

HEALTH CARE SCHEMES AND BARRIERS AMONG UNDOCUMENTED MIGRANTS IN EUROPEAN AND ASEAN COUNTRIES: SYSTEMATIC REVIEW

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Abstract

Health care schemes are provided to ensure good health and quality of life for the population of a country, which includes undocumented migrants, a vulnerable population subgroup. This group of people often have barriers to access these schemes and achieve desirable health outcomes. The objective of this study is to describe various health care schemes and their barriers to accessing undocumented migrants. The results of this study can provide recommendations for reducing these barriers. A systematic review of studies related to health care schemes and their barriers of access for undocumented migrants in European and ASEAN countries was performed. Studies were searched from Web of Science, ScienceDirect, PubMed, and Scopus between 2007 and 2018. A total of 9,634 studies were screened and assessed for eligibility, of which 15 were retrieved and included in the study. Major barriers to health care schemes for undocumented migrants included fear of deportation, constraints in the availability of services, lack knowledge about available health care services and ways to seek care, language difficulty, and financial issues. Although varying degrees of health care schemes and services are offered for undocumented migrants, coverage is not effective due to the presence of these barriers. Therefore, enhancement of policies to improve health care access of undocumented migrants and support the provision of care with culturally appropriate navigators such as migrant volunteers are required.

Keywords: Health care schemes, health care services, barriers, undocumented migrants, Europe, ASEAN

Introduction

There has been a growing number of international migrants worldwide. The number has risen significantly over the past few decades, reaching about 258 million in 2017, up from 220 million in 2010 and 173 million in 2000. Among them, Europe and Asia have a high number of international

migrants, more than 60 percent of those worldwide. Asia comprised the largest number (80 million), followed by Europe (78 million) (Kobler and Lattes, 2017). ASEAN that includes in Asia, has also received increased migrant workers due to economic integration (Guinto *et al.*, 2015).

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Consequently, this study will focus on migrants in European and ASEAN countries.

Although migrants are beneficial for the economy of destination countries, they are affected by a variety of conditions. They work in areas with low wages, long working hours, and bad conditions compared with the local people (Kobler and Lattes, 2017). Undocumented migrants are especially at risk of health problems due to violence and exploitation (Karl-Trummer *et al.*, 2010; Rechel *et al.*, 2013; McMichael and Healy, 2017). Therefore, health care services for them need to be considered to improve their health status.

Most governments provide health care services for undocumented migrant populations. However, the provision of services varies by country. In most European countries, migrants can only access emergency care (Cuadra, 2011). Delivering health care to undocumented migrants is also diverse in ASEAN countries where few considerations are given to health care for them (Guinto *et al.*, 2015). Moreover, despite being eligible, many cannot fully access the health care services due to a variety of barriers (Rechel *et al.*, 2013; Suess *et al.*, 2014). Access to health care can improve an individual's health and quality of life. Therefore, a barrier to access health care is an important issue which should be addressed.

Previous studies have highlighted the importance of the health of undocumented migrants since the migrants' health has mostly ignored focusing on their financial, sociocultural, and political issues of migration. The provision of health care service is an important issue that needs to be emphasized (Guinto *et al.*, 2015; Chung and Griffiths, 2018). Studies in Europe have shown that undocumented migrants face many difficulties accessing health care although there are existing policies in place for its provision (Gray and van Ginneken, 2012). Moreover, some health care providers refuse to treat them (Vignier *et al.*, 2018). A systematic review on health care utilization among undocumented migrants in Europe indicated that there is a gap between the provision and utilization of health care services due to the presence of barriers such as fear and their lack of awareness about eligibility (Winters *et al.*, 2018). One review recommended investigating the health service

system for migrants across countries for the identification of appropriate caring systems that meet the needs and expectations of migrants and health care providers (Suphanchaimat *et al.*, 2015).

