities, differences, and broader global trends. Several key research questions emerge in addressing these gaps and pursuing a comprehensive analysis of Chinese cultural identity literature through visual mapping using CiteSpace. These questions delve into the multifaceted dimensions of CCI research, shedding light on its development, manifestation across borders, geographical concentration, and topical focal points. The following research questions guide our investigation:

1. What are the prominent trends and patterns in the research of CCI's development?
2. How is Chinese cultural identity manifested and distributed across various countries?
3. What is the geographical distribution and institutional concentration of research organizations studying Chinese cultural identity?
4. What are the current research hotspots within the Chinese Cultural Identity (CCI) field?

5. How can the research frontier and distribution of topics within the Chinese Cultural Identity (CCI) field be effectively identified and mapped?

The significance and potential contributions of this research are multifaceted. Firstly, it aims to advance theoretical understanding by delving into the intricate interplay of cultural identity, nationhood, and unity within Chinese Cultural Identity (CCI; Ho, 2020). This exploration is particularly important as cultural identity forms the bedrock of individual self-perception and societal cohesion (Windén, 2023). Secondly, the study addresses research gaps in CCI literature, particularly in a comprehensive analysis of research hotspots, trends, and distribution. By bridging these gaps, the research provides a panoramic view of the current state of CCI research, enabling a more holistic understanding of the field's dynamics. Thirdly, the research seeks to uncover emerging trends within CCI by meticulously analyzing its trajectory over the past decade. This endeavor is poised to shed light on nascent perspectives, pertinent concerns, and evolving thematic foci (Žukauskas et al., 2018). Additionally, the study employs visualization tools like CiteSpace software to map the intricate tapestry of CCI research, offering insights that surpass traditional textual summaries (Song & Wang, 2020). This approach empowers researchers and policymakers with a contextual grasp of the research landscape, guiding future research directions effectively (Dacholfany et al., 2023). Lastly,

by comprehensively analyzing research hotspots, trends, and distribution, the study offers valuable guidance for future research trajectories within the expansive realm of CCI. Overall, this research not only contributes to academic discourse but also informs policy decisions and socio-cultural development by harnessing the potent role of CCI in shaping national unity, cultural preservation, and societal cohesion.

## METHODOLOGY

### Data Source

Web of Science is a large, comprehensive, and multidisciplinary database developed by the Institute for Scientific Information (ISI) based on the web. Compared with other databases, the WoS Core Collection database collects the references cited by articles and organizes a characteristic citation index by cited author, source and publication year (Birkle et al., 2020). The review focused on the previous studies of Chinese cultural identity in the WoS Core Collection database from 2013 to 2022. The following search strategy was conducted: Topic = "Chinese Cultural Identity". The search strategy showed 1766 publications after the exclusion of irrelevant academic articles.

### Methods

The bibliometric analysis method is a research approach that primarily relies on the information contained within paper catalogs (Khudhair et al., 2021). By applying relevant mathematical and statistical knowledge, this

method enables researchers to analyze the characteristics of the number of papers published in a given field (Antons et al., 2020). In essence, bibliometric analysis provides a more objective and rigorous means of assessing the state of a particular field of research (Donthu et al., 2021).

This analysis project was established in CiteSpace 6.2.R4, updated on August 4, 2023, an information visualization software developed by Professor Chen Chaomei from the School of Information Science and Technology at Drexel University. CiteSpace is used widely in scientific knowledge mapping and literature scientometrics, which can analyze and forecast the hot research fields, research process, research evolution, and frontier of the subject (C. Chen, 2005). CiteSpace offers visual analysis and knowledge mapping capabilities, aiding researchers in understanding the structure, relationships, and emerging trends within their fields. It systematically generates accessible graphs, allowing scholars to identify hot spots and explore relationships in their research domains. It is suitable for dynamic complex network analysis, provides diversified display modes such as various cluster graphs, timeline graphs and time zone graphs, and generates various knowledge graphs (C. Chen, 2005). In the context of CiteSpace, nodes represent diverse entities, encompassing academic papers, authors, or keywords. These nodes serve as the foundation of the network, and their connections delineate relationships such as co-authorship, citation, or shared keywords.

Applying cluster graphs within CiteSpace illuminates groups or clusters of nodes characterized by shared characteristics, unveiling the structural intricacies intrinsic to academic disciplines or thematic areas. For example, a cluster may signify a distinct research topic, with each node representing a paper contributing to that area. Complementing this, timeline graphs, integral to the tool, provide a temporal dimension that facilitates the depiction of the evolution of research fields over time. This feature allows for a nuanced understanding of specific topics' emergence, growth, and decline. A timeline graph can, for instance, illustrate the fluctuations in popularity of a particular research topic over time.

Additionally, time zone graphs in CiteSpace contribute to temporal analysis by identifying bursts or periods of heightened activity within a research field. These bursts shed light on critical periods marked by significant advancements or shifts in focus. For instance, a burst might indicate intensified research following a major discovery. These functionalities empower researchers to conduct meticulous analyses of individual nodes, explore clusters of related research, and glean insights into the dynamic evolution of academic knowledge over time. Researchers can leverage CiteSpace to identify influential works, track the development of research topics, and predict future trends within a field.

This study classified and analyzed 1766 articles from the perspectives of publication year, country and region, research institution,

topic category and keywords to dig into the history, current situation, research hotspots and research contents of the research on

Chinese cultural identity. Table 1 describes the data collection and analysis protocol of this study.

