

# The Nursing Services to the Autistic People: Business Model for Social Entrepreneurship

Shanxun Hu

*Xiamen No.1 High school of Fujian, Xiamen, Fujian361001, China*  
*Email: 2267053621@qq.com*

## ABSTRACT

Autism spectrum disorder (ASD) is a developmental disorder that affects people's behavior and communication. Autistic people are suffering serious symptoms that hurt their ability to support their lives independently, which indicates the necessity of extra care even when they have reached adults. Based on the qualitative interview with parents of autistic people, the theory social entrepreneurship models, and the investigation of current market, this paper constructed a business model of nursing service center for autistic people, presented its target customers, operation cost, and revenue flow, and demonstrated its desirability, feasibility, and viability. The business model was successfully constructed and provided for local governments which aim to improve the living standard of autistic people, existed autistic institutions which are willing to expand the content of their business, and social entrepreneur who are willing to invest in relative area.

**Keywords:** *Autism, Nursing service, Social Entrepreneurship, Business Model*

## 1. INTRODUCTION

Autism, also called autism spectrum disorder (ASD), is conceptualized as a widespread developmental disorder which is associated with wide variety of medical conditions and people's cognition, comprehension, and social interaction ability[1]. First discovered and defined by American doctor Leo Kanner in 1943 though, scientists still are not able to identify the exact cause of ASD, which makes ASD still permanently incurable. According to the official report provided by Centers of Disease Control and Prevention (CDC), the incident rate of ASD in the United States is 1.85% in 2016, which has increased steadily from 0.67 in 2000[2]. Facing various types of difficulties in every aspect of their daily lives, autistic people need extra assistance from others in their daily lives, even when they have reached the adulthood. Recently, this task is generally performed by the their parents or other relatives of the autistic people, which consumes considerable amount of their time and energy. Even though there are many not-for-profit organization (e.p. AUTCOM, ASA, etc.), few of them provides nursing service to autistic people. As the size of autistic population continue to grow, providing professional nursing service to them becomes increasingly important to the well-being of autistic people and the families behind them. Besides, the growing demand of relative services has also enabled the emergence and the growth of the institution which offer the professional nursing services. In order to provide essential support to autistic people and relative social ventures, this paper constructs the business model for autistic nursing service center which can be applied to the reality.

### 1.1. Literature Review

First discovered and defined by American doctor Leo Kanner in 1943, the field of autism has always attracted the interest of neurologist. Nowadays, Autism is defined as a developmental disorder characterized by obstacles in interaction and communication, and also by restricted and repetitive behaviors[3]. Based on the huge amount of autism case, scientists now have proposed several possible causes of the autism: risk factors during pregnancy[4], toxins, fetal growth restriction[5], and autoimmune[6]; however the actual causes of autism remains controversial.

Beyond the difficulties of communication and interaction, researchers have also identified other health issues accompanied with autism through field investigation, which includes: genetic disorder[7], intellectual disability[8], anxiety disorder[9], epilepsy[10], minor physical diagnose[11], and sleep problem[12], all of which indicates the importance of special nursing service for the autistic people in their daily lives.

Having no permanent cure still, neurologists have created several approaches to reduce the impact of ASD. Recently, the education and care of autistic teenager have been handled by special school, autistic therapy institution which use applied behavior analysis (ABA), developmental models, speech and language therapy, and occupational therapy to lessen associated deficits and family distress, and to increase quality of life and functional independence[13]. However, the impact of relative therapy seems to be uncertain, which is also greatly influence the time of therapy and the inherent condition of the autistic kids. However, the impact of therapy generally decreases as the autistic kids grows up which means, when they reach the

adulthood, the nursing service weights far more than the education or therapy.

Theory of change, originated from the field of program theory and program evaluation in 1990s, is a specific type of methodology used for the planning, participation, and evaluation, which has widespread application among not-for-profits organizations, companies, and government. The theory defines the long-term goal of the business ventures and builds connections between the shorter-term, intermediate, and the longer-term goal by identifying the key resources and procedures related to the final goal[13].

**1.2. Methodology**

To have a deeper understanding of the situation faced by adult autistic people and their families, the author conducted a field research and qualitative interview among 20 autistic families in China, and obtain the first hand information to support the construction of the business model.

Based on the theory of change, the paper first identified the value proposition of customer, basically autistic people and the families behind them, based on the relevant research, and key process and resources which is used to satisfy the demand of the potential customer. Then, this paper constructed the business model of the special nursing service center of ASD through the application of basic social entrepreneurship models and demonstrates its desirability, feasibility, and viability.

**1.3. Findings**

*1.3.1. The result of survey*

In order to understand the desirability of special nursing service of autistic people and their families and the basic figure of the target customer, one field survey was projected. The survey was conducted 20 families in Xiamen, China, which includes questions related their recent problems with taking care of the autistic people and collected 20 validate results from the 20 families, which partly represented the willingness of parents with autistic kids in urban area of China. (Table 1);

Among the 20 families, 17 of them suggests they felt tired and exhausted since they needed to take care of the autistic people all day long; 18 of them believes taking care of autistic family member have greatly harm their life qualities; 12 of them believe suggested that, in order to take care of the autistic people, at least one in the parents quit the previous job which results in greater financial burdens;14 of them expressed their willingness to find a special institution to provide relative support.

