

Digitalisation of Care from the Perspective of Families – Shaping the Effects on Familial Support, Relationships and Communication

The following considerations on the effects of digitalisation and mechanisation of care emerged from a discussion process, which has been taking place within the AGF about the challenges families face from digital change. This discussion process will be documented in a paper that considers all life phases.

In the following we limit ourselves to the topic of care and digitalisation in families with older people in need of care. Our focus lies firstly on an assessment of the current discourse on digitalisation and mechanisation of care for the elderly. Secondly, we state some normative basic positions and thirdly, we provide information about what needs to be taken into consideration from the standpoint of families when shaping the political framework for digitalisation and mechanisation.

1. The Family-Perspective on Digitalisation of Care

The situation of families with older family members in need of care is very heterogeneous due to the diversity of family models as well as a great variety of social and cultural backgrounds. However, despite such heterogeneity there are also similarities: care providing families usually show a high degree of commitment when looking after family members in need of care, and at the same time they experience high burdens.

Of the 3.41 million people in Germany that are in need of care defined by the Care Insurance Law (SGB XI) more than three quarters (2.6 million) are looked after at home. In 2017, of those 2.6 million people 1.7 million were exclusively looked after by family members. Looking at families with a migration background the share of people in need of care, who are exclusively cared for at home by family members, is significantly higher: for example, about 98 percent of people, who are of Turkish origin and in need of care, are exclusively cared for by their family (Tezcan-Güntekin and Breckenkamp 2017).

The Robert Koch-Institute has called families being “Germany’s greatest care service”. A study titled “Contemporary Health in Germany” (2012) shows that nine out of ten individuals, who look after people in need of care, do so to family members (Robert Koch-Institute (RKI) 2015). The German Centre for Gerontology underlines the extreme importance of family members: According to data from the German Ageing Survey more than 16 percent of 40- to 85-year-olds regularly support at least one person. Care in the stricter sense is provided by a third of them. Especially high is the provision of care to partners in the group of 80- to 85-year-olds as well as the support and care for older family members by young seniors (60 to 64 years). It is predominantly women, who provide care and support. However, the gap between men and women of working age is bigger than in the life phase after employment (Tesch-Roemer and Hagen 2018).

In the following, we refer to familial care of older people in their homes. When talking about the support of older family members in inpatient facilities, we will point out so.

Families’ internal view on the topic of “Care and Digitalisation” is characterized by a double ambivalence:

Ambivalences in familial care

Taking on caring responsibilities within the family is on the one hand a reflection of good and close emotional relations in families and partnerships. Hereby, an expression of that familial responsibility can be both supporting an older family member in their home environment as well as in an inpatient facility. The willingness to support each other emotionally, instrumentally or financially is usually very strong.

On the other hand, care is also accompanied by burden of physical and psychological kind. There exist deficits in the service landscape to relieve care-providing relatives. Bad quality professional care, inadequate services and social pressure of expectations can lead relatives, against their actual preferences, to look after older family members at home.

Furthermore, looking after relatives when of working age often comes with (currently particularly for women) career-related disadvantages and material losses on income and pension. Also, the emotional closeness between family carers and the people in need of care can under certain constellations turn from a resource into a burden. Conflicts of interests can occur between family carer and the cared-for but also between the generation of grandparents, parents and children. Those conflicts are a part of this family phase. The various interests within families must be interrelated to and weighed against each other.

Ambivalences of Digitalisation and Mechanisation in Family Life

Families also experience the digitalisation and mechanisation of family life, which also includes care, ambivalently. For many families, digital technologies and media are an integral part of daily life and they are used among other things to help with communication, to organize daily life and for entertainment. On the other side, digitalisation has also created new problems and conflicts or increased old ones, respectively, within families. This often has to do with children's and adolescents' user behaviour of digital media. The competition among children and adolescents for the very best/newest generation of technical gadgets/mobile phones can also lead to conflicts within families. Therefore, parents for example have to deal with partly difficult to meet consumer wishes of their children.

Conflict-ridden concerns of the middle and older generations have more to do with questions of data protection and the tension between relatives' desire for safety and the fears of older people in need of care to be under surveillance. On the one hand, differing technical competence between the generations offer positive occasions for familial (supportive) exchange. However, they also hold a potential for conflict if one-sided help is permanently demanded or when, conversely, unwanted digital technologies are imposed on older people.