Table 1  
*Data collection and analysis protocol*

<b>Research protocol</b>	<b>Retrieve results and contents</b>
Research database	WoS Core Collection Database
Language	English
Publication type	All types
Year span	January 2013-December 2022
Retrieval criterion	Topic = Chinese Cultural Identity
Exclusion criteria	Early access, proceeding paper, book chapters
Number of samples	1766
Data analysis	CiteSpace, 6.2. R4
Analysis paths	Co-network analysis, co-occurrence analysis, a noun-term burst analysis

*Source:* Authors' work

## RESULTS AND DISCUSSION

### General Trends of CCI Research

The number of published papers is a crucial indicator for measuring the development trend of Chinese cultural identity within a specific time range. By analyzing the change in research popularity over a given period, it is possible to gain valuable insights into the dynamics of development and to make predictions about future trends. Figure 1 depicts a recent inquiry into the research outcomes of the digital economy spanning the last decade, presenting a statistical chart delineating the distribution and proportion of annually published papers. The number of published papers on Chinese cultural identity exhibits an upward trend. This trend can be divided into two distinct stages: 2013 to 2015 and 2016 to 2022. During the first stage, from 2013 to 2015,

research on Chinese cultural identity was in a slow growth phase, with fewer than 100 publications per year. However, between 2016 and 2022, there was a rapid increase in the number of articles published, rising from 109 in 2016 to a peak of 331 in 2022. It represents the highest value recorded over the past decade. The significant and relatively stable increase in published papers indicates that research on Chinese cultural identity has garnered attention from the academic community and that there is considerable scope for further exploration in this field.

### *Slow and Diversified Development (2013-2015)*

From 2013 to 2015, research on Chinese cultural identity (CCI) exhibited a slow upward trend, with 249 published, accounting

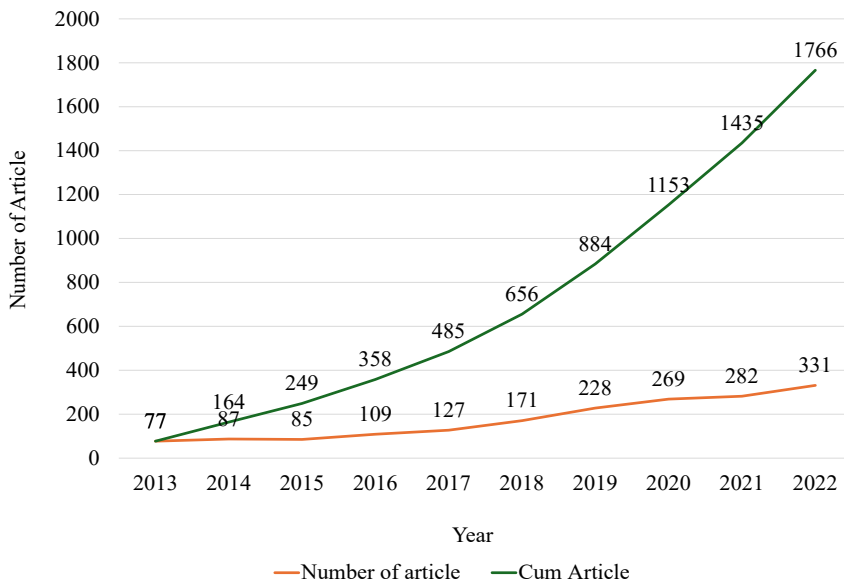


Figure 1. Map of annual publication of CCI research (2013–2022)

Source: Authors' work

for only 14.1% of the total papers. It can be attributed to the lack of a unified and clear understanding of the characteristics and importance of Chinese cultural identity. Despite this, CCI received attention from various fields during this period, resulting in diverse research directions. For instance, studies were conducted on topics such as biculturalism in cultural diversity (Shen & Liao, 2022), acculturation and attitude (Demes & Geeraert, 2013), the influence of immigration on cultural identity (Wei, 2014), self-awareness (Saad et al., 2013), mental health (Wyatt et al., 2015), and ethnic identity (D. Wang, 2016). Among these studies, speculative research was the predominant approach, with practical research being relatively rare (Telzer et al., 2014).

### ***Fast and In-Depth Development (2016-2022)***

Since 2016, when the number of published papers on Chinese cultural identity research exceeded 100, there has been a steady increase in the number of papers published on this topic. The average annual growth has been around 50, indicating a significant and steady increase in published papers. By December 31, 2022, there were 1517 papers, accounting for 85.9% of the total. Additionally, the scope of research has expanded compared to the period from 2013 to 2015. It suggests that Chinese cultural identity research has become an increasingly popular and important study area. The main research topics in this stage include cultural heritage, cultural integration, cultural products and their consequences. As seen



from the above keywords, the research on CCI begins to shift from abstract concepts and classifications to concrete models and practices. Cultural heritage is an important part of Chinese cultural identity (Lee & Wong, 2017), including philosophy, literature, history, calligraphy, fine arts, music, dance, martial arts, technology, and architecture. With economic globalization, cultural integration has become a hot spot in state, enterprise and education (L. A. Liu et al., 2018). With the development of tourism, cultural products as a culture carrier have also attracted scholars' attention (T. Li et al., 2020). In the research process, scholars also analyze the consequences of Chinese cultural identity (Wells et al., 2022). With the deepening of the research on Chinese cultural identity, the research results in this stage increased rapidly in quantity and improved in quality.

### **Productive Countries**

The analysis also unveils the countries or regions that exhibit a significant concentration of research focused on Chinese cultural identity and their macro, meso, and micro levels of collaborative relationships. The classification of nodes is based on country, with a predefined threshold value of 45. Figure 2 illustrates a network representation of countries by employing CiteSpace for visualization analysis. According to the outcomes of quantitative analysis conducted via CiteSpace, 79 countries have engaged in research concerning Chinese cultural identity. Notable participants include

China, the United States, Australia, the United Kingdom, Canada, Singapore, and Malaysia. These seven countries collectively account for 1,526 published articles on Chinese cultural identity. In Figure 2, each circular node corresponds to a country; its size is proportional to the frequency of published articles on Chinese cultural identity. The node's color corresponds to the time of article publication, while the linkage strength between nodes reflects the intensity of collaborative relationships. Closer proximity of links denotes stronger cooperation.

From 2013 to 2022, China produced 636 research papers, accounting for 41.7% of the total scholarly output, while the United States contributed 423 papers, representing 27.7% of the corpus. Figure 2 illustrates that both countries have relatively autonomous research affiliations with some interconnections. However, the United States has a more extensive and interconnected network of collaborations with various countries worldwide, indicating a higher degree of scholarly interconnectedness. In contrast, China maintains more independent research avenues with a comparatively smaller collaborative network. Meanwhile, examining the publication landscape on Chinese cultural identity from 2013 to 2022 reveals notable disparities among Hong Kong, Taiwan, and Macao, reflecting diverse research environments. With its international prominence, Hong Kong exhibited a substantial output of 200 publications, indicative of a robust and prolific research landscape.



