The global care network and its impact on sending and receiving countries: current knowledge and future directions

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Abstract

Research concerning the effects of migrants on elder care in affluent receiving countries has been substantial, but we know little about the effects of migrant care on elder care in sending countries. There also is limited research on elder care in the context of the return migration of migrant care workers. This theoretical article explores the potential relevance of a social network perspective, which views individuals and countries as being interconnected even when they are miles apart. A multi-level framework that considers macro-, meso- and micro-level perspectives is introduced to better account for current migrant care arrangements. The macro-level perspective takes into account country-level characteristics including policies, geography and cultural preferences; the meso-level perspective takes into account the characteristics of the entire network, which may spread over different countries; and the micro-level perspective concerns the unique characteristics of the individuals who make up the network. This approach proposes that the effects of migrant home care go way beyond the care recipient–care-giver dyads or triads to incorporate many individuals and countries that are transnationally interconnected via the work of care. This article also aims to increase public and scientific awareness to the potential impact of migrant care and return migration on elder care in the sending countries by stressing a transnational social network perspective.

Keywords: transnational; social network; care-giving; care receiving; ecological model

Introduction

For the first time in human history, older adults outnumbered children worldwide (World Health Organization, 2011). Given the increase in lifespan, the decrease in childbirth and the entrance of women into the workforce, the care of older adults is often shared by formal (paid) and informal (unpaid family and friends) care-givers (Anderson, 2012). In the absence of a local workforce to provide the so-called 'dirty' work associated with elder care (Anderson and Anderson, 2000) and thanks

to its lower financial costs, employing migrant care has become a widespread practice (Adebayo *et al.*, 2020).

This paper introduces a theoretical conceptualisation of migrant care as taking place within the macro-level context of society at large, which consists of policies, geography and cultural preferences, the meso-level context of transnational networks, which are developed across families and countries and the micro-level, which takes into account the socio-demographic and personality characteristics of the different stakeholders. This conceptualisation follows the rationale that the investigation of everyday life is a means to understand better social structures and social organisations as they are manifested in the lives of the individual (Näre *et al.*, 2017).

The present theoretical article starts by reviewing migrant care as a global phenomenon that varies based on geography as well as based on employment, immigration, and elder-care policies and cultural preferences. These features constitute macro-level influences. Next, the article stresses the meso-level and the importance of conceptualising migrant elder care as a network, rather than focusing solely on the individual, micro-level. This is done by first describing a transition in research from focusing on the care-giver and/or the care recipient in the receiving countries, to the dyad, which consists of the relations between the care-giver and the care recipient. This approach has been elaborated, subsequently, to include a migrant care worker, thus, moving to the triad level. Next, the entire care-giving network, which consists of all stakeholders who are interconnected through the work of care (both as care recipients and care-givers in sending and receiving countries) is discussed. It is argued that a social network approach allows for a more comprehensive understanding of elder care in the context of transnational migrant care. The present approach considers the macro-, meso- and micro-levels to account better for transnational elder-care networks. For a detailed illustration of the conceptual model proposed in this article, *see* Figure 1. The article concludes with recommendations for research and practice.

A macro-level perspective on migrant care workers as a global phenomenon
Migrant care in receiving countries

The present article is focused on paraprofessional (*e.g.* not qualified or licensed to capture a specific profession) migrant care workers. It does not concern the skilled long-term care workforce that also is composed of a large segment of migrants, worldwide (Kline, 2003). Migrant paraprofessional care workers tend to work either in care recipients' homes, as home care workers (*e.g.* live-in or live-out) or in institutions, as direct care workers (Adebayo *et al.*, 2020).

While reading this review, it is important to note that the exact magnitude and type of care provided by migrant home care workers remains unknown to a large extent. This is partially attributed to the unregulated features of this arrangement in many countries, worldwide. The fact that care takes place behind closed doors makes it hard to monitor this arrangement and appreciate its magnitude (Anderson, 2012). Moreover, the way migrant workers are classified also makes it very difficult to estimate the exact number of migrant live-in elder-care workers in each country. For instance, in Singapore, these workers are registered as 'foreign domestic care workers', but in Hong Kong as 'foreign domestic helpers'. In Taiwan
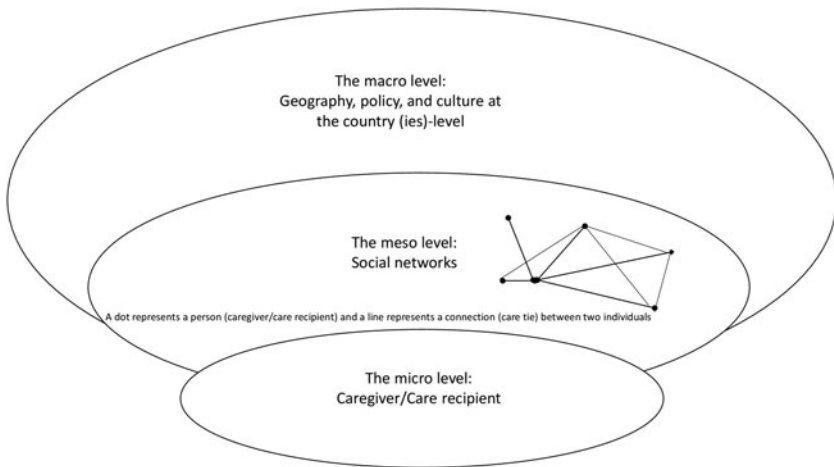
The macro level:
Geography, policy, and culture at
the country (ies)-level

