

# Search on the space status of community pension station and the updating strategy for the elderly

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**Abstract:** Based on the Beijing dongcheng district stable door street community endowment post the present situation of research, this paper to Beijing old stable door street endowment post for samples, through field visits research endowment post and internal and around the space status quo, system analysis of the entrance space, public space, living space three levels for the influence of aging, on this basis, and put forward more reasonable endowment post update strategy, rich streets inside the elderly material and spiritual life.

**Keywords:** Pension station, Aging, Space status, Update strategy

## 1. Research background and research objectives

China is currently in the stage of rapid aging development, According to the 2022 Report on the Elderly Population Information and the Development of undertakings for the Elderly in Beijing, By the end of 2022, 2.479 million elderly people aged 60 or above in Beijing, For 19.4% of the total population, Of the 386,000 registered elderly people aged 80 or above, For 3% of the total population, at the same time, A latest investigation by the Beijing Civil Affairs Bureau found that More than 99% of the city's elderly people choose home care, Less than 1% of seniors choose institutional retirement, Compared with the "9064" elderly care service model proposed by Beijing in 2008, That is, 90% of the elderly care at home, 6% of the elderly community pension, 4% of institutions for the elderly, The pension pattern in Beijing has changed significantly, thus it can be seen, Community pension service station, a small-scale and multi-functional pension service facilities that can provide nearby services for the elderly at home, Beijing will still play an important role for some time to come<sup>[1]</sup>.

This paper to the old Beijing stable door street endowment post as a sample, through field visits research endowment station inside and around the space status, system analysis of the entrance of endowment post space, public space, living space three levels for the influence of aging, on this basis, and put forward more reasonable endowment post update strategy, rich streets inside the elderly material and spiritual life.

## 2. Research on the policy development history and theory of Beijing Pension Station

### 2.1. The Policy Development Course of Beijing Pension Post Station

In May 2016, "opinions" in the endowment station basic function, in September, the Beijing municipal civil affairs bureau issued the community endowment service station facilities design and service standard (trial) "(hereinafter referred to as the" standard ") , in the design and service level made more detailed rules, plan built 2016 years 150 endowment service station, built by the end of 2020,1000 endowment service station, to achieve a complete coverage of" urban and rural community home endowment service ". Since then, Beijing has started the large-scale construction of old-age post stations, and relevant norms and measures have been issued to guide the operation and development of old-age post stations (Table 1)

*Table 1: Policy of Beijing Pension Post Station (self-drawn)*

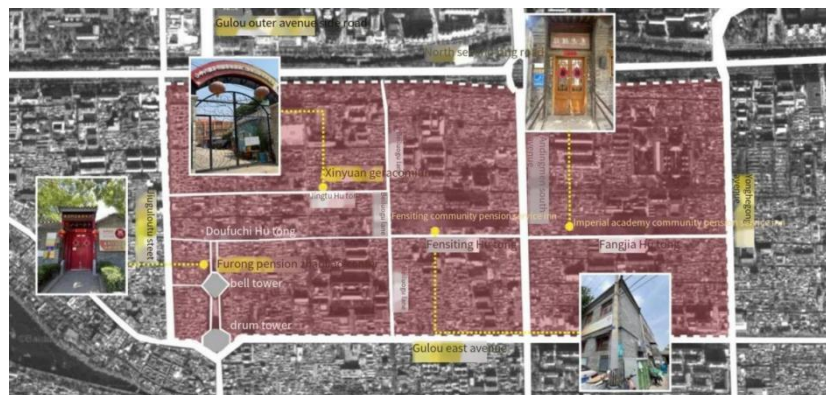
Time	Policy name	Release the main body
2016.5.14	Opinions on the Construction of Community Service Stations for the Elderly	Beijing Aging Committee
2016.9.26	Design and Service Standards of Community Post Stations for the Elderly (Trial)	Beijing Civil Affairs Bureau
2017.4.17	Construction Planning of Community Elderly Care Service Stations in Beijing (2016-2020)	Beijing Municipal Civil Affairs Bureau, the Aging Committee
2018.4.4	Specification for Configuration of Facilities and Equipment of Elderly Care Service Stations	Beijing Municipal Bureau of Quality and Technical Supervision
2018.5.16	Measures for Operation Support of Beijing Community Elderly Service Stations	Beijing Municipal Civil Affairs Bureau, National Development and Reform Commission, Finance Bureau, Human Resources and Social Security Bureau, and Aging Committee
2020.12.30	Administrative Measures of Beijing Community Elderly Service Stations (Trial)	Beijing Civil Affairs Bureau
2021.10.8	Measures for Operation Support of Beijing Community Elderly Service Stations	Beijing Municipal Civil Affairs Bureau, Development and Reform Commission, Finance Bureau, Health Commission, Market Supervision Administration, Healthcare Security Bureau