Size of the Circle: Numerical Value

Thickness of the Line: Relation Closeness

Figure 2. International cooperative network atlas  
Source: Authors' work

This higher count is likely influenced by extensive collaboration networks and a cosmopolitan research environment, fostering domestic and international partnerships. While demonstrating a moderate publication count of 69, Taiwan may reflect a nuanced mix of regional and international collaborations influenced by its distinct geopolitical context. In contrast, Macao's lower count of 10 publications suggests a more localized and potentially specialized approach to Chinese cultural identity research. Additionally, factors such as language preferences, political contexts, and research resources may further elucidate the reasons for the divergent publication counts in these regions. Notably, Malaysia and Singapore demonstrate significant research synergy, highlighting the power of research to foster collaborative bonds even within a regional context, transcending geopolitical boundaries for shared academic exploration and Southeast Asia is defined by cultural diversity and openness (King, 2016).

## Research Organizations

Examining institutional collaboration brings pertinent organizational insights within Chinese cultural identity research. Specific parameters were employed to facilitate the analysis and categorization of research institutions. The time span was defined as 2013–2022, while each publication year was assigned a weight of 1. The top N criterion was set at 5 for selection. Figure 3 shows a network visualization of the literature culled from the Web of Science (WoS) database. This visual representation encompasses 318 nodes and 206 connecting lines, yielding a network density of 0.0041. This density value indicates a comparatively low degree of collaboration among institutions.

Upon more nuanced scrutiny of Figure 3, an intricate tapestry of research endeavors unfolds, underscoring the scholarly prominence of institutions within Hong Kong, China, in exploring the contours of Chinese cultural identity. The Chinese University of Hong Kong, The Hong Kong Polytechnic University, and the City University of Hong Kong emerge as key players, leaving an indelible imprint on the scholarly landscape with their respective contributions of 88, 32, and 28 publications. This robust participation points to the academic vitality of Hong Kong's research milieu in delving into the nuanced facets of Chinese cultural identity. The substantial contributions from The Chinese University of Hong Kong, The Hong Kong Polytechnic University, and the City University of Hong Kong underscore Hong Kong's academic prominence in Chinese cultural identity



research. These institutions, particularly The Chinese University of Hong Kong, renowned globally for research excellence, attract scholars making significant contributions to the discourse.

Similarly, The Hong Kong Polytechnic University and the City University of Hong Kong are esteemed institutions that draw researchers across diverse academic disciplines, enriching the overall research landscape. Hong Kong's unique geopolitical position as a Special Administrative Region (SAR), situated at the crossroads of East and West, provides a conducive environment for exploring multifaceted dimensions of Chinese cultural identity. This context is vital for these institutions, allowing nuanced investigations. Collaboration and interdisciplinary approaches within these institutions significantly contribute to robust

research output, fostering comprehensive examinations of Chinese cultural identity from various perspectives. Moving forward, fostering further interdisciplinary collaborations to explore intersections between Chinese cultural identity and contemporary issues is imperative. Additionally, investigating how Chinese cultural identity manifests in Hong Kong's local context, considering its unique history and sociopolitical dynamics, and exploring the impact of global trends on its evolution are crucial areas for future research. The academic vitality of these institutions, coupled with their interdisciplinary strengths, positions researchers to address emerging themes and contribute to ongoing scholarly discourse on Chinese cultural identity in Hong Kong.

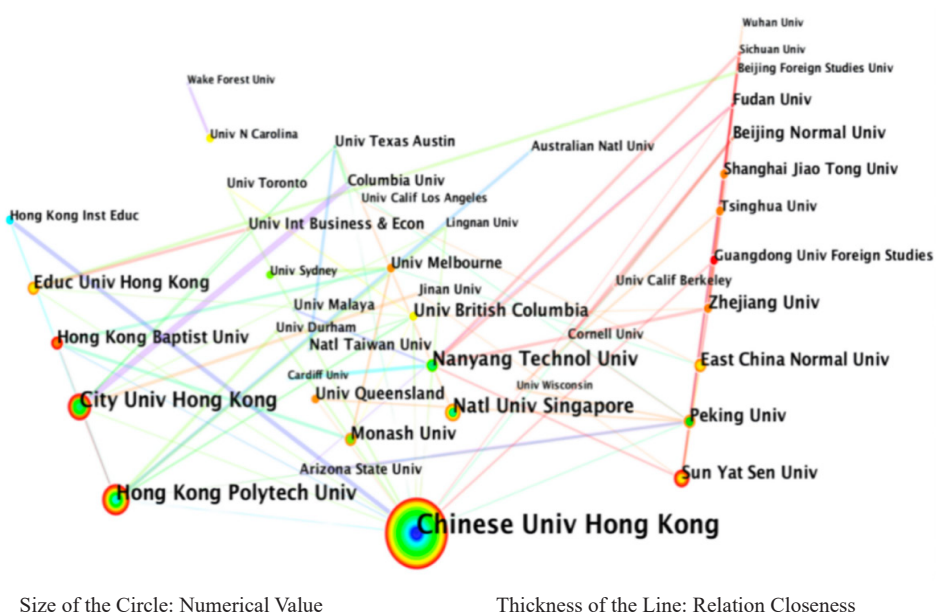


Figure 3. WOS Chinese cultural identity research institution network map

Source: Authors' work

Beyond China, global research institutions, like the National University of Singapore and Nanyang Technological University, are actively engaged in studying Chinese cultural identity (CCI), each contributing 24 and 26 research papers, respectively. This global scholarly interest highlights CCI's transnational appeal, drawing diverse scholars into a shared discourse. Similarly, Monash University and the University of Queensland have produced 17 and 13 research papers on CCI in Australia, while the University of British Columbia has contributed 16. These institutions collectively showcase the global significance of CCI research, fostering international collaboration and discourse. This interplay between institutions, both inside and outside China, reflects CCI's universal importance and the commitment of the academic community to comprehensively explore its multifaceted dimensions.

