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21 A Transaction Cost Approach to Informal Care

Abstract: Research on cooperation and care has largely overlooked the informal care for adults. Informal care is the care for those who experience (mental or physical) health issues. In this contribution we aim to explain the provision of informal care from a transaction cost approach. We do so by investigating the role of coordination problems and trust problems in the supply of informal care from the perspective of the care giver. We also investigate the role of the social embeddedness of the relationship between the care giver and receiver. Using information from 7,166 care givers and non-care givers collected by the Dutch Institute for Social Research and the Central Bureau of Statistics, multivariate analyses are used to test our hypotheses. Results show that less hours of informal care are provided when the complexity of needs is higher. However, unexpectedly, those with more general skills spend less rather than more time of informal care. Our results also suggest that care givers prefer to give informal care to the ones they know and have a close relationship with. Although the findings are mixed, we conclude that informal care provided by the care giver can be viewed upon as a transaction, and give suggestions for further research.

21.1 Introduction

Cooperation and conflict arise in many different contexts and the family domain is one of these. There is an extensive body of literature that has studied how partners in a household divide and negotiate paid and unpaid work (Blood Jr and Wolfe 1960; Hook and Wolfe 2011; Becker 1981; Becker and Moen 1999; Poortman and Van der Lippe 2009), and how organizations coordinate how parents can spend time on their children (Roeters 2010). The unpaid work activities that are studied are usually limited to household work and child care (Bianchi and Milkie 2010; Bianchi et al. 2012), and studies tend to focus on the relationship between heterosexual partners.

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By focusing on these activities and relationships, research on cooperation and care has largely overlooked the informal care for adults. Informal care is the care for those who experience (mental or physical) health issues. This can concern the care for an ageing parent, but also applies to the care for a sibling or neighbor with a disability. The Dutch term for this type of care – ‘mantelzorg’ translates as ‘cloak care’, indicating that the person who is taken care of is taken under the wings of the person providing the care. The lack of attention for informal care is a missed opportunity, both from a scientific and a societal point of view.

First, it is a missed opportunity for research studying interdependencies and cooperation (Raub and Weesie 2000). When informal care is provided (or withheld), multiple “negotiations” have taken place, implicitly or explicitly. When a person is in need of care it is not self-evident who provides this care. When household and child-care tasks are involved it is usually evident that both partners share this responsibility. The division of responsibilities is less evident when it comes to informal care. Partner, parents, siblings, neighbors, and friends are all potential informal care givers. In informal care, personal relationships are intertwined with caring tasks. This may provide benefits because there is trust, but it may also be considered a risk because it may have (negative) consequences for the personal relationship. Informal care creates social obligations, and the care receiver is strongly dependent on the care giver (the obligation has to be “paid” to the same person). Thus, there are similarities with outsourcing childcare where the care that is received is also dependent on the care giver (De Ruijter 2005). Moreover, formal care is often an attractive alternative (more so than usually is the case for child care; see Portegijs, Boer, and Merens 2015). A large proportion of the Dutch considers the government to carry the main responsibility for the care of those in need (van den Broek, Dykstra, and van der Veen 2015). The provision of informal care does not only require coordination between those who are receiving and providing this care. When there are multiple care givers (e.g., a neighbor and a child, or a partner and a nurse) they have to coordinate their activities. Naturally, the person who is in need of care has an important say in how this care is arranged, but at the same time he or she is dependent on the availability and willingness of others.

Second, informal care is increasingly important from a societal perspective. Like other western societies, the Dutch population is aging. Currently, 19% of the Dutch population is older than 65 years and the Dutch Bureau of Statistics expects this percentage to increase to 26% in 2040 (Stoeldraijer, Van Duin, and Huisman 2017). But not only older people are in need of care. Physical and mental health impairments can arise at a much earlier age. The average ‘healthy life expectancy’ (the estimated number of years during with people live in good health) currently varies between 57,2 for lower educated and 71,5 for higher educated (estimates for individuals born in 2017, Centraal Bureau voor de Statistiek (Statline) 2018). Thus it is not surprising that informal care is increasingly common. In the Netherlands, the number of informal care givers is estimated at 5 million people. This equals one third of those aged 16 or older (De Klerk et al. 2017). In the coming decades this percentage is expected to increase

(Van den Broek et al. 2016). The expected increase in informal care is not only driven by demographic changes. Public health policy in the Netherlands is increasingly stimulating informal care. In order to do so, access to formal care is restricted and care professionals and public servants are required to discuss the possibilities for informal care with the family members of those who are in need of care (Broek 2013).