The meso level:
Social networks

A dot represents a person (caregiver/care recipient) and a line represents a connection (care tie) between two individuals

The micro level:
Caregiver/Care recipient

Figure 1. Illustration of the conceptual model.

or Israel, on the other hand, migrant care workers are live-in carers, responsible for care-giving rather than for domestic duties (Schmid, 2005; Peng, 2017b). This results in different care tasks and different amounts of care performed by migrants in different countries. Hence, whereas in Singapore and Taiwan, the percentage of migrant workers compared with local workers stands at about 20 and 13 per cent, respectively, it is almost non-existent in Japan (Schmid, 2005). In Greece or Italy, the overall number of migrant care workers out of the overall care workforce stands at 40 per cent and in Ireland the share of migrant care workers out of the entire care workforce stands at 25 per cent, though this number has increased by 300 per cent over a period of 10 years (Cangiano, 2014). Hence, although clear statistics concerning migrant elder care and, in particular, live-in migrant elder care remain largely under-reported, there are clear indications that this care arrangement is increasing in prevalence in a variety of countries, including the Netherlands (Da Roit and Van Bochove, 2017), Germany (Horn *et al.*, 2019), Italy (Boccagni, 2018), Switzerland, Austria, the United Kingdom (UK) and Canada (Schwiter *et al.*, 2018).

   The following section provides several examples from different geographic locations, policy frameworks and cultural attitudes to illustrate better the diversity and breadth of the phenomenon. The choice of countries from different regions of the world stresses the reliance on migrant care in very different countries and cultures. This also shows how country-level characteristics, as well as the characteristics of countries that are interconnected based on the work of care, shape the migrant elder-care arrangement. Differences in geographic location, immigration policies, employment and elder-care policies, and cultural attitudes result in very different working conditions and elder-care practices in different countries (Anderson and Shutes, 2014).

   Geographically, one would expect that adjacent sending and receiving countries allow for easier transitions between countries. Under such circumstances, the migrant care worker might be able to maintain strong ties with the sending country

and even fulfil some of their care duties in the sending country. Such an arrangement might be seen in adjacent countries, such as Germany as a receiving country and Poland as a sending country or Ukraine as a sending country and Poland as a receiving country. In contrast, when sending and receiving countries are very distant from each other, this may result in the migrant's physical but also emotional distance from the sending country. Such an arrangement can be seen in the case of Filipino migrant care workers in Israel or Italy, as discussed below.

Immigration, employment and elder-care policies largely determine the availability of elder-care options and resources in both sending and receiving countries, as well as the availability of migrant care workers in receiving countries. As illustrated below, more lenient immigration policies (*e.g.* European Union (EU) citizenship) likely result in easier transitions between sending and receiving countries. Very strict immigration policies such as the ones enacted in Japan or South Korea, for instance, result in very low rates of migrants in the country, even in the face of high need for elder care (Peng, 2017a). Employment policies that allow family members to designate time off work for care might result in greater reliance on family care, rather than migrant care workers. Related to these are elder-care policies, which may concern the state support of certain types of care and not others. For instance, if the state subsidises local care, but not migrant elder care, there is going to be a greater reliance on local care at the state level.

Worldwide, there is a relationship between the availability of formal care services for older adults and the entrance of women into the workforce (Lyon and Glucksmann, 2008). This has been partially attributed to the fact that informal care-giving, often provided by women, tends to prevent people from participating fully in the workforce. Those countries that have a well-developed formal care system, on the other hand, might depend less on informal care and, thus, allow for a greater participation of women in the workforce.