### **Research Hotspots**

Using CiteSpace's analytical capabilities, this study delves into a detailed examination, producing a clear visualization of keyword connections. Figure 4 showcases this intricate web of scholarly associations, providing valuable insights into the core themes in Chinese cultural identity research. In this carefully crafted network diagram, node sizes correspond to keyword frequency, visually representing the importance of different concepts. The connections between nodes reveal relationships, with denser networks indicating stronger thematic

links. This analytical method offers a deep understanding of the research landscape, uncovering key focal points and revealing the intricate interplay of ideas. The result is a comprehensive overview that captures the main themes and identifies the central lines of inquiry in Chinese cultural identity research. This visual representation is a crucial tool, shedding light on the various dimensions, underlying patterns, and significant research directions within this complex field.

Keyword frequency and centrality are quantitative measures used to gauge the significance of specific terms within a given research domain. Nodes with elevated frequency and centrality values indicate prevalent research focal points during a particular time frame. Table 2 compiles the top 20 keywords with the highest frequency using cluster analysis. This assortment provides a comprehensive overview of the predominant thematic elements that have garnered substantial attention within the research context.

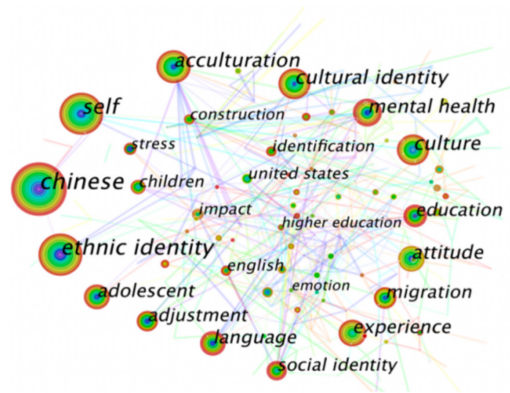
Based on the analysis of the CCI keyword co-occurrence network diagram presented in Figure 4 and the list of keywords with high frequency and centrality provided in Table 2, the salient trends in Chinese cultural identity research can be categorized into the following three thematic aspects:

### **Chinese Culture Examination**

This research category encompasses a broad and in-depth examination of Chinese culture, delving into its tangible and intangible aspects. It includes exploring China's

material culture, such as its art, architecture, and artifacts, as well as its spiritual facets, such as its beliefs, values, and customs. This scholarly exploration of Chinese culture traverses various studies, beginning with examining the social contract among young Chinese citizens and the ensuing study pressures. Zhao (2020) widens the scope by applying queer China studies and global media studies to analyze a show’s portrayal of linguistic, geocultural, gender, and sexual variations in the context of China’s media and cultural globalization. Kathina et al. (2020) shift the focus to Kenya, emphasizing the complexities of integrating Chinese Language and Culture into second language education.

A. Chen (2021) addresses localization concerns in Montessori education, while Lou (2021) extends the discourse to postcolonial contexts, highlighting the role of national identity and language proficiency in cultural



Size of the Circle: Numerical Value  
 Thickness of the Line: Relation Closeness

Figure 4. CCI keywords co-occurrence network graph  
 Source: Authors’ work

adaptation. Dai (2021) takes an economic perspective, investigating local cultural capital as a motivator for entrepreneurial behavior in China. In the regional context, M. Liu and Zhong (2020) discuss British influence in shaping Hong Kong’s identity. Karim et al. (2021) report on acculturative

Table 2  
 Keywords list of CCI

No.	Keywords	Frequency	Centrality	No.	Keywords	Frequency	Centrality
1	Chinese	145	0.04	11	adolescent	49	0.04
2	ethnic identity	104	0.07	12	education	45	0.03
3	self	91	0.06	13	migration	44	0.05
4	acculturation	68	0.05	14	adjustment	43	0.03
5	culture	65	0.01	15	social identity	40	0.14
6	culture identity	64	0.03	16	children	33	0.09
7	attitude	58	0.04	17	impact	29	0.10
8	mental health	55	0.11	18	English	29	0.07
9	experience	53	0.03	19	identification	27	0.08
10	language	51	0.09	20	construction	24	0.07

Source: Authors’ work

challenges faced by Pakistani students in Hong Kong. Tang (2021) explores teaching traditional Chinese science in Hong Kong universities and delves into the urban experiences of mainland Chinese youth in Hong Kong. Concluding the examination, Richards and King (2022) employ the Event Experience Scale to gauge tourist experiences at cultural festivals in Hong Kong, emphasizing their role in protecting the city's identity as a hub of Chinese and traditional culture. Researchers in this field employ a cross-disciplinary approach, drawing on the areas of China Studies, Communication, and Cultural Studies to analyze, communicate, perceive and represent Chinese culture both within China and in the world.

### **Cultural Identity Investigation**

This area of research involves in-depth inquiries into cultural identity, encompassing discussions related to national cultural identity and cultural attitudes and the impact on people's identity or their self-conception and self-perception. It seeks to comprehend how individuals perceive and associate themselves with their cultural backgrounds. This area of research aims to understand how these factors interact and influence an individual's perception of their cultural background. This comprehensive exploration of cultural identity within China examined through a series of scholarly works, delves into nuanced perspectives and diverse geographical contexts. A. Cheng and Szeto (2019) scrutinize the effects of short-term study abroad on Hong

Kong university students' national identity, revealing multifaceted perceptions shaped by the region's unique geopolitical status. Wu et al. (2020) extend the exploration, investigating how social capital influences cultural identities among Chinese youths.

V. Cheng (2020) critically evaluates Hong Kong's revamped museum, emphasizing its reliance on obsolete narratives and the evolving dynamics of politics and art. Lam and Ryan (2020) propose that sociological factors in Macau outweigh micro-level variables in shaping perceptions of place. Ng (2021) explores identity incompatibility among Hong Kong citizens, Chung (2021) investigates translation issues, and Lowe (2021) explores the role of the cultural commons in Hong Kong's pro-democracy movement. W. Lin and Yang (2019) focus on the cultural lens to examine the development of higher education in Taiwan. McIntyre (2019) explores the role of visual arts in relations between Taiwan and mainland China. Loewenberg (2020) highlights traditional imperatives that contribute to the responsiveness to psychoanalysis in China. The collective research offers a concise yet comprehensive understanding of Chinese cultural identity.