Most of the studies focus on challenges from the health care providers' perspective in the provision of health care to migrants (Priebe *et al.*, 2011; Suphanchaimat *et al.*, 2015). Although there are review studies about health care services utilization (Winters *et al.*, 2018), health insurances focusing on specific countries (Guinto *et al.*, 2015; McMichael and Healy, 2017; Wanwong *et al.*, 2017) and barriers from both health care providers' and undocumented migrants' perspectives (Vito *et al.*, 2016), there are limited studies on health care schemes and barriers from the perspective of undocumented migrants in both European and ASEAN countries. Therefore, this study aims to describe the health care schemes and the health care services and their barriers experienced by undocumented migrants in European and ASEAN countries. It is hoped that the results of this review can provide recommendations for the improvement of health services provision for undocumented migrants.

Materials and Methods

A systematic search of the literature on health care schemes, health services, and barriers of health service accessibility among undocumented migrants in European and ASEAN countries was performed. The details on the specified terms of health care schemes, health services, and barriers of health service accessibility within this study are provided in Table 1. Studies were searched from the following online databases: "Web of Science", "ScienceDirect", "PubMed", and "Scopus" between 2007 and 2018, using the following keywords: "health care schemes", "health care services", "health care", "barriers", "obstacles", "difficulties", "undocumented migrants", "irregular immigrants", "illegal migrant workers", "Europe", "European countries", "ASEAN", and "Southeast Asia countries". The Boolean operators of AND and OR, quotation marks, and truncation (*) were used for searching between the keywords. The search terms were

Table 1. Details on specified terms in the study

Terms	Operational definition
Health schemes	Types of health insurance provided for undocumented migrants in destination countries
Health services	The eligible health care services that undocumented migrants can receive in host countries excluding the services from social and non-government organizations
Barriers	Obstacles faced by undocumented migrants to access eligible health care services in destination countries

(health care scheme* OR health care services*) AND (barriers OR obstacles OR difficulties) AND “undocumented migrants” OR “irregular migrants” AND (Europe OR European countries) AND (ASEAN OR Southeast Asia countries).

Identified studies were pooled and duplicates removed. Studies exploring the health care scheme, health insurance, health care services, barriers, and undocumented migrants in European and ASEAN countries were chosen as the first selection based on the title and abstract. After that, the inclusion and exclusion criteria were set again as the eligibility for the review. The inclusion criteria were as follows: (1) government provision of health care services, (2) barriers to access the services, (3) undocumented migrants, (4) studies conducted in European and ASEAN countries, and (5) articles published in English. The second selection of the studies was made by screening the full text based on the inclusion criteria. Then, the full text of the studies was screened for data extraction. Quality of the included studies was assessed with the Mixed Method Appraisal Tool for qualitative, quantitative, and mixed methods studies (Hong *et al.*, 2018). Figure 1 shows the selection of studies using the PRISMA flow diagram.

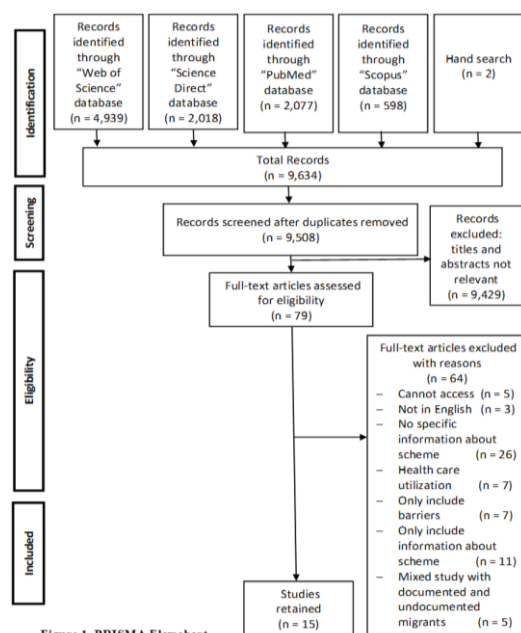


Figure 1. PRISMA Flowchart

Figure 1. PRISMA Flowchart

Scope of the Study

There were 9,634 studies identified from the four databases in combination with hand searching. All retrieved articles from different databases were imported into Endnote. Then, all were combined, duplicates were deleted and 9,508 studies remained,

of which 79 were retrieved after screening the titles and abstracts. Finally, 15 studies were included in the review after screening the full text for eligibility. Table 2 shows the characteristics of the included studies which found that most studies conducted in European countries are developed with a high-income level, whereas those conducted in ASEAN are developing with a middle-income level.