One conceptualisation which aims to explain variations in migrant care arrangements, worldwide, has attempted to characterise elder care along the axis of private *versus* public care. Mediterranean countries, such as Italy or Spain, have traditionally relied on the family to finance long-term care. Germany and Austria represent a combination, as there is some support provided by the state, yet much of the care is provided by the family. North European countries, on the other hand, are characterised by their publicly funded long-term care schemes (Horn *et al.*, 2019).

With time, however, the different welfare regimes have become more similar, with a general shift towards home care services, rather than institutional services even in Northern Europe. Although home care services may be partially financed publicly, they often are funded either solely through private sources or via a combination of public and private funding. These transitions have contributed to a general shift towards outsourcing care to migrant workers (Cangiano, 2014). Moreover, Mediterranean countries that originally relied on family members as carers have become more diverse in the sources of care they rely on because of financial support provided by the state. For instance, Spain introduced the Dependency Act in 2006 to promote autonomy in people who require assistance (Peña-Longobardo *et al.*, 2016).

Policies concerning migrants and migrant care affect the type of care older adults receive and the type of migrants on whom they rely. In some countries, such as Israel or Singapore, migrant workers are temporary labourers, who are there to

provide care and eventually leave the country for good. In these countries, migrant workers are not allowed to bring family members with them and their stay in the country is limited for a period of several years in order to ensure that they do not settle in the country for good. In other countries, such as the United States of America (USA) or Canada, migrant workers may become permanent residents and, thus, are eventually allowed to settle, accompanied by their loved ones.

The working conditions of migrant care workers also vary based on the country's policies. According to the Israeli state laws, migrant care workers must provide live-in personal home care services (in contrast to live-out care). Care may include assistance in activities of daily living, such as grooming, transferring and feeding, as well as in instrumental activities of daily living, such as cooking and cleaning the personal space of the older person (Iecovich, 2016, 2006). This live-in home care arrangement is common in other Mediterranean countries, such as Italy, Greece or Spain (Lamura *et al.*, 2010; van Hooren, 2012). It also is common in Asian countries, such as Singapore or Japan (Basnyat and Chang, 2017).

Finally, cultural attitudes also play a role and likely are influenced and influence the various policies (*e.g.* migration, employment, elder care) discussed above. Cultural attitudes may also determine the characteristics of the care arrangement, for instance, countries that hold more familial characteristics are likely to rely on the migrant in the family model (Lin and Bélanger, 2012; Rugolotto *et al.*, 2017). Whereas in Israel, migrant carers must work around the clock as live-in workers, in other countries, such as Germany, workers are expected to work only 38.5 hours per week (Karakayali, 2008), but in reality often end up working around the clock with limited supervision of their working conditions (Ambrosini, 2013). Hence, the Israeli model explicitly promotes the migrant-in-the-family, traditional Mediterranean approach. In Germany, on the other hand, the migrant-in-the-family model is regarded as an open secret, which occurs in real life, but receives limited acknowledgement from the state (Lutz and Palenga-Möllenbeck, 2010; Horn *et al.*, 2019). This situation is contrasted with Austria, which transitioned to a 24-hour care model in 2007, which is now legally allowed and practised (Österle and Bauer, 2015). In many of the receiving countries, however, regardless of the model of care, migrant care workers are underpaid and are exposed to precarious working conditions (Abu-Habib, 1998; Ayalon, 2009a; Lutz and Palenga-Möllenbeck, 2010).

Migrant care in countries that are both sending and receiving at the same time

Countries such as Poland or Romania are classified as both sending and receiving at the same time. This is because of their proximity to wealthy receiving countries, on the one hand, and their EU status, on the other hand. Research concerning elder care in these countries has been quite scarce compared with research on purely receiving countries (Vianello, 2016). Nonetheless, like other more affluent countries, such as Germany or Israel, publicly funded elder care is insufficient in these countries, resulting in an unmet demand for elder care.

Both the sending countries and the receiving countries represent a wide range of geographic regions, which have their own immigration and elder-care policies. South–North or East–West divisions are commonly used to portray the migration

patterns of migrant care workers (Cohen, 1991). Although this transition is commonly thought of as a transition from more traditional to more modern societies, the country's financial status is probably a better indicator, as the transition of migrant workers often takes place from poorer or less-affluent countries to wealthier ones (*e.g.* higher Gross Domestic Product) (Harcourt, 2007).

