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Human Migration and Health: A Case Study of the Chinese Rural-to-Urban Migrant Population

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Chinese domestic migrants are often required to send money and other resources home, maintaining limited and not returning home for extended periods of time. Temporary displacement and associated stressors, such as sociocultural differences, levels of discrimination, family-related stress, and work-related stress, negatively impact various aspects of health. For instance, mental health is adversely affected, most often manifesting as major depressive disorder and generalized anxiety disorder. These changes not only impair migrants' overall health and quality of life but also influence larger social phenomena that undermine societal stability. These reviewed findings reflect a need for more research about this population and greater systemic changes to improve life for all Chinese citizens.

Keywords
Migration, International Public Health, Epidemiology, Mental Health, Sociology

Disciplines
Asian Studies | Community Psychology | Demography, Population, and Ecology | Growth and Development | Place and Environment

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Abstract

Human migration is a complex, ancient process driven by a variety of social, political, and economic factors. Modern migrants and their families are often compelled to migrate voluntarily in pursuit of new opportunities for study or work and, in extreme circumstances, involuntarily for safety and survival. Chinese domestic migrant populations were mobilized with China's early 1980s economic reform, which enabled rapid economic development largely dependent on urban factories. While this massive influx of young people predominantly from rural locales to urban locales seeking opportunity enabled China's rise as a world power, their move not only marked changing internal labor patterns but also shifts in population health.

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Abbreviations

CCP	Chinese Communist Party
SEZ	Special economic zones
WHO	World Health Organization
MDD	Major depressive disorder
GAD	Generalized anxiety disorders
PTSD	Post-traumatic stress disorder
CESD	Center for Epidemiologic Studies Depression scale
QOL	Quality of life
SAH	Self-assessed health
SRLS	Self-rated life satisfaction
BMI	Body mass index
CHNS	China Health and Nutrition Survey
MEIM	Multigroup Ethnic Identity Measure
SEM	Structural Equation Model

Introduction

Migration

Migration is defined as the movement of people over long distances and/or in large groups to a new area or country for some objective (Oxford Dictionaries, 2017). This objective is commonly in order to find a better life, but its meaning and individuals' abilities to achieve it vary. Individuals' identity from their place of origin influences their socioeconomic status and therefore the financial and social capital available to move and attain certain goals. For instance, a Han Chinese businessman who was born and raised in a major city will have different goals than a Chinese ethnic minority woman from a more rural, farming township. The businessman may want and be able to negotiate permanently living abroad to expand his business, whereas the woman may want to seek temporary work in a city after multiple crop failures but depends on family connections to make this a reality.

While these two hypothetical individuals serve as examples, their situations highlight characteristics and factors of migration. Types of migration, and therefore types of people that migrate, are discussed in terms of time, location, and choice (Virupaksha, Kumar, & Nirmala, 2014). Time can signify whether people intend to move temporarily or permanently to a new location. Their movement may be seasonal because of opportunities unique to different periods of the year. Location refers to how far the new location is in relation to the place of origin, and it is most commonly characterized by movement within or across sociopolitical boundaries (Virupaksha et al., 2014). For this reason, it is described in terms of international versus domestic movement. Even though sociopolitical boundaries are not the only boundaries moving people encounter, they are the boundaries that have been established and enforced by nation states. National governments are by no means the only actor in migration, but they are the most

visible and influential because of self-imposed migratory policies.

Choice is a third factor that determines whether people's migration is voluntary or involuntary (Virupaksha et al., 2014). This factor is often one of the most contentious because it is open to interpretation. In some instances, individuals' decisions are very clear. For instance, someone may choose to move across the country to attend university that is comparable to local universities. Their choice is their own. Refugees fleeing from Syria because of civil war brought on political turmoil are not making their own decision. They are compelled to leave because of threats to safety and security. In many cases, they do not have homes and communities to return to. However, individuals' decision to leave home in search of better job prospects and higher wages presents a gray area. While these individuals may be making their own decision to leave in hopes of bettering their lives, their choices are shaped by much larger forces.

