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## CARE<sup>1</sup> FOR OLDER PEOPLE BETWEEN STATE AND FAMILY: CARE PATTERNS AMONG SOCIAL HOME CARE USERS

**Abstract.** *As in other countries, the family is the main provider of care for older people in Slovenia. However, with the development of social home care in the 1990s, an important addition to informal care has been introduced. The first Slovenian representative survey of social home care users (2013) has been used to assess the care arrangements among users of social home care and the impact of both need across activities of daily living and the availability of informal care networks on care arrangements. The level of functional impairment (an indicator of need) and household composition (an indicator of availability of crucial elements of an informal care network) have proved to be indicative of the levels of usage of particular care arrangements; distinguishing between informal care only, formal care only, and mixed care.*

**Keywords:** *social home care, care models, informal care, formal care, survey*

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### Introduction

With the political transition of the 1990s, Slovenia experienced important changes in the care of the elderly sector. In the state-socialist model of welfare (Kolarič et. al, 2009), such care was divided between two sectors, the public and the informal (family care). There was also a combination of these in the grey economy of the public sector, with direct payment involved. Healthcare and social services were usually provided within institutional care settings in the public sector. Other services for older people were not available, with a few exceptions, such as the organisation of mobile meals at home by some homes for the elderly, or the existence of social work centers in the 1980s.

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The large majority of care was (and still is) carried out by family members, primarily women, and the wider social networks of the elderly (Hlebec, 2003, 2004; Hvalič Touzery, 2009; Hlebec, 2010b; Hlebec et al., 2012).

The political transition produced changes in all areas of the welfare state (see Kolarič et al., 2009). The most important change in the care of the elderly sector has certainly been the development of social home care, but recent years have also seen the development of other community services, such as day-care centers, tele-care, respite care, and sheltered housing. Community care services improve the quality of life of older people and also enable family carers to better balance work, family, and care obligations. In Slovenia, the 1990s marked the beginning of social home care, with the adoption of the Social Security Act (1992). However, fragments of such a service in various organizational forms had already existed prior to this date (some have claimed that a home care service had already been established in 1984; see, for example, Kralj, 1999: 42). In 2008, the Social Protection Institute of the Republic of Slovenia began systematically evaluating the service on a yearly basis (Smolej et al., 2008). At the end of 2012, 77 organizations (mainly centers for social work and homes for the elderly) were providing social home care for 6,583 users (Nagode and Lebar, 2013). To date, no systematic studies of social home care from the perspective of users in Slovenia have been conducted.

The home care that has developed in Slovenia since the political transition period indicates a need for research into the relationship between informal care-givers (family, friends, and neighbors) and formal care-givers. An understanding of this relationship is vital for the establishment of holistic care for older people in order to facilitate a good quality of life for these individuals, as well as for their carers. The population of the present study consists of users of social home care in Slovenia, and the study is the first national and representative evaluation of this specific population. Therefore, the main aim was to explore the types and frequencies of use of care arrangements for users of social home care across specific task areas of activities of daily living (ADL), and the role of the main predictors of care arrangements (the need for care and availability of key care aspects of the informal network). We attempted to evaluate whether the type of care arrangements in Slovenia can be fitted into the existing theoretical typologies/models, which are described in the following paragraphs.

## **Models of care arrangements**

There are several explanations for the distributions of, and links between, informal and formal care arrangements. These have been developed by various authors, and the gerontological literature distinguishes between

five distinctive theoretical models (see e.g., Patsios and Davey, 2005); the hierarchical compensatory model, the substitution model, the task-specific model, the supplementary model, and the complementary model (which combines both the compensatory and supplementary functions of formal care). These models are used to explain the link between formal and informal care arrangements.

The *hierarchical compensatory model* was proposed by Cantor (1989), who suggested that older people would prefer to be cared for by informal carers, given the choice. Moreover, a specific preferential ordering exists, which is normatively defined and can therefore also vary across different cultures or societies. The majority of older people would like to receive assistance from their spouses. If a spouse is not available, they would then first turn to a child for support, most likely a daughter. If no child is available, they would turn to other family members, then friends, neighbors, and, finally, to formal providers of care. Formal care would compensate for informal care only in the absence of an informal network. It has been documented that, for married people, spouses are the majority of caregivers (Allen et al., 1999; Hvalič Touzery, 2009). However, women act as caregivers for a spouse more often than men, indicating that participation in the caregiver role is influenced by gender role norms that assign caring responsibilities to women. Among children, a daughter (ibid.; Stoller and Earl, 1983) is more frequently a caregiver to a frail parent than a son, and this is primarily observed in situations when the care provided by the spouse is not sufficient or is absent.

