EFFECTS OF PARENTING STRESS AND PARENTAL PERCEIVED SOCIAL SUPPORT ON THE RELATIONSHIP BETWEEN PARENTAL INVOLVEMENT AND SOCIAL SKILL OF CHILDREN WITH INTELLECTUAL DISABILITY IN CHINA

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ABSTRACT

The purpose of this study was to develop a relationship model between parental involvement and the social skills of children with intellectual disabilities (ID) and to examine the role that parenting stress and parental perceived social support play in this relationship. A total of 692 parents of Chinese children with ID were selected as the sample using convenience sampling. The scales utilized in this study were the Social Responsiveness Scale Short Form, Parenting Stress Index-Short Form-15, Parental Involvement Questionnaire, and Multidimensional Scale of Perceived Social Support. The data were analyzed using SPSS 29.0 and SmartPLS 4.0. The findings revealed that parental involvement had a significant positive effect on social skills ($\beta = -0.091, p = 0.014$) and a significant negative effect on parenting stress ($\beta = -0.137, p = 0.001$). Additionally, parenting stress had a significant negative effect on social skills ($\beta = -0.546, p = 0.000$). A mediation effect of parenting stress was found in the relationship between parental involvement and social skills ($\beta = -0.075, p = 0.002$). Moreover, a moderation effect of perceived social support was identified in the relationship between parenting stress and social skills ($\beta = 0.052, p = 0.041$). The moderation effect was further tested across the three dimensions of perceived social support. It was found that family support had a moderation effect on the relationship between parenting stress and social skills ($\beta = 0.081, p = 0.006$), whereas friend support ($\beta = 0.032, p = 0.282$) and important others support ($\beta = 0.039, p = 0.115$) did not show significant moderation effects. In conclusion, the study successfully modeled the relationships among social skills, parental involvement, parenting stress, and perceived social support. This study broadens the understanding of how parental factors influence children's social skills and offers theoretical and practical insights for developing effective educational policies to enhance the social skills of children with ID.

KESAN TEKANAN KEIBUBAPAAN DAN SOKONGAN SOSIAL OLEH IBU BAPA TERHADAP HUBUNGAN ANTARA PENGLIBATAN IBU BAPA DAN KEMAHIRAN SOSIAL KANAK-KANAK DENGAN KECACATAN INTELEKTUAL DI CHINA

ABSTRAK

Tujuan kajian ini adalah untuk membangunkan model hubungan antara penglibatan ibu bapa dan kemahiran sosial kanak-kanak dengan kecacatan intelektual (ID) serta meneliti peranan tekanan keibubapaan dan sokongan sosial oleh ibu bapa dalam hubungan ini. Sejumlah 692 ibu bapa kepada kanak-kanak Cina dengan ID dipilih sebagai sampel menggunakan pensampelan kemudahan. Skala yang digunakan dalam kajian ini adalah Skala Respon Sosial Borang Ringkas, Indeks Tekanan Keibubapaan-Bentuk Ringkas-15, Soal Selidik Penglibatan Ibu Bapa, dan Skala Multidimensi Sokongan Sosial yang Dilihat. Data dianalisis menggunakan SPSS 29.0 dan SmartPLS 4.0. Dapatan menunjukkan bahawa penglibatan ibu bapa mempunyai kesan positif yang signifikan terhadap kemahiran sosial ($\beta = -0.091, p = 0.014$) dan kesan negatif yang signifikan terhadap tekanan keibubapaan ($\beta = -0.137, p = 0.001$). Selain itu, tekanan keibubapaan mempunyai kesan negatif yang signifikan terhadap kemahiran sosial ($\beta = 0.546, p = 0.000$). Kesan pengantaraan tekanan keibubapaan didapati dalam hubungan antara penglibatan ibu bapa dan kemahiran sosial ($\beta = -0.075, p = 0.002$). Tambahan pula, kesan moderasi sokongan sosial yang dilihat dikenal pasti dalam hubungan antara tekanan keibubapaan dan kemahiran sosial ($\beta = 0.052, p = 0.041$). Kesan moderasi ini diuji lanjut merentasi tiga dimensi sokongan sosial yang dilihat. Didapati bahawa sokongan keluarga mempunyai kesan moderasi terhadap hubungan antara tekanan keibubapaan dan kemahiran sosial ($\beta = 0.081, p = 0.006$), manakala sokongan rakan ($\beta = 0.032, p = 0.282$) dan sokongan penting lain ($\beta = 0.039, p = 0.115$) tidak menunjukkan kesan moderasi yang signifikan. Kesimpulannya, kajian ini berjaya memodelkan hubungan antara kemahiran sosial, penglibatan ibu bapa, tekanan keibubapaan, dan sokongan sosial yang dilihat. Kajian ini memperluas pemahaman tentang bagaimana faktor keibubapaan mempengaruhi kemahiran sosial kanak-kanak dan menawarkan wawasan teori serta praktikal untuk membangunkan dasar pendidikan yang berkesan bagi meningkatkan kemahiran sosial kanak-kanak dengan ID.

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LIST OF ABBREVIATIONS

AAIDD	American Association on Intellectual and Developmental Disabilities
CDPF	China Disabled Persons' Federation
CE-SEM	Covariance-based SEM
CFA	Confirmatory Factor Analysis
CVI	Content Validity Index
ID	Intellectual Disability
IEP	Individualized Education Plan
MSPSS	Multidimensional Scale of Perceived Social Support
SEM	Structural Equation Modeling
SPSS	Statistical Packages for the Social Science
SRS	Social Responsiveness Scale
SRS-SF	Social Responsiveness Scale Short Form
SSIS	Social Skill Improvement System
PSI-SF	Parenting Stress Index-Short Form
PIQ	Parental Involvement Questionnaire
PLS-SEM	Partial Least Squares Structural Equation Modeling

APPENDIX LIST

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K	Content Validity-Expert Rating Scale
L	Informed Consent Form
M	P-P Plot of Pilot Study
N	Histogram of Pilot Study
O	Approval of Human Research Ethics Committee
P	P-P Plot of Formal Survey
Q	Histogram of Formal Survey

CHAPTER 1

INTRODUCTION

1.1 Introduction

Intellectual disability (ID), also known as mental weakness, mental retardation, mental deficiency, mental delay, or intellectual disorder (Girimaji & Pradeep, 2018). ID is a disorder characterized by significant deficits in intellectual functioning and adaptive behavior, primarily in the form of deficits in conceptual, social, and practical adaptive skills (Schalock et al., 2021). ID is one of the most common disorders in children, and improvements in medical technology have enabled many at-risk children to survive and are thought to be increasing (World Health Organization, 2007).