The question becomes whether personal autonomy or larger systemic structures are more influential. For Chinese domestic migrants, I would argue larger forces have shaped their patterns of migration and perceived options for reasons that will become apparent later in this discussion. However, it is important to bear in mind that individuals that may appear to have chosen to not migrate did not have the means to move. A common misconception is that the poorest people are the ones to move out of poverty. In reality, they are the people without the human, financial, or social capital to move and improve their lives (Hear, Bakewell, & Long, 2012).

Factors of migration are grouped into the social, political, economic. Common examples include lack of job and education opportunities, wage disparities, poor medical care, poor quality of life, lack of freedom, threat to safety and security, discrimination, famine/drought, and natural

disasters. These drivers can be interpreted as push factors because they push people to migrate (Lee, 1966). The opposite of many of these factors, like increased job opportunities, security, and better prospects, serve as pull factors (Lee, 1966). They draw people to what are perceived to be more desirable locations. Hear et al. (2012) expands upon these ideas, stating that these factors are responsible for not only precipitating but also perpetuating migration.

According to Ernst Ravenstein (1885), there are several laws that govern the process of migration. His laws include the idea that migration flow generates return, migrants who move longer distances tend to choose big-city destinations, urban residents are less migratory than rural area residents, most migrants are adults, etc. (Ravenstein, 1885). Ravenstein's laws are based on observations of migratory patterns in the West, which was undergoing a second Industrial Revolution. New technologies and economic boom that created the Gilded Age were largely due to urbanization and migrant populations providing manpower. His observations are particularly relevant to China, which is experiencing a similar phenomenon made possible by migrant labor.

History of Internal Migration in Modern China

The founding of modern China brought with it multiple phases of migration associated with unique periods of Chinese history and the nation's journey as a socialist state. The first phase occurred after the CCP came to power and made Stalin-esque investments in heavy industry (Gautreaux, 2017). Increased manpower was needed to support industry, so peasants were recruited to urban centers. Their movement was facilitated by relaxed migratory policy, and their net movement lead to 20% of the Chinese population being concentrated in cities by 1960 (Gautreaux, 2017). For a predominantly agricultural country, this change was unprecedented.

The second phase began in 1961 and was characterized by a reversal in migration.

National leaders realized that if urban industrialization was prioritized, the agricultural sector would not be able to meet national demand (Gautreaux, 2017). The need for grain rationing in major cities underscored this issue, prompting the government to forcibly move 24 million workers to the countryside (Gautreaux, 2017). Their relocation was intended to add to the agricultural labor force and avoid future disaster.

By the mid 1960s, the realization of need for balance between the agricultural and urban industries coincided with increasing disdain for bourgeoisie culture (Gautreaux, 2017). Industrialization had improved the lives of many by increasing personal wealth but also enabled corruption to skyrocket and wealth disparities to widen. Chinese Communist leader Mao Zedong was particularly concerned with corruption within the CCP and its misdirection of the nation (History.com). He launched the Cultural Revolution, which lasted from 1966 to 1977. This movement served as a re-assertion of Mao's power over the party and re-education for millions of party cadres and young people. These individuals were sent to rural areas to perform manual labor and learn the simpler, uncorrupted virtues of the peasant class (Gautreaux, 2017). They were also responsible for persecuting and executing people deemed subversive to the state.

This tumultuous time period characterizes the third phase in which rural-to-urban migration stopped. The urban population only decreased to 17%, but migration not dictated as part of the CCP's agenda did not take place (Gautreaux, 2017). As 1977 came to an end, the Cultural Revolution's devastating effect on all facets of life was evident. The CCP decided to focus on stimulating the economy as a means of reviving the nation. In 1978, Deng Xiaoping advised and implemented economic reform known as 改革开放 (*Gǎigé kāifàng*) or Reform and Opening. This policy instituted free market policies and marked the beginning of the fourth and current phase of migration policy. Reform and Opening specifically focused on developing

coastal cities and provinces, going so far as to designate SEZ. SEZ were intended to attract foreign investment with special incentives, like tax breaks and favorable land use initiatives (Gautreaux, 2017).