Table 1 the Result of Field Survey Among 20 Families

Question	Disagree	Not Sure
Taking care of autistic cost a lot of time and energy	1	0
Taking care of autistic people makes me tired and exhausted	2	1
Taking care of autistic people really interfere my personal life	2	0
I want a professional institution to take care of my kids	4	2

*1.3.2. The result of qualitative interview*

In the qualitative interview, the author invited 5 parents to talk about their feeling of taking care of their autistic kids and their attitudes toward the nursing service centers for autistic people.(The basic information of parents is shown below in Table.1)

In the conversation, three mothers (Ms. Lin, Ms.Zhang, Ms.Qin) suggested they all have quit the previous well-paid jobs to take care of their son or daughter. Ms. Lin believes that she has got tired of being a housewife which makes herself completely dependent on her husband and lost her own purpose of life; therefore she really hopes there will be a institution that can take care of her son. Generally, she preferred to adopt her son in the institution during the work days, and takes him back to the home for the holiday. “I believe that in such condition, I can go back work without harming the living quality of my son and the relationship between us.” said Ms.Lin.

According to the interview, many parents suggested their personal lives have been greatly influenced by their children. Ms. Qin mentioned that she has not slept with her husband for 10 years since she had to take care of her daughter all the night. Mr. Wang mentioned that, after his son was diagnosed, he never had any available time during the weekend, which made him feel really upset and even hopeless.

Besides, three mothers suggested, since they have quit the previous job,their families now are facing serious economic problems. Ms. Lin said that his husband needed to take 2 part time jobs to support the daily expenditure of the family which also resulted the poor health condition of her husband. She also believes that, if the cost of nursing service was lower than her salary, it would be a preferable choice for her. Mr. Wang and Mr. Xiao also suggested that they need to work for longer hours and endure greater occupational pressure to feed the family.

Last, many parents expressed their concern about the future lives of their kids. Ms. Zheng said that:” The issue that makes me most worried is the future life of my son. I am always wondering who can take care of my son when both my husband and me leave the world, and this question just makes me anxious everyday.”

Table 2. the Information of Participants

Name of the Parent	Gender	Age of the Parent	Employment Status	Age of the Children
Wang,S.H	Male	44	teacher	19
Lin.Y.R	Female	42	house wife	17
Zheng.S.Q	Female	51	house wife	22
Xiao.W.Y	Male	44	insurance salesman	20
Qin.H.R	Female	42	house wife	19

### 1.3.3. Interview Conclusion

The result of survey and interview presented the fact that, since autistic people required life long extra cares from others, many parents suffered greatly because the autism and they really need a affordable, trustworthy, and efficient way to address the daily lives of their sons or daughters, which indicates, considered the size of autistic people and their need for life-long service, the relative demand is tremendous. Besides, considered the difficulties faced by parents, the emergence of autism nursing service center will solve the issue and create huge social impact.

## 1.4. The Construction of Business Model for Autism Nursing Service Center

### 1.4.1. The Identification of Social Problem:

Based on previous survey and interview, it is demonstrated that taking care of autistic kids for years is a exhaustive and tired task for almost every parent with a autistic son or daughter. Besides, as parents pass away, many autistic people lost the support of their lives and face serious challenge in diverse aspects. The problem that this business model is trying to solve is the parenting burden of parents with autistic kids and the worrying living condition for adults autistic people.

### 1.4.2. The Targets Costumers

As the model proposed in this article works for organizations that aim to provide service for families and other guardians taking care with autistic people who needs a professional organization.

Our target customers are generally more than 40 years old, who have stable jobs and income. Suffering from the exhaustive task of taking care of their autistic children, they have limited personal lives and comparatively low living quality. Besides, as parents, they care about the

well-being of their kids and they hope their son or daughter can live properly even when they pass away. Therefore, they are willing to purchase professional nursing service for their autistic children considered the happiness of both parents and kids themselves.

### 1.4.3. The Content of Service

This model provides guide for the construction of autism nursing service center. The autism nursing service center provides full-time and part-time nursing service for adult autistic people, which includes the assistance in daily life, food service, and accommodation, according to specific needs of parents. The institution also provides game room, gym, and even home theater to enrich the daily lives of autistic people.

Besides, the nursing center cooperate with autism therapy organization and provide autistic people with relative therapy to help them build basic skill so that they might be able to live independently in the future.

### 1.4.4. The Profit Flow

The autism nursing center provides paid service and generates from it. The price of nursing service varies according to the length and content of the service. The price of nursing service should be affordable to 80% of families with autistic kids, and the cost of service for each person per month should be comparable to the minimum regional wage. The basic cost of nursing service per person per month could be about 1200\$.

Cooperating with the therapy providers, the organization also charges for the entrance and shares the profits generated by the sale of therapy services.

When the number of costumers is large enough, the nursing centers can also sell the advertising booth to companies which want to reach the parents with autistic people.

