Z Gerontol Geriat 2015 · 48:354–364 DOI 10.1007/s00391-014-0816-5 Received: 31 July 2013 Revised: 3 February 2014 Accepted: 22 August 2014 Published online: 17 October 2014 © Springer-Verlag Berlin Heidelberg 2014

Tao Liu¹ · Li Sun²

¹ Fakultät für Soziologie, Universität Bielefeld, Bielefeld, Germany

² Faculty of Technology, Policy & Management, Delft University of Technology, BX Delft, The Netherlands

An apocalyptic vision of ageing in China

Old age care for the largest elderly population in the world

Introduction

China's new "Elderly Rights Law" was introduced on 1 July 2013, stipulating that children are legally obligated to visit their parents and that parents can sue children when these fail to visit often enough. That same day, a court in Wuxi city handled the case of a 77-year-old mother who had brought a lawsuit against her daughter for not visiting her and not taking care of her [44]. These gave rise to a public debate on how to deal with the ageing population in China. Since the turn of the millennium, the population in China has rapidly aged and the number of people aged 60 years or over had reached 178 million by 2010. It took only about 30 years for China to be transformed from a comparatively young population into an ageing society [25], and the population pyramid will become increasingly top-heavy over the coming decades. Over the last decade, as the Chinese population rapidly ages, issues that arise from this process, such as demographic transition, old age pensions, life after retirement and gerontotherapeutics, have increasingly drawn the attention of scholars [23, 39]. In fact, the study of gerontology has garnered increasing attention within the Chinese academic community with several studies about gerontology and gerontologist sociology having been recently published [49, 53]. However, despite the increasing attention for the issue within China, there still exists a research gap on the elderly Chinese in international literature, which this article aims to fill.

Before the turn of the millennium, the long-term care for the elderly in China had always been traditionally thought of as a familial and inter-familial issue. Even as the ageing demographic and the nuclearization of the family became increasingly apparent, care for the elderly remained a problem to be addressed inside the family and at most the local community. Starting in the 1990s, the question of long-term care had started to be considerably re-evaluated, yet compared with other issues such as retirement age, old age pension and health care for elderly people, it remained a marginalized field generally neglected by scholars. Even as a number of studies discussed the major problems facing the care of elderly people in light of a demographic that is rapidly ageing, the solution did not evolve beyond the synergetic combination of care by families, local communities and privatized nursing homes at a local level. Very few studies considered state responsibility for long-term care for older people. The turning point came approximately at the dawn of the millennium, as care for elderly Chinese had started to attract attention from major economists, policy makers, administration staff and the social security research community in China. Soon the mass media, scientific journals, and experts recognized and co-constructed a critical social problem-how to provide care for the elderly in China both today and in the future. Some influential media outlets recently reported on this issue with a full-page spread.¹ In a very short time, care for the elderly has been elevated to a national social problem which should be resolved through state intervention.

Having identified long-term care as an emerging social problem across the country, this article argues that it is urgent that China makes the switch from an informal family-based care system to the state's formal long-term care system, and suggests that an innovated institutionalized model be set up for this huge challenge to the Chinese society. This article is made up of four main parts: Firstly, the authors define long-term care as a new social problem in Chinese society rather than an intra-familial problem issue; secondly, in the context of the One-Child-Policy and drastic changes in traditional family structures, an overview of the ageing demographic in China is provided; thirdly, since the elderly disability in activities of daily living (ADL) is the group of elderly in most need of care, their numbers having risen to 33 million in 2010, a deep discussion on current practice of care for these disabled elderly is given; fourthly, this article points out that a multi-pillar insurance system, based on the model of social insurance, would be the optimal model for long-term care in China according to mainstream

¹ The very popular newspaper "Global Times" addressed the issue through with a full-page spread including discussions and debates about searching for an institutional scheme for longterm care in their 18 May 2013 publication, inviting many experts and specialists from the area of gerontology and sociology to discuss this issue and introduce it to public.

opinions by scholars and points out the ways in which it is different from both the commercialized models (e.g. as applied in the USA) and state organized "Beveridge" models (e.g. as applied in Sweden).

Construction of a social problem in a modern society: the knowledge market and the perception of the problem

A problem is not a social problem per se, only when a problem is perceived as such within society and is socially constructed as a public issue inside a societal community does it then becomes a social problem [2, 37]. The most extraordinary example of this in China is the old age pension: before socio-economic modernization took place there had never been a socially constructed concept of a "pension" granted by the state and societal units like social enterprises and public pension funds [16]. State responsibility for individuals' welfare, particularly for the old age pension is a product of the modern society and is deeply intertwined with the social construction of this issue as a social problem in the modern society. Thus, in the contemporary world the issue of old age pensions has become larger than simply an individual and intra-familial problem and has since been recognized as a global social problem by many countries in the world despite any local cultural and economic configurations of it being something other than that $[8]^2$

In political sciences, the theory of the policy cycle subdivides the political decision-making process into five different stages: Agenda setting, policy formulation, decision making, implementation and evaluation [38]. In a certain sense, the social construction of a problem is comparable to the stages of agenda setting (problem identification), in which social needs are "discovered" by diverse social and political actors and recognized as problems that demand further political attention. Relying on agenda setting, these problems and various solution approaches as well as strategies and policy alternatives will then be addressed by social and political groups, after which the law will be enacted (decision making) and put into praxis (implementation).

In a modern society there are too many risks, questions and problems, and which of these will be selected and conceived as a social risk, question or problem depends on the subjective selection and interpretation of these issues by actors in a society. The most important actors creating new ideas in modern society are scientific and political actors such as scholars, scientists, journalists, experts and social movement leaders. These actors make up the various think tanks, scientific communities, epistemic communities and advocacy coalitions, which share similar ideas, values, expertise amongst each other, and then usually mutually in an attempt to transfer their innovative ideas to other members of the society [35]. The detection of new social problems in a more complicated modern society depends on the subjective construction of actors in scientific and mass media systems, and how these scientific and medial actors are able to transfer their ideas to the political system and successfully shape the discourse of political actors. The most significant issue is the interconnection of scientists and policy makers [4]. In a knowledge market with an abundance of information, only influential experts who work with policy makers very closely are able to push new issues onto the political agenda successfully. However, it is relevant to note that there are a diverse range of actors in modern democratic societies who are able to affect the decision process and legislation of social policy. Commonly it is the social movements, left and middle left parties, the social democratic parties, the organized labour movements, the peer groups and the advocacy coalitions who may put pressure on the authorities to change their policies in order to remedy-perceived social grievances [5, 17, 18, 31, 34]. Some scholars disclose the close ties between democracy and the extension of the social protection system [10].

