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REVIEW PAPER

Factors Associated with Professional Mental Help-Seeking Among U.S. Immigrants: A Systematic Review

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Abstract

Structural and cultural barriers have led to limited access to and use of mental health services among immigrants in the United States (U.S.). This study provided a systematic review of factors associated with help-seeking attitudes, intentions, and behaviors among immigrants who are living in the U.S. This systematic review was performed using Medline, CINAHL, APA PsycInfo, Global Health, and Web of Science. Qualitative and quantitative studies examining mental help-seeking among immigrants in the U.S. were included. 954 records were identified through a search of databases. After removing duplicates and screening by title and abstract, a total of 104 articles were eligible for full-text review and a total of 19 studies were included. Immigrants are more reluctant to seek help from professional mental health services due to barriers such as stigma, cultural beliefs, lack of English language proficiency, and lack of trust in health care providers.

Keywords Help-seeking · Mental · Immigrants · Attitude · Behavior

Introduction

According to the World Health Organization (WHO), mental health is defined as "a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively, and is able to make a contribution to his or her community" [1] p1]. The National Survey on Drug Use and Health (NSDUH) in 2020 reported that 21% (52.9 million) of adults aged 18 or older experienced one mental illness [2]. Also, the COVID-19 pandemic has changed the lives of Americans and adversely affected their mental health [3]. During the pandemic, 40.0% of U.S. adults experienced one or more economic stressors and 27.8% had probable depression [4]. In addition, more than one out of four U.S. adults showed symptoms of serious mental distress during the pandemic. These high rates of mental distress have clinical implications for mental health and well-being, including seeking professional care services. Notably, finding accessible mental health care was difficult before the pandemic for many Americans. This challenge was exacerbated by stay-at-home orders and stress due to the rising number of COVID-19 deaths in health care settings [5–7].

According to the U.S. Census Bureau report, individuals in a racial minority communities will account for more than half of the population by 2044 which will make the U.S. a majority-minority country [8]. New American Economy reported that more than 44.7 million immigrants were living in the U.S. in 2019 [9]. Although underrepresented minority groups showed a greater tendency to develop anxiety, depression, and somatic disorders, there are contradictory

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findings about this greater tendency [10–12]. For example, Arab Americans reported higher levels of depression and anxiety compared to the U.S-born Arab Americans while U.S-born Latinos showed higher rates of mental issues than Latino immigrants [13, 14].

Mental health concerns among asylum seekers and refugees in the U.S. are becoming an increasing public health issue as this population rises [15, 16]. Besides, undocumented immigrants are more likely to experience mental disorders due to additional stressors such as unpaid salaries, limited institutional supports, forced labor, and legal issues [16–18]. Mental problems among minorities also may result in increasing disability, reducing quality of life, and rising premature death rates, which are linked to the huge cost of care and economic loss [19]. Therefore, a thorough and multi-disciplinary approach is needed to focus on immigrants' mental needs including overcoming obstacles for seeking mental care [15, 20, 21].

The mental help-seeking process may be affected by different factors such as individual, social, and cultural aspects [22]. Professional or formal mental health services can be provided by a wide array of mental health professionals, while nonprofessional or informal services may be provided by family members, relatives, friends, and online resources. Immigrants are less likely to seek professional services than U.S. born due to various factors [23–25]. For example, a review study highlighted the importance of cultural barriers such as stigma, acculturation issues, preferences for non-clinical treatments, and lack of trust in formal mental health care. They also indicated significant barriers to access including English language fluency, limited awareness of mental health services, high cost of mental health services, lack of health insurance, and limited access to professional services among U.S. immigrants [23].

Understanding accessibility and utilization of mental care services such as facilitators and barriers is essential to ensure that these services meet immigrants' needs. There have been review studies targeted at a specific immigration group in the U.S., including Asian Americans, East Asians, and Muslims [26–28]. Some review studies were not established based on theories; hence, some challenges may arise with the interpretation of the results, understanding the relationships of variables, and conceptualizing of the mental help-seeking process [29–32]. Furthermore, there are unique characteristics in the U.S. due to its culture and language diversity. This diverse population offers a suitable context to add evidence on differences and similarities of mental help-seeking process among various cultural groups. Categorizing factors associated with help-seeking process based on the Theory of Planned Behavior (TPB) may elucidate areas of focus to develop coherent interventions and new standards. In addition, by meticulously looking at the unique cultural values among immigrants, culturally appropriate interventions can be designed and implemented to facilitate this process. Many scholars also have recommended conducting studies on seeking mental health services among U.S. immigrants due to inconsistent findings across diverse cultural groups [23, 24, 28, 33–35]. Therefore, this systematic review study aimed to draw an appropriate framework to explore associated factors with mental help-seeking attitudes, intentions, and behaviors based on TPB constructs among U.S. immigrants.

Theoretical Framework

Theory of Planned Behavior (TPB) was used to develop a theoretical foundation for the aims of this systematic review. TPB is considered as an extension of the Theory of Reasoned Action [36]. Figure 1 shows the constructs of TPB, which proposes that an individual's attitudes toward a behavior, subjective norms associated with the behavior, and perceived control over the behavior are important cognitive predictors of intentions to do the behavior [37]. For example, negative attitudes toward seeking mental services were related to decreased help-seeking behavior [38–41]. Subjective norms are defined as "the perceived pressure from or approval by significant others for performing a certain behavior" [42] p3]. Subjective norms have a significant role due to the higher rate of stigma toward mental issues [43–47]. Also, behavioral control is a very important element that determines intention since an adequate control over individuals' behaviors leads them to perform their intentions [36]. Behavioral control is essential since seeking mental care is not totally voluntary and affected by a variety of factors such as language proficiency, time, mental care cost, knowledge about availability, and awareness of the new cultural expectations [26, 48–50]. The need of theory-based mental health studies using theoretical frameworks were also recommended by previous researchers [41, 51, 52].