Overall, this ploy was largely successful. It brought in foreign direct investment that allowed metropolises like Beijing, Shanghai, Guangzhou, and Shenzhen to flourish. Economic prosperity resulted in improvements in quality of life, widening wealth disparities, and demographic population shifts (Gautreaux, 2017). For instance, these cities are currently experiencing low mortality and decreasing fertility rates, resulting in an aging population and smaller working age population. These changes have made cities attractive destinations for young, able people from rural locales. Local factories and businesses can no longer depend on city labor, so there are a greater number of higher-paying job opportunities (Chan & Buckingham, 2008). While migration policy post-Cultural Revolution has been relaxed, migrants still face many challenges.

Hukou System

China's 户口 (*hùkǒu*) system was originally created by the CCP as a household registration system. It not only served as a census but means of social control, including control over population mobility (Chan & Buckingham, 2008). The system designates citizenship and confers national benefits to individuals based on their primary place of residence, which is usually determined by place of birth. The system distinguishes between two major household types, rural and non-rural/urban. Initially, social benefits were regarding food distribution. They have since evolved into benefits related to work, education, and healthcare opportunities (Chan & Buckingham, 2008). Individuals born and raised in a rural location will be given a rural hukou. Their benefits are tied to that rural location, so even though they can travel anywhere

within the country, they are unable to access medical care in an urban location. Their national medical insurance only covers medical care and expenses that coordinate with their hukou location.

Local government departments, such as the police, currently control its implementation (Chan & Buckingham, 2008). While local level control gives each community more autonomy, it also allows for unequal implementation of regulations to persist. One responsibility that falls under local regulation is the ability to change a permanent hukou. Most commonly, individuals want to change their hukou from rural to urban, but these changes are rare and usually only afforded to a select few. For instance, people who are extremely wealthy, highly educated, and/or who are immediate family members of existing urban hukou-holding residents are of the few exceptions (Chan & Buckingham, 2008).

Over the decades, the hukou system has undergone several revisions to meet societal needs. Within the past few years, increasing outcry for reform or abolishment of the system has been voiced by Chinese nationals and critics abroad. This discontent is the result of changes in how the system has been used, namely that it has become a benefit eligibility system repurposed as a tool of institutional exclusion (Chan & Buckingham, 2008). For instance, as migrant families spend increasing time in city settings, educational disparities have a major impact on their children. The national government recognized this and issued a document requiring local governments to provide nine years of compulsory education for migrant children through the public school system (Chan & Buckingham, 2008). Although this action may be viewed as progress, significant barriers remain. Migrant children may be allowed to go to school, but their families may be required to pay a school fee several times higher than that of local peers (Chan & Buckingham, 2008). Migrant children's quality of education is also not always comparable.

Additional measures to address inequity include laws requiring hukou reform. For instance, in 2008 a law guaranteeing migrant workers' protection and wages was passed by the National People's Congress (Chan & Buckingham, 2008). Lack of compliance, such as unequal levels and speed of reform, and even backlash have resulted. A prominent example occurred in January 2007 in Shanghai, in which local governments deemed schools teaching migrant children illegal and promptly closed them (Chan & Buckingham, 2008). These reactions further enforce the distinction between local and non-local residents within city populations. Non-urban hukou-holding migrants are effectively living without local residency rights, creating a floating population of the systematically disenfranchised. While hukou reform was formally added to the national reform in 2014, tremendous challenges still exist. These are largely due to major improvements needed to be made in rural-urban relations in order for future reform to actually be effective.

Health

According to the WHO (1948), health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. This broad definition provides a base for understanding health as a concept while also highlighting components of health relevant to migrant populations. For instance, physical health is easily measurable and observable. Mental and social well-being are less objective but just as important, as they influence quality of life and may reflect larger problems at work. The WHO (2014) expands upon mental health, defining it as a state of well-being in which every individual realizes his/her own potential, can cope with the normal stresses of life, work productively, and is able to contribute to the community. Mental illness is therefore the opposite of this in which changes in thinking emotion, behavior, or a combination of the three (Parekh, 2015). Mental illness can manifest on

its own due to purely genetic factors, but its onset is often related to additional environmental factors as is the case for migrants.