It is important to note, however, that as a soft-authoritarian and non-democratic society, the intermediary actors and pressure groups in China have only a very limited impact on the social policy legislation, the detection and definition of new social problems is deeply associated with the elaboration and amplification of scientific actors and their networking with important figures in politics and government. If these scientific actors are able to persuade the political actors to act, they will succeed in putting their ideas at the top of the agenda [20]. Whereas the old age pension in China was considered as a social problem very early on and as a policy field for which the state ought to take full institutional responsibility [42], the other relevant issuelong-term care has only gradually entered into the public discourse in recent years, drawing increasing attention from scholars and journalists [50]. Long-term care is perceived as a realm for which public administration would be responsible, and it is encouraging to find that political actors are dealing with the issue, as evidenced by the new "Elderly Rights Law" published in 2013. Therefore, this article argues that the issue of long-term care is an emerging social problem in Chinese society, rather than merely an intra-familial problem.

The ageing demographic and the transformation of the family structure in China

The population in China has aged with an unparalleled speed as compared with other countries. As shown in **Fig. 1**, since the introduction of the Reform and Open-Door policy in 1978 China has developed from a comparatively young society to an ageing society within 3 decades.³ In the coming decades this development will continue, leading to a growing elderly population. By comparing the share of the people aged 60 and over with the whole population, China became an ageing society in 2000. According to the fifth population census in 2000, people aged 60 and over made up 10.2 % of the population,⁴

² Concerning the construction of different stages of life, like the pre-school stage, education, occupational career and retirement through statutory social policy by state see [16].

³ The ageing society is linked to the process of demographic transition and population ageing which are characterized through the increase of median age, the prolongation of the life expectancy and the growing share of old age people in the total population [3, 11].

⁴ See the results of the Fifth Population Census of the PR China, available on the webpage of National Bureau of Statistics in China: http:// www.stats.gov.cn/tjsj/pcsj/rkpc/dwcrkpc/.

Abstract · Zusammenfassung

and according to the National Bureau of Statistics of China, the absolute number of the elderly people in China reached 178 million in 2010. The most populous nation in the world took only 30 years to transform into an elderly society, whereas the same process has taken more than a century in industrialized countries [25].

What is rather unique about the demographic ageing taking place in China is the combination of the rapidity and artificiality of this development. First of all, China has undergone unparalleled social and economic modernization. Since the introduction of the Reform and Open-Door policy, China has experienced economic development with double-digit growth rates over most of the last 3 decades, some 500 million people have been lifted out of poverty, and the country has seen a rise in life expectancy.5 Secondly, faced with the challenge posed by the population explosion that occurred between 1949 and 1978, the Chinese government introduced a rigid One-Child-Policy in 1980 which significantly reduced the number of births hereafter (Fig. 2). Owing to these internal factors, population development in China changed considerably over the decades following the introduction of these two policies. One unique feature of demographic ageing in China is the fact that China remained a comparatively poor country in terms of per capita gross domestic product (GDP) while it crossed the threshold of becoming an ageing society. Compared to the development of China, Organization for Economic Cooperation and Development (OECD) industrialized nations experienced a more natural development trajectory and became a wealthy society before they became an ageing society [14]. This means that, economically, China is likely ill-prepared for an unexpectedly abrupt transformation into an ageing society.

As an addition to the drastic reduction of birth rates and raised life expectancy, modernization has changed individual ideas towards a reproductive behaviour. Z Gerontol Geriat 2015 • 48:354–364 DOI 10.1007/s00391-014-0816-5 © Springer-Verlag Berlin Heidelberg 2014

T. Liu · L. Sun

An apocalyptic vision of ageing in China. Old age care for the largest elderly population in the world

Abstract

According to the National Bureau of Statistics of China, by 2010 the number of people aged 60 or over had reached 178 million in China or 13% of its population. With the largest elderly population in the world in absolute numbers, China faces a challenge of providing care for the elderly both in the present and the future. Unlike old age pensions and health protection for the elderly, in Chinese society elderly care had never been considered to be a social problem but rather the individual family's responsibility. After the turn of the millennium, as the repercussions of increasingly ageing demographics, the results of the One-Child Policy and drastic changes in traditional family structures gradually became more apparent, this issue of elderly care has increasingly become one of the most pressing concerns for the ageing society. As there is little existing research on this

particular topic, this article aims to shed light on elderly care in China, focusing on the care of elderly needing assistance with activities of daily living, since this group of elderly are most in need of care, their numbers having risen to 33 million in 2010. This article argues it is urgent for China to switch from informal family-based elderly care to the state's formal long-term care, illustrates that a model of social insurance (e.g. as in Germany) is advocated by many Chinese scholars and points out the ways in which it is different from both the commercialized models (e.g. as in the USA) and state organized "Beveridge" models (e.g. as in Sweden).

Keywords

Elderly care · Disabled elderly · Gerontology · Social insurance · China

Eine apokalyptische Vision der demographischen Alterung in China. Das Problem der Altenpflege in dem Land mit der größten Anzahl alter Menschen weltweit

Zusammenfassung

Einem Bericht des Staatlichen Amtes für Statistik der Volksrepublik China zufolge stieg die Zahl der 60- und über 60-Jährigen in China bis zum Jahr 2010 auf 178 Millionen. Das macht 13% der gesamten Bevölkerung Chinas aus – und entspricht dem größten absoluten Wert in Bezug auf die Anzahl alter Menschen weltweit. Entsprechend sieht sich China bereits jetzt, vor allem aber für die Zukunft, mit dem Problem der Altenpflege konfrontiert. Anders als die Alterssicherung und die Gesundheitsversorgung alter Menschen wurde die Altenpflege bislang nicht als soziales Problem, sondern vielmehr als individuelle und familiäre Aufgabe betrachtet. Seit der Jahrtausendwende zeichnen sich immer deutlicher die Auswirkungen der zunehmenden demographischen Alterung und die Folgen der Ein-Kind-Politik ab, einschließlich der drastischen Veränderung der traditionellen familiären Struktur, sodass auch das Problem der Altenpflege in der Alterungsgesellschaft Chinas immer deutlicher zutage tritt. Da bislang nur wenige Studien zu diesem