Methods

Search Strategy

This systematic review was performed using a comprehensive search through Medline, CINAHL, APA PsycInfo, Global Health, and Web of Science, locating articles published between January 2011 and April 2021. The Zotero bibliography software was used to collect and manage the references [53]. The results of this systematic review are reported in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) [54]. Appropriate MeSH (Medical Subject Headings) terms were applied to find relevant articles to the topic based on PICO

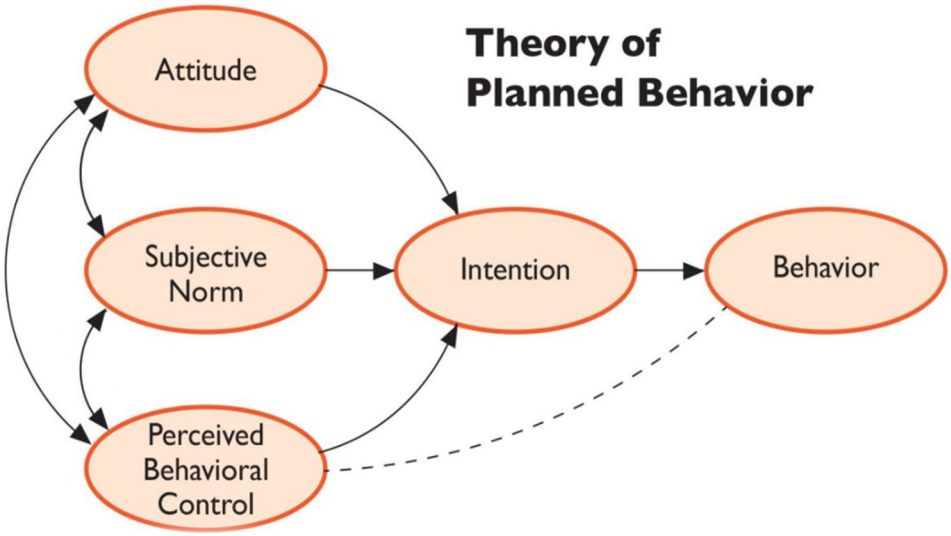

Fig. 1 Theory of planned behavior (TPB) [37]

elements (Population, Intervention, Outcome). Search terms and identified records are shown in Appendix A.

Eligibility Criteria

Table 1 indicates the inclusion and exclusion criteria for this systematic review.

Quality Assessment of Studies

The quality of cross-sectional, experimental, and qualitative studies was evaluated by the Joanna Briggs Institute (JBI) [55–57]. To determine the risk of bias, we evaluated 8 domains for cross-sectional, 13 domains for the Randomized Controlled Trial (RCT), 9 domains for the quasi-experimental, and 10 domains for qualitative studies. Each domain was assessed to determine the potential for high-risk bias (No = 0), low-risk bias (Yes = 1), unclear bias (U). The quality of mixed-method studies was assessed by Mixed Methods Appraisal Tool (MMAT) including five items based on "Yes", "No", and "Cannot tell" responses [58]. For cross-sectional studies, a 6 or above were considered "good" quality, 5 or 4 were "fair" quality, and below 4 were "poor". For RCTs, an 8 or above were considered "good" quality. A 5 or above were "good" quality for the quasi-experimental study. For qualitative studies, an 8 or above were considered "good" quality. For mixed-method studies, a 3 or above were considered "good" quality and below 3 was "fair" quality.

Table 1 Inclusion and exclusion criteria

Inclusion criteria	Exclusion criteria
Qualitative and quantitative studies examining attitudes, intentions, and behaviors toward seeking help for mental health problems (anxiety disorders, depression, post-traumatic stress, schizophrenia, bipolar, phobia, mania, personality disorders, somatic symptom disorder)	Literature reviews, systematic reviews, clinical reports, reflective papers, theoretical papers to advance a theory, dissertations, theses, editorials, books, methodological papers, and comments on the literature
Articles written in English language	The study outcomes did not include attitudes, intentions, and behaviors toward seeking help for mental health problems
The target population that includes immigrants, asylum seekers, and refugees living in the United States	The target population did not include one of these groups, such as migrants, asylum seekers, and refugees
The target population that includes first-generation immigrants living in the United States	Studies which did not report whether migrants were the first generation
Year of data collection between 2010–2020	Studies that focused exclusively on domestic violence, substance abuse, and suicide because these are not mental health disorders although they may lead to some mental health issues
Published between 2011–2021	The target population included international students

Results

Study Selection

Of the initial 954 records identified through searching databases, after removing duplicates and screening titles and abstracts, a total of 104 articles were eligible for the full-text review. A total of 19 studies met the eligibility criteria and 85 studies were excluded. Figure 2 shows the PRISMA Flow Diagram of the search strategy.

Study Characteristics

Fourteen studies used quantitative designs, of which 12 were cross-sectional [59–70] and two were experimental [71, 72]. Three studies used qualitative designs [73–75] and two studies used a mixed-methods design [76, 77]. Tables 2 and 3 summarize the study characteristics, study instruments, and descriptive results.

Major Findings

An adapted conceptual framework of determinants of professional mental help-seeking addressed by included studies