Results

A total of 15 studies were included in this review, which included studies conducted in two continental countries: 30 European countries and two ASEAN countries. Four primary studies were using a qualitative method, two primary studies using a mixed-method, one study that combined primary data collection and review, five review studies, and two reports.

Health Care Schemes for Undocumented Migrants

Health care schemes for undocumented migrants in 30 European countries and two ASEAN countries were involved in this study. Table 3 shows health care schemes and services for undocumented migrants. The results revealed that most countries in Europe offer a variety of health services and healthcare schemes, whereas ASEAN countries provide only emergency care services and health insurance designed specifically for the migrant population.

Health Care Services for Undocumented Migrants in European Countries

Most undocumented migrants in European countries receive emergency care. Undocumented migrants in Austria, Cyprus, Denmark, United Kingdom, Germany, Hungary, Estonia, Lithuania, Poland, Slovak Republic, Slovenia, and Greece have access to emergency care free of charge while those in Finland, Ireland, Sweden, Malta, Bulgaria, Czech Republic, Latvia, Luxembourg, and Romania need to pay for this service. However, Italy, France, Netherlands, Switzerland, Portugal, Belgium, and Spain provide full coverage of health care to undocumented migrants if they meet certain criteria for example proof of identity, living period, and monthly income (European Union Agency for Fundamental Rights, 2011; Gray and van Ginneken, 2012; Wanwong *et al.*, 2017). Nevertheless, Spain provides only emergency, maternal, and child care since the Royal Decree Law (RDL 16/2012) was enacted in 2012 (Gray and van Ginneken, 2012). In 2015, the government of Spain declared that they, undocumented migrants, would have access to free

Table 2. Description of included studies (N = 15)

Study characteristic			Number
Type of study			15
Primary study (Qualitative)			4
Primary study (Mixed method)			2
Review			5
Primary study + Review			1
Report			2
Issue brief			1
Region focus	Development status	Income level	
European countries			
Eastern Europe			
Bulgaria	Developed	Middle	2
Czech Republic	Developed	High	2
Hungary	Developed	High	3
Poland	Developed	High	3
Romania	Developed	Middle	2
Northern Europe			
Denmark	Developed	High	4
England	Developed	High	1
Estonia	Developed	High	2
Finland	Developed	High	2
Ireland	Developed	High	3
Latvia	Developed	High	2
Lithuania	Developed	High	2
Norway	Developed	High	3
Sweden	Developed	High	4
United Kingdom	Developed	High	3
Southern Europe			
Greece	Developed	High	3
Italy	Developed	High	4
Malta	Developed	High	2
Portugal	Developed	High	2
Slovenia	Developed	High	2
Spain	Developed	High	4
Western Europe			
Austria	Developed	High	2
Belgium	Developed	High	3
France	Developed	High	5
Germany	Developed	High	4
Luxembourg	Developed	High	2
Netherlands	Developed	High	7
Switzerland	Developed	High	2
ASEAN countries			
Thailand	Developing	Middle	4
Malaysia	Developing	Middle	1

Table 3. Health care schemes and services for undocumented migrants in European and ASEAN countries

European countries		ASEAN countries	
Health care services	Health care schemes	Health care service	Health care scheme
Emergency care	State Medical Assistance	Emergency care	Migrant Health Insurance Scheme
Preventive care	Statutory health insurance		
Treatment of communicable Diseases	Urgent Medical Aid		
Maternity care			

health care service (Rafighi *et al.*, 2016). In this study, health care services are classified into emergency care, primary care, and secondary care.