Taken together the size of average households has been transformed as fast as the population has aged. While Chinese famThema vorliegen, möchte sich dieser Aufsatz dem Problem der Altenpflege, insbesondere der Betreuung alter, pflegebedürftiger Menschen und ihrer Unterstützung bei den täglichen Aktivitäten des Lebens widmen. Die Zahl der Menschen in dieser Altersgruppe ist bereits auf 33 Millionen gestiegen. Der vorliegende Beitrag kommt zu dem Schluss, dass China das familienbasierte in ein staatlich organisiertes Pflegemodell umwandeln muss. Außerdem weist er darauf hin, dass eine soziale Pflegeversicherung von mehreren chinesischen Wissenschaftlern bevorzugt wird. Dieses Modell geht zurück auf das Sozialversicherungsmodell in Deutschland und unterscheidet sich grundlegend vom kommerziellen Modell der Vereinigten Staaten von Amerika wie vom Staatsfürsorgemodell in Skandinavien

Schlüsselwörter

Altenpflege · Alte Menschen mit Behinderung · Gerontologie · Sozialversicherung · China

ilies have traditionally been influenced by Confucian values which state that adults and children must live with the elder-

⁵ Before the founding of the People's Republic of China in 1949 life expectancy amounted to 42 years for both genders, and after the sharp increase in the last 6 decades it has risen to 73 years in 2010 according to the United Nation World Population Prospects: 2006 revision.



ly, this practice has come under pressure as due to the twin influences of modernization and urbanization, as well as new ideals of self-fulfilment and individual careers, more and more young Chinese have migrated to other cities [34]. Now, the traditional ideal of an extended family in which four generations live under a single roof (*sisitongtang*) has gradually vanished. There are more and more families in which the elderly people live alone they are called 'solitary old people' (*dujulaoren*). It is more and more common to see so-called 'empty-nest' homes, or households in which all young members leave their homes and only the old people [12]

stay at home [26].⁶ The One-Child-Policy introduced 30 years ago and its contin-

⁶ The number of senior citizens who live in empty-nest families peaked at 99 million in 2012 and will climb to 100 million in 2013. See the data provided by the Vice Minister of Ministry of Civil Affairs (MOC)—Dou, Yupei, on the webpage of the MOC: http://fss.mca.gov.cn/article/Inrfl/ywjs/201305/20130500459697.shtml

Originalien

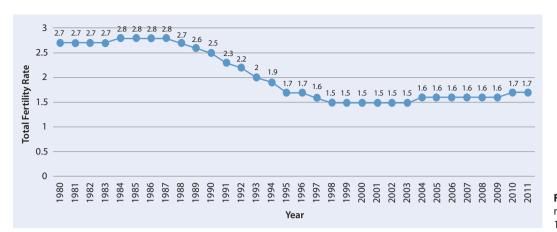


Fig. 2 ◀ The total fertility rate (TFR) in China between 1980 and 2011. Source: [45]

ued enforcement will very possibly create a new type of family: the so-called '4-2-1 family' in which one sole young child is tasked with the care of two parents and four grandparents [13]. Furthermore, in One-Child-Families where the sole child has died due to an illness or an accident, families have become childless.⁷

Long-term care in contemporary China

Since the elderly with ADL⁸ disabilities is the group of the elderly most in need of care, this article closely examines the longterm care of disabled elderly in China. According to the joint survey by the China National Committee on Ageing (CNCA) and the China Research Centre on Ageing (CRCA), the number of disabled elderly had risen to 33 million in China by 2010, accounting for 19% of the elderly population in China.⁹ Of these elderly, 10.8 million are completely disabled, and 22.2 million or partially disabled, making up 6.3 and 12.7% of the elderly population, respectively.¹⁰ According to their estimation, the number of disabled elderly will reach an unprecedented 40 million by 2015 [55].

While the nation as a whole has been affected by the challenge of how to care for increasing numbers of disabled elderly people, different regions, provinces and family types have been unevenly affected by this social problem. For example, while the proportion of completely disabled elderly of the old age population amounts to 5% in urban regions, in rural regions it amounts to 6.9%. Furthermore, while it is clear that the rural Chinese must care for a more disabled elderly, health care facilities for the elderly in rural regions are much less developed than those in urban regions. Indeed, the spatially uneven distribution of the 'burden' posed by disabled elderly shows that the economically more advanced regions are in a much more favourable condition to cope with this new challenge whereas the backward regions have a much higher share of completely disabled elderly. For instance, as shown in • Fig. 3, western China—the internal region-has a considerably higher rate of completely disabled elderly than eastern China-the economic centre of China. Indeed, in the rural western and central Chinese regions the proportion of completely disabled elderly make up 7.4 and 6.7% of the elderly population, respectively, whereas Eastern China is in a comparatively favourable situation with the share of completely disabled elderly totalling 4.8% of the elderly population. The highest portion of completely disabled elderly can be found in northeastern China, however, where they make up 8.8 % of the elderly population. The latter figure is a good indicator of the fact that different socio-economic factors cause the spatially uneven distribution of the number of disabled elderly people. In the northeastern region, old heavy industrial zones can be found, here the environment is relatively polluted and as natural resources are being exhausted the environmental conditions have caused the relatively high proportion of disabled elderly. Additionally, in the North of China where the winter months are cold and long, the elderly tend to stay at home. The absence of exercise is another cause for the high incidence of disabled elderly.11 Geography has also lead to differing dietary habits in the

phone and handling finances [15, 19].

⁷ The number of loss-of-single-child (childless) families has reached nearly 1 million in China in the year 2012. Annually about 200,000 children in China are abducted and sold by organized criminal networks of trafficking in human beings. See the report about the loss-of-singlechild families in China from the Xinhua News Agency on: http://www.zj.xinhuanet.com/newscenter/rb/2013-03/03/c_114868873.htm. 'Activities of daily living' is a term used by health care professionals to refer to daily selfcare activities, such as feeding ourselves, bathing ourselves, dressing ourselves and walking. The ability or inability to perform these tasks is generally used as a measurement of the 'functional status' of the elderly. Instrumental activities of daily living are not necessary for fundamental functioning, and people who are in need of care usually lead independent lives in their communities, the major assessment criteria are for instance: Assistance with housework, transportation within the community, use of tele-

⁹ By comparison, in Germany there were about 2.54 million people who were caredependent in 2012, of whom 79.6% were 65 years of age or older, about 11.9% of the elderly population in Germany (Bundesministerium für Gesundheit: Zahlen und Fakten zur Pflegeversicherung: http://www.bmg.bund.de/pflege/ zahlen-und-fakten-zur-pflegeversicherung. httml)

¹⁰ The term 'completely disabled old people' refers to those who have lost the ability to selfcare entirely and require permanent care, while the term 'partially disabled people' describes those who have lost this ability only partially and need temporary care.