Although there is an increasing body of literature on informal care for adults with health issues, the effects of coordination and trust problems have not yet been addressed. We argue that trust plays a key role in the supply of informal care. Our hypotheses are informed by two theoretical approaches: the *transaction cost approach* (Coase 1952; Williamson 1981, 1985) and *new economic sociology* (Granovetter 1985; Smelser and Swedberg 1994). Both approaches can help us to assess the influence of trust problems on informal care giving. The transaction cost approach describes the influence of trust problems or “opportunism problems” on decision-making by firms. The transaction cost approach has been applied to the family before, usually in combination with insights from new home economics. Although this research has not yet focused on informal care it does focus on issues concerning contracting and financial arrangements in intimate relationships or the outsourcing of household and caring tasks (Ben-Porath 1980; De Ruijter, Van der Lippe, and Raub 2003; Giesen 1999; Ludwig-Mayerhofer 2000; Pollak 1985; Treas 1991, 1993; Treas and Widmer 2000). These studies suggest that the exchange of support can be hindered by trust issues. New economic sociology complements this approach by arguing that trust inspired by social embeddedness reduces risks associated with the exchange of support.

The current study aims to explain the provision of informal care from a transaction cost approach. We do so by investigating the role of coordination problems and trust problems in the supply of informal care from the perspective of the care giver. We also investigate the role of the social embeddedness of the relationship between the care giver and receiver. The dataset that is used to test our hypotheses provides information about the characteristics of the potential care giver (general characteristics as well as characteristics that relate to the ability and willingness to provide care), the care receiver and the relationship between the two. Therefore the data enable us to study the specifics of the context in which care is provided or withheld.

21.2 Theoretical framework

The basic idea of the transaction cost approach is that that governance structures are chosen in such a way that the anticipated costs for reaching and enforcing agreements during transactions are minimized (Coase 1952; Williamson 1981, 1985). Firms can protect themselves from problems by choosing a certain governance structure, such as the detailed contractual planning of a transaction, or by looking for a reliable partner, which involves transaction costs. The properties of a transaction determine

which governance structure is the least costly (Coase 1952; Williamson 1981, 1985). If a firm is more likely to encounter problems when entering a transaction on the market and the damage it can suffer is higher, the firm will incur higher transaction costs to prevent problems. Coordination problems within firms may also encourage market exchange and prevent internalization of certain activities (e.g. Baron and Kreps 1999).

Regarding informal care, the supply of care requires investments in transaction costs. The *likelihood* and potential *consequences* of coordination and trust problems both influence the supply of informal care. In the literature, these two elements of trust problems are described as the problem potential of a transaction (Batenburg et al. 2003). The higher the problem potential, the more costs are needed to prevent problems (e.g. low-quality care, negative effects of informal care on the quality of the personal relationship). As a consequence, care givers may refrain from supplying informal care due to the high expected costs associated with the exchange. Therefore, we expect that a higher problem potential has a negative effect on the supply of informal care and the investments made by the care giver in the informal care relation.

Trust problems in informal care relate to the competence, values and opportunism. We focus on the perspective of the care giver. If suppliers feel that they are not competent enough, they may experience feelings of stress because they feel unable to supply the required care. Regarding values, a care giver can perform a task unsatisfactory due to different standards of hygiene or cleanliness of the care giver and care receiver. This may increase costs from the perspective of the care giver. Also, a care receiver may behave opportunistically, for instance by taking advantage of the care giver (e.g. increasingly claiming time). These types of problems may also exist from the perspective of the care receiver. However, we focus in this study on the problem potential experienced by the care giver. The higher the problem potential, the higher the expected costs for the care giver to prevent problems and the less inclined the supplier is to provide the informal care.

