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学位論文題名	A Structural Relationship between Socioeconomic Status and Health among the Elderly: A Comparative Study between Japan and China（高齢者における社会経済的要因と健康との関連構造：日中比較研究）
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【論文の内容の要旨】

Five chapters are organized in this doctoral dissertation.

Chapter 1 provided an overview of population aging which has been a global trend because of increasing longevity and declining fertility. The proportion of elderly in the Japanese population represents the highest in the world at present, with over one fifth individuals aged 65 and above. It took Japan only 24 years to double the percentage of elderly people from 7% to 14%, while it was projected to cost 25 years for China to complete this aging process. The determinants of health in old age have become a growing concern.

On the basis of causal distance to health, all social determinants can be divided into three levels: 1) proximal factors, 2) mid-range factors, and 3) distal factors. Proximal factors, which can be easily changed by individuals, are closest to health and include health-related lifestyles and behaviors. Social relationships and social support are regarded as mid-range factors. Distal factors cover social structure and stratification, over which people have the least control.

The purposes of this dissertation were: 1) to examine the relationship between socioeconomic status (SES) and health status of elderly people in two Asian countries — Japan and China; 2) to inquire the mediating influence of social interaction on the

association between SES and health status among elderly people in both Japan and China; 3) to investigate the SES – health mechanism through social interaction and healthy lifestyle, and how this mechanism varies by age and gender among elderly Japanese community-dwellers.

Chapter 2 presented an empirical study on the mediating effect of social interaction between SES and health status among Chinese urban community-dwelling elderly. 1,979 elderly individuals age ≥ 60 years in 28 communities from 7 sub-districts of Lhasa City and 10 communities from 2 sub-districts of Shigatse City were distributed the questionnaire in 2009. At last, 1,846 elderly answered, giving a response rate of 93.2%. The elderly people contacted their children most which they do not live with, then followed by neighbors, friends, siblings and relatives; and most elderly people had one to three people with whom they were in contact, freely and pleasantly; the majority of elderly were satisfied with their social interaction. In the structural model, SES had not only a direct effect, but also an indirect effect on health status by means of social interaction; compared with indirect effect, SES exerted a larger direct impact on health status, especially on psychological health. To sum up, like the western countries, people with higher SES were more likely to have better health status in China. In addition, social interaction played a mediating role on the association of SES – health status.

Chapter 3 presented an empirical study on the mediating effect of social interaction between SES and health status among elderly community-dwelling Japanese. A self-administered questionnaire was mailed to all of the elderly age ≥ 65 years in Tama City in Japan in 2001. The results showed that SES had a positive direct impact on social interaction; social interaction exerted a direct and positive effect on health status; SES not only directly affected health status, but also demonstrated an indirect effect via social interaction, particularly on subjective health. All of the associations were more pronounced among elderly women. Compared with direct impact, SES was more likely to exert an indirect impact on health status by means of social interaction. In conclusion, social interaction may partly explain SES differences in health status, especially for elderly women.

In Chapter 4, a prospective cohort study was conducted to investigate whether social interaction and healthy lifestyle reduces health disparity by SES among Japanese elderly, and to determine whether patterns of associations varied by age and gender. Beginning in 2001, 7,904 elderly residents of Tama City were followed for six years through self-administered questionnaires and registries. SES had no direct impact on health status and survival days, but had indirect effects through social interaction and healthy lifestyle. Health status exerted the strongest influence on

survival days regardless of age and gender. In summary, older individuals are able to diminish the effects of health inequalities through personal behaviors in addition to financial support from the government. The key to prolonging survival in the elderly is to promote health status through social interaction and a healthy lifestyle, especially in elderly men.

Chapter 5 summarized the analyses. In a cross-sectional study, SES exerted a direct effect on health status, but also an indirect effect by means of social interaction among both Japanese and Chinese elderly. By comparison, SES demonstrated a larger direct effect on health status in China; while SES demonstrated a larger indirect effect in Japan. In a longitudinal study, SES had no direct effect on survival days, but it indirectly affected survival days via social interaction and health behaviors among Japanese elderly. Three possible reasons were brought up for that: 1) the gap between the rich and the poor, 2) the development level of society, and 3) different usage of indicators. Moreover, several implications were drawn from these results: 1) a preventive method for ill-health was suggested that older individuals are able to diminish health inequalities through their own behaviors on the basis of SES, since personal behaviors may partially contribute to the SES gradient among elderly Chinese and Japanese people; 2) interventions to improve health status of elderly people need to be country-specific, taking development level of a country into consideration in making health policy and health education; 3) interventions to improve health of elderly people also need to be gender and age-specific.

【学位論文審査の要旨】

平均寿命の延伸と共に出生数が急激に低下し、少子高齢社会が急速に進む日本と共に、遅れて高齢社会を迎える中国において、健康を規定する要因を明確にすることは、社会保障面からも意義が高いことである。本論文は、高齢者の健康を規定する要因として、個人レベルでの制御可能な生活習慣と共に、社会関係性や社会経済的要因との関連構造を日中比較し、今後の健康施策に活かすための科学的エビデンスを明確にすることを研究目的としている。

まず、中国チベット自治区ラサ市に住む 60 歳以上高齢者 1,846 人を対象に、健康規定要因について調査を実施した。高齢者は、子どもや近隣や友人などとの社会関係を保ちながら精神面も安定した生活を送り、身体的健康と精神的健康は、社会経済的要因からの直接的な効果だけではなく、社会関係性を經由して間接的に規定される事を明確にしている。次に、日本の都市郊外に居住している 65 歳以上高齢者 7,904 人を対象に実施したアンケート調査（2001 年）に基づくデータを分析した結果、中国での調査結果と同様の結果が示されたものの、社会経済的要因が健康を直接に規定するよりも社会関係性を經由する間接効果が大きいことを明確にした。

また、日本の都市郊外居住高齢者の生存を 6 年間追跡し、生存日数に対する社会経済的要因からの直接効果は統計学的にみて有意ではないものの、社会経済的要因から直接に規定される社会関係性や身体的精神的健康の維持を経て間接的に規定される事を明確にした。本研究の主要な成果は、日中の高齢者において、健康度に対する社会経済的要因からの効果は、直接的な効果を持つと共に、社会関係性を經由する間接効果も見られることを明確にしている点である。また社会経済的要因から健康度に対する日中比較研究では、中国高齢者は日本高齢者に比べて、やや大きな直接効果を示すのに対し、日本では社会関係性を経た間接的な効果が大きい可能性を提示していることである。また、日本の都市郊外居住高齢者の生存維持のためには、社会経済的要因から直接に規定されるよりも、社会関係性を經由して間接的に規定される因果構造を世界で初めて明確にしている。

このように、日本と中国の調査により、高齢者の健康を規定する社会経済的要因と社会的関係性との関連構造に関する科学的なエビデンスを創出していることから、高齢者の健康を延伸させるための健康支援において、日本と中国の国別でみた社会経済的要因の位置づけと意義が明確となったものである。

今後の効果的な健康づくり施策においては、このような科学的なエビデンスに基づいて社会経済的要因の位置づけを踏まえると共に、国別特性を考慮した対応が有効である可能性を提示したことが、学術的にみて応用価値のあるものといえる。同時に、本論文では、代表的なサンプル選定、追跡調査による因果構造、評価指標の統一性などの研究課題も明示している。

以上により、本論文は博士（都市科学）の学位を授与するのに十分な価値があるものと認

められた。