2. Families and Care Provision: Analogue Services are the Basis

In regards to caring for older family members, families usually express rather rarely the need for a greater digitalisation of such care relations. Instead, it is the deficits of "analogue" services for care-providing relatives that impede families taking on care responsibilities. This includes the lack of specific services or regional undersupply, for example, in short term care units or services for dementia patients. This is increasingly true also to outpatient care services and inpatient care units. The key issue here are non-suitable services, which do not sufficiently take into account the specific needs of families, like for example, care services that are inflexible when it comes to time. In addition, there are also unnecessary financial or bureaucratic entry barriers for the use of services, as is often the case with day- and night-time care or ambulatory and mobile geriatric rehabilitation.

Taking on care responsibilities poses a risk especially for women to build an independent pension because of, among other things, the still insufficient recognition of care-giving periods in the pension insurance. For example, this affects women, who after the end of their child-care phase have just started again to firmly set foot into work life. In addition, families get impeded in their efforts to reconcile care for relatives and work by a lack of cooperation from many employers.



Increasingly, older people in densely populated areas have more and more justified fears to lose their apartments for financial reasons because of rising rents and because of higher private expenses for health and care services.

Families primarily wish classical care infrastructure and analogue services for care-providing families to be improved and further developed. From the point of view of family associations, the role digitalisation of care can play in solving the problems of care-providing families is somewhat overestimated by the current highly euphoric discourse on digitalisation.

3. Potentials of Digitalisation of Care to Relieve Families

In the following, when talking about the digitalisation of care, we mainly refer to technical or digital aids in the following areas (derived and extended from Daum 2017):

- **Planning- and Documentation Technologies**
Electronic patient records, electronic route planning, electronic service documentation
- **Information-, Communication- and Entertainment Technologies**
Using digital devices to communicate, entertain, coordinate and synchronise supply networks, for teleconsultation by personal computer, smartphone and others
- **Intelligent and Networked Robotics and Technology**
Service- and transport robotics, care sector robotics, emotion robotics, rehabilitation robotics, eating-aid robotics
- **Networked Aid- and Monitoring Systems**
Ambient Assisted Living (AAL)¹, assistance systems, aid- and monitoring systems, sensor technology for the monitoring of vital parameters, presence control, fall control.

In the list above there are digital applications, which either take on assisting functions for professional caregivers or, which are to directly support the autonomy of the people in need of care or their relatives. A certain amount of digital aids has already reached market maturity and is being used in practice, like for instance, electronic patient records and electronic service documentation, general digital information and communication means (for example messenger services), home emergency-call systems and AAL solutions. Moreover, there are applications that are in an advanced developmental stage and just before their extensive technical implementation, such as teleconsultation solutions, feeding robots and others. Some digital aids are only in their early testing stage, such as for example, autonomous care robots that can independently carry out body-related care tasks like washing and moving patients. Even though it is likely that in regards to these latter applications there might still be a longer period of development work necessary, it is exactly these applications that generate much attention and constitute an important point of reference in the discussion.

Despite the above-mentioned primary importance of “analogue” human support services the family associations recognise the potential that new technologies bring to familial care.

- In multi-local family constellations, digital technology can not only serve to improve communication within families and with friends and neighbours but also to coordinate help structures that are a mix of familial, informal and professional support protagonists (Renyi et al.).

¹ AAL includes various forms of technologically based solutions to increase living comfort, support health and physical relief as well as means of communication (Compare for examples Hilbert et al. 2018).

- Digital offers by the public administration and the social insurance agency can relieve families with relatives in need of care when obtaining information and making an application. For example, online-services serve hereby as digital simplifications of application procedures and prevent unnecessary trips and waiting times. Digitalisation offers possibilities to make locally existing support services transparent and accessible to families.
- Also, telemedical offers can reduce trips and waiting times and open up access to medical advice and, if applicable, diagnosis in rural areas, too.
- Digital and technical aids can support communication and contact within the family and with friends and neighbours. The participation of family members in need of care can be strengthened by digital applications, which support active and passive involvement in family, culture and society. Digital and technical aids that help coping with everyday life, have the potential to maintain the autonomy of people in need of care. Positive effects can be achieved on the health of care-providing relatives through further development of technical aids that reduce physical stress. Not least, the need for safety of people in need of care and of their relatives can benefit from monitoring and surveillance systems. However, sensory monitoring of older family members without a reliable human intervention offer, which in case of an emergency can be mobilised quickly, leads to rather greater insecurity in families than to more safety.
- Information about good care made available in digital form through care-tutorials, videos and so on, can contribute to improve familial care, provided it meets quality standards. The exchange with other care-providing relatives in chats and discussion groups can lead to relief if data protection is maintained and quality criteria are met, as they are formulated for example by NAKOS (National point of contact and information on promoting and supporting self-help groups) in the admission criteria for their "Green List".