Coordination problems arise from difficulties related to combining work, home and care, and the extent to which care givers need to adjust their activities to others (Treas 1993). Transaction costs are incurred to “reduce day-to-day hassles of negotiating and coordinating exchanges (i.e. to avoid distasteful haggling, minimize unpleasant disputes, eliminate awkward misunderstandings, cut down the time wasted policing the performance of others)” (Treas 1993: 724). The transaction costs of informal care are higher when there are bigger coordination problems to deal with. Coordination problems are more likely to arise when multiple roles at work and in the family have to be synchronized (e.g. Voydanoff 1987, 1988). For example, a demanding job with long working hours and little flexibility, may make it difficult to attend doctors appointments or provide other types of support and care. The more coordination problems associated with the informal care, the less likely the care giver is to provide informal care.

The *new economic sociology* addresses the effect of the embeddedness of the relationship between the buyer and supplier in transactions (Granovetter 1985; Smelser and Swedberg 1994). This embeddedness argument emphasizes “the role of concrete

personal relations and structures (or ‘networks’) of such relations in generating trust and discouraging malfeasance” (Granovetter 1985: 490). Informal care involves risks that can be mitigated by the social embeddedness of transactions. The social embeddedness of the informal care relation induces trust and reduces the required transaction costs. A greater embeddedness of care supply in social relations provides information, for instance about values, skills or expectations regarding the informal care. It also allows for effective non-legal rewards and sanctions, for instance if something goes wrong or if the care receiver takes advantage of the care giver. Therefore, a greater embeddedness reduces the required investments in transaction costs to prevent problems.

The social embeddedness of transactions has a dyadic and a network aspect (Granovetter 1985; Raub and Weesie 1990). The *dyadic embeddedness* of a transaction refers to the ongoing character of a dyadic relationship. *Network embeddedness* is the extent to which actors are linked to third parties in a social network (Raub and Weesie 1990). Both types of embeddedness provide the care giver information (“learning”) as well as possibilities for sanctioning (“control”) (Buskens 2002, Buskens and Raub 2002).

Based on the literature, we expect that a higher problem potential has a negative effect on the supply of informal care. Therefore, factors that increase the problem potential are expected to reduce the frequency of care activities and amount of time spent providing care. Table 21.1 provides an overview of the specific characteristics of the ‘care situation’ that are expected to impact the problem potential and provision of care. First, the complexity of the care needed is expected to increase the problem potential and decrease the supply and investments, because there is a higher risk of things going wrong and the consequences for the care giver are more severe. Second, we expect higher skills of the care giver to reduce the problem potential because fewer investments are needed to provide the informal care and the care giver will experience less stress in providing the care. Third, time demands of the care giver are expected to increase coordination problems and therefore have a negative effect on the hours of informal care and investments in the care relation. Fourth, the social embeddedness and closeness of the relationship of the care giver and care receiver are expected to generate trust and decrease the problem potential and therefore increases the supplied hours of informal care and the investments made in the care relation.

Table 21.1: Expected relations between explanatory variables and hours of informal care.

Explanatory variables	Effect on problem potential	Effect on providing care
Complexity of care needs and situation	+	-
Skills of the care giver	-	+
Time demands of the care giver	+	-
Closeness of relationship care giver and care receiver	-	+

Drawing on the transaction cost approach, one would expect that the association between the care situation and the problem potential and provision of care are conditional on governance structures. However, informal care is not a service that can be the subject of a formal contract or arrangement. It always depends on the willingness of both parties to provide and receive care. One could consider alternative governance structures such as informal agreements between multiple care givers or informal agreements between the care giver and care receiver. For example, decisions regarding the care can be made ad hoc, but they can also be the result of extensive negotiations. And agreements can be implicit or they can be made explicit and written down as a list of tasks and responsibilities. Unfortunately the data do not allow us to study such variations.