From the individual micro-level perspective to the dyad or the triad in the context of migrant care

Much of the elder-care research to date has addressed the individual stakeholder, be it a care-giver, an older adult or even a migrant care worker. With the advancement of methodological tools (*e.g.* the Actor–Partner Interdependence Model), the theoretical focus has shifted to viewing elder care as a dyadic occurrence involving an older care recipient and a care-giver (informal or paid, including a migrant) (Fulmer *et al.*, 2005; Sebern, 2005). Theoretical models, such as the one proposed by Yates *et al.* (1999) in Australia, have emphasised the interconnections between care-givers and care recipients. Specifically, the model suggests a link between the care recipient's condition (characterised as the care-giver's stressors) and the care-giver's emotional state, manifested in depressive symptoms. Accordingly, the worse the care recipient's condition is, as manifested by a greater demand for care assistance, the more depressed the care-giver is. This link is thought to be mediated through the amount of informal hours of care provided by the care-giver and the care-giver's perceptions of role overload (Yates *et al.*, 1999). Similar models, which propose a link between the care-giver's and care recipient's status (*e.g.* the more behavioural problems or care needs the care recipient has the more depressed or burdened the care-giver is going to be) have been proposed by other theoreticians over the years (Lawton *et al.*, 1991; Lawrence *et al.*, 1998).

Nevertheless, the care-giving dyad has deemed to be insufficient in explaining the effects of care-giving on the various individuals involved in elder care (*e.g.* care recipients, care-givers), given the fact that formal (paid) care often is provided alongside informal care by family members and friends. Hence, even a very restrictive model, at the minimum, should examine a triad (*e.g.* an older adult, a primary family care-giver and a paid care-giver), rather than a dyad.

As paid care (either by migrants or by local workers) often supplements or complements family care, research has elaborated the dyadic models to examine triadic relationships, which are composed of an older care recipient, a family care-giver and a paid migrant care worker (Ayalon, 2010, 2016; Ayalon and Roziner, 2016). This has largely supported the theoretical rationale put forth by the dyadic models, by demonstrating a link between the care recipient's condition and the care-givers' state (Ayalon, 2016). This link or relationship has been shown to be partially mediated by the level of involvement and support provided by the migrant carer. Specifically, as the amount of care provided by the paid migrant care-giver increased, the level of burden reported by the family care-giver decreased and *vice versa* (Ayalon and Green, 2013). Hence, this line of research stresses the interdependence between paid and unpaid care and their mutual influence.

Research conducted in Israel has shown that as part of the live-in model, the migrant home care worker and the older adult spend the majority of their time

together, thus, a new actor enters the family, resulting in the creation of new dyads (*e.g.* worker–older care recipient; worker–family care-giver) and triads (*e.g.* older adult, family care-giver, migrant home care worker). The migrant home care worker is responsible for supporting the physical needs of a dependent older adult, but, at the same time, the older adult (and his or her family members) are responsible for the provision of the physical needs of the migrant home care worker (Porat and Iecovich, 2010). Whereas, family members become increasingly enmeshed in overseeing the day-to-day care of their older family members on top of work and family responsibilities, the members of the new dyad which consists of the migrant home care worker and the older adult become increasingly inter-dependent (Ayalon, 2009b). These family-like relations between the older adult and the migrant care worker exist in other countries as well, including Italy (Puppa, 2012), Canada (Martin-Matthews, 2007) and Australia (Baldassar *et al.*, 2017).

A meso-level framework: social network analysis to understand better migrant elder care

What is still missing is a focus on the entire elder-care network which may include multiple members in both sending and receiving countries (Burt, 2000). The social network is defined as a set of actors (*e.g.* individuals, countries, organisations) and the connections between them (Wasserman and Faust, 1994). Although the social network may take many forms depending on the type of relationships assessed (*e.g.* friendship, familiarity, care), in the case of elder-care networks, the ties between the individuals who make up the network represent the receipt and/or the provision of care.

Care can be characterised as personal (*e.g.* assistance in activities of daily living such as transfers or feeding), instrumental (*e.g.* assistance in instrumental activities of daily living such as transportation or managing finances), emotional or financial. Hence, different types of elder-care networks can be conceptualised based on the specific type of elder care examined. If the network is constructed based on financial care, care-givers who are involved in the provision of emotional care but refrain from providing financial care will not be part of the care-giving network. On the other hand, if emotional care is examined, those in charge of providing only personal care or financial care will not be part of the social network of emotional elder care. Obviously, the type of care provided determines the level of involvement and investment of the various care-givers, and is determined at least partially by the availability of care-givers and the needs of the care recipient (Franzosa and Tsui, 2020).