Countries around the world are trying to determine the prevalence of ID. Reporting on the prevalence of children with ID is inconsistent across countries, owing to difficulties in defining the concept, identification, and assessment methods for children with ID. The overall prevalence of ID is approximately 1% and the prevalence in the adolescent population is 3.2% (Platt et al., 2019). The prevalence in Ireland is 2.2/100, an increase from 2011 (McConkey et al., 2019). Prevalence rates were higher in low-income (1.64%) and middle-income (1.54%) countries than in high-income countries (ranging from 3.31/1000 to 36.75/1000, with an overall prevalence of 9.2/10,000) (Maulik et al., 2011).The ratio of males to females with ID is 2:1 (Rubin et al., 2016). McGuire et al. (2019) found that the prevalence of ID was estimated to be 11.1 per 1000 children aged 3 to 17 years. The prevalence of ID was higher in older children, and ID showed a significant increase over time. In addition, the prevalence of ID was significantly higher in boys than in girls. There is currently no national survey on the prevalence of children with ID in China, but according to the data, the prevalence rate is estimated to be about 1.0% (Liu & Ma, 2019).

Individuals with ID require varying levels of lifelong support in the areas of social interaction, cognitive, language, and community integration. Low intellectual performance often affects the development of social skill (Dučić et al., 2018). Social competence deficit is one of the main features of ID (Wilkins & Matson, 2009), and in fact, the presence of impaired social skill and associated adaptive behavior deficit

constitute a defining characteristic of ID (Schalock et al., 2021) . Although the development of social skill can be influenced by the type and severity of an individual's disability (Dučić et al., 2018) , it can be said that the development of social skill is slow and limited in most children with disabilities, which negatively affects different aspects of their daily functioning. Inadequate social skill in children with ID leads to personal isolation in the social environment, lower acceptance by peers and teachers, difficulties in living in the community, and reduced quality of life, as well as severe social disadvantage and exclusion (Tsang et al., 2022).

There is growing evidence in the literature of the positive effect of parental involvement on children's social skill (Ly & Goldberg, 2014; Mulder, 2014). This study focuses on the effect of parental involvement on social skill of Chinese children with ID, as well as the mediating effect of parenting stress and the moderating effect of parental perceived social support. The study is divided into five chapters, with this first chapter serving as a general introduction to the overall research context. Beginning with the introduction in Section 1.1, Section 1.2 provides background for this research. Sections 1.3 and 1.4 introduce the problem statement and research objectives, respectively. Building on this foundation, Sections 1.5 and 1.6 elaborate on the research questions and hypotheses. In Sections 1.7 and 1.8 the conceptual framework and operational definition were presented. Subsequently, Sections 1.9 and 1.10 cover significance and limitation, respectively. Finally, Section 1.11 offers a summary of this chapter.

1.2 Background of the Study

1.2.1 Special Education in China

Special education occupies a key position in China's national education system and is an important part of building a high-quality education system. For the past two decades, the Chinese government has significantly increased its support for special education, not only providing institutional safeguards through laws and regulations such as "the Regulations on the Education of Persons with Disabilities", but also launching policies such as "the Special Education Enhancement Program" to promote the high-level and high-quality development of special education (Zhao, et al., 2023). The report of the "Twentieth National Congress of the Communist Party of China" explicitly directs the strengthening of special education, emphasizing its inclusive development. China has incorporated special education into the scope of nine-year compulsory education, ensuring that children with disabilities have equal access to education.

In December 2021, Ministry of Education of the People's Republic of China, in conjunction with seven departments, issued the "14th Five-Year Plan of Action for Enhancing the Development of Special Education" (Ministry of Education of the People's Republic of China, 2021) , which clearly defines the main goal of initially setting up a high-quality special education system by 2025, which is crucial to

promoting the high-quality development of special education and the entire education sector. Specifically, first, the degree of universalization will be significantly increased, with the compulsory education enrollment rate for school-age children with disabilities reaching 97%, and the opportunities for children and youth with disabilities to enroll in non-compulsory education significantly increased. Second, the quality of education has been comprehensively improved; the curriculum and teaching materials system has been further improved; the education model has become more diverse; curriculum and teaching reforms have been deepened; and a quality evaluation system for special education has basically been established. Thirdly, the safeguard mechanism has been further improved; free education at the senior high school level continues to be provided to students with disabilities from economically disadvantaged families, ensuring that students with disabilities from economically disadvantaged families are given priority in obtaining financial assistance, and the level of funding for special education has been gradually raised.

Special education is mainly for children and young people with visual, hearing, speech, physical, intellectual, mental, multiple disabilities, and other special needs (Zhang & Deng, 2022). There are three types of special education schools in China: schools for the blind, schools for the deaf and Peizhi schools. A compulsory education system for children with disabilities has basically been formed in mainland China, with regular schools as the mainstay, special education schools as the backbone, and special education classes, resource classrooms, and sending education home as

supplements (Huang & Liu, 2019). Studying in regular schools means that special children are enrolled in ordinary classes in regular schools. Special education class means a special class attached to a regular school, child welfare institution or other institutions (Wu et al., 2019). Resource classroom is an educational intervention in which special students spend most of their time in regular classes in the general curriculum and part of their time in resource classrooms under the guidance of resource teachers. Sending education home refers to home-based teaching and training services for school-age youth with severe and multiple disabilities who are unable to attend school (Liu & Ma, 2019).

According to the 2023 Statistical Bulletin on the Development of China's Educational Services (the 2024 data has not yet been released) (China Disabled Person's Federation, 2024), there were 2,345 special education schools in China, enrolling 155,000 students in various forms of special education. By the end of 2023, China had a total of 912,000 students enrolled in special education schools, of which 341,200 students (37.42%) are enrolled in special education schools, and 570,800 students (62.58%), are enrolled in other schools. Data on special education from the Statistical Bulletin on the Development of China's Educational Program for the last five years are shown in Table 1.1.