21.3 Methods

21.3.1 Data

The analyses were based on the “Informeel Zorg” data that were collected by the Dutch Institute for Social Research and the Central Bureau of Statistics. The sample size was 18,882 persons (Janssen 2017; Klerk et al. 2017). The sample was stratified by region. Because data collection was aimed at informal care (including volunteering) a lower threshold was set for the number of ‘active carers’ (informal carers and volunteers in the care sector). A minimum of 2,800 carers were required to respond.

Field work took place between September and December 2016. Respondents received a letter that invited them to fill out a web-survey. Those who had not responded after two reminder-letters and with an available telephone number, were approached by telephone. When the respondent was contacted and willing to participate, a telephone interview was held. The overall response rate was 38%. A total of 7,166 individuals responded; 2,852 of them qualified as ‘active carers’. The data collection takes the perspective of the care giver as starting point, and implies that we can only test our hypotheses for the group of care givers and are not able to compare this with the group who does not provide any care at all (see for more information analytical strategy).

We have extensive information about the care giver and the one who receives care. However, for those who indicated that they do not provide informal care, we have much less information. We have information about their socio-economic background characteristics and attitudes towards care, but we do not know if they have someone in their social network who is in need of care. This implies that we can only test hypotheses on the role of transaction costs for the intensity of care. That is, we can compare informal carers with varying levels of time investments in informal care, but we cannot compare informal carers with those who do not provide any care at all. Because it is possible that those who provide informal care are a

selective group, our analyses briefly investigate how the background characteristics of informal carers differ from those who do not provide informal care.

21.3.2 Measures

Independent variables. The *complexity of care needs* was measured with two indicators. First, we included a dummy-variable indicating whether the care receiver could be left alone for more than 30-minutes (1 = *always*, 0 = *often, sometimes, seldom or never*). Second, we created a count-variable measuring the number of conditions that were relevant for the care receiver's care needs. The respondents were able to select one or multiple conditions from a list of nine conditions (temporary physical disability, chronic physical disability, terminal illness, dementia and related diseases, mental disorder, psycho-social problems, mental disabilities and others). Assuming that providing care is more complex when multiple conditions co-occur, we counted the total number of conditions.

Three variables measure the *level of knowledge and skills* of the care giver. First, the questionnaire included the question "Have you ever worked in health care or social work and given assistance or help to clients or patients?". We assume that those with experience in this sector will find it easier to provide care because they have been trained to do so. The second and third variable measure the self-perceived skills and knowledge. Respondents were asked four specific and three more general questions. The four specific items are "I remain calm when I encounter difficulties while providing care", "I generally handle unexpected events during care giving well", "If things do not work out when I'm providing help, I find ways to do what is necessary", and "I know where to turn to when I have questions or experience problems with regard to care giving", with answer categories on a Likert scale. The three general questions are: "Do you consider yourself capable, to help the person you provide care for?", "Do you believe you lack knowledge to help the person you provide care for?", and "Do you believe you have the necessary skills to help the person you provide care for?" The yes and no-answers to these items were combined into two separate scales (taking the mean score). The items were coded in such a way that higher scores reflect more skills and knowledge.

The *time demands* on the care giver are assumed to be higher if he or she is in paid employment (0 = *no*; 1 = *yes*), works longer hours (an interval variable measuring the number of hours per week excluding overtime), and lives with a dependent child (0 = *no*; 1 = *yes*). Moreover, we measure the level of subjective time pressure. Respondents are asked "Can you indicate – on a scale from 1 to 10 – to what extent you feel like you are under time pressure in your daily life? A 1 means that you experience 'very little time pressure' and a 10 that you experience 'a lot of time pressure'."

Our indicator of *social embeddedness* distinguishes between two levels of closeness (0 = *distant*; 1 = *close*). The relationship is assumed to be close if the care

receiver is the care giver's partner or close family member (i.e. parent, child, sibling). The relationship is assumed to be more distant for distant family members (e.g. uncle) and non-kin (e.g. neighbor, friend).