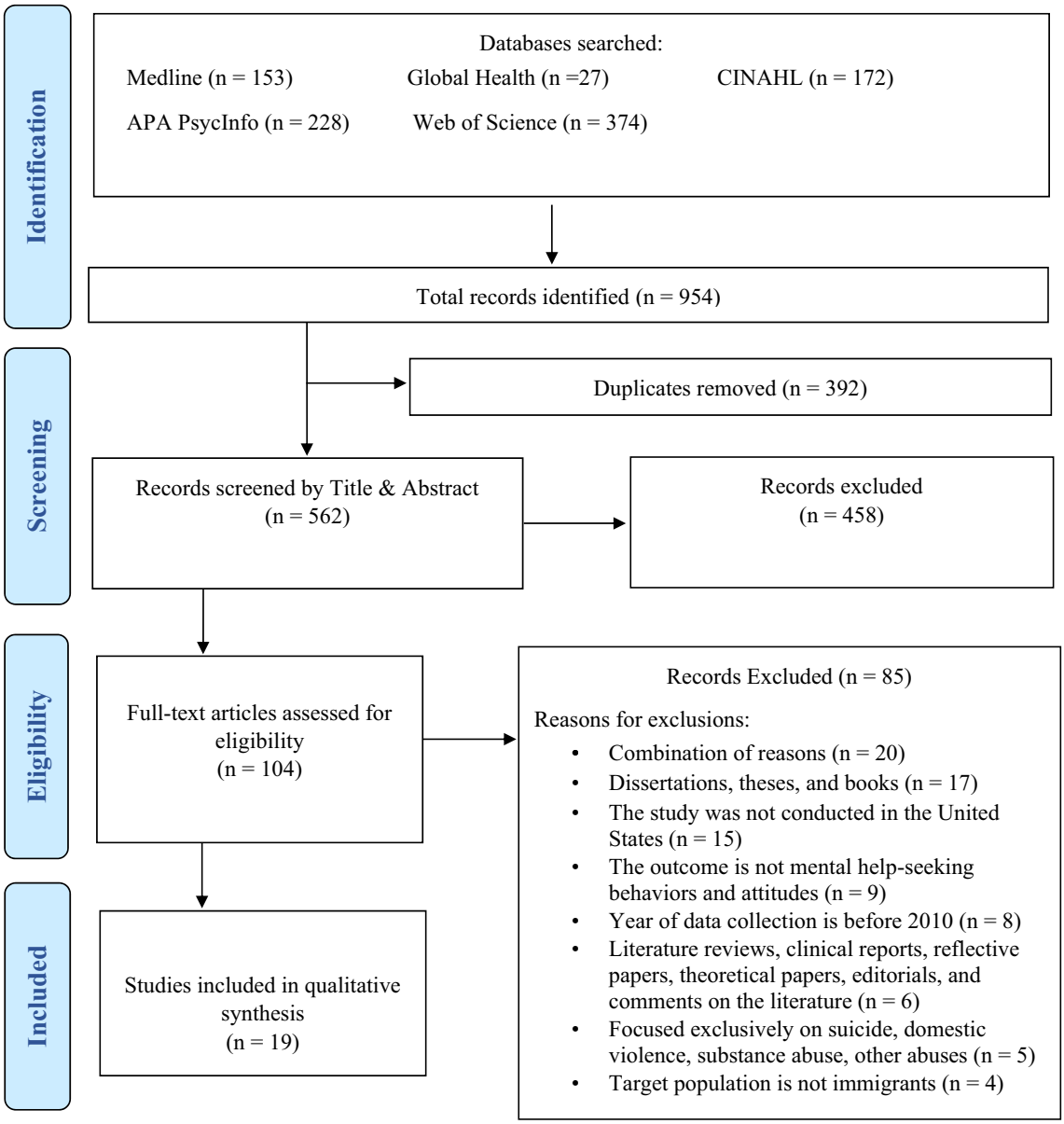

Fig. 2 PRISMA flow diagram of Search Strategy. *Note*. Preferred reporting items for systematic review and meta-analyses flow diagram [54]

Table 2 Study characteristics

Reference, year	Immigrant population (age)	Study Design	Sampling Strategy (sample size)	Study Locations (Settings)	Sample Gender (%)	Mental Status	Theoretical Framework
[59], 2020	Chinese (19–61)	Cross-sectional, correlational	Convenience (N = 229)	Texas, New York, and California (Chinese community centers, organizations, churches, and schools)	Males (39.3%) Females (60.7%)	No information	No theoretical framework
[61], 2020	Koreans (≥ 60)	Cross-sectional, correlational	Convenience, snowball, and purposeful (N = 2,150)	Los Angeles, New York City, Austin, Honolulu, and Tampa (multiple locations and events such as churches, temples, grocery stores, small group meetings, and cultural events)	Males (66.8%) Females (33.2%)	About 22% of the sample rating their mental health as either fair or poor	Theory of Planned Behavior (TBP)
[62], 2020	*Bhutanese* Nepali Indian (≥ 18)	Descriptive, cross-sectional	Convenience (N = 201)	Columbus, Ohio (Community locations)	Males (51.7%) Females (48.3%)	No information	No theoretical framework
[60], 2020	Chinese (18–61)	Cross-sectional, correlational	Purposive, snowball, and convenience (N = 251)	Texas, California, New York, Michigan, and Oklahoma (Chinese community centers, organizations, churches, and schools)	Males (39.1%) Females (59.7%) Unidentifiable gender (1.2)	No information	No theoretical framework
[71], 2020	Chinese Taiwanese (18–87)	Quasi-experimental (no control group)	Random (N = 215)	United states (online via Qualtrics)	Males (33%) Females (67%)	No information	No theoretical framework
[73], 2019	Bhutanese Nepali Indian (18–65)	Qualitative study	Convenience snowball (N = 67)	Western Massachusetts (The community members relayed study information in their community through word of mouth, by phone, and at formal and informal gatherings and cultural events)	Males (49.3%) Females (50.7%)	No information	The PEN-3 cultural model
[63], 2019	Pakistani Indian Palestinian Iraqi Egyptian Afghan Burmese Syrian (18–67)	Cross-sectional, correlational	Convenience (N = 166)	United States (Online via social media)	Males (60.2%) Females (39.8%)	84.9% have never had mental health visits	No theoretical framework

Table 2 (continued)