Emergency care

Undocumented migrants in Denmark (Biswas *et al.*, 2011; 2012), Norway (Gray and van Ginneken,

2012; Kvamme and Ytrefhus, 2015; Melberg *et al.*, 2018), Spain (European Union Agency for Fundamental Rights, 2011; Gray and van Ginneken, 2012), United Kingdom (Gray and van Ginneken, 2012; Rafighi *et al.*, 2016; Wanwong *et al.*, 2017), Germany (European Union Agency for Fundamental Rights, 2011; Gray and van Ginneken, 2012; Wanwong

et al., 2017), and Italy (European Union Agency for Fundamental Rights, 2011; Gray and van Ginneken, 2012; Wanwong *et al.*, 2017) have access to emergency care free of charge. However, in Sweden, the migrants need to pay for this service (Biswas *et al.*, 2012).

Primary care

Primary care is the first contact with health care providers such as general practitioners and includes urgent or medically necessary care and preventive care. In the United Kingdom, undocumented migrants are eligible to receive services from general practitioners (Gray and van Ginneken, 2012; Rafighi *et al.*, 2016).

Urgent or Medically Necessary Care

This type of care is for the conditions that will cause a chronic health hazard if untreated. Undocumented migrants in Norway (Kvamme and Ytrefhus, 2015; Melberg *et al.*, 2018), Italy (European Union Agency for Fundamental Rights, 2011; Gray and van Ginneken, 2012), United Kingdom (Gray and van Ginneken, 2012; Wanwong *et al.*, 2017), and Germany (Gray and van Ginneken, 2012) can access this type of care.

Preventive Care

Undocumented migrants in Italy, Germany, Greece, Hungary, Ireland, and Poland can obtain preventive care of confidential screening and counseling of infectious diseases such as tuberculosis and HIV (European Union Agency for Fundamental Rights, 2011; Gray and van Ginneken, 2012; Wanwong *et al.*, 2017). They can also receive vaccinations in Norway (Kvamme and Ytrefhus, 2015).

Secondary care

Secondary care includes hospital care and specialized health care services such as the treatment of infectious diseases, maternity care, and mental health care.

Hospital care

Since April 6, 2015, in the United Kingdom, undocumented migrants who come from non-European Economic Area countries need to pay £200 as a yearly surcharge to access secondary and tertiary treatment according to the Immigration Act 2014 (Rafighi *et al.*, 2016).

Treatment of communicable diseases

Undocumented migrants have the right to receive treatment of infectious diseases such as tuberculosis and HIV/AIDS in Norway (Kvamme and Ytrefhus, 2015), Italy (European Union Agency

for Fundamental Rights, 2011; Gray and van Ginneken, 2012; Wanwong *et al.*, 2017), Germany (Gray and van Ginneken, 2012; Wanwong *et al.*, 2017), and Hungary (European Union Agency for Fundamental Rights, 2011). In the United Kingdom, they can also obtain treatment for hepatitis B, measles, cholera, encephalitis, and influenza. However, although treatment for HIV/AIDS is offered in England and Scotland, it is not offered in Wales (Gray and van Ginneken, 2012; Rafighi *et al.*, 2016; Wanwong *et al.*, 2017).

Maternity care

Undocumented migrants in Norway (Kvamme and Ytrefhus, 2015; Melberg *et al.*, 2018), Spain (European Union Agency for Fundamental Rights, 2011; Gray and van Ginneken, 2012), Italy (European Union Agency for Fundamental Rights, 2011; Gray and van Ginneken, 2012; Wanwong *et al.*, 2017), and Germany (European Union Agency for Fundamental Rights, 2011; Gray and van Ginneken, 2012; Wanwong *et al.*, 2017) can obtain maternity care (antenatal, delivery, and postnatal care), whereas the United Kingdom only provides care for family planning (Wanwong *et al.*, 2017). However, migrants living in Greece, Hungary, Ireland, Poland, and Sweden can access only emergency treatment during pregnancy such as bleeding (European Union Agency for Fundamental Rights, 2011).