Table 1.1

Statistics on Special Education Schools and Students in China, 2019-2023

Year	Number of special education schools	Enrollment of students in various forms of special education	Students in school	Staff
2019	2,192	144,200	794,600	72,108
2020	2,244	149,000	880,800	76,415
2021	2,288	149,100	919,800	82,529
2022	2,314	146,300	918,500	85,989
2023	2,345	155,000	912,000	-

Note, Data from the 2019-2023 National Statistical Bulletin of Educational Development.

Table 1.2

Statistics on the Population of Licensed Persons with Disabilities and the Population of Licensed Persons with ID, 2018-2022

Year	Registered Persons with Disabilities	Registered Persons with ID
2018	35,661,962	3,081,281
2019	36,817,205	3,238,597
2020	37,806,899	-
2021	38,049,193	3,427,599
2022	37,681,660	3,454,412

According to the main data of the "National Basic Database of the Licensed Population of Persons with Disabilities" (China Disabled Person's Federation, 2022), China's licensed population of persons with disabilities and licensed population of persons with ID for 2018-2022 are shown in Table 1.2. Among them, the 2020 licensed population of persons with ID has not been counted, and the data for 2023

have not yet been released.

The “2023 Statistical Bulletin on the Development of Persons with Disabilities” (China Disabled Person’s Federation, 2024) , released on April 17, 2024, noted that 468,000 children with disabilities had received rehabilitation assistance, 8,718,000 persons with disabilities had received basic rehabilitation services, and 1,608,000 persons with disabilities had been provided with basic auxiliary aids and adaptive devices. Among the licensed persons with disabilities receiving basic rehabilitation services, there are 725,000 persons with visual disabilities, 695,000 persons with hearing disabilities, 59,000 persons with speech disabilities, 4,157,000 persons with physical disabilities, 701,000 persons with ID, 1,599,000 persons with mental disabilities, and 529,000 persons with multiple disabilities. By the end of 2023, there were 12,463 rehabilitation institutions for persons with disabilities in China, with 360,000 persons working in rehabilitation institutions.

China attaches great importance to the development of persons with disabilities and pays particular attention to them (Yin, 2022). During the ‘13th Five-Year Plan” period, the cause of persons with disabilities has made significant achievements, and the goal of “building a moderately prosperous society in all respects, with no one with disabilities being left behind” has been realized on schedule. The “14th Five-Year Plan for the Protection and Development of Persons with Disabilities” (State Council, 2021) , published on 5 August 2021, states that by 2025, the results of poverty

alleviation for persons with disabilities will be consolidated and expanded, the quality of their lives will be improved, and their livelihoods and well-being will reach a new level.

Special education in China has made remarkable achievements over the past few decades, with the promulgation of laws and regulations such as “the Law of the People’s Republic of China on the Protection of Persons with Disabilities”, “the Compulsory Education Law”, and “the Regulations on the Education of Persons with Disabilities”, which provide legal safeguards for the development of special education (Yin, 2022) . A series of special programs have been implemented, such as “the Special Education Enhancement Program (2014-2016)”, “the Special Education Enhancement Program (2017-2020)”, and “14th Five-Year Plan of Action for Enhancing the Development of Special Education”, to promote the development of special education (Zhao, et al., 2023).

Many special education schools and resource classrooms have been established, providing special education services from preschool to high school education (Li, 2022) . Hardware facilities in special education schools have been improved and upgraded to provide a better learning environment for students with special needs (Wu et al., 2019). Various forms of training programs for special education teachers are being carried out to enhance their professional competence and teaching standards. Teachers are encouraged to participate in refresher training and continuing education

to keep abreast of the latest special education methods and techniques (Huang & Liu, 2019). The concept of integrated education is actively promoted, so that more students with special needs can receive education in ordinary schools and learn together with ordinary students. Resource classrooms and special education classes have been set up in many ordinary schools to provide additional support for students with special needs (Zhang & Deng, 2022) . The government and non-governmental organizations are actively involved in providing rehabilitation training, psychological counselling, and other services for children with special needs.

Although the development of special education in China has gained momentum, the problem of unbalanced overall development still exists, and special education remains a weak link in the field of education, facing new difficulties and challenges.

Firstly, it has become more difficult to further raise the level of universalization of special education. As society's demand for special education continues to grow, it has become increasingly difficult to provide sufficient and appropriate educational resources. The pace of construction of special education schools and classes has been unable to fully keep pace with demand, and the shortage of special education resources is particularly acute in remote and rural areas (Li, 2022).

Secondly, the support and guarantee system for special education is still not enough. At present, although there has been an increase in funding for special

education, in many places it is still unable to fully meet demand (Zhao et al., 2023). There is still much room for improvement in the mechanisms and collaboration between the Government, society, and families in support of special education. The poor articulation of medical, rehabilitation, educational and other services affect the effectiveness of the development of special education.

Thirdly, the problems of insufficient numbers of special education teachers, low pay and weak professional competence have not yet been fundamentally reversed (Li, 2022) . The recruitment and training mechanism for special education teachers is imperfect, resulting in a lack of professional training and continuing education opportunities for many teachers, who are unable to meet the growing demand for special education. At the same time, teachers work under great pressure and receive low pay, making it difficult to attract and retain good talent.

Finally, the quality of special education teaching varies, and the problem of "good schooling" has not yet been well resolved (Li, 2022). Although some schools and regions have made remarkable achievements in special education teaching, the overall quality of teaching remains uneven. In particular, there is still a need to further standardize and improve the curriculum, teaching methods and assessment standards.

Entering the 14th Five-Year Plan, special education in China faces new situations and tasks, and needs to address a series of challenges and problems (Li,

2022). For example, the proportion of students with severe and profound disabilities in special education schools has continued to rise, and the types of disabilities have become more complex, making it increasingly difficult to provide protection (Wu et al., 2019). In addition, with the full roll-out of integrated education, the task of special education schools in promoting the development of special education in the region has become increasingly onerous. High-quality development and modernization have become the requirements of the new era, leading to record high operating costs for special education (Li, 2022). All this calls for greater investment and support under the original conditions of guarantee. Special education requires greater financial investment, better policy support and higher levels of teaching staff to cope with increasingly complex and diverse needs and to ensure that every student with disabilities has access to high-quality education.