Reference, year	Immigrant population (age)	Study Design	Sampling Strategy (sample size)	Study Locations (Settings)	Sample Gender (%)	Mental Status	Theoretical Framework
[64], 2019	Filipino (18–67)	Cross-sectional, correlational	Convenience (N = 410)	United States (online via Qualtrics)	Males (60.2%) Females (21.2%) Unidentifiable gender (0.2%)	No information	Theories of Erikson and Marcia
[65], 2018	Vietnamese (18–64)	Cross-sectional, correlational	Simple random (N = 1,666)	The San Francisco Bay Area and the Greater Washington D.C area (a population-based telephone survey conducted by researchers at the University of California San Francisco)	Males (41.6%) Females (58.4%)	Respondents most often reported that their health was "good" or "fair."	No theoretical framework
[76], 2017	Vietnamese (27– 40)	Mixed method	Convenience and snowball (N = 15)	Northern California (grocery stores, community centers, obstetrician and pediatrician waiting rooms, as well as referrals from community partners and word of mouth)	Females (100%)	Only 5 participants were at a high risk of developing postpartum depression	No theoretical framework
[66], 2017	Mexican (Mean = 33.21)	Cross-sectional, correlational	Convenience (N = 100)	Phoenix, Arizona (local stores, churches, barbershops, and through word of mouth)	Males (40%) Females (60%)	No information	No theoretical framework
[67], 2016	Jamaican (18–78)	Cross-sectional, correlational	Convenience (N = 115)	New York City (organizations with high Jamaican membership such as clubs, churches or those provided services to Jamaican neighborhoods such as barber shops, beauty parlors)	Males (38.3%) Females (61.7%)	56% 0f participants showed a high level of psychological distress	No theoretical framework

Table 2 (continued)

Reference, year	Immigrant population (age)	Study Design	Sampling Strategy (sample size)	Study Locations (Settings)	Sample Gender (%)	Mental Status	Theoretical Framework
[77], 2015	Dominican Republic Ecuadorian Colombian (> 18)	Mixed method	Convenience (N = 177)	New York (the waiting room of the practice upon registering for their appointments)	Males (27%) Females (73%)	The depression severity was rated as follows: 7 (16%) had mild depression, 16 (36%) had moderate depression, 14 (31%) had moderately severe depression and 8 (19%) had severe depression	No theoretical framework
[78], 2014	Haitian (22–82)	Cross-sectional, correlational	Convenience (N = 150)	New England (various community agencies)	Males (39.9%) Females (60.1%)	No information	No theoretical framework
[69], 2014	Mexican (Mean = 30)	Secondary analysis, correlational	Convenience (N = 84)	Phoenix, Arizona (A swap meet in Arizona)	Males (52%) Females (48%)	Depression symptomatology (BDI-II): categories: no to minimal (scores 0–13; n = 65), mild (scores 14–19; n = 9), moderate (scores 20–28; n = 8), and severe (scores 29–64; n = 2)	Beck's cognitive theory of depression (CTD)
[72], 2013	Mexican and other Latinos (18–55)	Pretest–posttest randomized control group experimental	Random purposive and snowball (N = 142)	California, San Francisco (a large multiservice community clinic)	Females (100%)	The mean CES-D score was 19, suggesting a high level of depressive symptomatology	Social cognitive theory and a model of culture-centric narratives in health promotion
[70], 2012	Chinese (Mean = 48.3)	Descriptive, exploratory, correlational	Convenience (N = 516)	Houston, Texas (Chinese community centers such as cultural festivals, employment, and language classes, major Chinese shopping malls, Chinese churches, and temples)	Males (42.4%) Females (56.8%)	17.4% had depressive symptoms	No theoretical framework

Table 2 (continued)

Reference, year	Immigrant population (age)	Study Design	Sampling Strategy (sample size)	Study Locations (Settings)	Sample Gender (%)	Mental Status	Theoretical Framework
[74], 2012	Chinese (Mean = 54.3)	Qualitative study	Convenience (N = 42)	New York City (A community health center with locations in the Lower East Side of Manhattan and Flushing, Queens in New York City)	Males (35.7%) Females (64.3%)	Participants were adult patients who previously screened positive for depression but declined to participate in a depression care management study. The initial mean PHQ–9 score of these 42 enrolled participants when they were previously screened for the depression study was 11.1 (indicating moderate levels of depressive symptoms)	The Explanatory Model Interview Catalogue
[75], 2011	Mexican Argentinian (Mean = 24)	Qualitative study	Purposive (N = 20)	A Western state (A community health center)	Females (100%)	Postpartum Depression (score greater than 60 on the PDSS-Spanish Version.)	A framework of patient decision-making behavior

BDI Beck Depression Inventory, *CES-D* The Center for Epidemiological Studies-Depression, *PHQ* Patient Health Questionnaire, *PDSS* Panic Disorder Severity Scale

Table 3 Mental Help-Seeking Attitudes, Intentions, and Behaviors

	Reference	Outcome variable	Instrument(translated/English)	Descriptive results
Help-Seeking Attitudes	[59]	Help-seeking attitudes	Attitudes Towards Seeking Professional Psychological Help Scale – Short Form (Translated)	No information about help-seeking attitudes
	[62]	Perceptions toward seeking psychological care	The Belief toward Mental Illness Scale (BMI)	Total possible score range: 0–105; 55.2% of participants believed that it is shameful to see a mental health counselor and is a sign of weakness (52.2%). 71.1% of participants believed that others would look unfavorably on a person if they knew that he/she sought out a mental health counselor. Only 17.9% (n = 36) believed that a person should hide information that he/she has seen a mental health counselor
	[60]	Help-seeking attitudes	Attitudes Towards Seeking Professional Psychological Help Scale – Short Form (Translated)	27.5% of participants did report having sought help from a mental health professional ($n = 69$). 24.3% of participants did report having sought help from friends (n = 43). 13.6% of participants did report having sought help from family (n = 24)
	[71]	Attitudes towards professional psychological help-seeking	Attitudes Towards Seeking Professional Psychological Help Scale – Short Form (both Translated and English)	Total possible score range: 11–40; Mean ± SD: 32.22 ± 4.62
	[73]	Seeking mental health support	Qualitative (Focus Group Discussions)	Family members provided the initial frontline support to persons with mental health problems. If family support did not work, they consulted with their relatives and trustworthy community members for further assistance. Psychological factors such as fears of emotions, social norms, beliefs, and self-esteem associated with cultural norms and values influenced seeking mental health support
	[63]	Attitudes toward seeking and using formal mental health services	Attitudes Toward Seeking Professional Psychological Help Scale (Translated)	Total possible score range: 1.53–3.87; Mean ± SD: 2.77 ± 0.408
	[64]	Mental help-seeking attitudes	Inventory of Attitudes Toward Seeking Mental Health Services (IASMHS) (both Translated and English)	Total possible score range: no information; Mean ± SD: 58.13 ± 12.20
	[66]	Attitudes towards professional mental health services	Attitudes Towards Seeking Professional Mental Health Services-short (Translated)	Total possible score range: no information Mean ± SD: 26.43 ± 6.54
	[67]	Attitudes towards professional mental health care	Attitudes towards professional mental health care were assessed by a 13-item scale from the Help Seeking Attitude Scale (English)	Participants viewed mental illness as mostly caused by emotional/mental problems (35.4%), too much stress (35.4%), drugs such as crack and cocaine (27.1), and neurological or brain disorders (26%)
	[69]	Perception of familial help-seeking	Perception of familial Help-seeking (Translated)	Total possible score range: 1–7; Family support: Mean ± SD: 6.31 ± 1.46; Comfort with family: Mean ± SD: 4.75 ± 2.56
Help-Seeking Intentions	[72]	Intent to seek treatment	Intent to seek treatment (Translated)	Total possible score range: 0–32; Mean ± SD: 1.10 ± 2.99 (experimental group); Mean ± SD: -0.70 ± 4.46 (control group)