The *substitution model* suggests that formal care will substitute for informal care, and that informal carers will withdraw their support for older family members because of formal services (Greene, 1983). Empirically, we would expect a negative relationship between formal and informal care. The test of this model requires detailed longitudinal analysis, and empirical evidence does not support the withdrawal of informal care. It is more likely that the reduction in informal care is modest and has a short time span, and the increase in formal care is usually related to the increased needs of older people and their informal carers; moreover, informal care is also increased. The substitution occurs only with regard to a small fraction of the population (Tennstedt et al., 1993; Liu et al., 2000; Penning, 2002; Li, 2005; Armi et al., 2008).

The *task-specific model* (Litwak, 1985; Messeri et al., 1993) postulates that care tasks will be performed by a group (spouse, kin, friends, neighbors, formal organization) that is best suited for the specific characteristics of a particular task. Informal caregivers are better suited to performing non-technical and diffuse tasks, such as ADL. Formal organizations are more likely to provide services for tasks that require a higher level of technical

knowledge, or when a task requires an expenditure of time and effort that exceeds the resources available in the typical primary group in modern society. Typical services that are to be performed by different groups are: daily cooking, bathing, shopping (spouse), emergency financial assistance, temporary help for acute illness (family), leisure-time activities, job information (friends), reporting break-ins, loan of small household items (neighbors), care after major surgery, and 24-hour permanent care of a disabled person (formal organization). Division of labor within informal networks has been well documented (Wenger, 1994; Hlebec, 2003); however, there is little evidence regarding the task-specific division of labor between informal and formal care. Formal care is often performed in (at least) some of the same task areas in which informal care is performed (Chappell and Blanford, 1991; Denton, 1997). Strict task division is therefore not expected, but we can still expect that, for some tasks of activities of daily living, informal care is predominant, while for other tasks, formal care is most frequently used.

The *supplementary model* of care postulates that informal care is a preference and a major source of care for frail older people living in the community. Formal care supplements care provided by informal carers, especially when the needs of the older person exceed the resources of the informal network. On the basis of a longitudinal study of newly implemented community care and home-delivered meals programs, Edelman and Huges (1990) concluded that formal care generally supplemented the efforts of informal care-givers, and that informal care-giving remained stable over time. Stoller and Pugliesi (1991) examined the responsiveness of informal networks to the diminishing health and functional capacity of frail older people. They found that the size of informal networks did not change; however, the scope and complexity of care tasks changed as a response to the increased needs of care recipients. Increased needs can exceed the capacity of informal networks, and the authors suggested that formal services are an essential supplement to the care provided by informal networks. Formal services should be designed to supplement and enhance the effectiveness of the care provided by informal networks.

The *complementary model* (Chappel and Blanford, 1991; Denton, 1997) is based on a combination of the hierarchical compensatory model (preference for informal care in a specific order; spouse and child first) and the supplementary model. This model states that formal care is activated in two instances, namely (1) when the crucial elements of informal networks are lacking (for example, the older person is not married and/or has no children) or (2) when key informal carers are present in informal networks (spouse and/or child), but the need for care (severe illness or disability) exceeds the capabilities of the informal networks. Chappel and Blanford (1991) explored the determinants of care arrangements. Respondents

receiving no care at all were younger, had less functional disability, and tended to live alone (over half of respondents). Other care arrangements (only formal care, and formal care and informal care) were primarily related to different levels of functional impairment and health problems, and to different levels of availability of informal carers. Respondents receiving support from the informal network only were more likely to be younger (in better health), male, had more children, and lived with others. Respondents receiving assistance from both sources, some in overlapping areas and some in different areas, tended to be older (greater disability - higher need) and to live alone. Those receiving assistance from both systems of care in all the same areas tended to have fewer children, fewer neighbors, and no household members. Denton (1997) tested sharing of task areas, sharing of tasks within task areas, and the nature of the relationship between formal care and the availability of members of the informal network, as well as the nature of the relationship between formal and informal care. Receipt of formal care was related to lower availability of key elements in the informal network (number of people in the household, not being married, and number of children), indicating that formal care compensates for lack of spouse and child and not for other aspects of informal networks. A share of respondents also received both types of care at the same time, especially personal care (around 16%), indicating that, at a higher level of need, formal care began to supplement informal care for a minority of respondents. Denton's primary conclusion was that the two care systems are complementary, in the sense that when the informal system is either less readily available or there is a greater need (similar to Chappel and Blanford, 1991), and therefore when the informal system is less capable of providing all of the required care, the formal care system provides additional assistance in the sense of sharing the overall work load.