1.2.2 Intellectual Disability in China

To date, there have been only two large-scale national sample surveys of persons with disabilities in China, in 1987 and 2006. In 1987, according to the survey data, there were about 51.64 million persons with various types of disabilities. There were about 10.17 million persons with ID, accounting for 19.7%. There were about 8.17 million children with disabilities between the ages of 0 and 14, of whom the largest number, 5.39 million, were children with ID. In 2006, according to projections based on

survey data, the number of persons with disabilities of all kinds was 82.96 million, of whom 5.54 million were persons with ID, accounting for 6.68%. The number of school-age children with disabilities between the ages of 6 and 14 is 2.46 million, accounting for 2.96% of the total disabled population. Of these, 760,000 are children with ID. Compared with the first national sample survey of persons with disabilities in 1987, the total population of persons with disabilities in China in the second sample survey has increased, the proportion of persons with disabilities has risen, and there have been structural changes in the categories of disability.

The China Disabled Persons' Federation (CDPF) issued a bulletin projecting the total number of persons with disabilities in China at the end of 2010 to be 85.02 million, including 5.68 million persons with ID, based on the ratio of persons with disabilities to the country's total population and the ratio of various types of persons with disabilities to the total number of persons with disabilities (China Disabled Person's Federation, 2021). As of 2019, the number of people with ID registered is about 6.32 million, according to a report by the CDPF. These enormous numbers illustrate the difficulty and urgency of research on ID in China. Education for children with ID has become the most rapidly growing and largest field of special education in China today.

Children with ID in China are placed in different educational settings according to the degree of impairment. Mild and moderate children with ID are mainly placed in

ordinary classes and resource classrooms in ordinary schools. Moderate and severe children with ID are placed in specialized schools for the cultivation of ID. For severe or profound children with ID who are not able to attend school, education is implemented by means of sending them into the community, into children welfare institutions, and into the home (Liu & Ma, 2019).

China provides nine years of compulsory education, free of tuition, and 12 years of free education from compulsory education to high school level education for students with ID whose families have financial difficulties. China has increased its funding, and on the basis of the subsidy standard of 6,000 yuan for average public funding, regions with the conditions to do so may appropriately increase their annual budgets according to the proportion of students with severe or multiple disabilities enrolled in their schools (Zhao, et al., 2023).

Using CiteSpace software, Liu et al. (2021) systematically reviewed the status and trends of research on ID in China during the period of 2000-2020. It is found that the research hotspots in this field in the past two decades have focused on three aspects: family education, integrated education, and intervention research for children with ID. Research on children with ID in China has become richer over time, developing from an early focus on the clinical manifestations, etiology, and diagnosis of children with ID to an in-depth focus on the psychological condition of this group and intervention methods, and then to a focus on the ecosystem environment of

children's development, i.e., examining the impact of social support on children with ID.

ID is an important component of special education in China, and the Chinese government are taking a range of measures to support the development of persons with ID. For example, the CDPF and other organizations are promoting universal access to rehabilitation services aimed at improving the quality of life of persons with ID (Zhao, et al., 2023). In terms of education, the government and non-governmental organizations are working to increase educational coverage for children with ID and to ensure that they receive appropriate special education and support (Zhao, et al., 2023). Through vocational skill training and employment support programs, persons with ID are helped to better integrate into society and find jobs that suit them. For example, the "Flip Hut bakery" in Haikou mainly recruits students with autism and ID to complete the transition from school to the workplace, so that they can better realize supported employment and integrate into society (Haikou Daily News, 2024).

Despite some progress in the area of ID in China, persons with ID still face many challenges, and these difficulties affect their quality of life and social participation.

First, social prejudice remains one of the main obstacles facing persons with ID. Many people have misconceptions about and discriminate against persons with ID, believing that they are unable to participate normally in social life (Liu & Ma, 2019).

Such prejudice not only affects the self-esteem and self-confidence of persons with ID, but also limits their socialization and social integration.

Secondly, difficulties in employment are also an important problem faced by persons with ID. Although there are relevant policies to encourage enterprises to recruit persons with ID, there are still many difficulties in practice (Zhao, et al., 2023). On the one hand, enterprises lack confidence in the abilities of persons with ID, fearing that they will not be able to perform their jobs; on the other hand, there are fewer vocational training programs for persons with ID, resulting in their lack of competitiveness in the job market.

Thirdly, the social support system is inadequate. the main responsibility of caring for persons with ID usually falls on families, who thus bear enormous financial and psychological pressure (Guan & Cao, 2010) . The support services provided by the community and social organizations are limited and cannot meet the needs of persons with ID and their families.

Fourthly, medical and rehabilitation services are inadequate. persons with ID face an uneven distribution of resources in accessing medical and rehabilitation services, and there are fewer specialized rehabilitation institutions and services, particularly in rural areas, which affects the effectiveness of rehabilitation and the quality of life of persons with ID (Liu & Ma, 2019).

1.2.3 China's Attention to the Social Adaptation of Children with Intellectual Disabilities

Over the past 40 years of reform and opening, China's special education has seen great development, and the level of education for special children has continued to improve. The "Special Education Enhancement Plan (2014-2016)" states that "emphasis is placed on fostering students' self-esteem, self-reliance and self-improvement, and on the development of their potential and compensation for their functions. Necessary vocational education content is added, and the cultivation of life skills and social adaptability is strengthened" (Ministry of Education of the People's Republic of China, 2024) . The "Special Education Enhancement Plan (2017-2020)" emphasizes "focusing on the development of potential and compensation for deficiencies, promoting the individualized development of students with disabilities, and laying a solid foundation for them to adapt to and integrate into society" (Ministry of Education of the People's Republic of China, 2017) .Special children's ability to master life skills to improve their social adaptability has received increasing attention from the country and society.