Table 3 (continued)

	Reference	Outcome variable	Instrument(translated/English)	Descriptive results
Help-Seeking Behaviors	[61]	Seeking professional mental health service use	Professional mental health service use (Translated)	The rate of professional mental health service use was 5.7%
	[65]	Help-seeking preferences for depression	To assess help-seeking preferences for depression, interviewers read a clinical depression vignette	Total possible score range: 0–7; Mean ± SD: 3.7 ± 1.4
	[76]	Mental help-seeking behavior	Interviews were conducted to assess factors that influence a person's decision to seek treatment for mental health services	Postpartum traditions played important roles in their well-being and maintaining strong cultural values. However, some reported feelings of isolation and the desire to be able to carry out postpartum traditions more frequently. Many who had reported sadness said that they would not seek professional help; all had felt that their condition was not severe enough to warrant help-seeking
	[77]	Mental help-seeking behaviors	History of Help-seeking behavior, Yes/No	31% of participants have ever gone to a doctor or other health care professional for emotional problems, mental health problems or problems with alcohol or drugs; (Mean ± SD: 54 ± 31)
	[68]	Mental help-seeking behaviors	Neighborhood and Family Questionnaire (NFQ) (Translated)	Total possible score range: 0–22; Mean: 13
	[70]	Mental help-seeking behaviors	Help-seeking behavior survey	34.9% of the respondents preferred seeking advice from friends or relatives, followed by 30.2% not showing any preference. 15.7% preferred consulting physicians, whereas others assumed that the problem would take care of itself (7.6%). 5% would consult religious leaders, whereas others would seek assistance from mental health professionals (4.7%) or herbal doctors (1.9%)
	[74]	Mental help-seeking behaviors	Qualitative (interviews)	The majority of participants used lay help (55%) and general health care (31%) to cope with depression and very few used mental health treatment (17%) or spirituality (17%)
	[75]	Mental help-seeking behaviors	Qualitative (interviews)	Participants identified personal barriers including beliefs about emotional health, the perceived stigma of mental illness, hesitancy to seek treatment for symptoms of PPD, and cultural beliefs about motherhood and the role of women. Social barriers included inadequate social support, immigration status, and limited English proficiency. Health care delivery barriers included financial and time constraints and lack of childcare and transportation