As already stated, the main aim of this study was to explore the occurrence of care arrangements for users of social home care in Slovenia. We can most likely expect variability in levels of need across different ADL (ranging from very low to very high). Perhaps we can expect high levels of informal care only, followed by formal care only, and mixed care. We assume that there will be high variability in distributions of care arrangements across living arrangements, which are used as a proxy for availability of key aspects of care in informal networks. Maybe, with greater need, more instances of mixed care can also be expected, indicating the supplementary nature of formal care. We expected to find empirical evidence of the complementary model (Chappel and Blanford, 1991; Denton, 1997), and used a descriptive, bottom-up, research design.

## **Methodology**

Data for this study were drawn from the first Slovenian national survey of social home care users and collected in 2013. Initially, there were a total of 6,624 users of social home care in 201 municipalities. We used stratified random sampling to obtain a representative sample of these individuals, as well as the municipalities and organizations that provide social home care. First, the municipalities were classified into three equally sized strata (one third of the population), proportional to the number of social home care users. In the second step, the municipalities were randomly selected into the sample. All users of social home care in the sampled municipalities were selected for the survey. In the cases where the same organization provided social home care in several municipalities, all municipalities of such a provider were automatically preselected into the sample. In this manner, we avoided double selection of municipalities and providers. In total, we contacted 4,917 users from 154 municipalities. We contacted all providers of social home care, as they act as gatekeepers for the users. If the providers allowed access to users, social carers distributed a paper and pencil questionnaire to users. One third of these individuals were capable of filling in the questionnaire by themselves, approximately half (46%) were helped by a family carer, and 14% were helped by a social home carer. Ideally, personal interviews should be used as a data collection mode; however, field practice by providers and other researchers in this field in Slovenia has been self-administered paper and pencil survey. The average response rate across municipalities was 37%. The response rate across social home care providers varied considerably, from 8% to 92%. Some providers were willing to collect the completed questionnaires from the users in sealed envelopes, while others did not support the data collection process. The realized sample size was 1,768 (a number of questionnaires were not properly completed).

Informal, formal, and mixed care arrangements were each assessed in relation to the same set of basic, instrumental, and advanced activities of daily living. Respondents were presented with a series of 22 questions concerning their ability to engage in various ADL. These were Advanced ADL (AADL) 1- managing travel, which included visiting social activities, meetings and hobbies, visiting friends and family, making errands (bank, library), organizing travel (such as visiting a doctor), and transportation in general; AADL2, which included finding information about things, managing money (such as paying bills), offering financial aid, engaging in yard work or house repairs, taking medications and shopping for medications and medical aids, and maintaining orthopedic aids; Instrumental ADL (IADL) - household management tasks, which included shopping for groceries and other shopping, preparing a hot meal (or meals on wheels), washing the dishes,

light housework (cleaning and managing the garbage), making the bed and cleaning the bedroom, and doing the laundry; and Personal ADL (PADL) – personal care activities or basic activities, such as getting in and out of bed, dressing, bathing, using the toilet, and feeding oneself. For each task, the respondents were also asked who, if anyone, assisted them with the task. There were multiple possible answer categories; do not need help, family member, neighbor, social home carer, community nurse, someone else. To measure care arrangements, the variables were constructed across each task of daily living with four response categories:

- To measure *informal care arrangements*, a category was constructed for each task, indicating that respondents received informal help only (accounting for answer categories family member and neighbor).
- To measure *formal care arrangements*, a category was constructed for each task, indicating that respondents received formal help only (accounting for answer categories social home carer and community nurse).
- To measure *mixed care arrangements*, a category was constructed for each task, indicating that respondents received both informal and formal help at the same time for the same task (accounting for all previously mentioned answer categories and the category “someone else”).
- *Functional impairment* was assessed on the basis of respondents’ reports concerning the level of difficulty they experienced with various ADL. The proportions of respondents not needing any help are reported together with the care arrangements.

*Availability of informal carers* and informal support was assessed via a proxy, using a combination of two indicators, namely household composition and the number of children. Recoded answer categories were 1 – living alone and has no children; 2 – living alone and has children living outside the household; 3 – living with a spouse and have no children; and 4 – living in a two- or multi-generational household.

The majority of the users were female (68%), and were aged 78 on average: Almost two thirds were older than 80 years. On average, the users had 1.7 children and 1.5 living siblings. Current marital status was mostly widowed (53%), with 23% being married and 18% being single.<sup>2</sup> Among these users of social home care, more than half lived alone (56%), followed by couples living without children (16%), older people living in multi-generational households (14%), and couples living with children (8%).

On average, the household size was 1.8. One third of respondents had a household monthly income lower than 500, and one third had an income of between 500 and 750. The majority of respondents had at least one chronic illness.

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<sup>2</sup> Approximately 5% were divorced.

## Care arrangements among social home care users

As already mentioned, the respondents in this study were, on average, older than respondents in most previous studies on links between formal and informal care, where the targeted population is older than 60 (with some functional impairment or disability). Moreover, all were users of formal care. We could, therefore, expect a higher level of functional impairment and higher levels of care, regardless of type of care, compared to studies of the general population.