Migration and Health

The way health is managed has evolved along with understanding of disease. Scientific advancements have provided a more in depth understanding of cause, progression, and treatment of diseases. While community and global prevention programs and initiatives are in place, modern medicine stresses the role of the individual. For instance, people are often told to take cautionary measures in order to reduce individual risk for disease. This method may be effective, but the scope of its impact is too narrow to account for why certain groups or populations are at greater risk than others. It overlooks larger mechanisms at work that could be responsible for disease propagation. This statement is particularly true for mental health, which has symptoms that present differently from individual to individual. Societal stigma that marginalizes people who not only present with symptoms but also seek out help worsens this problem.

Even so, migration is an established risk factor, or something that increases likelihood of disease or dysfunction, for health problems (Virupaksha et al., 2014). Health problems associated with migration and migrant populations fall under physical, social, and mental health. Physical health is most clearly affected when unhealthy lifestyle behaviors are adopted by migrants (Virupaksha et al., 2014) or they experience an occupational injury (Zhang, 2012). For instance, poor diet and hygiene would fall under this category. Engaging in risky behaviors, such as unprotected sex, drug use, and excess alcohol consumption, is also detrimental to physical health. Impaired self esteem is an example of how social health could be affected. Mental health problems can encompass many things, but it is most often described in terms of

increased instances of MDD, GAD, and PTSD (Virupaksha et al., 2014).

These various manifestations of health dysfunction are all linked to common causes. While these causes may independently impact health, their effects are often combined to have an even greater impact on health. For instance, almost all people who migrate encounter some difficulty adjusting to their new environment. This situation may be created because of lack of preparedness, lack of understanding of complex local systems, as well as language and culture disparities (Virupaksha et al., 2014). If migrants are from a distinct background from that of their new environment, they may also face varying levels of discrimination that range from individual to systemic levels. As discussed with Chinese rural-to-urban migrants, barriers to resources like healthcare are significant. Awareness of these barriers often makes migrants hesitant to seek out help if they are even aware that they need help. In more extreme circumstances, migrants may even face physical and/or psychological stress. Situations in which this might occur are if a migrant experiences violence, loss of family members, etc. (Virupaksha et al., 2014).

Migration also affects the health of populations that have been left behind because they are unable to work or travel. In the case of domestic Chinese migrants, these populations include the elderly, those living with illness, and children. For instance, the elderly living in rural locations who have had a child migrate tend to have poorer physical and mental health status (Virupaksha et al., 2014). The majority of couples in China only have one child due to national family planning policy, so in many cases a child that migrates is their only child. When their child leaves, parents are left without a caretaker as well as their source of joy and stability (Luo, 2017). Symptoms of depression and isolation are common, especially after holidays in which families reunite and then split up again (Luo, 2017). Children of parents who have migrated for

work also tend to be less happy and have poorer academic performance (Virupaksha et al., 2014). The adverse effects of their parents' absence on their health and social life are evident.

Based on this discussion of migration, health, and their implications, the goal of this paper is to examine whether the domestic Chinese migrant population experiences similar phenomena. Even though domestic migration is not unique to China, China's internal migration has been described as the world's largest seasonal migration and influences every aspect of Chinese daily life.

Methods

Rationale for Research

A literature review was conducted to examine internal migrant status as it relates to mental health outcomes in China. There has been considerable research on the domestic migration in China, Chinese economic reform and its effects on national economic performance, and changing health trends in China. While there has been a growing body of research examining the relationship between Chinese internal migration and mental health, the number of qualitative and systematic reviews or meta-analyses are limited. The goal of this project was to reveal similar trends among studies and how these trends, if any, compared to existing literature on the subject. A qualitative research analysis was used because of lack of resources and expertise in conducting extensive data analysis. However, this approach offered a unique perspective and provided a preliminary analysis.

Research Process

The reviewed literature was found using online databases, which primarily included EBSCOHost, PubMed, and Medline. Search terms employed were included Chinese migrant paired with health, health outcomes, mental health, risk behavior, and left behind. Additional background information, especially regarding Chinese internal migration and economic growth as phenomena, was gathered from other online publications.