SD standard deviation, *PPD* Post-Partum Depression

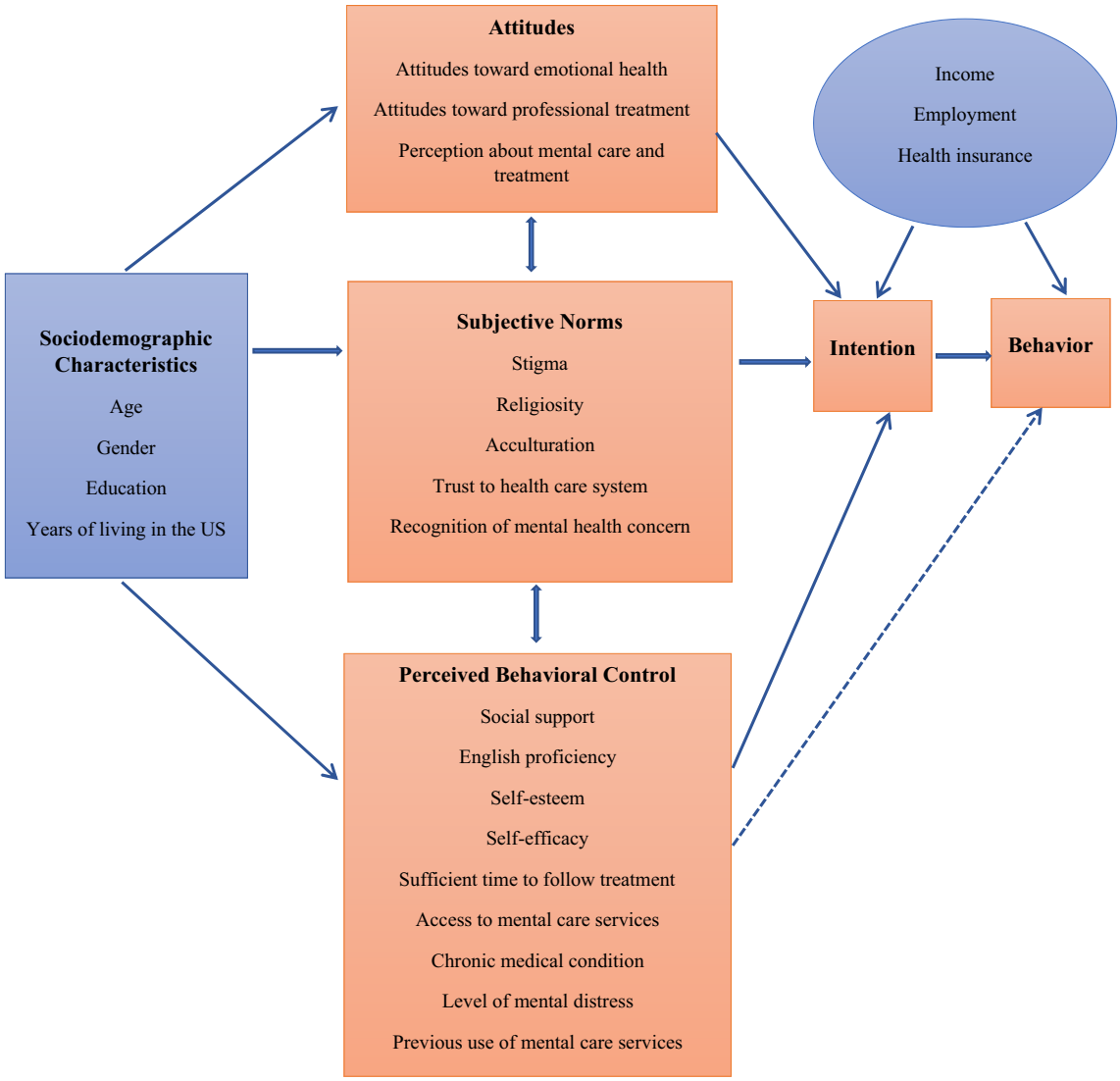

Fig. 3 Summary of determinants of professional mental help-seeking process based on TPB

based on constructs of the TPB (Fig. 3). Many of the studies showed consistent findings about participants' willingness to seek mental care services from family members and friends as the primary frontline support to individuals with mental issues [60–62, 65, 68, 70, 73, 74, 76, 77].

Regarding sociodemographic characteristics, age, gender, education, and income were factors associated with the mental help-seeking process. Some studies indicated that females were more likely to seek professional mental care compared to males [60, 71, 77]. However, one study showed that female Chinese Americans were more reluctant to seek mental help from physicians compared to males. They showed that although females are more willing to seek advice for their mental problems, they prefer to seek help from their friends and relatives who speak their language [70]. There were also inconsistent findings about the association of age with the help-seeking process. Although there was no significant relationship between age and mental help-seeking attitudes among Chinese Americans [60], Bhutanese immigrants 45 years and older reported mental care access challenges more frequently than other age groups among [62]. In addition, higher levels of education and income [59, 62, 63, 67, 70, 71] and having health insurance facilitated seeking mental care [65, 74, 76].

Table 4 summarizes the facilitators of the mental help-seeking process using TPB constructs. Among subjective norms that are important factors in collectivistic cultures [78], a lower level of stigma was a significant facilitator of seeking professional mental care [59, 60, 63, 67, 75, 76]. Conversely, while there was no association between individual stigma toward clinical high-risk phase for psychosis defined as "a clinical syndrome denoting a risk for

Table 4 Facilitators of mental help-seeking attitudes, intentions, and behaviors

TPB constructs	Facilitators	References
Sociodemographic characteristics	Being male	[70]
	Being female	[60, 71, 77]
	Being older	[60]
	Being younger	[62]
	Being employed	[70]
	Higher level of education	[59, 62, 63, 67, 71]
	Higher level of income	[67, 70]
	Having health insurance	[65, 74, 76]
	Having financial resources	[76]
	Longer years of residence in the United States	[59]
Subjective norms	Lower level of stigma	[59, 60, 63, 67, 75, 76]
	Lower level of religiosity	[66]
	Higher level of acculturation	[61, 63, 64]
	Trust to health-care practitioners	[73]
	Recognition of mental health concern	[61]
	Lower degree of cultural and traditional beliefs	[67]
Perceived behavior control	Having previous mental health service use	[59, 62]
	Lower level of mental distress	[61, 67, 69]
	Having chronic medical conditions	[61]
	More access to counseling services and interpreter facilities	[62, 73, 75]
	Higher level of social support	[64, 65]
	Having formal help resources	[63]
	Lower level of functional abilities	[61, 77]
	Higher level of knowledge regarding mental illnesses	[70]
	Higher level of English proficiency	[62, 75]
	Having sufficient time to follow treatment	[74, 75]
	Higher level of self-esteem and self-efficacy	[73]
Attitude	Positive beliefs about emotional health and the treatment of depression	[75]
	Sufficient perception of mental health treatment	[74]

TPB theory of planned behavior

overt psychosis" [79] p2] and help-seeking attitudes, family stigma was unpredictably related to more positive attitudes among Chinese and Taiwanese immigrants. Possibly, issues and behaviors that require professional help include those that are threatening to an individual's social group, and not personal experiences of mental distress or general interpersonal issues [71]. To assess the perceived behavioral control, a lower level of mental distress and more access to counseling services facilitated seeking mental care [61, 62, 67, 72, 73, 75]. Also, immigrants with long working hours, having difficulty involved in taking leave, and unavailable transportation services were less likely to seek treatment due to insufficient time [74, 75]. To assess attitudes toward seeking mental help, favorable beliefs and perceptions about mental health have facilitated seeking professional help [74, 75].

Study Quality

Among 14 studies with quantitative designs, 12 cross-sectional studies were of "good" quality [59–70]. All three qualitative studies were of "good" quality [73–75]. Also, of two mixed-method studies, one study was considered as "good" quality [76] and one was "fair" quality [77]. Two experimental studies were of "good" quality [71, 72]. All cross-sectional studies received high scores for clear definition of inclusion criteria and use of valid and reliable measurement tools. However, half of the cross-sectional studies did not identify confounding factors which may affect the relationships of main study outcomes. Among two experimental studies, the RCT study failed to blind participants and assessors [72] and the quasi-experimental study failed to consider a control group and multiple measurements of the outcome before and after the intervention [71]. Overall, all qualitative studies used appropriate strategies for research methodology

and the interpretation of results. One of the mixed-method studies also failed to get a good score due to the inadequate integration of qualitative and quantitative findings as well as insufficient explanations about inconsistencies between qualitative and quantitative results [77].