### **Cultural Identity Determinant**

Within the realm of Chinese cultural identity, a range of determinants influence how individuals perceive and associate themselves with their cultural backgrounds. These factors include self-awareness, educational experiences, personal encounters, migration, and the acquisition

of English language skills and shape how individuals perceive and associate themselves with their cultural background. Especially in examining cultural identity determinants within China, Chan (2020) strategically leverages Wing Sang Law's conceptualization of colonial power as a network of relations to analyze the dynamic shifts in power relations between Hongkongers and mainlanders. This analytical framework proves particularly pertinent in elucidating the impact of China's rapid economic growth and cultural influence on the intricate fabric of identity dynamics. Chan's inquiry prompts essential questions concerning the nuanced differentiation of "Chinese" from "China" in contemporary Hong Kong, adding depth to our understanding amid the ongoing evolution of coloniality.

Transitioning seamlessly from this exploration of power dynamics, Luo and Xiao (2022) pivot the focus toward the concept of "cultural governance" (p. 418). Grounded in a meticulous tracing of its evolution within the broader context of China's agenda for the modernization of state governing capacity, the authors meticulously unravel the term-shaping processes within the political discourse that birthed these governance concepts. Drawing from case studies in key mainland Chinese urban centers—Shenzhen, Foshan, and Dongguan in the Guangdong-Hong Kong-Macau Greater Bay Area—This research methodically explores urban planning, infrastructure development, community reformation, and the adoption of

a cultural-sustainable development strategy by Chinese authorities. This scholarly exploration underscores the adaptability and flexibility of the state's involvement. It offers nuanced insights into models and challenges associated with pioneering cultural governance programs, thus contributing to a comprehensive comprehension of what may be perceived as a consequential "cultural turn" in urban governance. In tandem, these studies collectively illuminate the intricate intersections of cultural identity, power relations, and governance strategies within the dynamic context of China.

### **Research Frontier Identification**

The mutation detection algorithm in word analysis systematically identifies significant but infrequently occurring terms in literature. Frequent mutations in keywords often indicate future topic evolution. Chen Chaomei's team integrated Kleinberg's burst detection into CiteSpace, creating a mutation word detection function. Figure 5 shows the intensity and trend of mutant words, offering insights into future trends in Chinese cultural identity research. It calculates and extracts focal words with high mutation frequency, revealing the cutting-edge landscape of the discipline. Our study used CiteSpace to analyze keyword mutations in exploring Chinese cultural identity from 2013 to 2022, resulting in 25 keywords with mutations.

### **Empowerment of Women in CCI**

The keyword "women" displayed a significant intensity with a strength value



**Top 25 Keywords with the Strongest Citation Bursts**



Figure 5. Top 25 keywords with the strongest citation bursts

Source: Authors' work

of 5.89, ranking first in Table 2. Despite not extending into 2022, “women” exhibited the highest intensity. Scholars often integrate this topic with feminism, suggesting that research on women’s Chinese cultural identity remains a prominent future trend. It indicates an increased focus on understanding the role of women in the context of Chinese cultural identity. Some studies posit that Chinese women’s self-empowerment via social media stems from a gentle, rational, and resolute approach that integrates a new female identity into the Confucian harmonious society, resulting in a unique digital feminism with Chinese characteristics (Chang et al., 2016). Others advocate for an institutional-level approach to empowering Chinese women and seek to raise awareness of similar strategies for

promoting women’s empowerment in non-western contexts (Z. Lin & Yang, 2019).

**Role of Information in Chinese Cultural Identity**

As indicated in Table 2, the keyword “information” associated with Chinese cultural identity holds substantial strength with a value of 4.46, ranking second among the 25 keywords. Recognizing that information is a vital carrier of culture; this trend aligns with the rapid advancement of information technology and China’s ongoing support for its cultural heritage. This proliferation of channels for disseminating Chinese culture results in an ever-widening scope of influence. Some scholars point out that the advancement of digital technology has facilitated the creation of databases for intangible Chinese cultural heritage (Fan & Wang, 2022). Some studies examine the efficacy of an innovative teaching model for massive open online courses to evaluate its potential impact on Chinese folk culture and identity within higher education (R. Li, 2022).

**Globalization of Chinese Cultural Identity**

As the world becomes increasingly interconnected, the dissemination of Chinese culture extends beyond national boundaries. Moreover, the cultural diversity brought about by economic globalization is progressively reshaping the fabric of global civilization. Given the present era and the ongoing shifts in society, the importance of preserving ethnic cultures gains heightened prominence amid the



context of globalization. Some studies leverage the traits of educational evolution toward diversity to scrutinize the correlation between education and preserving ethnic culture (Zhang, 2019). Nevertheless, this transformation gives rise to novel challenges concerning the interplay of conflict, integration, and coexistence among international students from diverse cultural backgrounds (Hu & Dai, 2021). Research in this direction may explore how Chinese cultural identity adapts and interacts with global cultural trends, contributing to the increasing influence of Chinese culture on the international stage.

The discerned trends serve as crucial indicators, shedding light on domains of persistent significance and nascent intrigue in Chinese cultural identity research. These identified patterns underscore the ongoing pertinence of certain themes and illuminate burgeoning areas of interest that are gaining prominence within academic discourse. These insights assume a paramount role for scholars and researchers committed to probing the intricate nuances of Chinese cultural identity. They furnish a compass to navigate the complex landscape of evolving dynamics. They offer valuable guidance for those poised to unravel the intricate threads of Chinese cultural identity's evolution in the forthcoming years.

## CONCLUSION

The study has illuminated two distinct phases characterizing Chinese cultural identity research: an initial phase (2013–2015) marked by diverse exploration

and a subsequent phase (2016–2022) distinguished by rapid progress. The temporal progression delineated in this study signifies a dynamic evolution within Chinese cultural identity research. This evolution prompts a critical reevaluation of existing theoretical frameworks, necessitating a deeper understanding of the developmental trajectory of cultural identity over time. The identified key research areas, notably Chinese culture examination, cultural identity investigation, and determinants of identity, serve as established focal points that have significantly contributed to shaping the scholarly discourse. However, the study also illuminates notable research gaps and introduces emerging themes that warrant further exploration. Specifically, the investigation into women's empowerment within Chinese cultural identity introduces a novel and deserving dimension, meriting thorough examination for a nuanced understanding of gender dynamics in this cultural context.