4. The Current Discourse on Digitalisation of Care

In Germany care takes place mainly at home and is mostly provided by families, which show a high level of diversity when it comes to their structural, social and cultural characteristics. However, this is only insufficiently reflected in the discussion about the digitalisation of care.

In the developmental field of digitalised care many legitimate interests are articulated. For example, representatives of the care professions, among other things, hope for physical and psychological relief for professional care-givers as well as more effectively organised work. Providers of ambulatory and inpatient care services expect rationalisation and cost saving effects. Technology suppliers and consulting firms would like to market innovative products. The housing industry has long relied on keeping older renters in their portfolio by digital and technical retrofitting of apartments.

In each case, there are overlaps between the interests of the above mentioned exemplary groups and the interests of people in need of care and care-providing relatives. However, there is no aligning of interests. Looking at the public expert discussion about the topic of digitalisation of care gives the impression:

- that in digitalisation projects benefits for families are taken too much for granted and possible (long-term) negative aspects are too rarely evaluated.
- that despite the considerably higher number of people in need of help cared for at home, a very high share of projects of digitalisation is located in the inpatient sector. Here the focus very often lies on objectives of rationalisation and efficiency.



- that the practice of project promotion is aimed at professional care institutions and care services. Often institution-related “digital island solutions” are created. Changing the professional care supply automatically changes the digital environment, including corresponding conversion problems for the people in need of care. Digital solutions to support care arrangements should accompany the life course of people in need of care and adjust to their changing needs and requirements. Instead, not the institutions but the people in need of care and their families should stand in the centre of digital solutions. From the beginning, diversity and equal access should be taken into consideration.

5. Objectives of Digitalisation of Care from the Perspective of Families

The digitalisation of care needs a framework of values that is relevant from the perspective of people in need of care, care-providing relatives and professional actors, and which is reflected in the digital and technological solutions. These care-related values can differ individually and potentially there are conflicts of interests between the three mentioned groups. Therefore, any home care arrangement – including usual concrete care routines – can only be the result of a negotiation process between the involved persons. In general, digital and technological solutions have to be designed in a way they take account the openness of these negotiation processes. They have to flexibly support individual arrangements and be able to learn.

Creating room for familial negotiation processes and adaptable care arrangements

There is a central requirement taking into consideration the potentially conflict-ridden constellation between people in need of care, care-giver relatives, professional carers and the operational logic of digital solutions as well as individually varying ideas of a good life with health restrictions: The digitalisation of care should serve to create new room for respectful relationship and negotiation processes in families and where applicable with the wider informal support network (neighbours, friends). Conversely, existing room for negotiations must not be restricted.

Supporting participation

Usually the need for care is accompanied by losing possibilities to social, cultural and familial participation. This often is also true for the family carers, especially in cases of high stress. The career related disadvantages that family carers sometimes face are currently being looked at by an Advisory Board of the German family ministry (BMFSFJ) for the “Reconciliation of Care and Professional Work”. The goal of care policy measures has to be that a person remains to be able to actively or passively participate in social and familial life, despite the need for care or a care-providing relation. Therefore, the primary objective of digitalisation efforts in the care sector should be the promotion of participation chances of people in need of care and family carers.

Promoting self-determination

As in all families, also in care-giving families self-determination is only conceivable in terms of relationship categories. “Autonomous and free decision making by a person is always integrated into the existing net of social relations and has therefore inevitable consequences for others, who’s entitlements on free decision making have to be taken into consideration and to be respected just the same” (Deutscher Ethikrat 2018, p. 15). Because of the vulnerable situation of people in need of care their right to self-determination is, however, an especially high good, also against the interests of other family members.

The primary objective of support by professional care-givers, by family carers as well as by digital and technical aids has to be to maintain the self-determination of people in need of care and to lead a “life according to one’s own standards”. Living daily life, social relations, hygiene and so on according to one’s



own ideas, is often hard to achieve for people in need of care because of sometimes rigid professional and familial images of the “correct, active, dignified lifestyle under need of care”.

For example, implicit rigid values about the meaning of a “good lifestyle in old age”, healthy behaviour, hygienic standards as well as inner-familial divisions of labour and so on must not be “inscribed” or deposited as standard, neither into digital and technical solutions nor into artificial intelligence that operates them. Because, even when it comes to seemingly neutral technological solutions, such as electronic documentation systems, it appears “that the standardising effects of such systems do not leave relational behaviour untouched either, but subordinate it to an extent under a ‘machine logic’” (Kehl 2018).