Mental health care

Mental health treatment, which includes treatment for depression, stress, psychosis, and anxiety-related disorders, is entitled to undocumented migrants in Norway (Kvamme and Ytrefhus, 2015), United Kingdom (Rafighi *et al.*, 2016; Wanwong *et al.*, 2017), and Italy (European Union Agency for Fundamental Rights, 2011). In Germany, Greece, Hungary, Ireland, Poland, and Sweden, migrants can only obtain emergency mental treatment for conditions such as suicidal ideation and psychosis (European Union Agency for Fundamental Rights, 2011).

Moreover, in European countries such as France, Netherlands, Switzerland, and Belgium, health care is provided depending on the schemes for undocumented migrants. In France, they are entitled to State Medical Assistance (AME) if they have valid identity documents such as passport or birth certificate, proof of residence with evidence of at least a three-month living period, and an annual income below €8,645. However, there is an annual fee of €30 which includes a benefits package that provides for emergency care, hospital care, maternity care (including care for abortion), screening and treatment for diseases that can be a public health hazard such as HIV/AIDS and

tuberculosis, vaccination, family planning, and mental health treatment such as treatment for depression, stress, psychosis, and anxiety-related disorders. Some services such as dental prostheses and corrective lens are excluded. Undocumented migrants who do not meet the criteria to receive AME can access emergency care for life-threatening conditions and treatment to prevent the spread of contagious diseases such as tuberculosis (André and Azzedine, 2016; European Union Agency for Fundamental Rights, 2011; Gray and van Ginneken, 2012; Wanwong *et al.*, 2017).

In the Netherlands, undocumented migrants are offered government-subsidized medically necessary care. Since 2009 the government provides 80 percent of the health care cost if the patient cannot afford to pay and the remaining 20 percent needs to be paid by themselves. However, this type of payment is for the direct services and in case of referral, the system of 80 percent reimbursement for the health care providers can be obtained only in contracted hospitals. Besides, full reimbursement is offered for the case of delivery (Biswas *et al.*, 2012; Gray and van Ginneken, 2012; Schoevers *et al.*, 2010a; 2010b; Teunissen *et al.*, 2014).

In Switzerland, undocumented migrants who have lived in the country for more than three months can buy statutory health insurance which covers basic health care such as in-patient and out-patient treatment, including accidents, medicines, care for pregnancy, and childbirth. However, they are required to provide their name, birth date, contact address, and postal address to buy the insurance (Gray and van Ginneken, 2012).

In Belgium, undocumented migrants can access preventive, primary and secondary care, diagnosis and treatment of tuberculosis and HIV, maternity care, and mental health treatment with a three-month health card after applying to the urgent medical aid (Aide Médicale Urgente, AMU). The card is renewable at the social security office (European Union Agency for Fundamental Rights, 2011).

Although all European countries included in this review are developed nations, it was found that most countries in the Eastern and Northern regions of Europe do not offer emergency care free of charge. However, in Western Europe, health care schemes are provided for undocumented migrants if they meet certain criteria.

Health Care Services for Undocumented Migrants in ASEAN Countries

Health care services for undocumented migrants in Thailand and Malaysia are included in this review. In Thailand, undocumented migrants and their dependents can enroll in the Migrant

Health Insurance scheme which has an annual premium of 2,200 baht. The package covers comprehensive health care services including anti-retroviral therapy, prevention, and promotion services such as immunization at a registered hospital. However, aesthetic surgery, treatment for psychotic and substance abuse, dental prosthesis, hemodialysis, and renal replacement therapy are excluded from the benefits package (Guinto *et al.*, 2015; McMichael and Healy, 2017; Tangcharoensathien *et al.*, 2017; Wanwong *et al.*, 2017). In Malaysia, they are only entitled to emergency care (Guinto *et al.*, 2015).

Barriers to Receiving Health Care Schemes for Undocumented Migrants in European and ASEAN Countries

Barriers faced by undocumented migrants in this review are divided into three levels: policy, health system, and individual levels. Table 4 shows common barriers for undocumented migrants. The results found that migrants both in European and ASEAN countries confront common barriers, such as fear of deportation, knowledge of the health care system, and financial barrier. However, two other barriers are different. Migrants in European perceive barriers of language and quality, whereas those in ASEAN perceive constraints in service availability and differences in the provision of health care services.