Moreover, the acknowledgment of information dissemination as a burgeoning area of interest underscores the necessity for research elucidating the mechanisms and impact of information flows on cultural identity formation. Furthermore, the recognition of globalizing Chinese cultural identity as an emerging frontier emphasizes the need for research that delves into the dynamics of cultural identity in the context of globalization, elucidating its implications for individuals and societies. In summary, this analysis provides valuable insights for scholars and practitioners. It

underscores the imperative for focused exploration into these emerging themes to address existing research gaps and propel theoretical frameworks forward in the continually evolving landscape of Chinese cultural identity research. Nevertheless, it is imperative to acknowledge the study's limitations, primarily stemming from its reliance on data from the Web of Science database and the CiteSpace software. While these sources have provided substantial insights, they may not encompass the relevant research in the field. In-depth case studies, as well as comparative and interdisciplinary approaches, will undoubtedly contribute to a more nuanced and holistic understanding of Chinese cultural identity.

Furthermore, an in-depth study of Chinese cultural identity in Hong Kong, Macau, and Taiwan would offer valuable insights and contribute to a comprehensive field examination. In light of these findings, this study underscores the significance of continued research efforts. A pronounced need exists for deeper investigations into the dissemination of this identity and the intricate dynamics surrounding it. The study compellingly asserts the importance of future research endeavors to delve into the nuanced interplay and multifaceted propagation of Chinese cultural identity. Such endeavors will undoubtedly contribute to a more comprehensive understanding of this intricate construct, enriching the scholarly discourse in a pivotal area of inquiry.

### **Implication for Theory and Practice**

The research findings bear noteworthy implications for theoretical development and practical application in Chinese cultural identity studies. The discernment of a two-phase progression in Chinese cultural identity research underscores the dynamic nature of this field, prompting a call for adaptable theoretical frameworks. Scholars and practitioners can leverage these insights to refine existing theories and formulate novel conceptual models that encapsulate the intricate dynamics of Chinese cultural identity over time. Moreover, identifying concentration in specific countries, juxtaposed with the global distribution of research institutions, underscores the need for cultural identity theories to encompass localized and global perspectives. This recognition is instrumental for practitioners navigating multicultural contexts, providing nuanced insights into the varied manifestations and study approaches of Chinese cultural identity across diverse regions.

The delineation of emerging research frontiers, particularly in areas like women's empowerment, the role of information, and globalization, presents compelling opportunities for theoretical advancement and practical application. Delving into these nascent areas allows researchers to expand existing theoretical frameworks and derive practical insights that can inform policies, interventions, and cultural practices pertaining to Chinese cultural identity. In summary, this research furnishes valuable insights that enrich theoretical

comprehension and practical applicability within Chinese cultural identity studies. By integrating these implications into subsequent research endeavors and practical undertakings, scholars and practitioners can contribute to a more nuanced and comprehensive grasp of Chinese cultural identity and its ramifications for individuals, communities, and societies.

### **Limitation and Recommendations**

Despite the valuable insights gleaned from this study, it is crucial to acknowledge certain limitations that warrant consideration in future research endeavors. Firstly, the reliance on data solely from the Web of Science database and CiteSpace software may restrict the comprehensiveness of the findings. Alternative databases and analytical tools should be explored to ensure a more exhaustive exploration of the Chinese cultural identity research landscape. Additionally, while the study offers a broad overview of global trends and patterns in Chinese cultural identity research, it may overlook nuanced regional variations and localized contexts. Future research could address this limitation by conducting in-depth case studies focusing on specific regions or cultural contexts, thereby providing a richer understanding of the complexities inherent in Chinese cultural identity dynamics. Furthermore, the study primarily focuses on bibliometric and scientometric analyses, which may overlook qualitative insights and perspectives equally valuable in understanding cultural identity

phenomena. Future research could employ mixed methods approaches that integrate quantitative analyses with qualitative methodologies, allowing for a more holistic exploration of Chinese cultural identity.

In light of these limitations, several recommendations can be proposed for future research endeavors in Chinese cultural identity. Firstly, scholars should explore alternative databases and analytical tools to complement existing data sources and enhance the robustness of their findings. Secondly, efforts should be made to incorporate regional perspectives and localized contexts into research methodologies, thereby comprehensively capturing the diversity and complexity of Chinese cultural identity dynamics. By addressing these limitations and embracing these recommendations, future research endeavors can contribute significantly to advancing our understanding of Chinese cultural identity and its implications for individuals, communities, and societies.

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### **REFERENCES**

- Antons, D., Grünwald, E., Cichy, P., & Salge, T. O. (2020). The application of text mining methods in innovation research: Current state, evolution patterns, and development priorities. *R&D Management*, 50(3), 329-351. <https://doi.org/10.1111/radm.12408>