¹¹ "Maodong" is a word from the northeast dialect in China, which means that the people prefer to stay indoors at home during a long and cold winter.

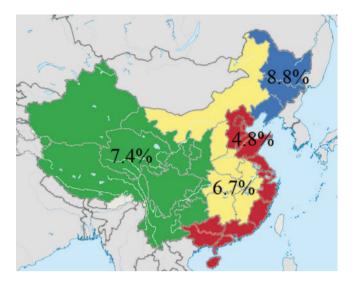


Fig. 3 ▲ The percentage of completely disabled elderly of the elderly population in different regions of China. Source: based on China Research Centre on Ageing (CRCA), see [55]. (The reason for the division in the four regions is rooted in the Chinese tradition of comparing local disparities. China is commonly divided in Coastal Provinces (yanhai shengshi), Central China (huazhong), Northeastern China (dongbei) and Western China (xibu diqu). Each region has rather homogenous economic and social development conditions: The Coastal Provinces have a high level of economic development and a high standard of living, Central China is the median with regard to the rankings of social and economic indicators, Northeastern China consists of the formerly heavily industrialized regions which still carry the burden of having to structurally adjust due to its outdated model of economic development, while Western China consists of the provinces and autonomous regions which cover a vast territory yet are sparsely populated, and are characterized by a low standard of living and low productivity.)

various regions which have had an indirect impact on the incidence rate of disabled elderly. Finally, specialized health care for old people and attention for geriatric nutrition is more common in affluent coastal regions than in poorer regions further inland.

China faces two interrelated challenges. On the one hand, there is the rapid increase in the overall elderly population. It is estimated that in 2050, the share of the old age population would account for onethird of the whole population in China, and equal to the combined elderly population of all OECD countries. On the other hand, there is the growing number of disabled elderly people who are in need of specialized long-term care. The number of disabled elderly people in China would reach 87.8 million by 2050 if the relative proportion of disabled elderly people remains at 2010 levels [58].

According to the national survey by the CNCA and CRCA, 77.1% of the disabled elderly population in urban regions and 61.8% of that in rural areas are in the need of demanding care. Until now the care of these disabled elderly has been a matter of individual responsibility. In both urban and rural regions the family is charged with the major responsibility for the care of the elderly. Generally it is the son and daughter-in-law who are primarily responsible for providing care for disabled elderly in China. In addition to the care of the elderly provided by the family, when necessary, local communities have also been known to engage in long-term care in some cases [43]. Owing to the disproportionate economic development in the coastal regions of China as compared with the inland regions, there is an equally uneven spatial distribution of social resources for long-term care. In economically powerful regions like the urban communities of eastern China, communities are capable of providing better professional and social services for the elderly population. On the other hand, in western underdeveloped China many communities can provide only marginal subsidies and rudimentary relief for families with elderly people. The unevenly distributed regional resources have put the Chinese peripheral regions in jeopardy and aggravate the public perception about a just society since the regions that are impoverished are doubly weakened through both a relatively high number of elderly people requiring care and the relatively low financial capacity to meet their needs.

It is worth noting that even without explicit formal measures and funding for disabled long-term care, the vast majority of rural communities assist households with disabled elderly people with claiming financial support from the rural Minimum Living Standard Security Scheme (MLSS).12 However, MLSS support consists of only minimal cash benefits, not inkind benefits like care services, and there is considerable need for the state government to either provide more funding or take direct responsibility in order to build and extend institutional and professional old age care institutes, especially in rural China [53].

Nationwide, there were an estimated 41,800 public old age care institutes by the end of 2012, with the total number of beds numbering 3.65 million. This is enough for only 2% of the old age population in China, well below the level in OECD countries (5-7%). According to the Ministry of Civil Affairs (MOC), more than 2.1 million of the elderly population had been cared in these old age care institutes by 2009, of which an estimated 240,000-350,000 were disabled elderly.13 Additionally, the MOC found that besides the limited capacity of these old age care institutes in terms of total number of beds, they had limited resources at their disposal and generally lacked facilities. For example, less than 60% of the old age care institutes were found to be equipped with clinical treatment rooms and 22.3% of these institutes had no separate medical rooms. Similarly, resources for training the professional staff are lacking and inadequate in light of to the significant and growing demand for special care for the disabled elderly in China. Of all the nursing staff, only 30% have

¹³ See the report of Ministry of Civil Affairs (2009) "The Statistical Report on Civil Affairs Matters in 2009", available on: http://finance. people.com.cn/nc/GB/11853946.html.

¹² The rural MLSS was tried out by local communities in China since the millennium. From 2006 this programme has become a national programme through pressure from the State Council of China. It stipulated that rural residents whose income falls below the local poverty line can claim a monetary assistance from the local administration.

ever received the specific professional and systematical training needed to be certified for long-term care. Again, the rural regions in western China are those worst affected, by far, with very limited medical personnel resources with which to address the problem of long-term care. In these western regions, more than 60% of the old age care institutes had no professional nursing staff, and more than 50% of institutes had no doctors.

One of the key concerns of old age care institutes is the absence of professional nursing personnel financed by the state. It is obvious imbalance between the huge numbers of the needy (i.e. disabled elderly) and the scarceness of personnel who have obtained the specialized and professional educational qualifications necessary to be able to look after them. Only 300,000 nursing staff exist to serve the needs of more than 30 million disabled elderly people nationwide, a ratio of 1:100. According to a report by the Chinese Parliament, The People's Congress, of the 30 million disabled elderly people, about 10 million need care beyond what the family can provide. However, considering that of the 300,000 nursing staff only one-third of them, about 100,000, are certified specialists capable of providing the necessary level of professional care to disable elderly, the ratio remains at 1:100. Another major concern is the fact that a large number of these old age care institutes are not willing to accept disabled elderly in need of specialist care. For example, nearly 50 % of these institutes in urban China were found to only accept non-disabled elderly, which means that those elderly most in need of care beyond what their family can provide, are often excluded from the only institutes that could provide it.

From informal to formal long-term care: problem construction and policy learning in exploring an institutionalized model in China

International knowledge diffusion and the construction of "best practice"

How would Chinese policy makers and the social science community attempt to

resolve the contemporary and the prospective problems with long-term care? How does the international transfer of knowledge and learning of policy play a part in the construction of an institutional model for the long-term care in China? This section aims to scrutinize this issue.