Table 1: CARE ARRANGEMENTS

	Informal Care Only	Formal Care Only	Mixed Care	Does not need help	N
<b>AADL1 – Advanced Activities of Daily Living (managing travel)</b>					
Visiting, social activities, meetings, and hobbies	32,8	4,6	5,0	57,6	1594
Visiting friends and family	45,8	1,4	1,1	51,7	1604
Making errands (bank, library)	42,7	5,4	1,8	50,1	1594
Organizing travel (such as visiting a doctor)	63,9	9,1	5,5	21,5	1566
Transportation	62,9	5,9	3,0	28,2	1481
<b>AADL2 – Advanced Activities of Daily Living</b>					
Finding information about things	47,8	8,3	5,4	38,6	1599
Managing money (such as paying bills)	63,5	5,6	1,6	29,4	1604
Offering financial aid	34,1	0,9	0,1	64,9	1619
Engaging in yard work or house repairs	70,2	2,9	2,0	25,0	1472
Taking medications, and shopping for medications and medical aids	53,0	11,7	8,9	26,4	1611
Maintaining orthopedic aids	31,6	7,9	5,0	55,5	1624
<b>IADL – Instrumental activities of Daily Living (household management tasks)</b>					
Shopping for groceries and other shopping	64,0	11,1	7,8	17,0	1584
Preparing a hot meal (or meals on wheels)	36,9	27,1	12,5	23,5	1518
Washing the dishes	36,0	14,7	10,8	38,5	1624
Light housework (cleaning and managing the garbage)	43,0	27,1	16,0	13,9	1552
Making the bed and cleaning the bedroom	33,2	26,7	17,1	23,0	1601
Doing the laundry	50,2	12,4	5,1	32,3	1587
<b>PADL – Personal Activities of Daily Living (personal care activities)</b>					
Getting in and out of bed	15,9	5,8	13,4	64,9	1649
Dressing	14,2	11,2	18,5	56,1	1647
Bathing	15,7	32,8	13,9	37,6	1629
Using the toilet	13,1	6,4	11,0	69,5	1644
Feeding oneself	12,6	1,4	8,3	77,7	1657

Most respondents (approximately two thirds) did not need help with PADL, with the exception of bathing, whereby around two thirds required help. The majority of respondents (from two thirds to 85%) needed help with IADL. With regard to ADL, around half of respondents did not need



help with traveling, except for organizing travel, such as visiting doctors and general transportation. In that respect, the percentage of respondents needing help was considerably higher. It is quite possible that meeting friends, visiting, social activities or going to the bank can be organized without help, owing to time flexibility and perhaps geographical proximity. Visiting a doctor may require travel across the country at a specific time that is not necessarily convenient for the older person and their family. The majority of the respondents required help with advanced ADL (approximately two thirds), with the exception of financial help and help with maintaining orthopedic aids.

First, we assessed task areas and the level of care arrangements. We expected high levels of informal care. Indeed, with regard to managing travel AADL1, informal networks carry out the majority of care. There was some overlap with formal care only in activities such as visiting a doctor, transportation in general, and making errands. Mixed care types are less frequent (less than 5%). With regard to AADL2, the role of informal care was again major. There were also some instances of formal care and mixed care, especially for taking medications, and shopping for medications and medical aids, finding information about things, and maintaining orthopedic aids. With regard to IADL, informal care was still important (shopping for groceries and other shopping, 60%; doing laundry, 50%); however, there was also a great overlap of formal care and mixed care in some tasks. This was especially true for preparing a hot meal (or meals on wheels), washing the dishes, light housework (cleaning and managing the garbage), making the bed, and cleaning the bedroom. In these areas, the formal care only arrangement was in evidence for approximately one third of respondents, and the mixed care arrangement was in place for 10-17%, whereas informal care only was in place for approximately a third to 43% of the respondents. With regard to PADL, the distributions of care arrangements were almost equal (the same proportion of informal care only, formal care only, and mixed care), with the exception of bathing, whereby formal care only was twice as frequent as informal care only or mixed care.

Compared with the studies of Chappel and Blanford (1991), the frequencies of each type of care arrangement were considerably higher across comparable tasks. Compared to Denton's (1997) study, the instances of care arrangements were similar, with a higher frequency of the mixed care arrangement and formal only care arrangement across comparable tasks. This is hardly surprising, as users of social home care are considerably older. Exact task specialization (only one type of care) is rare; for only two activities of ADL instances of formal care only and mixed care were very infrequent. For IADL and PADL, the supplemental model (both informal and formal care for the same task) was almost as frequently used as the formal

care only arrangement, which would more likely represent the complementary role of formal care (probably indicating the lack of crucial elements of the informal care network – compensation) than the substitution or task-specific division of care work across tasks.