- Birkle, C., Pendlebury, D. A., Schnell, J., & Adams, J. (2020). Web of Science as a data source for research on scientific and scholarly activity. *Quantitative Science Studies*, 1(1), 363-376. [https://doi.org/10.1162/qss\\_a\\_00018](https://doi.org/10.1162/qss_a_00018)
- Chan, C. K. K. (2020). Chinese migrants' spatial politics of belonging, identity, and citizenship in Santiago de Chile. *Citizenship Studies*, 25(1), 106-123. <https://doi.org/10.1080/13621025.2020.1825624>
- Chang, M. X., Jetten, J., Cruwys, T., & Haslam, C. (2016). Cultural identity and the expression of depression: A social identity perspective. *Journal of Community and Applied Social Psychology*, 27(1), 16-34. <https://doi.org/10.1002/casp.2291>
- Chen, A. (2021). Exploration of implementation practices of Montessori education in mainland China. *Humanities and Social Sciences Communications*, 8(1), Article 250. <https://doi.org/10.1057/s41599-021-00934-3>
- Chen, C. (2005). CiteSpace II: Detecting and visualizing emerging trends and transient patterns in scientific literature. *Journal of the American Society for Information Science and Technology*, 57(3), 359-377. <https://doi.org/10.1002/asi.20317>
- Cheng, A., & Szeto, E. (2019). Changing Hong Kong University students' national identity through studying abroad. *Asian Education and Development Studies*, 8(2), 233-247. <https://doi.org/10.1108/AEDS-05-2017-0045>
- Cheng, V. (2020). The misrepresentation of Hong Kongness. *Museum Worlds*, 8(1), 149-167. <https://doi.org/10.3167/armw.2020.080111>
- Chung, F. M. Y. (2021). Translating culture-bound elements: A case study of traditional Chinese theatre in the socio-cultural context of Hong Kong. *Fudan Journal of the Humanities and Social Sciences*, 14(3), 393-415. <https://doi.org/10.1007/s40647-021-00322-w>
- Dacholfany, M. I., Matiala, T. F., Mokodenseho, S., & Hanum, G. K. (2023). Analyzing the landscape of education management research: A bibliometric analysis of scholarly publications on education management. *The Eastasouth Journal of Learning and Educations*, 1(2), 44-53. <https://doi.org/10.58812/esle.v1i02.106>
- Dai, Y. (2021). A behavioral cultural-based development analysis of entrepreneurship in China. *Administrative Sciences*, 11(3), Article 91. <https://doi.org/10.3390/admsci11030091>
- Demes, K. A., & Geeraert, N. (2013). Measures matter. *Journal of Cross-Cultural Psychology*, 45(1), 91-109. <https://doi.org/10.1177/0022022113487590>
- Dervin, F. (2012). Cultural identity, representation and othering. In J. Jackson (Ed.), *The Routledge handbook of language and intercultural communication* (pp. 181-194). Routledge. <https://doi.org/10.4324/9780203805640.ch11>
- Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research*, 133, 285-296. <https://doi.org/10.1016/j.jbusres.2021.04.070>
- Fan, T., & Wang, H. (2022). Research of Chinese intangible cultural heritage knowledge graph construction and attribute value extraction with graph attention network. *Information Processing & Management*, 59(1), Article 102753. <https://doi.org/10.1016/j.ipm.2021.102753>
- Hall, S. (2015). Cultural identity and diaspora. In P. Williams & L. Chrisman (Eds.), *Colonial discourse and post-colonial theory* (pp. 392-403). Routledge. <https://doi.org/10.4324/9781315656496>
- Ho, E. L. (2020). Leveraging connectivities: Comparative diaspora strategies and evolving cultural pluralities in China and Singapore. *American Behavioral Scientist*, 64(10), 1415-1429. <https://doi.org/10.1177/0002764220947754>

- Hu, Y., & Dai, K. (2021). Foreign-born Chinese students learning in China: (Re)shaping intercultural identity in higher education institution. *International Journal of Intercultural Relations*, 80, 89-98. <https://doi.org/10.1016/j.ijintrel.2020.11.010>
- Karim, S., Hue, M. T., & Ullah, R. (2021). Acculturative challenges among Pakistani secondary school students in Hong Kong. *International Journal of Intercultural Relations*, 82, 1-11. <https://doi.org/10.1016/j.ijintrel.2021.02.006>
- Kathina, M. M., Otieno, F. O., Gikonyo, P., Khayeka-Wandabwa, C., & Owaki, M. F. (2020). Chinese language and culture interplay in invigorating social development: A context of Kenya. *International Journal of Academic Research in Business and Social Science*, 10(4), 295-303. <https://doi.org/10.6007/IJARBS/v10-i4/7130>
- Khudhair, A., Li, H., Ren, G., & Liu, S. (2021). Towards future BIM technology innovations: A bibliometric analysis of the literature. *Applied Sciences*, 11(3), Article 1232. <https://doi.org/10.3390/app11031232>
- King, V. T. (2016). Conceptualising culture, identity and region: Recent reflections on Southeast Asia. *Pertanika Journal of Social Sciences and Humanities*, 24(1), 25-42.
- Lam, I. K. V., & Ryan, C. (2020). Can marketing create destination personality? The case of Macau. *Tourism Critiques: Practice and Theory*, 1(1), 5-20. <https://doi.org/10.1108/TRC-03-2020-0006>
- Lee, K. H., & Wong, D. T. K. (2017). Chinese popular music as a musical heritage and cultural marker of the Malaysian Chinese. *International Journal of Heritage Studies*, 23(10), 989-1001. <https://doi.org/10.1080/13527258.2017.1362577>
- Li, R. (2022). Chinese folk music: Study and dissemination through online learning. courses. *Education and Information Technologies*, 27(7), 8997-9013. <https://doi.org/10.1007/s10639-022-11003-w>
- Li, T., Tang, J., Karupiah, V., Li, Y., Xu, N., & Chen, J. (2020). Co-culture of *Trichoderma atroviride* SG3403 and *Bacillus subtilis* 22 improves the production of antifungal secondary metabolites. *Biological Control*, 140, Article 104122. <https://doi.org/10.1016/j.biocontrol.2019.104122>
- Lin, W., & Yang, R. (2019). To borrow or to mix? A cultural approach to observing Taiwan's Higher Education. *Higher Education Forum*, 16(1), 143-159.
- Lin, Z., & Yang, L. (2019). Individual and collective empowerment: Women's voices in the MeToo movement in China. *Asian Journal of Women's Studies*, 25(1), 117-131. <https://doi.org/10.1080/12259276.2019.1573002>
- Liu, L. A., Adair, W. L., Tjosvold, D., & Poliakova, E. (2018). Understanding intercultural dynamics: Insights from competition and cooperation in complex contexts. *Cross Cultural & Strategic Management*, 25(1), 2-31. <https://doi.org/10.1108/CCSM-11-2017-0151>
- Liu, M., & Zhong, J. (2020). Between national and local: Identity representations of post-colonial Hong Kong in a local English newspaper. *Discourse, Context & Media*, 36, Article 100401. <https://doi.org/10.1016/j.dcm.2020.100401>
- Loewenberg, D. (2020). A digital path to a diploma. *Education Next*, 20(1), 50-56. <https://www.educationnext.org/digital-path-to-diploma-online-credit-recovery-classes/>
- Lou, N. M. (2021). Acculturation in a postcolonial context: Language, identity, cultural adaptation, and academic achievement of Macao students in Mainland China. *International Journal of Intercultural Relations*, 85, 213-225. <https://doi.org/10.1016/j.ijintrel.2021.10.004>
- Lowe, J. (2021). The affective cultural commons of Hong Kong's pro-democracy movement and figurations of the anonymous protestor. *Continuum*, 35(4), 614-633. <https://doi.org/10.1080/10304312.2021.1933905>