The design of a new social institution which may socialize or collectivize social risks depends not only on the existence of a problem per se, but also on the social construction of the new problem. An objective social fact will become a problem only if a society perceives it as a real problem. Without the subjective discovery and interpretation of a problem by scientific communities, journalists, policy makers and public opinion, the problem would never come into the field of vision of society. The obvious example of this phenomenon is the issue of disabled elderly people in China. Although this problem has always existed and has become visible in Chinese society since the introduction of the One-Child-Policy in 1980, before the Millennium it had never been systematically identified as an issue by the elite, thus there was no urgent need to resolve it, because mainstream opinion and public opinion did not regard it as a problem for society at all. However, as soon as the issue had been defined as a severe societal problem, the state organized long-term care of disabled elderly people has become a topic of the utmost concern within society. Only after such a new social problem is identified, do social scientists and political actors become keen to find a solution for the new social problem.

As soon as a new social problem has been socially constructed and designated as such, it will incrementally be put onto the agenda over the years that follow. The fact that the issue of long-term care has become a social problem in recent years, is evidenced by the increasing mention of the "disabled elderly" in the mass media. Since the contemporary world is one in which globalization has not only shaped global economic and business interconnections, but also the global social policy infrastructure [8], national social policy and welfare state schemes have been increasingly embedded in the global epistemic community and the global independent knowledge structure. The diffusion of ideas and rationalized social models has profoundly shaped national debates and the national construction of an "ideal model" [30]. Under these circumstances the Chinese scientific community think tanks and the national social policy community have gone beyond national borders and attempted to find useful models with which to cope with this serious national social problem. Three major models used for addressing the risks of the disabled elderly population in OECD countries¹⁴ have attracted the special attention of the Chinese.

Firstly, the commercialized model from the USA. In the USA there is no old age care programme organized by the state, and care is provided by neither the federal, state nor local governments. However, in the absence of such state run care programme, there exists a highly developed privatized or market-oriented model of old age care, and almost all social services for old age care are available through private insurance companies [7, 21]. While high-income senior citizens are able to purchase all the services that they might need from the open market, the US government has employed traditional social security programmes and resources such as Medicare to subsidize elderly people on low incomes by granting subsidies for their old age care [22, 53].

Secondly, the social insurance model in Germany and Japan, Germany is famous for the Bismarck model of social in-

However, it must be noted that this construction of three major models for long-term care insurance is only associated with a scientific observation of Chinese scholarly circles, and represents a form of social construction according to the cognitive exploration of these actors in the absence of a current international consensus in the domain of long-term care insurance on a mature global model. This cognition of the objective world in China is interconnected with a creation of an ideal type by scientific actors, for, as Max Weber has indicated: "An ideal type is formed by the one-sided accentuation of one or more points of view and by the synthesis of a great many diffuse, discrete, more or less present and occasionally absent concrete individual phenomena, which are arranged according to those onesidedly emphasized viewpoints into a unified analytical construct..." ([40], p. 90). The construction of an ideal type by social scientists also serves to reduce the complexity of social facts in the social world (see [28]).

surance because it was the first nation to have founded the modern social insurance system by adopting the first statutory health insurance law during the German Empire in 1883 [46]. Based on this "social-insurance" tradition, in 1995 Germany also became one of the early bird countries to have enacted statutory longterm care insurance laws.¹⁵ Japan has followed the example of German social legislation, creating a long-term care insurance plan, and adopting a similar social care insurance system in 2000. In the German social insurance scheme, employees and employers jointly pay contributions, and the long-term care is financed through a pay-as-you-go model. The costs of care and nursing are partially reimbursed by the long-term care insurance fund (Pflegekasse) [52]. According to the opinions of scholars in China, one major difference between the German and Japanese social care insurance programmes which has been noted and discussed is the fact that in the German statutory long-term care insurance model all employees subject to social insurance are required by law to pay contributions for long-term care insurance, while in Japan only employees above 40 years old are legally bound to pay these contributions [51]. Also, while in Japan there are two different contribution rates for the employees aged between 40 and 60 and those over 60, in Germany there is one unified contribution rate for all employees [48].

Thirdly, the state organized "Beveridge" model of long-term care [6, 7]. An example of this model can be found for instance in Great Britain, where the state provides old age care subsidies for elderly people who require care and whose income falls below that required for the minimum standard of living [1, 41]. Similarly, Scandinavian or Nordic countries such as Sweden and Finland, which have a highly developed social service sector, grant monthly subsidies for elderly people who are in need of care, the amount of which is based on the degree of disability. These programmes are financed from the state budget and do not require additional individual social contributions as is the case in the Bismarck model [22].

The Chinese epistemic community and think tanks concerned with the study of old age and gerontology have constructed a new path for coping with the challenge of long-term care in contemporary China. Firstly, they realized that a state financed "Beveridge" model could not be applied in the Chinese context, since despite the remarkable rise of China and its movement towards becoming a global economic power, China still remains a developing nation in terms of GDP per capita, and the Chinese state has limited budgetary resources.16 If all costs for the care of the elderly were to come from fiscal taxation, the state would not be able to maintain a sustainable and financially stable long-term care scheme in the long term [7, 23, 51]. This left them with two models which might be better suited for providing long-term care in China: the American commercialized model and the German model of social insurance [22, 53].

The main advantage of a commercialized model is the punctual payment plan which it entails and the creation of social services and the supply of comprehensive social service programmes which can satisfy the diverse needs of the elderly population. Additionally, the marketized scheme of long-term care is also able to reduce the complex bureaucratized review process and may provide a timely social service for old people who have urgent needs [21, 27, 56]. However, the major weakness of this model is the exclusion of low-income social groups, i.e. elderly people who have no, or a very low, pension and little savings and are not able to purchase welfare services from the insurance market [7, 21, 47]. Also, contribution rates vary greatly according to age, medical history, etc. which means that the very elderly, completely disabled elderly people and elderly people with very low pensions are inevitably excluded from this insurance market [52].

Compared with the commercialized model, the statutory social insurance model used in Germany and Japan has obvious advantages for the Chinese society according to opinions of many scholars [6, 7, 9, 56, 57]. Notably, the fact that through the compulsory payment of insurance most people in society would be covered by statutory long-term care insurance. The wide coverage and high participation rates in the long-term care insurance scheme would enable the socialization or collectivization of the social risks of disability [7]. Mandatory contributions would enable the state to mobilize the necessary social resources needed to cope with the problem of care for the disabled elderly. As soon as an independent fund for disabled elderly insurance would be established, the diverse needs of millions of disabled elderly people would be able to be satisfied. The socialization of the risks of the disabled elderly considerably eases the stress of the family, releases family members from the great burden of long-term care and can help reduce social conflict. However, the major weakness of the social insurance model is the bureaucratic reviewing and approval process and rising costs for long-term care [22, 53].