Therefore, technology’s or software’s inherent values must be transparent and individually adaptable. They are to support self-determination of people in need of care and individual negotiation processes within families. The collection of values and preferences of people in need of care and the resulting initial individual adaptation of digital aids as well as readjustments of such adaptations have to be taken into consideration in regards to the financing, as well as typical tasks such as maintenance and the import of updates.

Enabling mixed help structures

In order to strengthen familial care and at the same time to avoid excessive demands on single family members digital and technical aids should support the cooperation of heterogeneous mixed help structures made of professional, familial, friendship and neighbourhood actors. Under no circumstances are digital solutions to limit the right of people in need of care to choose, for example, by predetermining one particular form of follow-up-care or one particular service provider in case of care arrangement changes or during transits between forms of care, such as, hospital discharge, (geriatric) rehab, short-term-care and so on.

Relieving care

Enabling mixed help structures also includes the improvement of working conditions of professional care-providers in order to increase the attractiveness of the care profession. The simplification of documentation and planning tasks as well as supporting professional care-providers with digital information about complex care problems and the reduction of physical stress through assisting technology can contribute to bring more people into care profession and to increase the times spent in it. When it comes to the substitution of human care-providers in certain task areas by robotics, it has to be monitored very carefully whether it serves to increase the attractiveness or whether it is perceived as undermining the essence of the care profession.

Guaranteeing access equality

Digitalisation is also a question of social and economic equity. Because digitalisation occupies an increasingly central role in daily life, all families and social groups must be granted equal access to the digital world. Today, the costs for procurement and operation of systems of Ambient Assisted Living (AAL) are still relatively high and constitute a factor in combination with approval practices of nursing care insurance funds, which has a negative influence on the acceptance of such technologies. In order, not to deepen the digital social inequality in old age even further, financing of AAL systems should be made easier.

In addition to proper access to infrastructure and content, respective competences and abilities that enable technical use as well as handling digital services are necessary. This also includes critical questioning, responsible behaviour and awareness for data protection and privacy.

Another aspect of access equality is the usability as well as the usefulness of digital technology for older people in need of care. In order to guarantee these aspects, all users should be involved in the development

following the approach of User-Centered Design (UCD). This is currently happening, however, apparently still too often as “alibi practice”. But, User-Centered Design will only turn into a “cooperative practice – transparent, participative, equal – when older users are involved in the development at an early stage and seriously” (Endter 2018).

“Technical assistance systems must not stigmatise”. On the one hand, they should not exclude older people from use, for example, because of too high requirements for fine-motor skills. On the other hand, according to Universal Designs, neither should they be aimed at elders alone but also at younger people and children to avoid an association of the technology with simple deficit balancing (Meyer 2016, p. 20).

Persons, who do not have or do not wish access to digital services, must however continue to be able to fall back on non-digital services.

Enabling consultation on digitalisation

The various consultation services in the care sector need competences in the field of digitalisation and care. Consultation in cases of care must, however, continue its focus on shaping stable care arrangements that take into consideration the interests of people in need of care and their care-providing relatives. Here, questions of personal resources of the involved, their values and preferences as well as the possibilities of the professional care support are central. Digital and technical aids can be a further topic in the consultation process and a building block in the care arrangement. Therefore, in the context of being in need of care, it seems to us that a separate consultation about technology is not useful because the consultation landscape is already unnecessarily fragmented and the implementation of technology only contributes to the stability of care arrangements in the context of concrete situations of need.

However, consultants in care support centres, social services and other consultation centres have to be very much qualified to be able to understand technical innovations and to assess their effects on specific situations of need and familial cultural contexts. As any consultation of older people in need of support they have to be culturally and diversity sensitive in order to increase the probability of reaching disadvantaged target groups at all and then to achieve an appropriate consultation success.

Ensuring data protection and privacy of all family and network members

Data gained in the care process can contain sensitive health data as well as information about familial and social support networks and their quality. When it comes to children, families are on the one side usually very sensitised in regards to the consequences of using digital tools and media, and on the other side at the same time there is a great amount of helplessness in dealing with digital media/tools. The middle generation, who supposedly has the competences to protect and to school the more vulnerable parts of the family such as children, young people and the old, are often overstrained themselves. In regards to data protection they themselves often exhibit a “dangerous use” of digital technology (Kutscher and Bouillon 2018).