### 1.4.5. Cost Analysis

The greatest cost in the business model is site fee of the nursing center, which is determined by the numbers of autistic people the center accepts.

Besides, the fixed cost of the center also includes the cost of basic facilities (bed, table, chairs, etc.) and other normal cost (electricity, water, etc.) of a nursing service.

The organization also hired nursing workers to assist the daily lives of the autistic people. The care workers should be trained properly as well.

### **1.5. Practicability Analysis of the Business Model**

#### **1.5.1. Desirability Risk**

According to the annual report of CDC[14], the incident rate of autism has reached 1 in 54. As the autistic population continues to grow, the demand of affordable nursing service for autistic people will increase continually. Based on the conducted survey and qualitative interview, it is plausible to indicate that most parent, if possible economically, will be willing to choose the nursing service. Besides, since the autism is incurable so far, it is easy for the center to find long-term customer.

Besides, with the professional nursing service, for the guardians of autistic people, their live pressure will decrease considerably, and they will have wider opportunities to pursuit their own lives without the restriction from autism. Generally, the desirability risk of the model is comparatively low.

#### **1.5.2. Feasibility Risk**

The key resource of the business model is the professional health care worker. According to the date provided by Bureau of Labor Statistics OES Research Estimates by State and Industry, the total health care worker employment in the United States 16,866,020. With basic extra training, almost every health care worker will be

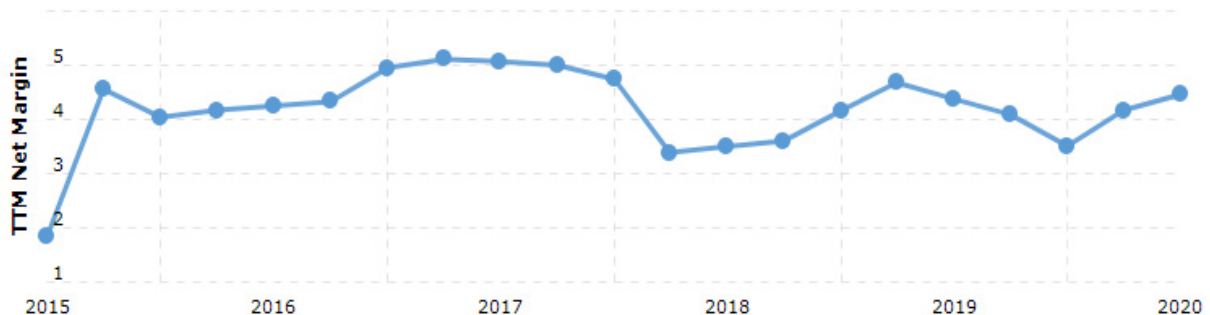
competent to the work in the autism nursing service center. Besides, some of tasks, such as the assistance in daily lives, are able to be performed by normal nannies, which further guarantees the supply of key resources.

Besides, surviving environment for nursing center is friendly generally. According to data provided by CDC[14], the numbers of nursing centers in United States has reached 15,600 in 2016, 69.3 % of which is for-profit, which further demonstrates the feasibility of the business model.

#### **1.5.3. Viability Risk**

In the context of viability risk, since the nursing service is paid monthly, with enough customer, the current flow of the business will be stable to support the operation. According to the finance report of HCSG, the net profit margin for health care service in 2020 is 4.46%, and that number(Figure 1) is general above 4% in recent 5 years, and reach its submit in 2017which demonstrates that for most health service center, including autism nursing center, they will be able to generate enough profit to support themselves.

Besides, considered the data provided by CDC[15], there is few health care center which targets on autistic people specifically. Therefore, with huge market and minor competition, the autism nursing center is likely able to survive in the long-term and generate profits.



**Figure 1 Marginal Profit of HCSG (2015-2020)**

## **2. CONCLUSION**

According to the relative report, autism(ASD), resulting disabilities in communication, interaction, and recognition, has set tremendous barriers which prevent autistic people from living independently. Considered the fact that autism is permanently incurable and is often accompanied with other health issue, autistic people must need assistance from others to live properly.

The field survey and qualitative interview indicate the fact that most parents of adult autistic people now are suffering the exhaustive task involved in taking care of their children. Strongly affected by the this task, their lives are limited in

a diverse aspects, which push them to find a special institution to take care of their children. Since adult autistic people needs lifelong assistance in daily lives and their parents have been tired of taking care of them, with the growing number of ASD population, the demand in the market is considerable.

Based on the theory of change, after the identification of social issue related to the business model, the paper constructed the business model, basically the special for-profit nursing center which is specifically designed to serve autistic people. After the examination of several key elements in the business model, the viability, feasibility, and desirability of the business model is proven. In a nutshell, it is demonstrated that the business model is able to be conducted, survive, and generate positive revenue.

Practically, this business model is suitable for local governments which aim to improve the living standard of autistic people, existed autistic institutions which are willing to expand the content of their business, and social entrepreneur who are willing to invest in relative area. With the possible support from government, this business model is able to operate in the real world and generate huge social impact.

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