A multi-pillar insurance system as a model of long-term care in China

Developed from the model of social insurance, one clear model of problem solution has risen to the surface amongst the Chinese social scientific community and political actors: a multi-pillar insurance system, which is due to be set up in the coming legislative period [49]. Currently there is a debate going on among Chinese scholars as to whether a two or three-pillar insurance model ought to be implemented.

As for the two-pillar insurance model, some argue that the commercial insurance model should be set up as a first pillar and the social insurance model as a

¹⁵ In 1968, the Algemene Wet Bijzondere Ziektekosten (general law on exceptional medical expenses) was introduced in the Netherlands, which attempted to expand the health insurance system to cover the entire Dutch population against special health care needs. At the time, this programme also created one of the earliest forms of a type of long-term care [36].

¹⁶ However, another quite important system, that of Medicare in the United States, which shares features with the Beveridge model, appears to be of little concern to Chinese longterm care experts and is therefore in need of further exploration in the future. The Medicare system targets elderly Americans over 65 who are not covered by the health insurance system, for whom this system provides reimbursement of medical costs as well as some forms of assistance for those in need of care [32].

second pillar [49, 53], other scholars believe that the model of social insurance is the main solution providing care and has to be installed as the first pillar of the insurance plan whereas the commercial insurance model should play only a secondary role and act as a supplementary second part [22]. The latter point out that due to the obvious deficits of the commercial insurance model, such as the exclusion of low income and completely disabled elderly, this scheme cannot provide the necessary solution to the problem of providing care for the disabled elderly and offset the risks it poses to Chinese society. Only a socialized model which pools and redistributes social risks is able to mobilize enough social resources to cope with the massive risk to Chinese society posed by the growing number of disabled elderly in an increasingly ageing society [7, 9]. However, those who advocate the establishment of commercial insurance as the first pillar of the solution do not dispute this suggestion, and several advise that as a developing nation China does not have enough resources to provide socialized "long-term care insurance" at this time [49, 53]. For this reason it has been decided that different regions can first test the commercial model of insurance and gather ample experience for the coming social insurance scheme. Some of them hold the view that an established commercial model of insurance should be transformed into a statutory model of social insurance step by step. This would suggest that the creation of a commercial insurance system before a social insurance system signifies merely a transition stage on the way to an ultimate model of social insurance [53].

In general, the latter option of the twopillar insurance model is largely supported within Chinese academics, that is the first pillar of social insurance ought to target the most elderly people and satisfy the basic needs of the whole of society, whereas the second pillar of a commercial insurance scheme shall satisfy the additional needs of wealthy elderly people who desire better social services [7, 22, 47, 49, 51]. It is intended that statutory social longterm care insurance will be administrated by a health insurance provider. Just like the German and Japanese programme, the Chinese "long-term care insurance fund" would be integrated into the health insurance framework, and different strategies such as prevention of illness and disablement, medical treatment and old age care would be coordinated centrally [56]. At the same time, the long-term care insurance fund would be independent and act as a new resource for social insurance schemes separate from the existing health insurance schemes. Most scholars advocate a tripartite financial model which has employees and employers pay long-term care insurance contributions and governmental bodies at different levels subsidize care insurance funds. The contributions paid by the government bodies would be transferred to the health insurance administration, but an independent fund for "long-term care insurance" should be created [6, 7, 9, 54, 56, 57]. Concerning the age limit of the contribution payment, scholars hold different views. While some insist that all employees despite their age should pay contributions [22], others propose that, like the Japanese scheme, only employees over 40 years of age should pay contributions [24].

As an alternative to the two-pillar insurance model, some scholars advocate a third pillar be added, the so-called pillar of labour saving insurance [21, 27, 56]. This supplementary third pillar targets the social and occupational groups which are not covered by the first and second pillar. In particular, these are those who migrate from rural to urban regions and look forward to finding an opportunity to improve their livelihood by generally engaging in the most dangerous and dirty jobs which are not included in other schemes [29, 33]. These migrant workers are usually not covered by social insurance schemes, as they often lack official contracts and therefore insurance coverage. How would long-term care insurance deal with this gap in the social insurance scheme? How can these migrant workers and other employees who engage in irregular and low-income employment be protected against the risk of disability when they grow old? In the eyes of experts, this complementary third pillar would have a certain portion of these workers' total working hours per month transferred into an personal individual account, functioning as their de facto contribution to the long-term care insurance fund which would then enable them to receive old age care in the future when they require it during their retirement [21, 22, 27].

In addition to a multi-pillar insurance model for long-term care, a multi-tier arrangement should be constructed to provide this care. That is to say, different agencies should be integrated so as to provide comprehensive social services for the elderly. For instance, government bodies at different levels, social welfare organizations and old age care institutes should all be involved in a coordinated effort to efficiently provide the best care for the elderly [49, 50]. Additionally, the establishment of non-profit social organizations should be strongly promoted as should day care centres. At the same time, the state should incentivize the training of the necessary millions of qualified professional nursing staff by promoting professional education and raising wages for said nursing staff [7]. Furthermore, the state should take over full responsibility for the regulation of this social market for long-term care, by stipulating the rational price index for diverse social services for the disabled elderly such as bathing, feeding, walking, etc. and strengthening the supervision over this long-term care insurance market [50, 53]. It should be noted that privatized providers would not be excluded from offering social services for the disabled elderly, and indeed ought to act as a complementary provider for nursing homes, although as mentioned earlier they appear to have shown little interest in providing for the disabled elderly thus far [21].

There are three major providers of direct long-term care: Families, communities and professional nursing homes [49, 50, 53]. The care provided by these three needs to go hand in hand, so that they may add to and strengthen each other in order to provide the best possible care. The available resources inside the core and extended family have to be mobilized to further care for the elderly, but unlike the traditional family care model the state should subsidize family members who take care of the elderly, and family members who sacrifice their working time for the purpose of long-term care in particular should be paid through monetary compensation by the statutory care insurance funds [7]. Professional nursing staff should visit these families who need care regularly in order to both support family members and transfer their professional knowledge to them. Community-based care should be promoted greatly since the community has the advantage of being best informed about (changes in) local needs and is able to target the needs of the elderly efficiently and appropriately [49]. In practical terms this means those who have no kin and cannot support themselves will be most rapidly targeted by the community-level staff. The other reason why community-based care is so important lies in the fact that many elderly people prefer temporary care in surroundings near to their homes over day care centres in their communities. In the future, day care centres should be made available through investments by statutory "longterm care insurance funds" and professional nursing staff should be temporarily employed to guide community staff in how to care for the disabled elderly sensibly and suitably [49, 50, 53].