Discussion

We conducted this systematic review to examine factors related to professional mental help-seeking attitude, intention, and behavior among immigrants, asylum seekers, and refugees living in the U.S. using the TPB constructs. Our results highlighted the importance of informal help-seeking behaviors across all included studies. Similarly, previous studies also found that the acculturation orientation might considerably affect help-seeking preferences when an immigrant maintains traditional and cultural beliefs [80–83]. Acculturation orientations is "the maintenance of one's culture of origin and the extent to which minority groups actively participate in the mainstream culture" [83] p2]. For example, people from Asian cultures preferred to get help from family and friends since seeking professional help is considered shameful and a violation of family coherence [84]. Likewise, there was a negative relationship between Asian cultural values and positive mental help-seeking attitudes [85]. Conversely, no significant relationship between acculturation levels and professional mental help-seeking attitudes was found among Iranian Americans due to improving knowledge about mental issues, reducing stigma, and more available resources [86]. Our findings also emphasized the significance of acculturation levels and traditional values to address the mental help-seeking process and implement interventions due to the complexity of help-seeking behaviors among diverse immigrant groups.

TPB Constructs

Among subjective norms as an essential component of TPB, acculturation levels and cultural beliefs affected the process of mental help-seeking. Our results indicated that factors such as longer years of residence in the U.S., and a higher level of English proficiency helped immigrants to be more acculturated to the U.S. Furthermore, more acculturated immigrants were more likely to seek professional mental help. Our findings also highlighted the importance of the stigma as a topmost barrier to seeking professional help. Similarly, previous research revealed that the stigma negatively affected help-seeking attitudes and behaviors among western Muslims based on their cultural heritage [87]. Vietnamese Americans also showed a higher level of mental illness stigma that resulted in being worried and fearful of break in confidentiality and the feelings of embarrassment and shame, consequently making them less likely to seek professional care [82, 88]. The critical role of stigmatizing attitudes directly or indirectly has been addressed among Asian Americans [26, 89], Muslims [28, 87], Filipino [90], and Latin American [91].

Another important component of TPB is perceived behavior control [36]. According to our findings, more access to mental care services, availability of interpreters, and culturally appropriate services were facilitators of the professional help, especially among refugees and asylum seekers [92]. Indeed, if mental health providers establish a trusting relationship without any biased attitudes and negative emotional impacts, immigrants tend to seek mental care [92, 93]. Also, the detrimental impact of cultural incompetence of professional mental help resources was addressed by several studies [92, 94]. Providing mental care based on the patient's preferred language is especially important as mental care services rely greatly upon verbal interactions for communicating important information including complicated emotions, experiences, and symptoms [92, 95]. Also, access to bilingual mental care providers and interpreter facilities lessen the linguistic mismatch between patients to develop a trusting relationship without judgmental behaviors [10]. Despite existing evidence on important advantages of using bilingual mental health workers, their multidimensional roles and contributions remain underrecognized and need future research [92]. Not only cultural differences but also institutional and organizational policies in health care facilities limited access to mental care services [32].

The attitude toward professional mental help-seeking is considered a key construct of TPB. Our findings showed that favorable attitudes and positive beliefs about professional mental help-seeking and perceptions of mental care helped immigrants to understand the importance of appropriate services. Conversely, financial instability may prevent them from seeking care, as similarly mentioned by previous studies [96, 97]. Also, consistent with our results, studies among Asian Americans revealed important roles of stigmatizing attitudes, previous experiences of mental health services, and cultural mistrust [98, 99].

Our findings indicated that sociodemographic characteristics are important to study the mental help-seeking process due to their relationships with TPB constructs. Based on our results, women are more proactive to seek professional mental health care services due to their favorable opinions of professional help-seeking [80, 86]. Additionally, traditional gender roles can lead to this difference between men and women in terms of help-seeking behaviors. For example, a sense of being more independent among males may foster a greater perceived risk that results in a low self-esteem and inability to manage their mental issues [99]. However, some studies found no relationship between gender and mental help-seeking endorsement [89, 100]. A higher level of

Table 5 Implications for research and practice

Implications for research	Implications for mental health care providers
Future studies on factors related to the mental help-seeking process with an identified mental health problem to describe how a mental disorder affects this process	Improving mental health providers' knowledge about mental health needs of diverse racial and ethnic groups
Future studies with culturally appropriate interventions and long-term follow-ups to evaluate the efficacy and assess different patterns of the help-seeking process	Developing a trusting interaction with immigrants and providing an unbiased environment for them to talk about their mental issues
Future mixed-methods studies to elaborate determinants of professional mental help-seeking behaviors by integrating qualitative and quantitative findings especially in understudied populations	Being aware of cultural sensitivities, values, and norms of diverse cultural groups in addition to being cognizant of their own cultural, racial, and ethnic biases
Future studies on bilingual provider roles and access to interpreter facilities	Providing support resources such as appropriate interpreters, community organizations, family and friends, and religious practices
Future studies on the efficacy of anti-stigma interventions to improve help-seeking attitudes, intentions, and behaviors	Being more flexible about the time and locations of counseling that may encourage clients to seek professional resources and create a sense of comfort which is similar to what they receive from their family and friends
Future studies on first-generation immigrants to find specific cultural aspects related to mental health as well as compare their challenges with the second-generation groups	Providing online mental care services to overcome barriers related to insufficient time, long working hours, and inaccessible transportation

education also may facilitate the mental help-seeking process which is consistent with previous studies [86, 101].

In general, U.S. immigrants reported a combination of barriers and facilitators to seek professional mental care services, thus supporting the idea that associated factors with seeking care play important roles in the context of improving mental health. Although all 19 studies were conducted among U.S. immigrants who share a similar context, each specific group follow their own traditional, cultural, and religious beliefs. It is unrealistic to think that immigrants will engage in mental care activities out of their cultural beliefs as the potential impacts of these beliefs were discussed. Therefore, culturally based measures should be taken based on the situation, context, and challenges immigrants face. Also, reducing stigma toward mental illnesses using multidisciplinary community-based approaches highlights the significance of facilitating this process from sociocultural to organizational aspects.