With regard to frail older people living alone, these individuals had the lowest levels of functional impairment and the least need for care across all areas of daily living. They required very little help across AADL1 and AADL2, and when they did need help, informal only was the most frequent type, followed by the formal only care arrangement (the only exceptions to this were taking medications, and shopping for medication and medical aids, as well as maintaining orthopedic aids, where formal care only was more frequent). Mixed care was rare. With regard to IADL, formal care only was predominant, followed by informal care only. Mixed care arrangements were rare, but could represent up to 10% of care arrangements (e.g., light housework). In PADL, when help was needed, it was almost always formal care only (bathing 35%). Evidently, the core elements of the informal care network were missing, and therefore we observed the compensatory nature of the complementary model. It is very likely that, for these frail older people, formal services are a way of prolonging living in their own home and in the community.

For frail older people living alone, but having children living outside the household, the level of functional impairment was a little higher. The AADL1 and AADL2 scores were similar to those of older people living with a spouse and having no children, with IADL they were in the middle, and with PADL they were again similar to older people with no children and living alone. The availability of help from children was most frequent in the informal care only arrangement across both AADL areas (frequencies were nearly twice as high as for older users of social home care who live alone and who have no children), very little formal care (9% only for organizing travel, such as visiting a doctor, taking medication, and shopping for medication and medical aids) and even less for mixed care. The IADL was somewhat different, with informal care only being most frequent for shopping for groceries and other shopping, and doing the laundry, formal care only being most frequent for preparing a hot meal, and both arrangements being equally distributed for washing the dishes, light housework, making the bed, and cleaning the bedroom. There is strong evidence for both a compensatory role for the formal network for tasks that are required regularly every day (roughly at the same hour), and the supplementary use of formal care in tasks that are regular, but are not tied to specific hours of the day or a shared household. Perhaps this can be interpreted as task specialization in a more general sense. There was very little need for assistance for PADL, except for bathing, where formal care only was the most frequent care arrangement,

followed by informal care only and mixed care. This distribution is quite different from the distribution of older people living alone and having no children, whereby formal care only was virtually the only care arrangement. This indicates the supplementary use of a formal service, and a shared overall burden of care for PADL.

Table 2: CARE ARRANGEMENTS AND AVAILABILITY OF INFORMAL CARE NETWORKS

		Living alone – without children	Living alone – has children	Couples without children	Two- or multi- gen. household	Total
AADL1 Visiting, social activities, meetings, and hobbies	Informal care only	13,2 %	34,0 %	37,5 %	41,4 %	33,0 %
	Formal care only	8,5 %	4,1 %	4,3 %	1,7 %	4,3 %
	Mixed care	4,7 %	4,6 %	4,7 %	5,1 %	4,7 %
	Don't need help	73,5 %	57,4 %	53,5 %	51,7 %	58,0 %
	Total = 100 %   N:	234	592	256	350	1432
Visiting friends and family	Informal care only	17,8 %	50,6 %	47,9 %	58,0 %	46,5 %
	Formal care only	2,5 %	1,2 %	0,8 %	,3 %	1,1 %
	Mixed care	1,7 %	0,7 %	0,4 %	1,4 %	1,0 %
	Don't need help	78,0 %	47,6 %	51,0 %	40,3 %	51,4 %
	Total = 100 %   N:	236	595	257	350	1438
Making errands (bank, library)	Informal care only	23,0 %	46,5 %	43,8 %	48,3 %	42,7 %
	Formal care only	14,2 %	5,6 %	2,3 %	1,7 %	5,4 %
	Mixed care	3,1 %	1,7 %	1,6 %	0,8 %	1,7 %
	Don't need help	59,7 %	46,3 %	52,3 %	49,2 %	50,2 %
	Total = 100 %   N:	226	594	258	356	1434
Organizing travel (such as visiting a doctor)	Informal care only	35,8 %	65,3 %	69,3 %	74,4 %	63,9 %
	Formal care only	21,2 %	9,9 %	5,5 %	3,7 %	9,3 %
	Mixed care	7,1 %	3,9 %	4,7 %	6,0 %	5,1 %
	Don't need help	35,8 %	20,9 %	20,5 %	15,9 %	21,8 %
	Total = 100 %   N:	212	585	254	352	1403
Transportation	Informal care only	38,1 %	66,4 %	66,4 %	71,0 %	63,4 %
	Formal care only	15,5 %	5,2 %	3,4 %	3,0 %	5,8 %
	Mixed care	4,1 %	3,4 %	1,7 %	1,8 %	2,8 %
	Don't need help	42,3 %	25,1 %	28,5 %	24,2 %	28,0 %
	Total = 100 %   N:	194	562	235	335	1326
AADL2 Finding information about things	Informal care only	25,9 %	48,3 %	52,9 %	59,3 %	48,4 %
	Formal care only	19,6 %	6,9 %	5,8 %	5,1 %	8,2 %
	Mixed care	7,6 %	5,4 %	4,3 %	4,8 %	5,4 %
	Don't need help	46,9 %	39,5 %	37,0 %	30,8 %	38,0 %
	Total = 100 %   N:	224	598	257	354	1433
Managing money (such as paying bills)	Informal care only	33,5 %	60,7 %	68,8 %	81,8 %	63,0 %
	Formal care only	15,9 %	6,2 %	2,3 %	1,1 %	5,8 %
	Mixed care	3,5 %	1,2 %	1,5 %	0,6 %	1,5 %
	Don't need help	47,1 %	31,9 %	27,3 %	16,5 %	29,7 %
	Total = 100 %   N:	227	598	260	352	1437