Many subjects in the curriculum standards of Peizhi education emphasize improving students' adaptive ability and improving the social adaptive ability of children with ID has also become an important topic in special education schools. The general objective of the "Life Adaptation Curriculum Standards for Compulsory Education in Peizhi School (2016)" states "The life adaptation curriculum aims to

help students understand basic general knowledge of life, master the necessary adaptive skills, and become citizens adapted to social life" (Ministry of Education of the People's Republic of China, 2016). Although the cultivation and training of life skills have been integrated into the daily curriculum and teaching content in Peizhi schools, in recent years, due to the increased level of impairment of the student population of Peizhi schools, the cultivation of social skill and social adaptability of children with ID is still a very urgent task, and worthy of continued in-depth research in the field of special education.

In November 2022, Ministry of Education of the People's Republic of China issued the "Guidelines for Evaluating the Quality of Special Education Schools" (Ministry of Education of the People's Republic of China, 2022), which states that in terms of appropriate development for students, it should promote the three key indicators of ideological and moral quality, level of knowledge and skills, and social adaptability, and strive to cultivate students with special needs into nationally useful talents who are self-respecting, self-confident, self-reliant, and self-supporting. Under the trend of integrated education, there will be more and more children with mild and moderate ID placed in regular classes, and the acceptance of children with ID in the general education system has led to a more continuous exposure to social pressure, and the growth of their social needs has been in stark contrast to their own deficiencies in social skill levels.

The development of social skill is an important way to improve the social adaptability of children with ID. There is a consensus that "social skill deficits are one of the major obstacles for children with ID" (Montoya-Rodríguez et al., 2022). Social skill is an important factor in the diagnosis, treatment, and prognosis of children with ID (Heggestad et al., 2023) . Good social skill not only helps children with ID to communicate and interact with others more effectively, enhance their sense of social integration and self-confidence, but also improves their quality of life. Further research and understanding of the developmental patterns of social skill and effective intervention methods will help to formulate more scientific education and rehabilitation programs to comprehensively enhance the social adaptability and overall development of children with ID (Fatta et al., 2024).

1.3 Problem Statement

1.3.1 Social Skill Deficit of Children with Intellectual Disabilities

Social skill involves specific task-related behaviors, such as communication, cooperation, empathy, and problem-solving skills (Wang et al., 2019).These skills are especially important for children because they help them interact socially and adapt to life in society (Olçay Gül, 2016) . Developing social skill and building successful relationships with others is one of the most important achievements of childhood. The

development of social skill is critical to an individual's interpersonal relationships, communication skills, cooperation, self-confidence, and career success (Curlee et al., 2019).

Good social skill can improve an individual's performance in some areas and help build positive, healthy, and meaningful relationships (Caemmerer & Keith, 2015). Research shows that developing good social skill in children early in life has a profound impact on their future academic performance, behavior patterns, and even physical and mental health (Park et al., 2018) . Social skill is an important determinant of daily interactions that individuals have in different environments, without which relationships between individuals and groups become unstable and not consistent.

A lack of appropriate social skill can lead to children's self-confidence being affected. They may feel uncomfortable or unsafe because they do not know how to interact positively with others. This can have a negative impact on their emotional and psychological well-being (Segrin et al., 2016) . Therefore, children with social skill deficit often fail to initiate interactions and successfully maintain friendships, are often isolated from their peer groups, have poor peer relationships, are poorly adjusted in school, and have poor academic performance (Zhang et al., 2021).

Social skill deficits are present in many students with special education needs such as attention-deficit/hyperactivity disorder (Aduen et al., 2018; Nur'Aini et al., 2022) , autism (Alhuzimi, 2022; Neuhaus et al., 2019) , and intellectual disability (Athamanah & Cushing, 2022; Mamta & Ahmad, 2020).

It is estimated that 75% of people with ID have impaired social functioning (O'Handley et al., 2016). Children with ID may have cognitive, emotional, perceptual, or motor disabilities that interfere with the development of social skill (Sönmez et al., 2018) . Children with ID may show signs of sensorimotor developmental, language, and cognitive deficits in early childhood that lead to social deficits (Ferreira & Munster, 2017) , making it difficult for them to integrate into society and negatively impacting interactions with peers.

A search of CNKI, China's largest and most comprehensive database (search date: June 5, 2024), using "social adaptation" as a subject term, contained 12,508 articles from 1974 to 2024. A search using "social skill" as a subject term contained 3,939 articles from 1987 to 2024. A search using the subject terms "social skill" and "autism" yielded 202 articles spanning the years 2004 to 2024. A search on the topics of "social skill" and "intellectual disability" yielded 14 articles spanning the years 2009 to 2024. The specific search results are shown in Table 1.3.

Table 1.3

Number of Papers Published

publication year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
social adjust	712	625	694	657	672	711	612	597	521	519	98
social skill	167	189	160	189	178	256	232	250	294	405	170
social skill & autism	3	10	9	12	15	19	26	35	19	37	6
social skill & ID	0	0	0	1	0	2	1	6	1	3	0

Chinese scholars' research on social skill began with Chen's (1988) social skill training for patients with ID in 1988. As can be seen from the number of published articles, China has conducted extensive and in-depth research on social adaptation, but the research on social skill is significantly less than that on social adaptation, and the attention paid to the social skill of children with special needs is even more inadequate. In addition, in the group of special children, Chinese scholars have conducted relatively more studies on social skill of autism, while there are very few studies on social skill of children with ID, and so far, only 14 documents have been found in the CNKI search. There is a great lack of attention to the social skill of children with ID in China, and the year of attention is late.

A reading of the literature reveals that in the field of ID research, Chinese scholars have paid more attention to the literacy (Wang et al., 2024), physical health (Yuan et al., 2022; Zhang et al., 2020; Wang et al., 2018) and quality of life (Hayli et al., 2023) of children with ID. Specifically, they have invested more resources in

enhancing the academic performance of children with ID, strengthening their physical fitness, and improving the quality of daily life. However, relatively little research has been conducted on the social skill of children with ID. Research in this area appears weak, and the development of social skill, which is crucial to the overall development of children with ID, has not yet received sufficient attention.