For instance, a social network might be constructed based on the provision and receipt of physical care. Based on past research conducted at the individual level, we know that spouses and adult daughters are more likely to provide personal care than sons (Ayalon, 2009b; Revenson *et al.*, 2016). Hence, we expect the social network to include primarily these stakeholders, in addition to the care recipient. Financial and emotional care, on the other hand, does not require geographic proximity, so that individuals who may live apart can still be included in the same social network. A study conducted on the experience of elder care from a distance among migrants has argued that this is the type of care most often provided by immigrants to their ageing parents (Baldassar and Baldock, 2000; Baldassar, 2008). Therefore,

when constructing elder-care networks, the social network is considered fuzzy, as there are no pre-determined boundaries that specify who should be included in the network. For instance, if a child is not providing emotional care, he or she will not be included in the emotional care network, but might be included in the personal care network if this person is responsible for the provision of assistance in activities of daily living. Hence, not all siblings might be included in the network, even though they all share family ties to the care recipient. It also is important to remember that social networks might be composed of more than a single type of relationship, so that the same care-giver/s may provide both emotional and personal care at the same time.

Based on a national study conducted in the USA, a typical network of older adults is thought to be at the size of a little over 3.5 confidants. Confidants were defined as 'people with whom you discuss things that are important to you'. Hence, this type of question taps into emotional care. Reportedly, most respondents added confidants to their network over time. This network, however, was egocentric in nature, hence, constructed by a single informant with regard to his or her social ties (Cornwell and Laumann, 2015). Longitudinal research, which has examined changes in the size and nature of the care-giving network in the USA, has shown a decline in the network size over time (Albright *et al.*, 2016). This study as well, was based on the reports of a focal person (*e.g.* either a care recipient or a care-giver) who described his or her social network. This latter study was specifically focused on family care-givers, hence, only family members were included and the type of care assessed was not necessarily emotional in nature. Hence, research suggests that the social network of older adults likely is more complex than the relations portrayed via dyadic or triadic frameworks. Moreover, these networks may vary based on the type of ties examined: *e.g.* confidant (which may or may not include family members) *versus* family ties (which exclusively consists of family members).

Relying on a social network framework, a migrant home care worker might provide paid personal care to older adults in a receiving country while providing financial and emotional care to older relatives in a sending country. Thus, two supposedly independent networks become connected via the work of care. The migrant carer might bridge between otherwise separate networks of care, which take place in different geographic settings and concern different care recipients and care-givers. Nevertheless, the connection between two supposedly independent networks, located at a geographical distance, represents a transnational social network through which ideas, thoughts and beliefs might be transferred.

It is important to note that if our focal person in the social network is the migrant home care worker, for instance, this person may not receive direct care from others, yet, the availability of other care providers will completely alter his or her experiences. For instance, the availability of siblings to provide care to older parents left behind might allow a migrant care worker to spend extended periods abroad, with the understanding that others are available to provide elder care (Stöhr, 2015). Hence, although for simplicity, we use the term carer in its singular form, care-giving often is provided by multiple carers (Tennstedt *et al.*, 1989). Therefore, the social network framework allows for a better understanding of the complexity of elder care and the various stakeholders involved in such care.

The effects of return migration of home care workers on elder care in sending countries also are transnational from a social network perspective, as it is possible that attitudes towards old age, feelings towards elder care and elder-care practices, internalised/acquired in receiving countries, impact the network in sending countries upon the return of migrant home care workers. Hence, to understand elder care more fully, it is essential to move beyond individual, dyadic or triadic analyses to explore the entire social network. Such an analysis will consider multiple individuals involved in elder care-giving and care-receiving, spread across different geographic regions.

The importance of examining the entire social network

Although this has not been systematically examined in the context of elder care, we know from studies employing social network analysis that the effects of a single individual in the network on the entire network can be quite substantial. There is plenty of research to show how attitudes, behaviours and feelings can spread in the social network (Fowler and Christakis, 2008; Cacioppo *et al.*, 2009; Rosenquist *et al.*, 2010). Hence, one would expect, for instance, that financial and/or emotional care transferred transnationally change the shape and the function of the network in both sending and receiving countries.

To date, knowledge on care-giving networks has relied primarily on egocentric networks, which include the perspective of a single informant about his or her social ties (Keating *et al.*, 2003; Cornwell *et al.*, 2009), rather than focusing on the perspective of the entire network (Ayalon and Levkovich, 2019). There has been limited research on the entire care-giving network as a full social network (querying all network members about their ties, rather than only a single focal person who constructs the network from his or her point of view) (Koehly *et al.*, 2015).