		Living alone – without children	Living alone – has children	Couples without children	Two- or multi- gen. household	Total
Offering financial aid	Informal care only	14,8 %	26,7 %	39,5 %	52,3 %	33,3 %
	Formal care only	2,5 %	0,7 %	0,0 %	,8 %	,9 %
	Don't need help	82,7 %	72,7 %	60,5 %	46,9 %	65,8 %
	Total = 100 %   N:	237	600	261	354	1452
Engaging in yard work or house repairs	Informal care only	48,8 %	69,6 %	72,4 %	84,6 %	70,8 %
	Formal care only	8,4 %	3,1 %	1,7 %	0,0 %	2,9 %
	Mixed care	2,0 %	1,7 %	2,6 %	2,0 %	2,0 %
	Don't need help	40,9 %	25,6 %	23,3 %	13,4 %	24,3 %
	Total = 100 %   N:	203	540	232	344	1319
Taking medications, and shopping for medications and medical aids	Informal care only	20,3 %	48,7 %	65,5 %	71,8 %	52,7 %
	Formal care only	29,7 %	11,9 %	6,7 %	3,9 %	11,9 %
	Mixed care	4,7 %	8,2 %	9,4 %	11,5 %	8,7 %
	Don't need help	45,3 %	31,2 %	18,4 %	12,7 %	26,7 %
	Total = 100 %   N:	236	599	255	355	1445
Maintaining orthopedic aids	Informal care only	8,1 %	24,3 %	38,1 %	52,3 %	30,8 %
	Formal care only	12,6 %	6,3 %	9,7 %	5,4 %	7,8 %
	Mixed care	2,8 %	2,8 %	5,8 %	9,6 %	5,0 %
	Don't need help	76,4 %	66,5 %	46,3 %	32,8 %	56,4 %
	Total = 100 %   N:	246	600	257	354	1457

Abbreviations: AADL1 – Advanced Activities of Daily Living (managing travel); AADL2 – Advanced Activities of Daily Living

With regard to frail older people who lived with a spouse, but had no children, the level of functional impairment was again a little higher. The AADL1 and AADL2 were similar to older people living alone, but who have children living outside the household, while the IADL and PADL were similar to those of older people living in two- or multi-generational households. Informal help only was virtually the only care arrangement for both AADLs, with the exception of organizing travel, such as visiting a doctor and health-oriented AADLs. Formal care only did not exceed 10 %, and neither did mixed care. In IADL, informal care only was the most frequent care arrangement (especially for shopping and doing the laundry – the tasks that can be prearranged and do not require a specific day or hour), indicating that the spouse is the primary caregiver and will manage these tasks alone. The overall burden of other IADL tasks was either compensated for (the spouse will relegate the task to a social home carer – formal care only) or supplemented (the spouse will share the task with a social home carer) by a formal care provider. There was quite a variability across PADL activities. Getting in and out of bed, using the toilet and feeding were more in the domain of the spouse, but these activities were also shared with a social home carer (mixed care) more often than compensated for with formal care only. Dressing was mostly shared (mixed care), followed by informal care only, and formal care

only, while bathing was primarily in the domain of formal care, followed by informal care only, and mixed care. Perhaps this variability is an indication of task-specificity, and some tasks exceed the ability of the informal carer (who is also likely to be old and less able to perform tasks such as lifting) to provide sufficient care, as well as the overall sharing of care activities.