Finally, we control for gender and attitudes towards informal care. *Gender* is measured with a simple dummy-variable (0 = men; 1 = women). The scale measuring *attitudes towards informal care* is based on four statements. "When parents need a lot of help, they should be able to live with their children"; Neighbors have the duty to help other neighbors when they are in need of help; Family members should help other family members when they have health problems or impairments; Friends should help other family members when they have health problems or impairments (answer categories range from 1 = completely agree to 5 = completely disagree). The alpha is 0.74. The items were reverse-coded and combined into one scale. On the new scale (ranging from 1 to 5) higher values reflect more positive attitudes towards providing informal care.

Dependent variables. In the first step, we analyze the difference between the respondents who do and do not provide informal care. Respondents are identified as informal carers if three conditions are satisfied: whether (i) they have provided informal care in the last 12 months, (ii) they currently provide informal care *and* (iii) the main person they provide care for is 18 years or older. Because people do not always recognize that they provide informal care, the question that identifies informal care has an elaborate introduction: "The following questions concern the provision of help to social contacts with health impairments. For example, consider your partner, family, friend or neighbor who needs help because of physical or mental impairments or his or her age. Examples are household tasks, help with personal hygiene, keeping the him or her company, transportation or manual jobs. Help as part of your job or volunteering does not count." Respondents are considered as informal carers if they answer "yes" to this question. After this introduction the respondent is first asked whether he or she had provided this type of help in de preceding 12 months. Because the care for children has a different dynamic and not even 5% provided this type of care we decided to focus on informal care to adults. Thus we excluded 78 respondents who provided informal care to someone under the age of 18, setting their scores to missing. After this selection 2,066 respondents (27.6%) were labeled as carers and the remaining 5,350 (71.4%) respondents were labeled as non-carers.

After investigating the differences between those who do and do not provide informal care, we test our hypotheses predicting *the level of investments in the informal care relationship*. Two outcome measures are considered: The care giver is asked to estimate the frequency of care (rarely, monthly, weekly, daily) and the number of hours per week. On average the care givers spend 7.7 hours per week providing care. Figure 21.1 shows how frequent the care givers provide care. Care on a weekly basis is most common.

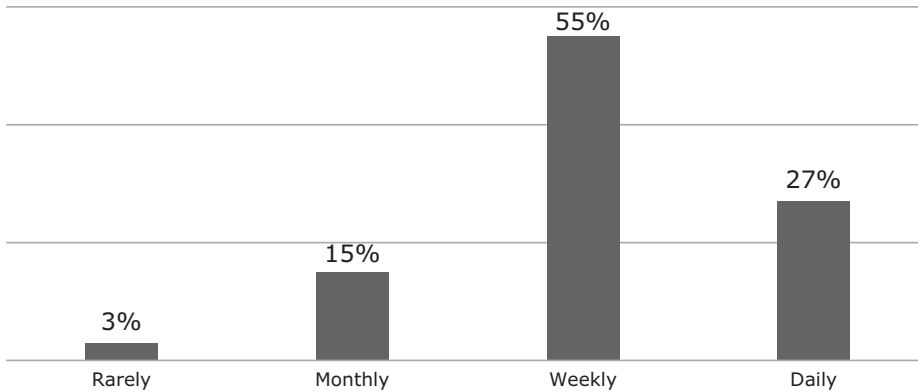


Figure 21.1: Investments in informal care by care giver in frequency.

21.3.3 Analytical strategy

Unfortunately, there is no way of knowing whether those who do not provide care, have a family member or neighbor who is in need of care. Nor do we have information about the relationship, complexity of care needs, and knowledge and skills of the potential carers. This implies that we are largely restricted to studying variations within the group who provides care. Because this is likely to be a selective group, the first step of our analyses compares the background characteristics of the informal carers and the respondents who did not provide informal care.

In the second step we explain the intensity of care. We do so by investigating the role of the complexity of care, the level of skills and knowledge of the care giver, and the social embeddedness. We apply each of these explanations to each of the four outcome measures. Because the outcome measures have different scales, we use different analytical models: (i) The model explaining the frequency of care are ordered logit regression models; (ii) the model explaining the number of hours of care is an OLS-model.