## 2.2. Theoretical Research on the Pension Post Station in Beijing

In the previous theoretical research on Beijing post station, Cheng Xiaoqing et al. (2018) summed up the targeted design strategies through practical experience<sup>[2]</sup>; Bu Deqing et al. (2018) compared the differences and the advantages of post station<sup>[3]</sup>; Liang Xin (2019) analyzed the space area ratio of the elderly, and proposed the space optimization design suggestions of the modified post station<sup>[4]</sup>. Through the theoretical research of Beijing pension station, and the interpretation and research of different scholars of the pension station within this scope, it can provide the theoretical basis for promoting the healthy development of the pension station from multiple angles.

## 3. Space status of pension institutions in Andingmen Street

### 3.1. Current situation of pension institutions in Andingmen Street in China



*Figure 1: Location relationship of Andingmen Street (self-drawn)*

The author the total research three pension institutions (figure 1), including two endowment station (A division hall community endowment station and B guozijian community endowment station) and A endowment care center (C lotus endowment care center), statistical analysis of three pension

institutions function type, size, layout, the research of pension institutions according to the space divided into entrance space, public space and living space three types, and for each space type system analysis and induction (table 2).

Table 2: Standards of space type

Space type	classify	Layout way
Entrance space	vestibule	Independent vestibule Consolidated foyer There is no vestibule
	rampway	Set the ramp There is no ramp
	position	Close to the road Stay away from the road
public space	medical rehabilitation	Set up independently amalgamated consolidation
	ancillary services	Set up the following three functions Set up three or more functions
	Outdoor rest space	Set up seats and arrange green plants Set up the seats, and arrange no green plants No seats are set, and no green plants are arranged
living space	Day care	Direct lighting indirect daylighting
	repast	Set up independently Do other functions
	toilet	Set up independently Merthe setup with the bathroom

### 3.1.1. Research case A —— Pension service station

#### (1) Basic condition

Branch Hall Pension Station (Figure 2) is located in the backyard of No.41, Branch Hall Hutong, Andingmen Street, Institution size: 210 m<sup>2</sup>, For the quadrangle courtyard-style space model, 16 people, 3 beds, Service personnel are 1 stationmaster, 2 commissioners and irregular care workers, The service population is mainly for the self-care elderly, The services mainly include door-to-door services, care services, health guidance, day care, culture and entertainment, and call services, Domestic services include cleaning, elderly care, on-site food delivery, foot massage, etc., Examination services include psychological counseling, health counseling, electrocardiogram, blood draw testing, Treatment services include injection, dressing change, nursing, etc.

#### (2) Current situation of the entrance space

① The location is relatively hidden, far away from the road, and you need to reach through two narrow lanes from the alley (Figure 2), causing the elderly to look for the difficulty; ② entrance, the leading space, and the potholes, the vehicles on the two sides of the elderly walking; ③, the activities of the rooms, and the rooms are distributed around the courtyard, with no corridors between each other.

#### (3) Current situation of public space

The public space of the station mainly includes rehabilitation therapy, health comfort, psychological assessment, culture and entertainment space, ① medical rehabilitation; ② Each functional space is arranged around the courtyard, and they have handrails on the periphery of the courtyard, and most functions are combined with other functions and not used separately; in the ③ courtyard, the elderly stay less in the outdoor public space. Through investigation, the public space of the station has relatively small traffic and no flow on Friday afternoon, and the space utilization rate is low. The specific room status is shown in Figure 7.

#### (4) Current situation of living space

The living space of the station mainly includes day care, bathroom, bathroom, dining, etc. ① Although the day care room introduces natural light to the south, the window opening is small, resulting in poor lighting, which cannot meet the needs of the elderly for day care. ② Toilet and

bathroom are separated, but the bathroom is prone to cross functions; ③ Room room is small, and the furniture is dense and all tables and chairs are arranged on the wall, resulting in dense areas and mutual interference.