Nevertheless, a small number of Chinese scholars have attempted to use different intervention methods to train the social skill of people with ID. For example, Zhang (2023) used peer guidance to train two children with ID in social skill. Zhang et al. (2021) used tabletop games to train two children with ID in the target behaviors of "understanding the causes of emotions" and "comforting others" in their social skill. However, most of these intervention studies used the single-subject method. Although the single-subject method can explore individual changes in depth, it is difficult to generalize it to a wider group due to the small sample size, and the extrinsic validity of the findings needs to be further improved. To improve the scientific validity and applicability of the study, Li (2019) used a more rigorous experimental design to explore the unique role of role-play on the social skill of children with ID.

In Chinese research on social skill, the target population has mainly focused on psychiatric patients, adolescents, and ordinary children, with less attention paid to special children, especially those with ID. Much of the research in this area focused on social adaptation, and social skill is seldom explored independently from social

adaptation. The lack of empirical research on the factors influencing the social skill of children with ID does not fully reveal the specific difficulties and unique needs of children with ID in the process of social skill development, making it challenging for educators and researchers to develop individualized education and rehabilitation programs.

1.3.2 Influence of Family Factors on the Social Skill of Children with Intellectual Disabilities

The family is the first-place children come into contact within the socialization process and is the most important environment for children to grow up in, which has an important impact on the formation and development of children's social skill (Rudolph et al., 2024). Chinese society is strongly influenced by Confucianism, which emphasizes harmonious family relationships. Traditional Chinese family relationships reflect a strong hierarchical structure based on age. Parents have custody of their children under the age of 18 and children are subject to their parents' orders (Su et al., 2017).

Parental involvement is the active participation of parents in their child's education and development (Shangguan et al., 2024). Numerous studies have shown a direct or indirect positive relationship between parental involvement and children's academic achievement (Barger et al., 2019; Boonk et al., 2018; Crosnoe, 2009; Hill

& Tyson, 2009; Kim, 2020) , which can effectively improve academic achievement, self-regulated learning (Luo et al., 2013), and increase student creativity (Dai et al., 2012) . In addition, there are significant positive associations between parental involvement and students' social development and peer relationships (Ryan et al., 2010).

There is a strong relationship between parental involvement and children's psychosocial well-being. Positive home environment, emotional support, and attention can promote a child's self-esteem, self-confidence, and psychological well-being. Parental involvement can also provide a sense of security and emotional connection that helps children develop good emotional regulation and social skill (Wong et al., 2018). However, there is evidence that parents of children with ID spend less time with their children and are less involved in their children's education than parents of typically developed children, and that parents do not play their due role in the education of children with ID (Oranga, Obuba, & Boinett, 2022; Oranga, Obuba, Sore, Boinett, 2022) .

Research on parental involvement has focused primarily on the contribution to students' academic achievement and less on the impact on the development of social skill. This has led to a greater focus on academic achievement and cognitive development (Peng et al., 2024) . Specifically, research on parental involvement in education tends to explore how parents can enhance their children's academic

performance through homework help, extracurricular reading, and academic motivation (Yang et al., 2024) . However, this research tendency ignores the important role that parents can play in the development of their child's social skill. Parents are not only their child's first teachers, but also role models of social behavior. Through daily interactions, emotional support, and the provision of social opportunities, parents can significantly influence their child's social skill (Shams et al., 2024). However, systematic research on this aspect is relatively lacking.

Much of the existing research has focused on preschool, primary and secondary school children, while relatively little research has been conducted on different groups of children with special needs, particularly children with ID. This research gap has resulted in a lack of empirical evidence for educators and policy makers to understand and support how parents can promote the social skill of children with ID. Through in-depth research on the impact of parental involvement on the development of social skill in children with ID, more scientific guidance can be provided for family education, which will not only help to improve students' academic performance, but also develop important competencies that will be important in their future social lives.

In addition, two other major variables in this study—parenting stress and parental perceived social support—have attracted the attention of many scholars. Parenting stress refers to the psychological burdens and tensions felt in the process of raising and educating children (Scheibner, et al., 2024) . Parental perceived social

support refers to the emotional support, practical help, and informational support that parents receive from social networks (e.g., family members, friends, communities, and professional organizations) in the process of parenting (Saleem et al., 2024).

High levels of parenting stress may have a negative impact on parents' mental health and parenting behaviors. Research has shown that parenting stress is associated with a variety of negative outcomes, such as parental depression, anxiety, inappropriate parenting styles, and deterioration of parent-child relationships (Jia et al., 2024). In particular, parenting stress tends to be higher when faced with parenting a child with ID or other special needs (Scheibner, et al., 2024). Several studies have found a significant negative correlation between parenting stress and social skill (Crum & Moreland, 2017; Lee & Joo, 2020) , and parenting stress may lead to parenting behaviors that impair children's social skill.

Social support plays a key role in alleviating parenting stress, enhancing parental mental health and promoting positive parenting behaviors (Feeney & Collins, 2015). High levels of social support can help parents better cope with parenting challenges by providing emotional comfort, thereby reducing parenting stress (Putri & Lutfianawati, 2021). It has been found that the higher the social support, the more parents show positive coping strategies in the face of parenting challenges, which in turn promotes healthy child development. The more support parents perceive, the more involved they are with their children (Hamme et al., 2010).

Many scholars have begun to explore how these variables interact with each other and combined effects on child development. For example, several studies have noted that parental perceived social support can buffer the negative effects of parenting stress, thereby improving parenting behaviors and children's social skill development (Segrin et al., 2016). Research have shown that high level of parental involvement is associated with better social skill in children (Dekker & Kamerling, 2017) and lower parenting stress (Goodrum et al., 2022). Although the researcher has learned that parental involvement and parental perceived social support positively affect children's outcomes (Xu et al., 2024) and parenting stress negatively affects children's outcomes (Jia et al., 2024). However, to date, no scholars have combined the three variables of parental involvement, parenting stress, and parental perceived social support to consider the impact on children's social skill development, particularly for the population of children with ID. The development of social skill in children with ID is unique in that they often face additional challenges in social interaction, emotional expression, and social understanding. Therefore, an in-depth study of the interaction of the three variables of parental involvement, parenting stress, and parental perceived social support can provide educators and researchers with a more comprehensive perspective to develop effective individualized education and intervention strategies.