21.4 Results

21.4.1 A comparison between background characteristics of care givers and non-care givers

Are care givers a selective group? Table 21.2 shows that this is not the case with respect to background characteristics such as the labor market situation and attitudes towards informal care. However, it also becomes clear that care givers are more likely to have work experience in the care sector, that they are more likely to have a

Table 21.2: Descriptive results and the comparison of background characteristics for care givers and non-care givers.

	R. does not provide informal care	R. provides informal care	p-value ^a
<i>Complexity of care needs and situation</i>			
Number of conditions		1.3	
Care receiver can always be left alone for >30mins (ref = the care receiver cannot)		69.4%	
<i>Knowledge and skills of the care giver</i>			
Work experience in care	21.1%	32.2%	.000
Scale specific skills and knowledge		4.0	
Scale general skills and knowledge		2.1	
<i>Time demands of the care giver</i>			
R is employed	70.9%	70.9%	.923
Working hours	23.9	23.0	.342
Care giver lives with a dependent child	58.1%	50.0%	.000
Time pressure	5.5	5.9	.000
<i>Individual characteristics</i>			
Female	48.9%	55.6%	.005
Positive attitudes towards informal care (1–5)	3.2	3.1	.558

Note: ^a Estimated on the basis of a logistic regression model explaining the likelihood that the respondent provides informal care (controlling for the other background characteristics).

dependent child and to be female. Moreover, they report higher levels of time pressure than those who do not provide informal care. These descriptive findings are in contrast with the transaction cost theory, where we would expect that labor market situation and attitudes matter for informal care. We should be careful drawing conclusions based on these descriptive results, because we do not take into account the amount of caregiving in Table 21.2. People may in fact be inclined to provide limited care due to social expectations even when a large problem potential is involved, while reducing the amount of care depending on the problem potential. This may reduce the differences when we only compare caregivers and non-caregivers.

21.4.2 Explanatory analyses

Table 21.3 provides the results for the Ordinary Least Squares Regression analysis to explain hours of informal care and Ordinal Logistic Regression to explain the frequency of care provided. We start with the hours of informal care. The results show that, as expected, less hours of informal care are provided when the complexity of care needs is higher: the number of conditions relates negatively to hours of informal care.

Table 21.3: Explanatory analyses to explain the estimated hours^a and frequency^b of informal care, informal carers (unstandardized coefficients, weighted analyses).

	Hours	Frequency
<i>Complexity of care needs and situation</i>		
Number of conditions	-2.08**	-0.02
Care receiver can always be left alone for >30mins (ref = the care receiver cannot)	-3.36*	-0.45***
<i>Knowledge and skills of the care giver</i>		
Work experience in care (ref = no experience)	0.41	0.07
Scale specific skills and knowledge	2.37	0.26*
Scale general skills and knowledge	-2.24**	0.02
<i>Time demands of the care giver</i>		
R is employed (ref = nonemployed)	-6.94**	-0.60**
Working hours	0.03	-0.003
Care giver lives with a dependent child (ref. = no child)	-1.06	0.21
Time pressure	-0.3	0.02
<i>Social embeddedness</i>		
Care receiver is partner or close family (ref = distant)	3.83*	1.28***
R is female (ref = male)	1.5	0.07
Positive attitudes towards informal care (1-5)	-0.41	-0.07
Constant	17.57**	
Constant cut 1		-0.56
Constant cut 2		2.32***
R-squared	0.05	-
Number of cases	1,430	1,430

Notes: ** p < 0.01; * p < 0.05

^aOLS regression.

^bOrdered logistic regression.