In contrast to children, when it comes to older people in need of care data protection still plays too small a role in internal family discussions. The expert community’s image of the importance of data protection for older people in need of care appears to be inconsistent. Some discussions give the impression that data protection and privacy for older people were less urgent concerns than for the young. There must not be a reduced standard of data protection for people in need of care.

Avoiding a hierarchical structure of care activities

The digitalisation and mechanisation of documentation and administration tasks can lead to more time for professional care. However, for two reasons we do not share the view that the replacement of body-related

care treatments by robotics would also lead to more time for “human affection”: It is not clear why an opposition is constructed between body-related help with eating, washing, bowel movements etc. and human (communicational, emotional) affection. These activities come with intense verbal and non-verbal communication and give both sides involved an extended picture of the other person.² In our society feeding and eating together with children counts as central means to convey culture and the ability to enjoy. Why in regards to older people offering food is called in parts of the discussion on digitalisation “dead time” that could rather be used for “human affection”, cannot be understood by the family organisations. And, since great technological progress is being made especially in the development of technologically-based serving meals (feeding robotics), the family organisations fear that for reasons of rationalisation technology-driven practices could move into professional care, that do not serve the people in need of care and their families.

On the other hand, the AGF sees the risk that under the given economic pressure in the care sector, resources freed-up through the substitution of human care activities by robotics may not flow into a surplus of attention but may be saved.

6. Conclusion

The Association of German Family Organisations (AGF) welcomes a broad social debate about guidelines and limits of digitalisation in an ageing society. In contrast to the very much technology and professionally-driven debate, it is needed to focus in on the perspective of people in need of care and their families. From the perspective of family organisations, a central initial question should be how digitalisation affects daily life, communication and relationships of the structurally, socially, materially and culturally very diverse family forms with older family members.

We suggest that the “German Charta of rights for people in need of help and care” is concretised in regards to requirements on digitalisation of care. So far, questions of digitalisation such as privacy, data protection and access equality play only a minor role in the Charta. From our view, further development is necessary at least in regards to Article 1 “Self-determination and help for self-help”, Article 3 “Privacy”, Article 5 “Information, consultation and education”, Article 6 “Communication, appreciation and participation in society”, Article 7 “Religion, culture and world view”.

Weighing usefulness and risks of digitalisation of care is difficult because of the high dynamic on the side of technological development as well as on the side of threats to privacy and data protection. Often, no general assessment can be given but instead just for concrete measures and in the face of diverse family forms and life phases just in the context of a specific family situation. However, in general the following aspects should be taken into consideration:

- A digitalisation strategy should always be linked to further development and extension of “analogue” care-related respite services in order to support families in their care for family members.
- Because care for older people is mostly familial care that takes place in homes, research and promotional activities should be focussed much more on these areas. Among other things, questions of specifically conducive and restraining factors of implementing digital aids in family types with differing social and cultural backgrounds should be evaluated.
- In order to ensure equal access to digital innovations in care without excluding disadvantaged groups of the population, various measures are necessary: The costs for procurement, operation and maintenance of digital aids are an acceptance factor for these technologies. The German system of health care

² The discussion among care experts also points to the diagnostic potential of body-related care treatments and feeding.

catalogues for social security funded care aids is too rigid for the new technologies and the inclusion of new services is handled too inflexible and takes too long.

- Competences in using digital aids should be increased early in life by low-threshold measures. Most important for people in need of care and their relatives in the concrete care situation is that – based on real existing competences – individual trainings in how to use the technology are made available and are paid for. Also of very high importance is the simplicity of the usage.
- Good quality consultation is key to equal access to tailor-made, innovative digital care services. Therefore, consultants have to be trained in the effects and functioning of digital support services. A stronger focus in the consultation debate should be on reaching target groups that have so far only profited below average from ambulatory consultation services. Here, services have to be developed for educationally deprived groups, migrants and so on. In our view, no separate technology consultation apart from the general care and aid consultation should take place for older people.
- Data protection and informational self-determination for people in need of care and their relatives must be guaranteed. In the care and health sector higher data protection requirements must be applied than in other areas because sensitive health data but also sensitive data about social networks and about family life are collected here. If in the care context digitalised information about persons from the support network of the people in need of care is recorded, then the data protection rights of the network members must be protected as well.
- Among others, the following questions are touchstones, according to which single digitalisation measures in care should be assessed:
 - Does a digitalisation measure lead to more or less self-determination for the person in need of care and the family carer?
 - Is the room for negotiations over support arrangements widened or minimised?
 - Does a digitalisation measure improve communication within families, with friends, the neighbourhood and, if applicable, with professional care providers?
 - Does a digitalisation measure promote direct human contact or does it substitute direct contacts?
 - Does a digitalisation measure / mechanisation lead to physical or psychological relief for care-providing relatives?
 - Does a digitalisation measure improve reconciliation of care and work for relatives?
 - Does a digitalisation measure lead to further personnel / machine fragmentation as well as segmentation of support services and personnel change of carers or does it support continuity of care relations?
 - Does a digitalisation measure contribute to avoid the overburdening of (single) familial carers or does it concentrate responsibility onto single helpers?
 - Does a digitalisation measure support mixed care arrangements of family members, neighbours, friends, professional services?
 - Do all (forms of) families have equal access to the advantages of the digitalisation measure? Are possible disadvantages distributed evenly?