Conclusion

In China, the number of people aged 60 or over had reached 178 million by 2010, which poses a challenge for the nation when it comes to providing care for the rising number of elderly both in the present and the future. Although the issue of long-term care has always existed, throughout Chinese history, in ancient China it had never been constructed as a social problem which reached beyond the family. Traditionally, it was a basic moral norm in the Confucian doctrine that the younger generation had to take care of elderly people in the family. This family-based informal care system has been so deeply rooted in modern China that it had almost never been considered to be a need for an institutionalized scheme, that is to say, there had been little formal care through state intervention. The turning point has come at the turn of the millennium, with the convergence of the effects of the One-Child-Policy, unrivalled economic development, and a great wave of socio-economic modernization and urbanization significantly changed the family structure. With the

appearance of many unprecedented family types such as the empty-nest family, the loss of a single-child family, and the 4-2-1 family, the function of the family as a central source of care for the elderly has been slowly yet dramatically eroded. Today, the family alone cannot deal with the issues of the long-term care anymore, and in the future, this will be even more so the case. In this context long-term care has become an emerging social problem.

Chinese elderly with ADL disability are most in need of care. By 2010 their numbers had risen to 33 million, outnumbering qualified nursing staff by a ratio of 100:1. This article has sought to gain insight into long-term care in China, and found, firstly, that the care of these disabled elderly has been a matter of individual responsibility until now. In both urban and rural regions the family is charged with the main responsibility for the care of the elderly. Generally it is the son and daughter-in-law who are primarily responsible for providing care for the disabled elderly in China. Secondly, both the quality and quantity of old age care institutes are very low throughout China, although less so in the developed urban coastal regions and more so in the underdeveloped rural central and western China. For example, government studies found that less than 60% of the old age care institutes were found to be equipped with clinical treatment rooms. Additionally, old age care institutes have little or no professional nursing personnel, mainly due to a lack of finance by the state. Nationwide, only 100,000 nursing staff are certified specialists capable of providing the necessary level of professional care to disabled elderly. Moreover, disabled elderly are often excluded from these old age care institutes, as nearly 50% of these institutes in urban China were found to only accept non-disabled elderly.

It is urgent for China to switch from informal family-based care model to the state's formal long-term care. Chinese scholars and political actors have taken the different models in advanced OECD nations as a reference for caring for the disabled elderly. Models taken into consideration were the Angelo-Saxon commercial model (as used in the USA), the social insurance model (as used in Germany), and the state organized and tax-financed Beveridge model (as used in Sweden). Taken into consideration the particulars of the Chinese context, a multi-pillar insurance system, based on the social insurance model, was widely regarded to be the optimal model for disabled longterm care in China. It entailed the introduction of a basic social insurance scheme as the first central pillar, complementary commercial insurance as the second pillar and labour-saving insurance as the supplementary pillar with which to provide coverage for migrant workers. It is imperative to successfully integrate the three major direct care providers: families, communities and professional nursing homes, so that these support each other. Unlike the traditional family-based care, the new long-term care insurance funds would subsidize family members who take responsibility for long-term care and would see to it that professional staff is sent to homes to instruct families on how to care for their elderly. In addition, community-based day care centres should also be included in this framework of the social care insurance scheme and be financed and regulated by the State, in order to satisfy the preference or need by elderly for care provided close to home.

Thus far following the established political scientific theory of the policy cycle, scientific actors and journalists in China have constructed the new and pressing issue of long-term care for disabled elderly Chinese as an urgent social need and a severe social problem which needs to be addressed. After having been put onto the agenda of scientific research and mass media it has since attracted considerable attention by the public. Diverse policy options and rationalized social models have been formulated by scientific and political actors, and several solution options have been explored. After these two stages of agenda setting and policy formulation we should anticipate that this new social need will be discussed by the Chinese parliament and a new law towards the longterm care insurance will be enacted in the future. Still, China has a long way to go, and many hurdles must be overcome, before such a policy option of long-term care insurance will be fully implemented nationwide.

Corresponding address



Dr. L. Sun

Faculty of Technology Policy & Management Delft University of Technology Jaffalaan 5, 2628 BX Delft L.Sun-1@tudelft.nl

Compliance with ethical guidelines

Conflict of interest. T. Liu and L. Sun declare no conflict of interest.

References

- 1. Barr N (2010) Long-term care: a suitable case for social insurance. Soc Policy Adm 44(4):359–374
- Berger PL, Luckmann T (1980) Die gesellschaftliche Konstruktion der Wirklichkeit. Eine Theorie der Wissenssoziologie. Fischer, Frankfurt a. M.
- 3. Birg H (1996) Die Weltbevölkerung: Dynamik und Gefahren. Beck, München
- Bogner A, Torgersen H (2005) Wozu Experten? Ambivalenzen der Beziehung von Wissenschaft und Politik. VS Verlag für Sozialwissenschaften, Wiesbaden
- 5. Castles F (1978) The social democratic image of society. Routledge & Kegan Paul, London
- Dai WD (2007) Introduction of German long-term care insurance. Chinese J Nurs 42(1):85–86
 Dai WD (2012) The search rest of the sector sector.
- Dai WD (2012) The construction of long-term care insurance system in China. People's Publishing House, Beijing
- Deacon B, Hulse M, Stubbs P (1997) Global social policy. International organizations and the future of welfare. Sage, London
- Ding C, Qu Q⁻ (2008) Entstehungsgründe, Merkmale und Reformkonzept der deutschen Pflegeversicherung. Deutschland-Studien 23(3):42–47
- Haggard S, Kaufmann RR (2009) Development, democracy, and welfare states: Latin America, East Asia, and Eastern Europe. Princeton University Press, Princeton
- 11. Harper S (2006) Ageing societies: Myths, challenges and opportunities. Hodder Arnold, London
- Heilig GK (2006) http://www.china-europe-usa. com/level_4_data/hum/011_7a.htm. Accessed 2 Feb 2014
- Hesketh T, Lu L, Xing ZW (2005) The effect of China's One-Child family policy after 25 years. N Engl J Med 35(3):1171–1176
- Jackson R, Howe N (2004) The graying of the Middle Kingdom. In Presentation at the CSIS/CASS Conference on Preparing for China's Aging Challenge, Abridged Version, 25 May 2004
- Katz S, Ford AB, Moskowitz RW, Jackson BA, Jaffe MW (1963) Studies of illness in the aged. The index of ADL: A standardized measure of biological and psychological function. J Am Med Assoc 185(12):914–919
- Kohli M (1985) Die Institutionalisierung des Lebenslaufs: Historische Befunde und theoretische Arguments. Köln Z Soziol Sozialpsychologie 37(1):1– 29
- Korpi W (1978) The working class in welfare capitalism: work, unions and politics in Sweden. Routledge & Kegan Pau, London