Results

Table of Included Studies (alphabetized by researcher's last name)

Title	Authors	PubYr	Location	Study Design	Primary exposure/intervention	Outcome Measurements	Results	Potential for bias	Mediating variables
Internal migration, mental health, and suicidal behaviors in young rural Chinese	Dai et al.	2015	10 villages in Sichuan province	Cross-sectional	Migrant status	Depression, QOL, 1-year suicidal behaviors	No significant association, dec association depression	Selection bias; recall bias	CESD, WHO psycho-QOL questionnaire brief version
How far is Chinese left-behind parents' health left behind?	Huang, Lian, & Li	2015	9 provinces (36 neighbor-hoods, 108 towns)	Ongoing prospect-ive cohort	Adult children migration status	Parents' health	Signifi-cant impair-ment	Recall bias	SAH, SRLS, BMI
The mental health status of Chinese rural-urban migrant workers	Li et al.	2007	Hangzhou	Cross-sectional	Migrant workers' mental health status	Help seeking behaviors	Significant impairment; inc suicide ideation	Selection bias; recall bias	5-item Mental Health Scale from Chinese SF-36 Health Survey; 2 suicide Qs
The health of left-behind children in rural China	Li, Liu, & Zang	2015	National	Cross-sectional (data from CHNS)	Lack of parental care	Health of left-behind children	Significant association; positive association	Recall bias	Modeling using instrumental variables
Alcohol intoxication and sexual risk behaviors among rural…	Lin et al.	2015	Beijing and Nanjing	Cross-sectional	Alcohol intoxication in previous 30 days	Risky sexual behavior (premarital sex, multiple partners, buying/selling sex)	Significant association	Selection bias; recall bias	Self-administered questionnaire

Chinese Migrant Adolescents' Perceived Discrimination and Psych….	Liu & Zhao	2016	Beijing	Cross-sectional	Children's migrant status	Perceived discrimination and psychological well-being	Significant association; group identity may counter this association	Recall bias	20-item perceived discrimination scale, MEIM, Rosenberg self-esteem scale, Collective self-Esteem scale
Home and away: Chinese migrant workers between two worlds	Myerson et al.	2010	Guangdong and Beijing provinces	Cross-sectional	Female migrant status	Attitudes toward traditional values	Significant association	Selection bias; recall bias	Chinese Individual Traditional and Modern Values Scale, General Health Questionnaire 20
Depression and associated factors in internal migrant workers in China	Qiu et al.	2011	Chengdu	Cross-sectional	Migrant status	Prevalence of depression symptoms and associated factors	Strong associations	Selection bias, recall bias	CESD, SEM (to measure factor associations)
Injured but not Entitled to Legal Insurance Compensation…	Sun & Liu	2014	Miaogu county	Qualitative study w/ interviews	Injured migrant worker status	Actions and methods of attaining medical care	Injured face significant barriers to access	Selection bias	Personal interviews
Association between adverse mental health and an unhealthy lifestyle…	Yang et al.	2017	Shanghai	Cross-sectional	Migrant worker status	Mental health status	Significant association	Selection bias, recall bias	Symptom Checklist-90-Revised
Prevalence	Zho	2	Shenzhen	Cross-	Migrant	Prevalence	No	Recall	Mini

and correlates of MDD among rural-to-urban migrant workers…	ng et al.	015		sectional	worker status	and correlates of one-month and lifetime MDD	significant difference but similar trends to general population	bias	International Neuropsychiatric Interview
Acculturative Stress of Chinese Rural-to-Urban Migrant Workers: A Qualitative Study	Zhong et al.	2016	Shenzhen	Qualitative study w/ four focus group discussions and individual interviews	Migrant worker status	Exposure to acculturative stress	Significant relationship	Selection bias, recall bias	Group and individual interviews
Related High-Risk Behaviors among Chinese Migrant Construction Laborers in Nantong, Jiangsu	Zhuang et al.	2012	Nantong, Jiangsu province	Community-based cross-sectional	Migrant worker returnee status	HIV-related knowledge, attitudes, behaviors	Significant relationship; high levels of casual or commercial sex	Selection bias, recall bias	Questionnaire that used scales from China's National HIV Surveillance surveys

Discussion

Summary of Findings

The reviewed literature provides evidence supporting that domestic migrant status in China is associated with negative changes in mental health such as depressive symptoms, mood, self-esteem, etc. (all outcomes assessed). One of the major sources was a meta-analysis completed by Zhong, B. L., Liu, T. B., Chiu, H. et al. (2013) that examined forty-eight cross sectional studies and seven additional observational studies that used the Symptom Checklist-90 to examine psychological symptoms characteristic of mental health problems in domestic migrant populations. The studies used in the meta-analysis provided findings that domestic migrant status has a statistically significant relationship with greater instances and/or severity of symptoms and therefore mental health dysfunction.