Table 4. Barriers to health care services for undocumented migrants in European and ASEAN countries

European countries	ASEAN countries
Common types of barriers	Common types of barriers
Fear of deportation	Constraints in service availability
Knowledge of the health care system	Financial barrier
Language	Differences in the provision of health care services
Quality	Knowledge of the health care system
Financial barrier	Fear of deportation

Policy Level (Documents Requirement)

The requirement of official documents for health care access is encountered as a difficulty by undocumented migrants. They have difficulty in obtaining the necessary documents for the application of AME in France (André and Azzedine, 2016; Gray and van Ginneken, 2012; Wanwong *et al.*, 2017) and statutory health insurance in Switzerland (Gray and van Ginneken, 2012). In the United Kingdom, proof of address and passport

necessity to register with a general practitioner is a barrier for them (Rafighi *et al.*, 2016).

Health System Level

Barriers related to the health system level are described in terms of differences in the provision of health care services according to law, constraints in service availability, and quality.

Differences in the Provision of Health Care Services According to Law

Regulations for health care provision to migrants within a country are diverse. In France and Italy (Gray and van Ginneken, 2012), there are local differences in the implementation of the law for providing health care for undocumented migrants. In Thailand, some hospitals hesitate to provide health care to migrants and request at least one document, such as a passport, or approval from the employer to register into the Migrant Health Insurance Scheme (Guinto *et al.*, 2015; McMichael and Healy, 2017).

Constraints in Service Availability

A limited number of health care providers for referral care is also a hindrance for undocumented migrants in the Netherlands (Gray and van Ginneken, 2012). Moreover, a lack of transferability of health insurance to another province in Thailand is an obstacle for them (McMichael and Healy, 2017; Tangcharoensathien *et al.*, 2017).

Quality

Refusal for the provision of health care by health care providers acts as a constraint for seeking treatment. Health care providers refuse to provide care for undocumented migrants in the Netherlands (Biswas *et al.*, 2012; Schoevers *et al.*, 2010a), Norway (Kvamme and Ytrehus, 2015), and France (Gray and van Ginneken, 2012). Moreover, a lack of information on reimbursement of costs among health care providers causes financial problems for undocumented migrants in the Netherlands (Schoevers *et al.*, 2010b). Health care providers' confusion about the National Health Service guidelines in the United Kingdom (Wanwong *et al.*, 2017), arbitrary desires among health care providers for health care provision in Denmark (Biswas *et al.*, 2011), and lack of providers' interest in the health problems of migrants in the Netherlands (Teunissen *et al.*, 2014) are barriers for undocumented migrants.

Individual Level

This review found that undocumented migrants face barriers that are mostly individually-related. These include language difficulty, knowledge of the health care system, financial

barriers, lack of social support and discrimination, fear of deportation, and perceived illness and quality of care.

Language

Language difficulty is most common barrier experienced by undocumented migrants in the Netherlands (Biswas *et al.*, 2012; Schoevers *et al.*, 2010a), Denmark (Biswas *et al.*, 2011), France (André and Azzedine, 2016), Norway (Kvamme and Ytrehus, 2015), and Italy (Gray and van Ginneken, 2012).

Knowledge of the Health Care System

Lack of knowledge on the health care system and available health care services is another important barrier faced by undocumented migrants in Denmark (Biswas *et al.*, 2011; 2012), Netherlands (Biswas *et al.*, 2012; Schoevers *et al.*, 2010a; 2010b; Teunissen *et al.*, 2014), France (Gray and van Ginneken, 2012; André and Azzedine, 2016), Norway (Kvamme and Ytrehus, 2015; Melberg *et al.*, 2018), Italy (European Union Agency for Fundamental Rights, 2011; Gray and van Ginneken, 2012), Belgium (European Union Agency for Fundamental Rights, 2011), and Thailand (McMichael and Healy, 2017).