Table 2a: CARE ARRANGEMENTS AND AVAILABILITY OF INFORMAL CARE NETWORKS – CONTINUATION

		Living alone – without children	Living alone – has children	Couples without children	Two- or multi-gen. household	Total
IADL Shopping for groceries and other shopping	Informal care only	32,6%	62,1%	70,8%	82,3%	64,0%
	Formal care only	32,6%	11,6%	4,3%	2,8%	11,4%
	Mixed care	7,6%	8,5%	8,2%	5,9%	7,7%
	Don't need help	27,2%	17,8%	16,7%	9,0%	16,9%
	Total = 100%   N:	224	585	257	355	1421
Preparing a hot meal (or meals on wheels)	Informal care only	12,8%	21,8%	57,3%	56,9%	35,6%
	Formal care only	43,4%	34,7%	17,7%	14,0%	27,8%
	Mixed care	5,9%	16,2%	6,5%	17,5%	13,1%
	Don't need help	37,9%	27,4%	18,5%	11,7%	23,5%
	Total = 100%   N:	219	551	248	343	1361
Washing the dishes	Informal care only	9,7%	19,2%	59,8%	60,4%	34,8%
	Formal care only	28,6%	18,6%	6,9%	5,1%	15,0%
	Mixed care	5,6%	11,9%	8,0%	15,1%	10,9%
	Don't need help	56,0%	50,3%	25,3%	19,4%	39,4%
	Total = 100%   N:	248	598	261	351	1458
Light housework (cleaning and managing the garbage)	Informal care only	14,7%	33,7%	55,9%	65,2%	42,3%
	Formal care only	53,2%	32,1%	22,3%	8,7%	28,0%
	Mixed care	9,5%	18,3%	13,8%	18,6%	16,1%
	Don't need help	22,5%	16,0%	8,1%	7,5%	13,6%
	Total = 100%   N:	231	564	247	345	1387
Making the bed and cleaning the bedroom	Informal care only	10,8%	26,1%	44,5%	47,9%	32,2%
	Formal care only	48,5%	29,7%	21,5%	14,5%	27,7%
	Mixed care	6,6%	12,9%	21,9%	27,1%	16,9%
	Don't need help	34,0%	31,2%	12,1%	10,5%	23,2%
	Total = 100%   N:	241	589	256	351	1437
Doing the laundry	Informal care only	19,9%	39,2%	61,1%	74,8%	48,8%
	Formal care only	27,7%	12,8%	9,7%	5,7%	12,9%
	Mixed care	3,5%	4,9%	7,8%	5,4%	5,3%
	Don't need help	48,9%	43,0%	21,4%	14,0%	33,0%
	Total = 100%   N:	231	586	257	349	1423
PADL Getting in and out of bed	Informal care only	2,0%	7,4%	29,8%	27,0%	15,1%
	Formal care only	5,9%	4,0%	10,3%	5,1%	5,7%
	Mixed care	3,5%	6,9%	17,2%	25,3%	12,6%
	Don't need help	88,6%	81,7%	42,7%	42,7%	66,6%
	Total = 100%   N:	255	607	262	356	1480

		Living alone – without children	Living alone – has children	Couples without children	Two- or multi-gen. household	Total
Dressing	Informal care only	1,6 %	8,4 %	22,9 %	22,5 %	13,2 %
	Formal care only	11,4 %	9,6 %	14,9 %	9,3 %	10,7 %
	Mixed care	5,1 %	9,7 %	27,9 %	35,1 %	18,2 %
	Don't need help	82,0 %	72,3 %	34,4 %	33,1 %	57,8 %
	Total = 100 %   N:	255	607	262	356	1480
Bathing	Informal care only	2,8 %	16,2 %	19,6 %	20,3 %	15,5 %
	Formal care only	35,2 %	25,6 %	41,2 %	34,5 %	32,1 %
	Mixed care	3,2 %	9,0 %	16,5 %	27,1 %	13,7 %
	Don't need help	58,8 %	49,2 %	22,7 %	18,1 %	38,6 %
	Total = 100 %   N:	250	598	255	354	1457
Using the toilet	Informal care only	2,0 %	5,6 %	24,1 %	22,5 %	12,3 %
	Formal care only	5,9 %	5,6 %	8,4 %	5,9 %	6,2 %
	Mixed care	2,4 %	6,1 %	14,9 %	21,9 %	10,8 %
	Don't need help	89,7 %	82,7 %	52,5 %	49,7 %	70,6 %
	Total = 100 %   N:	253	606	261	356	1476
Feeding oneself	Informal care only	1,5 %	3,9 %	27,1 %	21,3 %	11,8 %
	Formal care only	1,9 %	1,0 %	1,1 %	1,4 %	1,3 %
	Mixed care	2,7 %	4,1 %	8,4 %	16,0 %	7,5 %
	Don't need help	93,8 %	91,0 %	63,4 %	61,2 %	79,5 %
	Total = 100 %   N:	260	608	262	356	1486

Abbreviations: IADL – Instrumental activities of Daily Living (household management tasks); PADL – Personal Activities of Daily Living (personal care activities)