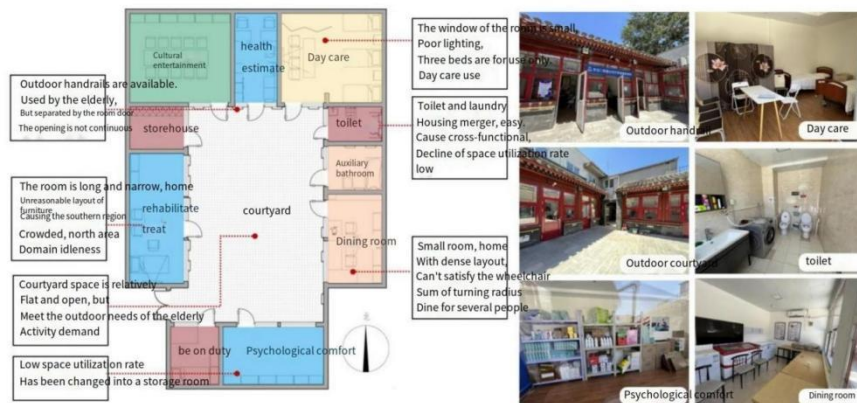


Figure 2: Analysis of the Post situation (self-drawn)

### 3.1.2. Investigation case B — National Imperial College Pension Post Station

#### (1) Basic condition

confined endowment station is located in the street street street hutong 51 (figure 3), size 132.2 m<sup>2</sup>, for the corridor series type space mode, can accept 21 people, equipped with 2 beds, service personnel for 2, service crowd is given priority to with self-care old man, service content mainly for door-to-door service, care services, domestic service including cleaning, nursing, lunch, etc., check services including psychological counseling, chat, etc., treatment services including blood pressure.

#### (2) Current situation of the entrance space

① The entrance is close to the road and easy to find; although the ② entrance leading space has a ramp, the ramp is steep, the wheelchair is inconvenient, and there is no stop platform for the wheelchair to reach the entrance, which easily causes the wheelchair to slide and cause danger; ③ lobby space, cultural entertainment and multi-function space, the space utilization rate is relatively high .

#### (4) Current situation of living space

The living space of post station mainly includes day care, toilet, bathroom, dining, etc. ① Day care room has south lighting and large window opening, which can meet lighting requirements; ② toilet and bathroom are combined, causing streamline interference; ③ multi-function area acts as a dining area and combines with cultural entertainment, service desk and water bar, with high space utilization rate.



Figure 3: Analysis of the spatial status quo of the Imperial College Pension Station (self-drawn)

### 3.1.3. Research Case C — Furong Elderly Care Center

#### (1) Basic condition

Lotus endowment care center is located in the anding door street tower bay hutong 11 (Figure 4), institution size 440 m<sup>2</sup>, for courtyard space mode, internal streamline mainly through in the courtyard courtyard outside enclosed glass gallery ceiling series each room activities, a smaller scale, function is relatively single, the old man bedroom area crowded and lighting is poor. Acceptance number 21 people, equipped with 21 beds, service personnel for two dean and eight nursing staff, service people for the old man (85 years above), service content mainly for door-to-door service, haircut, pedicure, domestic service including cleaning, nursing, home meals, foot massage, check services including psychological counseling, chat, etc., treatment services including blood pressure.

#### (2) Current situation of the entrance space

①Furong nursing center has two entrance space, near the road, the main entrance for the staff and the elderly, through the restaurant to the secondary entrance, logistics entrance; ②entrance guide space although ramp, but the ramp is steep, the wheelchair is inconvenient, and there is no stop platform for the wheelchair to reach the entrance, the wheelchair slide, causing danger; ③lobby space and office space combined set, mainly for the staff .

#### (3) Current situation of public space

The public space of the organization includes the activity room (restaurant), public corridor and outdoor courtyard. Through the combination of space and the use of the space, ①The outdoor rest space has seats and arranged green plants for the elderly; ②Medical rehabilitation and office combination, but the overall space is small; ③sets three auxiliary functions, which cannot meet the functional needs of the elderly.