Based on the above analysis, the researcher find that children's social skill has received much international attention, but there has been very limited research on

children's social skill in the Chinese cultural context. Second, in terms of the consideration of influencing factors, very few studies have been devoted to the influence of family environment, especially parental involvement, on children's social skill, let alone considering the role that parenting stress and parental perceived social support play in this influential relationship. Third, in the field of social skill research concerning children with special needs, previous studies have focused on children with autism, however, ID is one of the three traditional educational areas of special education in China (the remaining two being blindness and deafness), and the number of children with ID is much larger than that of children with autism, making it important to study the mechanisms of influence on the social skill of children with ID.

The present study aims to fill this gap by conducting an in-depth empirical study and causal analysis to explore how Chinese culture affects the parents of children with ID, and to reveal the combined effects of parental involvement, parenting stress, and parental perceived social support on the development of their children's social skill in the context of Chinese culture. By identifying the parental factors that may promote or weaken their social skill, this research can not only provide a theoretical basis for social skill intervention for children with ID, but also guide parents on how to promote their children's social skill development by building on the positive factors and avoiding the negative ones.

1.4 Research Objectives

This study mainly investigates the influence mechanism of parental involvement on the social skill of children with ID, using parenting stress and parental perceived social support as influencing variables. The specific objectives of this study are as follows:

RO1: To examine the level of social skill (SS) of children with ID, parental involvement (PI), parenting stress (PS), and parental perceived social support (PPSS).

RO2: To examine the differences for social skill (SS) on demographic characteristics.

RO3: To examine the relationship between parental involvement (PI) and social skill (SS) of children with ID.

RO4: To examine the relationship between parental involvement (PI) and parenting stress (PS).

RO5: To examine the relationship between parenting stress (PS) and social skill (SS) of children with ID.

RO6: To determine the mediating role of parenting stress (PS) on the relationship between parental involvement (PI) and social skill (SS) of children with ID.

RO7: To determine the moderating effect of parental perceived social support (PPSS) on the relationship between parenting stress (PS) and social skill (SS) of children with ID.

1.5 Research Questions

To achieve the above research objectives, this study mainly answers the following key questions:

QR1: What is the level of social skill of children with ID, parental involvement, parenting stress, and parental perceived social support?

QR2: Is there any difference about social skill of children with ID on demographic characteristics?

QR3: Does parental involvement have a significant positive effect on social skill of children with ID?

QR4: Does parental involvement have a significant negative effect on parenting stress?

QR5: Does parenting stress have a significant negative effect on social skill of children with ID?

QR6: Does parenting stress mediate the relationship between parental involvement and social skill of children with ID?

QR7: Does parental perceived social support moderate the relationship between parenting stress and social skill of children with ID?

1.6 Research Hypothesis

In line with the research questions and research objectives, the hypotheses for the study are:

H_1: Parental involvement has a significant positive effect on social skill of children with ID.

H_2: Parental involvement has a significant negative effect on parenting stress.

H_3: Parenting stress has a significant negative effect on social skill of children with ID.

H_4: Parenting stress significantly mediates the relationship between parental involvement and social skill of children with ID.

H_5: Parental perceived social support significantly moderates the relationship between parenting stress and social skill of children with ID.

1.7 Conceptual Framework

Conceptual framework provides a theoretical foundation for the study and helps the researcher to systematically organize and understand the research questions (Kivunja, 2018). Conceptual framework not only specifies the key variables involved in a study, but also describes the expected relationships between these variables, providing guidance for the design, data collection, and analysis of the study (Ravitch & Riggan,

2016).

Based on the previously stated research objectives and research hypotheses, a conceptual model was created for this study. Figure 1.1 illustrates a conceptual model for the social skill of children with ID, parental involvement, parenting stress, and parental perceived social support. Parental perceived social support is divided into three subcomponents: family support, friend support, important others support. According to the conceptual framework, the roles of the variables are shown in Table 1.4.

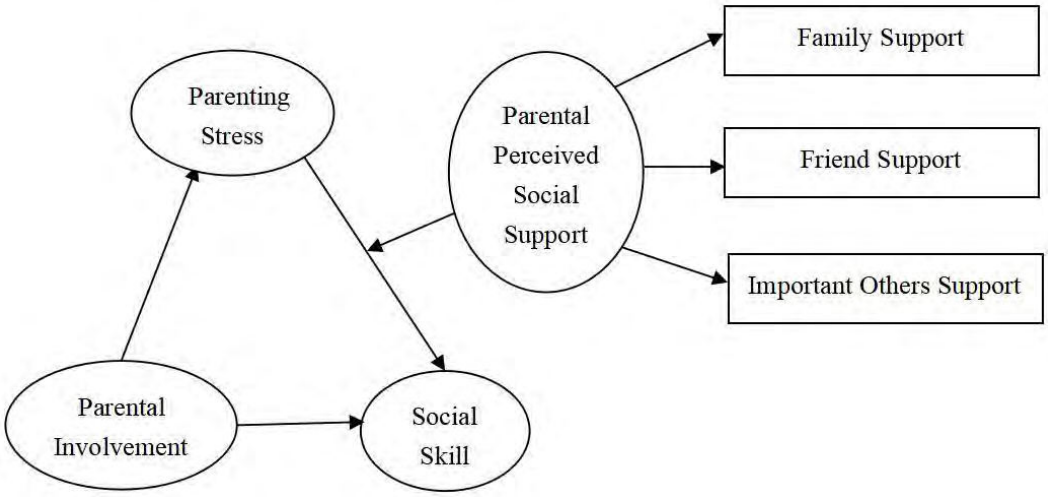

Figure 1.1. The Conceptual Framework

Table 1.4

Role of Variables

Role of variables	Variables name	Sub-dimension	Literature source
Dependent Variable	Social Skill (SS)	Social Cognition (SCOG) Social Communication (SCOM) Autistic Mannerism (AM)	Román et al. (2013)
Independent Variable	Parental Involvement (PI)	Parenting Education (PE) Home-School Communication (HSC) Home Learning Involvement (HLI) School Activities Involvement (SAI)	Deng (2021)
Mediator Variable	Parenting Stress (PS)	Parenting Distress (PD) Parent-Child Interaction Disorder (PCID) Difficult Child (DC)	Luo, et al. (2019)
Moderator Variable	Parental Perceived Social Support (PPSS)	Family Support (FAS) Friends Support (FRS) Important Others Support (IOS)	Zimet et al. (1988)

1.8 Operational Definition

1.8.1 Intellectual Disability

American Association on Intellectual and Developmental Disabilities (AAIDD) defines intellectual disability as “Intellectual disability is characterized by significant limitations in both intellectual functioning and adaptive behavior as expressed in conceptual, social, and practical adaptive skills. This disability originates before the age of 18” (Schalock et al., 2021).