In order to demonstrate the added value provided through the use of a data-gathering method, which relies on multiple informants within the same social network, Koehly *et al.* (2015) examined social networks constructed based on multiple informants within the same family network *versus* networks that were constructed from an egocentric perspective by querying a single informant. The authors have argued that differences between the two types of networks can attest to the importance of including multiple members in the same network. They found that the reliance on a multiple-informant method resulted in ten new members per family network. The reliance on the multiple-informant method has resulted in the identification of a core care-giving network, which is responsible for the provision of the majority of care and consists of 6.12 members on average, and a peripheral network, substantially less involved in daily care, which consists of an additional 5.19 members on average (Koehly *et al.*, 2015).

Social network research, which considers multiple points of view concerning the relationship between the people who make up the network, is essential as it examines elder care as impacting multiple people in multiple countries and being performed by multiple carers, rather than a single designated care-giver. These experiences have been partially captured by the care chain and care drain concepts, as detailed below. However, to date, the social network framework has not been fully incorporated in the elder-care conceptualisation.

The care chain and the care drain effects

Two highly prominent and inter-related concepts attempt to explain the potential interdependent effects of migrant care. The first is the care chain, which describes the interdependence between people based on the work of care (Connell and Stilwell, 2006; Basa *et al.*, 2011; Fudge, 2011). This concept is particularly relevant in the case of migrant carers, who leave their own family members, young and old, to provide care in the receiving countries. The care chain is directly related to another concept, coined the care drain (Bettio *et al.*, 2006; Bahna, 2015). The care drain, characterised by limited available care-givers in the receiving countries, is thought to be the instigator behind the care chain and the migration of care workers. As the need for care-givers increases, carers from less-affluent countries move to the receiving countries to meet this need. This, in turn, results in a care drain in the sending countries (Cooray, 2017).

Multiple studies have documented the care chain effects. These studies have shown that the global care chain has social, cultural and financial consequences. For instance, a study conducted in Italy has shown that Filipino women are highly committed to providing care to their loved ones in the Philippines, through the transmission of financial remittances. The transmission of remittances takes place despite geographic boundaries and the passage of many years since migration (Basa *et al.*, 2011). Similar findings have been documented in other countries, such as Spain (Escriva and Skinner, 2016), Israel (Ayalon, 2009b), Poland and Ukraine (Lutz and Palenga-Möllenbeck, 2012).

Research on the care drain effects has stressed the impact of migrant care on the children left behind (Gheaus, 2013; Bahna, 2015). This line of research has shown that migrant care workers tend to use digital technology in order to communicate with their children (Madianou and Miller, 2011). Whereas the migrant care workers might believe that the use of digital technology for communication purposes is effective, the children of migrant care workers are more ambivalent and often report high levels of resentment and ambivalent attachment to their migrant mothers, who live thousands of miles away (Madianou and Miller, 2011). In line with the care drain concept, research also has shown that whereas financial remittances are sent back to support the care of young children left behind and digital technology is used to overcome the geographic distance, children of migrant mothers still fair worse than those whose mothers do not migrate (Parreñas, 2002; Cortes, 2015). For instance, Cortes (2015) compared children of migrant mothers to those of migrant fathers, arguing that the former are more likely to lag in school, even once remittances are controlled for. A longitudinal study conducted in China examined different forms of parental migration as well as sibling migration. The study found that in contrast to the migration of siblings that benefits children, the migration of parents did not result in educational advantages for the children left behind and was particularly detrimental for younger children (Lu, 2012). Although informative, we know much less about the care chain and care drain effects on elder care in the sending countries.

The care chain and care drain effects are thought to be relevant not only to receiving countries, but also to sending countries. The literature on elder care has generally dichotomised care as either personal or instrumental, with personal care defined as the provision of assistance in activities of daily living, such as

transfers and bathing, and instrumental care defined as assistance in instrumental activities of daily living, such as assistance with managing finances or transportation. However, in many of the sending countries, for those who have a relative abroad, transnational elder care takes on the form of financial remittances sent by migrant care workers back home in order to ensure the care of their loved ones (Cohen, 2011; Basa *et al.*, 2011; Batista and Umbljis, 2015). Much of the research has focused on child care being substituted by other family members, who receive financial compensation in return. It is likely, though largely unexplored, that elder care in the sending countries shows a similar pattern, with remittances being used to pay for the care of older adults, while their family members provide care to more-affluent older adults in wealthier countries.

A recent analysis of elder care by Polish migrants has stressed the transnational aspects of the care provided to the older adults left behind. That research has shown that most migrants helped their older parents by distantly providing instrumental care, administrative assistance and personal care (provided during visits), as well as financial assistance (Krzyżowski, 2015). Others have shown that while Polish women move to more-affluent countries such as Germany, Austria or the UK, women from countries such as Ukraine or Russia provide elder care in Poland (Palenga-Möllenbeck, 2013). A different study conducted in Poland has shown that the care drain effects of having a migrant in the family often are ameliorated by non-kin network members stepping in to provide primarily emotional support (Conkova and King, 2019).