#### (4) Current situation of living space

The institutional living space mainly includes the elderly room, dining room, duty room, toilet, etc. The ①room includes 7 single rooms and 7 double rooms, the remaining rooms are east-west and north lighting, and the room is long and narrow, resulting in insufficient light intake and dim room; ②restaurant and activity room, with independent external entrance, high room utilization rate and clear streamline; ③bathroom and bathroom are set up, easy to cause streamline crossing.

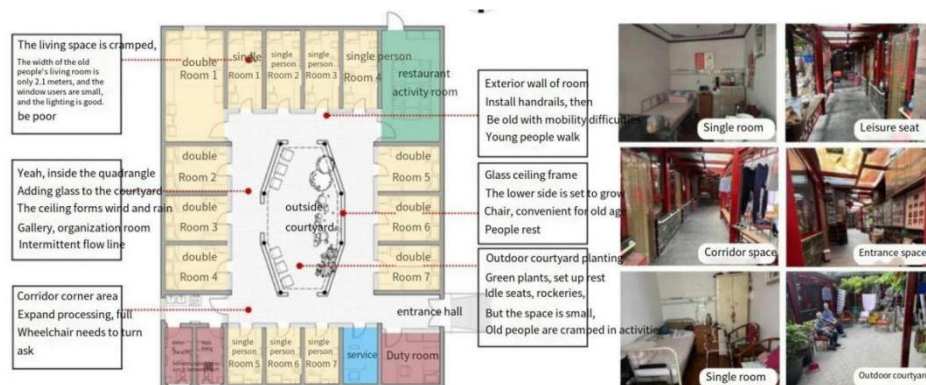


Figure 4: Analysis of spatial Status of Furong Elderly Care Center (self-drawn)

### 3.2. Analysis of the status quo of Andingmen Street Pension institutions

#### (1) Entrance space

The entrance space of all samples is clearly marked with detailed service content information.①Two combined lobby and corridor space with ceiling, no independent lobby, the lobby and corridor combined for a long residence time, without a short residence time; ②Two institutions close to the road setting, one institution away from the road and near the road, the average service number is 21, the average service number is 16; ③the entrance ramp with a short travel time and no ramp with a long travel time.



(2) public space

All the samples are the architectural features of traditional Beijing siheyuan, and are rebuilt from the siheyuan.①2 medical rehabilitation settings combined with other functions, 1 independent setting, The medical rehabilitation area combined with other functions has a large traffic at each time period, But it is easy to cause functional crossover, Occupying other functional areas, The independent medical rehabilitation area at a fixed time, Other idle time periods, Easy to cause the waste of space; ②1 outdoor rest space with seats equipped with green plants at the same time, 1 outdoor rest space with seats not equipped with green plants, 1 outdoor rest space without seats not arranged with green plants, Outdoor rest space with seats and green plants, the elderly outdoor stay for the longest time, The elderly in institutions without seats and green plants have the shortest outdoor stay time.

(3) living space

All the samples include bedroom, dining, toilet, bathroom functional space.①Two dining areas are combined with other functions and one independently, and the space utilization rate of;②three institutional rooms adopt direct lighting, two institutional rooms are facing south, one institutional rooms and the south arranged room;③two institutional rooms are more than 200 m<sup>2</sup>, and the combined one is less than 200 m<sup>2</sup>.

#### 4. Conclusions: Andidingmen Street renewal strategy for the elderly

(1) Entrance space

The building entrance space is the first step for the elderly to enter the post station, and the height difference treatment is also one of the key points of aging design. According to the physical condition of different users, the building entrance has ramp or clear route; entrance hall and waiting space should be provided to facilitate the communication between the elderly.

(2) Public space

Due to the restriction of space size, the public activities should undertake different service contents through the space periods, including dining, lectures, singing, sports, to maximize the utilization rate of space; the outdoor rest space should be equipped with seats and green plants to facilitate the elderly to engage in sunshine, chatting and other activities, which is conducive to the physical and mental health of the elderly; the auxiliary service functions of the organization should be set up three or more to meet the various needs of the surrounding elderly.

(3) Living space

Due to the limitation of building scale and space environment, the living space cannot have as reasonable orientation and fine space design as the special facilities such as nursing home, but ensure sufficient lighting and reasonable furniture layout; for the scale of more than 200 m<sup>2</sup>, the toilet and bathroom should be set independently as far as possible, and the dining at the post station should be combined with other functional space to provide different service contents.

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