This body of research reviewed thirteen studies: one prospective cohort study, ten cross-sectional studies, and two qualitative studies. The majority of studies used pre-existing scales of depression, depressive symptoms, self-esteem, etc. The two included qualitative studies used structured questionnaires created specifically for the interviews. While all study aims were related to domestic migrants and mental health, eight studies directly measured how migrant status influenced mental health and access to healthcare. The remaining studies examined how domestic migration influences populations that have been left behind or affects migrant workers' behavior and beliefs over time.

The majority of studies reviewed added to the established body of literature by observing a statistically significant relationship or positive association between migrant status and poor mental health. Their findings expand upon Virupaksha et al.'s (2014) overview. For instance, Zhong et al. (2016) attributed migrant status to increased exposure to acculturative stress, like

difficulty adapting to new environments, work-related stress, family-related stress, and financial hardship. These findings were supported by Li et al. (2007), who found that migrant workers typically work long hours, 6-7 days per week, in very basic living conditions. Additional feelings of not belonging in cities were also reported, which may be detrimental to migrant health. Based on Liu & Zhao (2016), group identity affirmation and belonging is a protective factor. It alleviates the stress migrant children associate to perceived discrimination, improving their psychological well-being measured as self-esteem and life satisfaction.

These associated stressors combined with lack of a cohesive social network likely contributed to poor health outcomes observed by other studies. For example, Yang et al. (2017) observed that while a lower percentage of migrant populations experience mental health problems, three times that percentage have taken on unhealthy lifestyle habits. These habits are significantly associated with increased mental health problems in rural-to-urban migrant workers, indicating a need to foster healthy lifestyles for migrants. Qiu et al. (2011) also reported that migrant populations experienced higher prevalence of depressive symptoms than the general population.

However, two studies did not support a statistically significant association between migrant worker status and mental health. Dai et al. (2015) found no significant association between migrant status and depression and quality of life, actually finding migrant status to be protective for MDD. This study did observe that migrants tend to have increased suicidal predisposition compared to their non-migratory counterparts. Even though the study results report conflicting narratives, migrant status appears to have a negative effect on mental health in the study population but perhaps not in ways previously believed.

Zhong et al.'s (2015) results also show no significant difference in MDD between domestic

migrants and non-migrants. Their findings reflected that while migrant workers have similar prevalence of MDD to that of the general population, they rarely use mental health services in their lifetime. This claim is supported by Li et al. (2007), which measured that less than 1% of migrant workers seek medical care for depression or anxiety. This occurrence is most likely due to the hukou system's regulation of national benefits and migrants' inability to use their insurance coverage in urban locations.

Disadvantaged migrant workers therefore have limited health service options. Even though many are guaranteed workers' compensation from their employer by law, they are often denied legal insurance compensation (Sun & Liu, 2014). The most common avenue for employers to take when a dispute arises is to instead agree on an informal private settlement in which they do not have to pay workers as much as they would have for workers' compensation (Sun & Liu, 2014). "Illegal" health clinics have popped up as feasible alternatives for migrants constrained by their hukou status and lack of financial capital (Li, 2014). However, these clinics can also be dangerous for migrant health by providing anyone with enough ingenuity to scam unsuspecting migrant workers in need of care.

As reiterated by Virupaksha et al.'s (2014), the scope of acculturative stress and its effects are not only harmful to health but also change behavior. Oftentimes individuals with failed coping mechanisms adopt behaviors detrimental to their health. Migrant workers are more likely than the general population to drink more heavily (Lin et al., 2005) and engage in risky sexual behavior (Lin et al., 2005; Zhuang et al., 2012). For instance, they are more likely to engage in casual or commercial sex with lower levels of consistent condom use. This situation puts them at greater risk for sexually transmitted diseases as well as for being targeted for exploitation.