Limitations of Findings

This systematic review has led to significant findings. However, some limitations should be noted. The majority of included quantitative studies used convenience sampling to recruit participants which restricts the generalizability of findings [102]. Most of the studies also used a cross-sectional design that limits the ability to make a causal inference [103]. In addition, self-report data may pose concerns about the social desirability and recall biases [104]. Although all studies mentioned the geographic areas for data collection, none of them discussed geographic accessibility as a barrier or facilitator of mental help-seeking. Most included studies also were not guided by theoretical or conceptual frameworks and failed to measure participants' mental status which could be an important factor to seek mental treatment.

Implications for Research and Practice

Findings of this review suggest key research gaps that need to be addressed in future research among immigrants. Table 5 indicates implications for research and practice.

Conclusions

According to the findings of the systematic review of 19 studies to evaluate factors associated with mental help-seeking among immigrants in the U.S., it is obvious that immigrants receive insufficient mental care. The current systematic review shows the importance of understanding socioeconomic features, subjective norms, acculturation, perceived behavioral control, and attitudes that affect seeking mental care services. Also, language barriers, lack of trust for the health providers, limited social support, and length of residence in the U.S. may predict the help-seeking process.

Appendix A: Search terms and identified records

Date	Database	Search terms P	Search terms O	N	Duplicates identified
4.20.2021	**Medline** *Limits:* English Date: 2011–2021	(Migrant OR immigrant OR refugee OR asylum seekers)		31,541	
4.20.2021	**Medline** *Limits:* English Date: 2011–2021	(Migrant OR immigrant OR refugee OR asylum seekers)	(MH: help seeking OR help-seeking) AND (mental health OR mental illness OR mental problems OR mental issues OR mental distress OR mental disorders OR psychological problems OR psych*issues OR psych* distress OR psych*illness OR psych* disease OR depression OR depressive symptoms OR anxiety disorders OR stress OR schizophrenia OR bipolar OR phobia OR mania OR personality disorders OR somatic symptom disorders OR post-traumatic OR posttraumatic OR PTSD OR psychosis OR psychiatric)	**153**	
4.20.2021	**CINAHL** *Limits:* English Date: 2011–2021	(Migrant OR immigrant OR refugee OR asylum seekers)		22,615	
4.20.2021	**CINAHL** *Limits:* English Date: 2011–2021	(Migrant OR immigrant OR refugee OR asylum seekers)	(MH: help seeking OR help-seeking) AND (mental health OR mental illness OR mental problems OR mental issues OR mental distress OR mental disorders OR psychological problems OR psych*issues OR psych* distress OR psych*illness OR psych* disease OR depression OR depressive symptoms OR anxiety disorders OR stress OR schizophrenia OR bipolar OR phobia OR mania OR personality disorders OR somatic symptom disorders OR post-traumatic OR posttraumatic OR PTSD OR psychosis OR psychiatric)	**172**	**80**
4.20.2021	**APA Psycinfo** *Limits:* English Date: 2011–2021	(Migrant OR immigrant OR refugee OR asylum seekers)		25,824	
4.20.2021	**APA Psycinfo** *Limits:* English Date: 2011–2021	(Migrant OR immigrant OR refugee OR asylum seekers)	(MH: help seeking OR help-seeking) AND (mental health OR mental illness OR mental problems OR mental issues OR mental distress OR mental disorders OR psychological problems OR psych*issues OR psych* distress OR psych*illness OR psych* disease OR depression OR depressive symptoms OR anxiety disorders OR stress OR schizophrenia OR bipolar OR phobia OR mania OR personality disorders OR somatic symptom disorders OR post-traumatic OR posttraumatic OR PTSD OR psychosis OR psychiatric)	**228**	**117**
4.20.2021	**Global Health** *Limits:* English Date: 2011–2021	(Migrant OR immigrant OR refugee OR asylum seekers)		12,153	

Date	Database	Search terms P	Search terms O	N	Duplicates identified
4.20.2021	**Global Health** *Limits:* English Date: 2011–2021	(Migrant OR immigrant OR refugee OR asylum seekers)	(MH: help seeking OR help-seeking) AND (mental health OR mental illness OR mental problems OR mental issues OR mental distress OR mental disorders OR psychological problems OR psych*issues OR psych* distress OR psych*illness OR psych* disease OR depression OR depressive symptoms OR anxiety disorders OR stress OR schizophrenia OR bipolar OR phobia OR mania OR personality disorders OR somatic symptom disorders OR post-traumatic OR posttraumatic OR PTSD OR psychosis OR psychiatric)	**27**	**22**
4.20.2021	**Web of Science** *Limits:* English Date: 2011–2021	(Migrant OR immigrant OR refugee OR asylum seekers)		109,021	
4.20.2021	**Web of Science** *Limits:* English Date: 2011–2021	(Migrant OR immigrant OR refugee OR asylum seekers)	(MH: help seeking OR help-seeking) AND (mental health OR mental illness OR mental problems OR mental issues OR mental distress OR mental disorders OR psychological problems OR psych*issues OR psych* distress OR psych*illness OR psych* disease OR depression OR depressive symptoms OR anxiety disorders OR stress OR schizophrenia OR bipolar OR phobia OR mania OR personality disorders OR somatic symptom disorders OR post-traumatic OR posttraumatic OR PTSD OR psychosis OR psychiatric)	**374**	**173**
Total items from databases: 954					
Total duplicates removed: 392					
Total items from databases after duplicates removed: 562					

Bold formatting indicates the final number of identified records when all search terms were included in searchingthrough databases. Duplicates or identical records among databases were highlighted in bold and removed

Registration This study has been registered with the International Prospective Register of Systematic Reviews (PROSPERO), registration number CRD42021252005.

Declarations

Conflict of interest Authors declare that there is no conflict of interest.

Ethical approval All authors certify that they have no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this manuscript. The authors have no relevant financial or non-financial interests to disclose. The systematic review research did not involve human participants or animal. Obtaining informed consents is not needed for this review study.

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