Financial Barriers

Financial obstacles are encountered by undocumented migrants in most destination countries, particularly in the Netherlands (Biswas *et al.*, 2012; Gray and van Ginneken, 2012; Schoevers *et al.*, 2010a; 2010b; Teunissen *et al.*, 2014), Norway (Kvamme and Ytrehus, 2015), Switzerland (Gray and van Ginneken, 2012), United Kingdom (Gray and van Ginneken, 2012; Rafighi *et al.*, 2016), and Thailand (Guinto *et al.*, 2015; McMichael and Healy, 2017).

Lack of Social Support and Discrimination

Undocumented migrants in Denmark have poor and even a lack of social network with citizens who can help them seek care (Biswas *et al.*, 2011; 2012). Cultural barriers are also faced by undocumented migrants in Italy (Gray and van Ginneken, 2012) and in the Netherlands, they experienced discrimination from health care providers (Teunissen *et al.*, 2014).

Fear of Deportation

Fear of deportation is the common barrier among undocumented migrants in Denmark (Biswas *et al.*, 2011; 2012), France (André and Azzedine, 2016), Norway (Kvamme and Ytrehus, 2015; Melberg *et al.*, 2018), Italy (European Union Agency for Fundamental Rights, 2011; Gray and van Ginneken, 2012), Germany (European Union

Agency for Fundamental Rights, 2011; Gray and van Ginneken, 2012; Wanwong *et al.*, 2017), the Netherlands (Schoevers *et al.*, 2010a; 2010b; Teunissen *et al.*, 2014), the United Kingdom (Rafighi *et al.*, 2016), Belgium (European Union Agency for Fundamental Rights, 2011), Poland (European Union Agency for Fundamental Rights, 2011), and Thailand (Tangcharoensathien *et al.*, 2017).

Perceived Illness and Quality of Care

Undocumented migrants in the Netherlands assume that health care is not very important for them (Schoevers *et al.*, 2010a) and perceive mistrust in health care providers (Teunissen *et al.*, 2014). Therefore, these factors prevent their desire to seek care.

Discussion

As a human right, everyone should have access to health care regardless of nationality and legal status (World Health Organization, 1995). Therefore, undocumented migrants have the right to receive health care in destination countries. However, the availability and extent of health care for them varies by country.

When looking at the health care services from the health system perspective, European countries with an insurance-based system offer health care in terms of schemes such as AME in France, AMU in Belgium, and government-subsidized care in the Netherlands (Schoevers *et al.*, 2010a; 2010b; European Union Agency for Fundamental Rights, 2011; Biswas *et al.*, 2012; Gray and van Ginneken, 2012; Teunissen *et al.*, 2014; André and Azzedine, 2016; Wanwong *et al.*, 2017). On the other hand, countries with a tax-based financing system deliver health care in terms of services such as emergency care and preventive care (Biswas *et al.*, 2012; Gray and van Ginneken, 2012). High income and well-developed countries provide more services than middle-income countries such as Malaysia (Guinto *et al.*, 2015). One exception is Thailand, which, despite being a middle-income country, offers health insurance for undocumented migrants (Guinto *et al.*, 2015; Tangcharoensathien *et al.*, 2017; Wanwong *et al.*, 2017). Regarding types of health care services, common services received by undocumented migrants in European countries include emergency care, preventive care, treatment of communicable diseases and maternity care, whereas those in ASEAN countries receive only emergency care in Malaysia and comprehensive health care services in Thailand (European Union Agency for Fundamental Rights, 2011; Gray and

van Ginneken, 2012; Guinto *et al.*, 2015; Kvamme and Ytrehus, 2015; McMichael and Healy, 2017; Rafighi *et al.*, 2016; Tangcharoensathien *et al.*, 2017; Wanwong *et al.*, 2017). Although there are legal entitlements for receiving health care for undocumented migrants, many still face difficulties.