These behavioral changes are frequently paired with changes in personal values and

attitudes. Young migrants, especially women, are often forced to negotiate traditional beliefs with their experiences. According to Myerson et al.'s (2010) study, young female migrants tend to uphold filial piety but reject other traditional ideas, instead emphasizing values associated with personal ability and success. Even though this situation may create tension with family, maintaining ties in terms of personal and monetary connections for the sake of filial piety seems to ease the situation. Left behind families nevertheless are still affected by the absence of migrant workers. An illustration of this is that elderly parents' health outcomes have shown positive associations with higher levels of education and work in urban settings (Huang, Lian, & Li, 2016). Another example is that left behind children are significantly more likely to become sick or develop a chronic condition than children whose parents are home (Li, Liu, & Zang, 2015). This statement is particularly true for children who are girls and are of younger age.

Research Strengths and Limitations

The reviewed studies provided valuable insight into the effects of migrant worker status on mental health and related phenomena. An important strength is that the majority of studies were cross-sectional studies, which provided a comprehensive and low-cost overview of the current prevalence of migrant workers experiencing poor mental health outcomes. Another strength is that Huang et al. (2016) performed and are continuing to conduct an ongoing cohort study. Since their study is tracking the effects of migrant workers' absence on parental health, their findings are able to establish a temporal relationship between the two variables.
A causal relationship can therefore be made and used as a firm basis for future research. With the exception of Dai et al. (2015) and Zhong et al. (2015), the remaining studies' results found differences in mental health and related factors between control and migrant groups. These

results support the idea that investigating domestic migration and health in China is much needed and would be very beneficial.

However, there were severe limitations in reviewed studies because of different forms of bias. Even with clearly articulated procedures and questionnaires, there was concern regarding both selection bias and recall bias across nearly all studies. Selection bias occurs when participants for a study are not recruited in the same manner, often based on whether they have the exposure the researcher is investigating. In this case, migrant workers may have been recruited in ways different from control group members who are part of the general population. Migrant workers' decision to participate, compliance in responding to questionnaires, and participation in interviews may also be systematically different from the way the general population would respond. For instance, migrant workers with depression may be less likely to fully participate because they do not feel good and do not want to be actively engaged. This further contributes to selection bias, and the possibility that study results do not reflect actual phenomena.

Yet another concern was related to information bias because of the data collection methods used. For example, reviewed studies regardless of study type depended on self-reporting to measure depressive symptoms. Self-reporting often creates recall bias because participants' memories are highly subjective and tend to change based on suggestion. Whether these forms of bias are differential or not is also unknown. Migrant workers may have been likely to report differently because may have already been aware of their own mental health problems, barriers to access, vulnerability. Their participation was, in most cases, voluntary which may have perpetuated differences in reporting

Conclusions

China's revolutionary economic reforms of the early 1980s created unimaginable wealth and opportunity for many. It served as a platform for tremendous national growth and advancement, launching China as a major player on the world stage. However, these improvements were predominantly built on the backs of domestic Chinese migrant workers who have not had the ability to enjoy the fruits of their labor. While increased jobs and higher wages have benefited rural communities, this growth has often come at the cost of migrant workers' health. Adverse health effects impair migrants' physical well-being as well as mental and emotional health. These changes often manifest in more insidious ways at a population level.

If health is truly a cornerstone to any society's economic, political, and educational infrastructure, then the effects of migration on Chinese migrants' health clearly undermine China's progress thus far. A nation cannot realize its full potential if it perpetuates policies that put people into inferior social positions and at economic disadvantages in which they are unable to support themselves or access help. Such arrangements affect those without power or platform the most severely. While China has made major improvements to its healthcare system and has made gestures toward structural reform, many systematic barriers remain. Many of these obstacles are related to how the hukou system is constructed. However, the root of the problem lies in rural and urban disparities, which have created unequal and inequitable dynamics that manifest as serious societal issues. In order for future hukou reform to be effective, these disparities must also be addressed.

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