Currently, about 10 per cent of the (child and/or elder) care in Poland is supported through migrant care workers. Due to geographic proximity between sending and receiving countries, this arrangement may take a cyclical pattern, with (primarily) women going back and forth between the countries (Fedyuk *et al.*, 2014). Hence, oftentimes, more than a single paid carer is providing care in the receiving countries, and money sent by migrant workers can be used to bring in workers from even less-affluent backgrounds (Piperno, 2007; Solari, 2010).

These important concepts of care chain and care drain explicitly address transnational social network ties between people and nations involved in care. However, they do not rely on a social network framework, but instead tend to employ individual or dyadic perspectives, thus, possibly ignoring rich and complex information about the perspectives of the various stakeholders involved in elder care. This is because the various stakeholders (*e.g.* care recipients, care-givers, other intermediaries) who make up the elder-care network might be spread thousands of miles apart, yet connected to one another via the work of care.

What is still missing: the reliance on a full transnational social network

As this article shows, despite methodological advancements and the growing reliance on social networks to explain social phenomena, such as obesity, depression, alcoholism or even loneliness (Christakis and Fowler, 2007; Fowler and Christakis, 2008; Rosenquist *et al.*, 2010), research on elder-care social networks remains limited (Ayalon and Levkovich, 2019). Moreover, although both the care chain and care drain concepts stress interdependence between people and nations (*i.e.* transnationality), the actual use of social network research to explore the care chain and the care drain effects is nearly absent.

Nevertheless, a full social network perspective which examines both sending and receiving countries will account for the care chain and care drain effects. Relying on such an approach, we would start by querying the migrant home care worker as this person represents the focal person who forms the tie between the two countries (*e.g.* sending and receiving) and between the two concepts of care chain and care drain. This person will be queried about the type of care they provide to the older adults in the receiving countries (*e.g.* paid care) and the informal care they provide to family members in the sending countries. They will also be asked about all other people who are involved in elder care both in the receiving country and in the sending country. Moreover, respondents can be queried not only about the care provided to the older person in the receiving and the sending countries, but also about the care that they receive, *e.g.* financial or emotional, from others. These individuals, who were named by the focal person, will subsequently be approached, and queried about the type of care they provide to the respective older person and about additional individuals involved in the care of this person. Such an approach can continue for several steps (degrees) away from the initial informant (*e.g.* migrant home care worker) to develop a comprehensive transnational elder-care network. This results in a very elaborated transnational social network which reflects both the receipt and the provision of different types of care.

The use of social network research to examine transnationality can provide important insights both about the shape of the network and the social function/s of the individuals who make up the network. For instance, by using social network methodology, one may examine whether elder-care networks in sending countries are denser (the proportion of dyadic relations which are present) than those in the receiving countries or whether transnational social networks are more likely to have a large number of cliques (a subset of the network where actors are more closely tied). Examining the entire social network, rather than only several individuals who make up the network, is important as the whole is often greater than the sum of its parts. The proposed analysis moves away from focusing on the attributes of the individuals who make up the network (*e.g.* age, gender) to examining the social characteristics of the entire network (*e.g.* density, cliques). This, in return, allows the characteristics of the networks in different geographic locations to be compared.

The reliance on the entire social network may also allow for a better understanding of the social roles played by the different individuals who make up the network. For instance, the brokerage role of migrant care workers, who connect two or more otherwise separate networks via the work of care, might be explored from a social network perspective. Specifically, we know that capturing a brokerage position can be beneficial as it allows the individual to exert control over others in the network who are dependent upon the individual for social connection and information. The broker, on the other hand, enjoys a substantial amount of freedom and may serve as a source of innovation that transfers attitudes, beliefs and behaviours from one social clique to another (Burt, 2002; Isaac *et al.*, 2014).

While keeping the enthusiasm about a full social network framework to elder care high, it is important to note the limitations of relying on such a method. It is considered quite cumbersome both financially and methodologically to collect such data. It is challenging to obtain the co-operation of an entire network and, in the case of transnational networks, this requires interviewing people who are spread over various geographic

regions. Moreover, the reliance on a full social network also poses some ethical challenges as it requires respondents to provide information about other network members.