Sources

Daum, Mario (2017): Digitalisierung und Technisierung der Pflege in Deutschland. Ed. by DAA-Stiftung Bildung und Beruf. Hamburg.

Deutscher Ethikrat (2018): Hilfe durch Zwang? – Professionelle Sorgebeziehungen im Spannungsfeld von Wohl und Selbstbestimmung. Stellungnahme des Deutschen Ethikrates. Ed. Deutscher Bundestag. Berlin (Bundestagsdrucksache, 19/6887), last downloaded on 15.01.2019.

Endter, Cordula (2018): How older people matter – Nutzer- und Nutzerinnenbeteiligung in AAL-Projekten. In: Harald Künemund und Uwe Fachinger (Ed.): Alter und Technik - Sozialwissenschaftliche Befunde und Perspektiven. Wiesbaden: Springer Fachmedien Wiesbaden, pp. 207–225.

Hilbert, Josef; Becka, Denise; Cirkel, Michael; Dahlbeck, Elke (2018): Alter und Technik: Perspektiven der Gesundheitswirtschaft. In: Harald Künemund und Uwe Fachinger (eds.): Alter und Technik - Sozialwissenschaftliche Befunde und Perspektiven. Wiesbaden: Springer Fachmedien Wiesbaden, pp. 33–50.

Kehl, Christoph (2018): Entgrenzungen zwischen Mensch und Maschine, oder: Können Roboter zu guter Pflege beitragen? In: *Aus Politik und Zeitgeschichte* 68 (6-8), pp. 22–28.

Kutscher, Nadia; Bouillon, Ramona (2018): Kinder. Bilder. Rechte. Persönlichkeitsrechte von Kindern im Kontext der digitalen Mediennutzung in der Familie. Ed. Deutsches Kinderhilfswerk. Berlin (Schriftenreihe des Deutschen Kinderhilfswerk, 4).

Meyer, Sibylle (2016): Technische Unterstützung im Alter – Was ist möglich, was ist sinnvoll? Ed.: Jenny Block, Christine Hagen and Frank Berner. Berlin (Expertisen zum Siebten Altenbericht der Bundesregierung).

NAKOS: Aufnahmekriterien Datenbank GRÜNE ADRESSEN. Nationale Kontakt- und Informationsstelle zur Anregung und Unterstützung von Selbsthilfegruppen. Online verfügbar unter <https://www.nakos.de/adressen/aufnahmekriterien/key@1572>.

Renyi, Madeleine; Kunze, Christophe; Rau, Sophie; Rosner, Melanie; Gaugisch, Petra (2017): Digitalisierung in Hilfemix-Strukturen: IT-Systeme zur Koordination von Versorgungsnetzwerken mit professionellen und informellen Pflegenden. In: Mario A. Pfannstiel, Patrick Da-Cruz und Harald Mehlich (Eds.): Digitale Transformation von Dienstleistungen im Gesundheitswesen II, Bd. 82. Wiesbaden: Springer Fachmedien Wiesbaden, pp. 201–220.

Robert Koch-Institut (RKI) (2015): Pflegende Angehörige – Deutschlands größter Pflegedienst. Berlin (GBE kompakt, 3/2015).

Tesch-Roemer, Clemens; Hagen, Christine (ed.) (2018): Fact Sheet Ausgewählte Aspekte zur informellen häuslichen Pflege in Deutschland. Berlin.

Tezcan-Güntekin, Hürrem; Breckenkamp, Jürgen (2017): Die Pflege älterer Menschen mit Migrationshintergrund. In: *G+G Wissenschaft* 17 (2), pp. 15–23.