

Title	高齢者の活動ニーズを満たす都市コミュニティの屋外場所の適応性研究
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Citation	
Issue Date	2023-03
Type	Thesis or Dissertation
Text version	ETD
URL	http://hdl.handle.net/10119/18409
Rights	
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学位の種類	博士（知識科学）
学位記番号	博知第 325 号
学位授与年月日	令和 5 年 3 月 24 日
論文題目	Research on the Adaptability of Outdoor Sites in Urban Communities to Meet the Needs of Elderly Activities
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論文の内容の要旨

Unlike developed countries, developing countries are aging very fast. China has the largest elderly population in the world. The aging population has brought unprecedented challenges to urban community infrastructure. The outdoor environment of communities can no longer meet the needs of the aging elderly. When the elderly population gradually becomes the main body of the population structure, their interest needs should be given enough attention. The research on the aging-friendly outdoor sites in urban communities is of great significance for the development of the elderly care model in China and the improvement of the living quality of the elderly. It also gives inspiration to developing countries that are about to enter the aging process.

The elderly livable community is a complex giant system, and its influencing factors are also characterized by pluralism and complexity. This research studies the aging-friendly outdoor sites in urban communities meeting the needs of elderly activities from the perspective of community outdoor environment, elderly activity needs and scientific evaluation.

In order to achieve the above objectives, the following three models have been constructed in this thesis. The typical communities in Dalian have been selected as examples for empirical research. 1. The supply and demand model of outdoor sites in urban communities. On the basis of the theory of supply and demand balance, the Likert scale Method and Semantic Differential Method (SD) have been used to make quantitative and qualitative research on the matching relationship between supply and demand of outdoor activity sites in sample communities. 2. Model for determining whether individual and community outdoor sites are aging-friendly. Based on P-E Matching theory, use One-way Analysis of Variance and post hoc test to study the differences in the needs of the elderly at different ages, with different physical conditions, device-aided elderly and nursing-cared elderly. Make path analysis of personal attributes, family attributes, physical conditions, activity habits and outdoor sites satisfaction and demand degree, and the relationship among several variables. 3. Outdoor environment evaluation system of elderly livable communities. Based on grounded theory, integrating literature review and in-depth interviews and in combination with the relevant specifications, the evaluation system is constructed. The evaluation process consists of the weight calculation of the evaluation index system and the index scores of each sample community, and the corresponding countermeasures are

given.

The results show that: 1. The supply and demand of gated and gated group communities are well balanced. The allocation of environmental factors for the supply and demand balance should be maintained. Overdemand in open communities is obviously, which has been significantly improved after renovation. Emphasis should be placed on improving and perfecting the configuration of environmental factors in overdemand. 2. There are great differences in the activity needs of different elderly people. If the individual has no pressure in the environment, and the satisfaction of the community's outdoor environment is high, it can be judged that the person matches the environment, and the environment is aging-friendly, and vice versa. The interaction and influence among individuals, families and activity habits determine the activity needs of the elderly. Meeting the activity preferences of the elderly can effectively improve the use efficiency of the site. 3. The evaluation results reflect that the overall evaluation of the quality of the livable environment for the elderly in the sample communities is not high, indicating that most communities have not yet made adequate preparations for the coming aging society. There are some common problems in the community environment construction, but the differences between communities are also obvious. Targeted design strategies are needed.

The study on the adaptability of outdoor sites in urban communities meeting the needs of the elderly provides a positive and effective action path to solve many social problems caused by aging. This multi angle study is a scientific, comprehensive and quantitative consideration of all environmental factors affecting the outdoor activities of the elderly. On the one hand, the study reflects the significant differences of urban communities in the construction of aging-friendly outdoor environment sites. On the other hand, it provides a practical basis and theoretical guidance for how communities adapt to the changes of population age structure and create a suitable outdoor environment for the elderly under the background of aging. It enriches the research on livable communities for the elderly, and provides a new research perspective for the research on human settlement environment science and aging geography.

Key words: Urban community outdoor sites, Aging-friendly, Supply and demand model, P-E model, Evaluation system

論文審査の結果の要旨

高齢化が進んだ中国の市街地において、地道に聞き取り調査を行い、居心地の良い都市空間が何かについて検討を行った。高齢化が進んだ地域において、丁寧な聞き取り調査を通じて、都市空間と人間の心理の関係を分析した点が学術的に面白い点であると考えられる。地域の特性や、その地域に住んでいる人々の特徴などによって、それらの空間と人間の関係は変化するものと推察され、チャレンジングな研究テーマの一つであると考えられるが、それに果敢に取り組んだ点が評価される点と考えられる。世界的に、先進国では少子高齢化という課題に直面すると考えられるが、その課題解決に取り組んだ点において、有用性も高いものと考えられる。今後、既往の研究課題との関係からその位置づけを加え、様々な地域のそれぞれ固有の条件について検討を加えて議論を重ねる余地があり、発展的な取り組みとして継続されることが期待される。中国に限らず、高齢者を考慮した都市設計に関わる研究の社会的なニーズは年々高まっていくだろう。本研究が示している中国

大連市における4箇所の居住コミュニティを系統化したうえで実施した、高齢者の屋外行動に対するニーズ調査や、ニーズ理解のもとに居住地設計を評価する方法についての知見は学術的に価値があると判断できる。特に、屋外行動ニーズの需要と供給の状況について、SDメソッドを使って4つの居住コミュニティごとの違いを示した研究方法は、賢明な選択である。また、人々と環境の対応状況を高齢者の身体状況（年齢、健康状態、介護状態）を考慮したパス分析モデルは有意義な成果である。さらに、居住コミュニティを評価する方法を開発・評価し、その評価をもとに居住地ごとに屋外行動を考慮した都市設計案を提示していることは有用性が高い。今後、中国以外の高齢者を対象とした都市デザイン研究と比較・統合することによって研究成果の有用性を高めることが十分可能な研究成果を上げている。

以上、本論文は、高齢者の健康づくりを目指し、野外活動をより活発にするような地域づくりに即した環境デザインについて、複数の事例研究を実施することで歩行等の行動への効果を比較し、分析したものであり、学術的に貢献するところが大きい。よって博士（知識科学）の学位論文として十分価値あるものと認めた。