What is still missing: the effects of migrant care on the sending countries and along different migration patterns from a social network framework

Another important aspect, which is currently missing from the literature, is the social network effects of outmigration of migrant carers on elder care in sending countries. One possibility is that outmigration results in care gain (Piperno, 2007), so that older adults and their family members left behind possibly enjoy the financial remittances and innovative elder-care practices transnationally shared by migrant workers. However, an alternative perspective suggests that the outmigration of migrant carers results in elder-care drain in the sending countries (Kaelin, 2011; Lutz and Palenga-Möllenbeck, 2012). Previous studies of care drain have focused mainly on child care (Cortes, 2015; Dankyi *et al.*, 2017) or on the limited professional carers in the sending countries (Kaelin, 2011). The potential care drain (or gain) regarding informal carers in sending countries has not been examined thus far and a social network perspective has not been incorporated. Further research will potentially allow for more ethical policies and regulations, which consider the global effects of migrant care on elder care in both sending and receiving countries.

As migration is not necessarily unidirectional from sending to receiving countries, the impact of pendular and return migration on elder care in the sending country also must be thoroughly examined. This too should be examined from a network perspective as transnational movements from one country to another impact not only the migrant carer, who might be going back and forth between countries, but potentially an entire network of care-givers and care recipients in both sending and receiving countries.

Specifically, we know that many migrant carers go back and forth between sending and receiving countries. For instance, it is estimated that the majority (70%) of Ukrainian migrants are temporary (including pendular migration). Return migration also is quite common (Düvell, 2006), *e.g.* since 1998, 2.5 million Filipino migrants (many of whom are likely carers) have permanently returned to the Philippines (Battistella, 2004). However, thus far, neither the effects of pendular arrangements nor the effects of return migration on elder care have received much attention (Elrick and Lewandowska, 2008; Keryk, 2010).

Migration patterns possibly result in substantial changes in the elder-care networks in the sending countries. Returning to one's home country means that the former migrant carer might become more available to provide personal elder care, thus, freeing other informal or even formal carers. Yet, financial care might become scarcer because no remittances are being sent. Ideas, practices and beliefs about elder care, acquired in the receiving country, might penetrate the elder-care network in the sending country and impact elder-care practices upon the former migrant's return. Nevertheless, the magnitude and effects on elder-care networks in receiving and, even more so, in sending countries have remained unclear and underexplored (Cassarino, 2004).

Given the large body of literature that has stressed the effects of the entire social network on the spread of ideas, beliefs and behaviours (Valente, 1996; Christakis

and Fowler, 2007; Cacioppo *et al.*, 2009, Centola, 2010), it is possible that as migrant care workers move back to their home countries (or back and forth between countries), they bring with them ideas, beliefs and behaviours that were acquired in the receiving countries. The spread of ideas, beliefs and behaviours likely has a differential impact based on the specific location of the migrant/former migrant care worker in the social network and the nature of the network. A migrant care worker who takes on a brokerage position might be quite capable of trans-nationally transferring ideas, beliefs and behaviours back and forth between countries. On the other hand, a migrant care worker who is an isolate, with no ties to others in the network, likely has limited impact on the network. The nature of the social network also plays a role, as a network that is geographically confined is likely to facilitate the spread of ideas compared with a geographically dispersed social network (Montanari and Saberi, 2010).

To sum up, past research has stressed the role of migrants as innovators and agents of change in both sending and receiving countries (Ozgen *et al.*, 2011; Scheffran *et al.*, 2012; Venturini *et al.*, 2012; Andersson *et al.*, 2017). However, this line of research has focused primarily on professional migrants (*e.g.* software engineers, nurses, physicians). Migrant care workers, on the other hand, have been conceptualised primarily as servants of globalisation (Anderson, 1997). Their role as change agents has largely been ignored. When migrant carers return back home after years of providing elder care in the receiving countries, it is highly likely that elder-care practices and attitudes, which were acquired in the receiving countries, now penetrate the network in the sending countries.

To date, the migrant elder-care literature has either focused on the individual stakeholder (*e.g.* care recipients/care-givers) or on dyads or triads within the larger network. What is still missing is a comprehensive, transnational, holistic perspective, which takes into account the entire care-giving network across both sending and receiving countries, while incorporating the macro-level, in order to understand fully the effects of migrant care on elder-care networks in both sending and receiving countries. Such an approach should consider the geographic proximity between sending and receiving countries, their various policies and cultural attitudes as they relate to elder care. This macro-level conceptualisation provides a better understanding of the meso- and micro-levels. As clearly demonstrated in this paper, the macro-level has a tremendous impact on the composition, characteristics and type of social networks of care-givers and care recipients in sending and receiving countries, which subsequently also results in different care experiences at the individual level.

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