However, the results also show that when the care receiver can be left alone, less care is provided. Furthermore, if the care giver perceives that he or she has more general skills, unexpectedly less time is spent on informal care. This seems to indicate that skills are less important for hours spent on informal care. Perhaps this could be due to efficiency benefits: skilled caregivers may need less time to provide the care than non-skilled caregivers. Another explanation could be that non-skilled caregivers overestimate their general caring skills. Perhaps differences arise only when focusing on specialized rather than general skills. When the care giver is employed, an indicator of time demands, the results show that less time is spent on providing informal care. Social embeddedness matters with respect to the closeness of the relationship: if the care receiver is partner or close family, more time is spent on informal care.

If we then turn to the frequency of care, it becomes clear that the number of conditions does not matter. Moreover, if the care receiver can be left alone, this leads again to less informal care. Furthermore, for frequency skills do matter, more specific skills imply more care, which is as we would expect. Also time demands,

indicated by employment of the care giver is negatively associated with frequency of care. This result was also found for hours of informal care. Social embeddedness matters as well: if the care receiver is a partner or close family, as expected, more informal care is provided.

21.5 Conclusion

This study investigated the relevance of a transaction costs approach to informal care. Using insights from this approach together with social embeddedness arguments, we were able to formulate hypotheses on hours and frequency of informal care. Capitalizing on rich data on care givers in the Netherlands, we were able to test our hypotheses.

Our main conclusion is that informal care provided by the care giver can be viewed upon as a transaction. When there are more coordination problems in organizing and providing informal care, the problem potential is higher, and this will have a negative relation with the supply of informal care. We therefore fully embrace the idea of informal care as a transaction, because it gives more insight in the decision to provide informal care. Also, our empirical findings partly confirm the idea of informal care as a transaction, at least in the way we have hypothesized about the transaction costs involved in informal care.

Our findings are in line with the idea that when the complexity of care is higher, and when there are more time demands, coordination is more difficult and less informal care will be provided. However, when the care receiver cannot be left alone, typically an indicator of complex needs, more care is provided as well. This result might not be so surprising, since these people are more in need of informal care, but according to the problem potential argument, we expected less informal care. For skills, results are partly as expected. Specific skills matter for frequency of informal care. Nevertheless, those with more general skills spend less rather than more time of informal care. Possible explanations could be that skilled caregivers experience efficiency benefits, non-skilled caregivers overestimate their skills or that differences only become apparent when looking at specialized caring skills.

Our results also suggest social embeddedness is relevant in understanding the transaction between the care giver and the care receiver. When the care receiver is partner or close family, more time is spent on informal care and the frequency is higher as well. Thus, social embeddedness makes a difference in informal care exchanges as well as intra-household exchanges (De Ruijter 2005). Care givers prefer to give informal care to the ones they know and have a close relationship with. The dyadic relation they have inspires trust, and the risks associated with informal care are mitigated by the social embeddedness of the transaction.

All in all, our study provides a promising avenue for further research. We have three suggestions thereby. In this study we were not able to focus on the content of care provided, but we suggest other researchers to delve into this topic, because it might be helpful to explain some of the unexpected findings. It probably matters whether care receivers need complex help (e.g. wound care, administering medicine), involving a high problem potential, compared to simple caring tasks such as help with personal hygiene. In more complex caring situations we would expect larger effects of the problem potential on caregiving, because the consequences of problems are more severe. Furthermore, in this chapter we focused on temporal measures of investments (the frequency of care and hours of care) but care givers can invest in the care relationship also in other ways. Therefore, we advise in new research to take investments in the informal care relationship into account, such as moving house in order to be closer to the care receiver, to make arrangements with the employer or to take up responsibilities that are time-extensive, such as helping with filing taxes once per year. Finally, although we used unique data, it would even be better to have longitudinal data to study the process of informal care, and the transactions that are made over a longer time span. This would enable us to understand the causality of the relation between trust and coordination problems and caregiving. It would also help us to understand how skills can develop over time and thereby may mitigate trust problems. For example, when caregivers start with simple caregiving tasks they may become more competent and confident over time, thereby reducing the problem potential when more complex caring demands arise. It could be that caregivers are more inclined to give more care when the care demand grows gradually compared to a sudden complex care demand (e.g. as a consequence of an accident or an acute serious illness).

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