- 18. Korpi W (1983) The democratic class struggle. Routledge & Kegan Paul, London
- Lawton MP; Brody EM (1969) Assessment of older people: self-maintaining and instrumental activities of daily living. Gerontologist 9(3):179–186
- Leisering L, Liu T (2010) Globale Wissensdiffusion in der Sozialpolitik. Die Einführung einer Arbeitsunfallversicherung in der Volksrepublik China. Z Sozialreform 56(2):173–205
- Li JF, Hou HJ (2009) A study on the construction of long-term care insurance system for elderly in China. Insurance Stud 29(11):65–71
- Li J, Hou A (2012) A study on the construction of long-term care insurance system for the elderly in China. Insurance Studies 32(11):65–71
- Liu T (2005) Die Reform der Alterssicherung in der VR China. Entwicklung und Determinanten. Dissertation at Bielefeld University, Bielefeld
- 24. Liu J, Chen S (2012) Construction of long term care insurance. Res Financial Econ Issues 33(3):78–82
- Liu T, Flöthmann EJ (2013) Die neue alternde Gesellschaft. Demographische Transformation und ihre Auswirkungen auf Altersversorgung und Altenpflege in China. Z Gerontol Geriat 46:1–12
- 26. Liu L, Guo Q (2007) Loneliness and health-related quality of life for the empty-nest elderly in the rural areas of a mountainous county in China. Qual Life Res 16(8):1275–1280
- Lue XJ (2011) Exploration of the acceleration of the establishment of a long-term care insurance system in China. http://society.people.com.cn/ GB/15926060.html. Accessed 2 Feb 2014
- 28. Luhmann N. (1997) Die Gesellschaft der Gesellschaft. Suhrkamp, Frankfurt a. M.
- Luo R (2012) Across the institutional passage of migration: the hukou-system in China. InterDisciplines 3(1):120–147
- Meyer JW (2005) Weltkultur: wie die westlichen Prinzipien die Welt durchdringen. Suhrkamp, Frankfurt a. M
- Offe C (1987) Democracy against the welfare state? Structural foundations of neoconservative political opportunities. Political Theory 15(4):501– 537
- Pearman WA, Starr P (1988) Medicare: a handbook on the history and issues of health care services for the elderly. Garland, New York
- Pellissery S, Sun L (2012) Rural Development. In: Anderson R (ed) Berkshire Encyclopedia of Sustainability: Vol. 7: China, India, and East and South East Asia: Assessing Sustainability, Berkshire Publishing Group, Beijing, pp 324–27
- 34. Pierson P (2001): The new politics of the welfare state. UP, Oxford
- 35. Rogers EM (1962) Diffusion of Innovations. The Free Press of Glencoe, New York
- Saltman RB, Dubois HFW Chawla M (2006) The impact of aging on long-term care in Europe and some potential policy responses. Int J Health Serv 36(4):719–746
- 37. Schetsche M (1996) Die Karriere sozialer Probleme: Soziologische Einführung. Oldenbourg, München
- 38. Schubert K, Bandelow NC (2003) Lehrbuch der Politikfeldanalyse. Oldenbourg, München
- Shi SJ (2008) Emergence of the notion of retirement in rural China: the case of rural districts of Shanghai. Z Gerontol Geriat 41:334–344
- 40. Shils EA, Finch HA (1997) The methodology of the social sciences. Free Press, New York
- Steffen M (2010) The French health care system: liberal universalism. J Health Polit Policy Law 35(3):353–387

- 42. Stepan M, Müller A (2012) Welfare governance in China? A conceptual discussion of governing social policies and the applicability of the concept to contemporary China. J Camb Stud 7(4):54–72
- Sun L (2012) Women, public space, and mutual aid in rural China. Asian Women 28(3):75–102
- The Economist (2013) Filial impropriety. http:// www.economist.com/news/china/21580492-children-must-visit-their-parents-filial-impropriety. Accessed 2 Feb 2014
- The World Bank (2013) World development indicators: reproductive health. http://data.worldbank. org/indicator/SP.DYN.TFRT.IN. Accessed 2 Feb 2014
- 46. Ullrich, CG (2005) Soziologie des Wohlfahrtsstaates. Campus Verlag, Frankfurt a. M.
- Wang XC, Shao H (2012) Consideration about installment of a long-term care insurance system with Chinese characteristics. Manag Technol SME 04(2):196
- Wang L, Ye X (2011) Development of Japan elderly care insurance system and its referential significance for China. Jpn Stud Forum 47(1):145–150
- Wu C, Du P (2012) Ageing society and harmonious society. China Population Publishing House, Beijing
- 50. Wu H, Zhang R (ed) (2011) Gerontological social work. Peking University Press, Beijing
- Wu GM, Zhong HL (2010) The models of long-term care insurance in Germany and Japan and their implications for China. J Nurs Sci 25(23):76–78
- Yao, H (2006) The long term care insurance abroad and its inspiration for China. Mod Econ Res 6:41– 44
- 53. Zhang X, Li D (2011) Sociology of ageing. Social Sciences Academic Press, Beijing
- Zhang ZG, Jiang Q, Zhao YX, Yu LH, Zhang ZZ, Lang QQ (2011) Long-term care insurance policies in Germany and its implications for China. Chin J Nurs Education 08(8):93–94
- Zhang K, Sun L, Mou X et al (2011) Research on situation of urban and rural disabled elderly. Monogr Study 2:11–16
- Zhao N (2008) A method on the establishment of a multi-level long-term care system in China. http://shfl.mca.gov.cn/article/llyj/ylfwmsts/200812/20081200025485.shtml. Accessed 1 Feb 2014
- Zhi XX, Zhou L (2012) The German long-term care insurance and its implications for the work of longterm care in China. Using Pract Res 09(8):93–94
- Zhong W, Zheng Y, Zhang M (2013) The collapse of the state. Research on the sovereign debt restructuring. Shanghai University of Finance and Economics Press, Shanghai



Kommentieren Sie diesen Beitrag auf springermedizin.de

► Geben Sie hierzu den Beitragstitel in die Suche ein und nutzen Sie anschließend die Kommentarfunktion am Beitragsende.