Finally, we assessed the frailest older people (with regard to the functional impairment of this population) who have the greatest informal network in close geographical proximity. Informal care only was the main provider of care for both AADL, which was similar to the other groups. However, the frequency of respondents actually needing help in these areas was higher than that of the other groups. A mixed care arrangement represented approximately 10% of care arrangements for health-related tasks, indicating a supplemental role of formal care. Informal care was predominant for all IADLs, followed by a mixed care arrangement, which could amount to 27% of respondents needing help with making the bed and cleaning the bedroom, and 18% of respondents requiring assistance with preparing a hot meal. Formal care arrangements were less frequent, but could amount to 14% for the same two tasks previously mentioned. Overall sharing of tasks in a supplementary manner was highly evident. With regard to PADL, there was even stronger evidence of a supplemental role of formal care (a mixed care arrangement was either equally frequent or even more frequent than informal care only). Formal care amounted to only 35% for bathing, indicating that perhaps the burden of bathing exceeds the resources of an informal network, but is rather small for other tasks.

Table 3: SUMMARY OF TYPES OF ACTIVITIES OF DAILY LIVING

		Living alone – without children	Living alone – has children	Couples without children	Two- or multi-gen. household
AADL1	Informal care only	+	++	++	+++
	Formal care only				
	Mixed care				
	Don't need help	++	++	++	+
AADL2	Informal care only	+	++	++	+++
	Formal care only	0			
	Mixed care				
	Don't need help	+++	++	++	+
IADL	Informal care only	0	+	+++	+++
	Formal care only	++	+	0	
	Mixed care		0	0	0
	Don't need help	++	+	0	0
PADL	Informal care only			+	+
	Formal care only	0		0	0
	Mixed care			0	+
	Don't need help	+++	+++	++	+

Legend: 0–10% empty cell; 10–20% 0; 20–40% +; 40–60% ++, 60% and more +++

## Conclusions

To date, users of social home care in Slovenia have not been studied in a representative research design. Our study provides the first detailed information of the care arrangements of users of social home care across specific task areas of ADL. We included a number of daily life activities, ranging from advanced ADL to instrumental and PADL. While our analysis remained on a bivariate level, we nevertheless obtained some crucial information with regard to care arrangements, and two most important determinants of variations in usage of informal care only, formal care only, and mixed care. The level of functional impairment (an indicator of need) and household composition (as an indicator of availability of crucial elements of an informal care network) proved to be indicative of the levels of usage of particular care arrangements.

Our findings indicate that frail older people, living alone have the lowest levels of need, while frail older people living in two- or multi-generational households have the highest levels of need. The availability of an informal care network will probably enable elderly people to live longer in a community setting and postpone the need to live in a care institution. When the need is moderate and crucial elements of the informal care network are present (a child outside the household, a spouse, or a two- or multi-generational household), the informal network will perform the majority of the care work. This holds especially for both types of advanced ADL.

For frail older people living alone who do not have children, a formal care only arrangement is important for instrumental and PADL, as well as for advanced ADL. We can state that for these old people, formal care is important for prolonging their independence and postponing the need for them to live in a care institution (Pezzini et al., 1996). Formal care has a compensatory role in the absence of key elements of an informal care network (Allen et al., 1999). For frail older people living alone and who have children living outside the household, informal care is important, but is also complemented (Chappel and Blanford, 1991; Denton, 1997) by IADL (both, compensatory - formal care only and supplementary - mixed care effects of formal care are present). For frail old people living with a spouse, higher levels of functional impairment are supported primarily by an informal carer (Allen et al., 1999; Hvalič Touzery, 2009). On the basis of our findings, it appears that the current care arrangements do not fit into any specific theoretical model as presented at the beginning of this paper, but rather reflect specifics of several models, depending on the task observed. The complementary role of formal care is fairly emphatic for IADL and PADL. Both compensatory effect and supplementary effect appear to be equally strong. Certainly, rigorous statistical tests are required to support this conclusion (Denton, 1997). The supplementary effect of formal care seems stronger than the compensatory effect of IADL and PADL. It appears that both types of care work hand-in-hand to ensure a higher quality-of-life, and to share the overall burden of care (Chappel and Blanford, 1991; Denton, 1997).

This study has certainly only provided exploratory insights with regard to the care arrangements of social home care users in Slovenia, and the determinants of usage of social home care. Further analyses are required to statistically determine the role and strength of key explanatory factors (such as need and availability of informal care networks), as well as the primacy of the compensatory or supplementary effects of the complementary model (Chappel and Blanford, 1991; Denton, 1997) of care arrangements that has been found for social home care users in Slovenia. In addition, research is required to ascertain whether high dependence on informal networks is also related to lack of income for higher (more frequent) use of formal and mixed care arrangements.

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