- Luo, M., & Xiao, J. (2022). Institutional policing of Western heritage: The case of Shanghai Symphony Museum. *Museum Management and Curatorship*, 37(4), 418-436. <https://doi.org/10.1080/09647775.2021.2023903>
- McIntyre, S. (2019). Soft power and the role of art in the development of Taiwan–mainland China relations 1. In J. Beattie, R. Bullen & M. Galikowski (Eds.), *China in Australasia* (pp. 151-169). Routledge. <https://doi.org/10.4324/9781351203470-10>
- Ng, V. S. (2021). Dual-identity incompatibility as a cause of radicalization: A case study of Hong Kong. *Issues & Studies*, 57(01), Article 2150004. <https://doi.org/10.1142/S1013251121500041>
- Richards, G., & King, B. (2022). The experience of cultural festivals: Evidence from Hong Kong. *Journal of Policy Research in Tourism, Leisure and Events*, 14(3), 296-309. <https://doi.org/10.1080/19407963.2022.2033249>
- Saad, C. S., Damian, R. I., Benet-Martínez, V., Moons, W. G., & Robins, R. W. (2013). Multiculturalism and creativity: Effects of cultural context, bicultural identity, and ideational fluency. *Social Psychological and Personality Science*, 4(3), 369-375. <https://doi.org/10.1177/1948550612456560>
- Sengupta, R. (2023). Negotiating minority identities in Europe through cultural preservation: Music as heritage among the Dutch Hindustani diaspora in the Netherlands. *Journal of Intercultural Studies*, 45(1), 111-126. <https://doi.org/10.1080/07256868.2023.2244899>
- Shen, F. C., & Liao, K. Y. H. (2022). Educational channeling, internalized stereotyping, expectations fulfillment and major choice on Asian Americans' major satisfaction: A moderated mediation model. *Journal of Vocational Behavior*, 132, Article 103647. <https://doi.org/10.1016/j.jvb.2021.103647>
- Song, P., & Wang, X. (2020). A bibliometric analysis of worldwide educational artificial intelligence research development in recent twenty years. *Asia Pacific Education Review*, 21, 473-486. <https://doi.org/10.1007/s12564-020-09640-2>
- Sung, C. C. M. (2022). Identity conflicts and negotiations: Narratives of Asian international students' experiences in Hong Kong. *Journal of Intercultural Studies*, 43(5), 639-656. <https://doi.org/10.1080/07256868.2022.2063818>
- Tang, D. T. (2021). The production of contemporary sociological knowledge in Hong Kong. *Journal of Historical Sociology*, 34(1), 120-133. <https://doi.org/10.1111/johs.12310>
- Telzer, E. H., Fuligni, A. J., Lieberman, M. D., Miernicki, M. E., & Galván, A. (2014). The quality of adolescents' peer relationships modulates neural sensitivity to risk taking. *Social Cognitive and Affective Neuroscience*, 10(3), 389-398. <https://doi.org/10.1093/scan/nsu064>
- Wang, D. (2016). Learning or becoming: Ideology and national identity in textbooks. for international learners of Chinese. *Cogent Education*, 3(1), Article 1140361. <https://doi.org/10.1080/2331186X.2016.1140361>
- Wang, Q. (2022). The digitisation of intangible cultural heritage oriented to inheritance and dissemination under the threshold of neural network vision. *Mobile Information Systems*, Article 6323811. <https://doi.org/10.1155/2022/6323811>
- Wei, L. (2014). Translanguaging knowledge and identity in complementary classrooms for multilingual minority ethnic children. *Classroom Discourse*, 5(2), 158-175. <https://doi.org/10.1080/19463014.2014.893896>
- Wells, G. A., Hsieh, S. C., Zheng, C., Peterson, J., Tugwell, P., & Liu, W. (2022). Risedronate for the primary and secondary prevention of osteoporotic fractures in postmenopausal women. *Cochrane Database of Systematic Reviews*. <https://doi.org/10.1002/14651858.CD004523.pub4>



- Winden, K. P. (2023). *“Do you feel comfortable existing in this space?”: A qualitative exploration of college students’ sense of belonging, connectedness, and campus climate* (Publication No. 30486010) [Doctoral dissertation, State University of New York at Buffalo]. State University of New York at Buffalo ProQuest Dissertations & Theses. <https://www.proquest.com/dissertations-theses/do-you-feel-comfortable-existing-this-space/docview/2828298764/se-2>
- Wu, Q., Ou, Y., & Jordan, L. P. (2020). Mapping the cultural identities of youths in Hong Kong from a social capital perspective. *Social Sciences*, 9(11), Article 205. <https://doi.org/10.3390/socsci9110205>
- Wyatt, L. C., Ung, T., Park, R., Kwon, S. C., & Trinh-Shevrin, C. (2015). Risk factors of suicide and depression among Asian American, Native Hawaiian, and Pacific Islander youth: A systematic literature review. *Journal of Health Care for the Poor and Underserved*, 26(2), 191-237. <https://doi.org/10.1353/hpu.2015.0059>
- Zhang, J. (2019). Educational diversity and ethnic cultural heritage in the process of globalization. *International Journal of Anthropology and Ethnology*, 3, Article 7. <https://doi.org/10.1186/s41257-019-0022-x>
- Zhao, K. (2020). Made in contemporary China: Exploring the national identity of Chinese international undergraduate students in the US. *Studies in Higher Education*, 45(12), 2451-2463. <https://doi.org/10.1080/03075079.2019.1615046>
- Žukauskas, P., Vveinhardt, J., & Andriukaitienė, R. (2018). Philosophy and paradigm of scientific research. In P. Žukauskas, J. Vveinhardt, & R. Andriukaitienė (Eds.), *Management Culture and Corporate Social Responsibility* (pp. 506-518). InTech. <https://doi.org/10.5772/intechopen.70628>