Barriers restricted undocumented migrants' access to the provided health care services. These barriers were similar between high-income and middle-income countries concerning insufficient knowledge on the health care system, fear of deportation, and financial problem (European Union Agency for Fundamental Rights, 2011; Biswas *et al.*, 2012; Gray and van Ginneken, 2012; Guinto *et al.*, 2015; Kvamme and Ytrehus, 2015; McMichael and Healy, 2017; Tangcharoensathien *et al.*, 2017). According to the types of barriers, constraints in service availability, fear of deportation, lack of knowledge on available health care services and ways to seek care, language difficulty, and financial problems were common barriers encountered by undocumented migrants (Biswas *et al.*, 2012; André and Azzedine, 2016; Gray and van Ginneken, 2012; McMichael and Healy, 2017; Rafighi *et al.*, 2016; Tangcharoensathien *et al.*, 2017). Regarding most common barrier in this study between European and ASEAN countries, fear of deportation due to lack of legal status is the most common barrier in European countries, while it is the least common barrier in ASEAN countries (Biswas *et al.*, 2012; Gray and van Ginneken, 2012; Kvamme and Ytrehus, 2015; André and Azzedine, 2016; Tangcharoensathien *et al.*, 2017). In the categorization of barriers in this study, undocumented migrants experienced most barriers at the individual level due to language differences, not knowing well about the health care system and right to health care, followed by barriers at health system level such as the refusal of health care providers to provide care, lack of their interest in migrant's health problems and requirement of documents at policy level such as identity card, evidence of living period to access health care (Schoevers *et al.*, 2010a; 2010b Biswas *et al.*, 2012; André and Azzedine, 2016; Gray and van Ginneken, 2012; Teunissen *et al.*, 2014; McMichael and Healy, 2017; Rafighi *et al.*, 2016; Wanwong *et al.*, 2017). As a result, solving these barriers is necessary to obtain the full potential of provided health care services.

Therefore, overcoming these barriers is important for improving their health care utilization. Based on the results of this review, we recommend that migrants be consulted when health care policies are established (Suess *et al.*, 2014), community health services are expanded to include outreach programs and non-governmental organizations (Luca *et al.*, 2013; Hacker *et al.*, 2015; McMichael

and Healy, 2017) and provision of an adequate number of health care providers and resources such as equipment and medicines (McMichael and Healy, 2017). Besides, countries should ensure the provision of translators, delivery of information on health care rights, eligible health care services, ways to seek services and creating migrant social networks to provide information in their language (Liu *et al.*, 2011; Luca *et al.*, 2013; Hacker *et al.*, 2015; Kvamme and Ytrehus, 2015; McMichael and Healy, 2017). Delivery of information about migrants' cultures to health care providers to offer culturally appropriate care is needed (Kvamme and Ytrehus, 2015; McMichael and Healy, 2017). Besides, the collaboration of policymakers, health care professionals, migrant communities, and non-government organizations are crucial in establishing a migrant health care strategy to improve the delivery of health care services (Biswas *et al.*, 2012).

The limitation in this review is that the representativeness of study populations in some included studies is questionable. However, the strength of the study is the coverage of health care schemes and services for undocumented migrants in both European and ASEAN countries, which is different from previous studies which mostly focused on European countries. Finally, barriers to access health care services from the perspective of migrants were described in this review to provide policy recommendations for improving migrants' health care access.

Conclusions

This article describes the health care schemes and services for undocumented migrants as well as the barriers experienced by them from a review of 15 studies. The migrants were reported to have barriers to receive the provided services. Therefore, policy recommendations are necessary to improve health care access. We recommend that governments reduce or abolish the regulation which requires health care providers to request documents before undocumented migrants can receive health care, and abolish the requirement that providers inform government authorities when undocumented migrants seek health care services. Conclusions from this review need to be taken with caution due to the inclusion of studies within the limited time frame and a difference in the scope and quality of studies included in this review. However, barriers are the main concern for improving the health care system for undocumented migrants. Therefore, further studies are needed to further explore the

barriers and effectiveness of measures in tackling these barriers.

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