In China's classification system for people with disabilities, the CDPF published two definitions of ID in 1987 and 2006. In 2006, CDPF published a definition of ID in the disability criteria of the Second National Sample Survey of Persons with Disabilities, which states that ID is a significantly lower level of intelligence than that of the general population, accompanied by adaptive behavioral disorders. Such disabilities are due to structural and functional impairments of the nervous system that limit the individual's activities and participation and require extensive, comprehensive, limited, and intermittent environmental support. ID includes mental underdevelopment or mental retardation due to a variety of harmful factors during intellectual development (before age 18), or intellectual impairment or significant intellectual decline due to a variety of deleterious factors after intellectual maturity. This study uses this definition issued by China in 2006.

1.8.2 Social Skill

Since the 1930s, scholars in the fields of psychology and education have extensively studied the mechanisms of social skill development, and many researchers have defined social skill from different perspectives. However, because of the different disciplinary backgrounds of these scholars and the differences in their research perspectives and focuses, they have never reached a consensus on the concept of social skill.

Rose-Krasnor and Denham (2009) identified social skill as a category of behaviors that benefit others and enhance social interactions, such as comforting others, cooperating with others, helping others, asserting oneself appropriately, and behaving appropriately in conflict and non-conflict situations.

Trower et al. (2013) defined social skill as a set of skills that contribute to understanding messages and expressions of others and responding in socially appropriate ways with verbal and nonverbal behaviors that can have sufficient influence on the environment to achieve personal goals.

Walton and Ingersoll (2013) defined "social skill" as any skill that actively supports interaction with peers or adults, including conversation, imitation, social initiation and response, interest in others, socially oriented communication, and nonverbal social behavior (e.g., eye contact, reaching out to others).

In this study, social skill refers to skills that facilitate social information processing and improve problem solving. This means that children must learn to interact with others to better adapt to the social environment and deal with the various emotions involved (Constantino & Gruber, 2012) . Social skill encompasses three dimensions: social cognition, social communication, and autistic mannerism (Román et al., 2013) . Social cognition refers to the ability to understand and interpret social cues and represents the cognitive and interpretive aspects of social behavior; social

communication refers to the ability to respond to social cues (e.g., expressively) and is the "motor" aspect of social behavior; and autistic mannerism include repetitive stereotypic behaviors and narrow interests.

1.8.3 Parental Involvement

Due to different perspectives or research viewpoints, the term "parental involvement" is often defined or described differently, and there is currently no single definition of parental involvement.

According to Smrekar and Cohen-Vogel (2001), parental involvement is viewed within a broad framework of experiences and activities at home and at school. In this context, parents may act as advisors, advocates, supporters, mentors, collaborators, or bystanders, who often are referred to as the instructional partnership or partnership between home and school.

Wandry and Pleet (2009) focus specifically on parental involvement and the role parents can and should play during their child's transition. Wandry and Pleet (2009) suggest that there are five distinct roles that parents can play during the transition in school and adult care: 1) contributors to the Individualized Education Plan (IEP) process; 2) mentors of the youth's developing independence; 3) decision makers and

evaluators; 4) peer mentors; and 5) agents of systemic change. This view expands the role of parents by recognizing them as companions of the adolescent's developing independence and emphasizes the importance of family activities (Hirano & Rowe, 2016).

The simplest and most intuitive way to describe parental involvement is through the behavior of parents in raising their children (Oranga et al., 2023). This includes, for example, parents' conversations with their children about school-related matters, monitoring and supervising their children's learning activities at home, establishing school-related rules for their children at home, and parents' participation in school-related activities. Seginer (2006) describes parental involvement as the variety of actions parents take at home and at school to promote their children's academic achievement and psychological development. These actions may include assisting the child with homework, attending parent-teacher conferences, and supporting the child in extracurricular activities. In addition, parental involvement includes beliefs about the child's educational and developmental expectations; that is, parents have certain expectations about the child's educational goals and developmental direction (Cheng & Deng, 2023).

In this study, parental involvement refers to the time, energy, and resources that parents invest in their children's education and development. This involvement can take place in two main settings: home and school (Roy & Giraldo-García, 2018).

Deng (2021) , based on the cultural background and research needs of parental involvement of children with special needs in China, categorized parental involvement into four dimensions: parenting education, home-school communication, home learning involvement, school activities involvement. Parenting education refers to parents learning and receiving training to improve their parenting skills and educational knowledge to support their children's growth and development effectively. Home-school communication refers to the interaction and communication between parents and schools and teachers so that both parties can work together to understand and support their children's academic and behavioral development. Home learning involvement means that parents support and promote their children's learning activities and academic development in the home environment. School activity involvement refers to the active involvement and support of parents in various activities organized by the school.

1.8.4 Parenting Stress

The concept of parenting stress has been widely studied, but there is currently no single definition. The most representative theory among the definitions is Abidin's parenting stress theory.

Abidin (1990) considers not only the characteristic factors of children and parents but also the situational factors in the parenting stress model and defines parenting stress as "difficulties, anxieties, tensions, and other stressful feelings caused by parents in the performance of parental roles and parent-child interactions". Abidin originally believed that dysfunctional parenting was the result of high levels of parental stress. Later, a more comprehensive model was proposed in which many factors (sociology, environment, and development) influence children's corrective behavior and social adjustment (Abidin, 1995) . Abidin argues that children characteristics, parental characteristics, and situational variables are directly related to the role of parents and that the interaction contributes to the overall stress experienced by parents.

In this study, according to Abidin's (1995) definition of parenting stress, parenting stress is defined as "parental stress brought to parents due to the bondage of parenting roles, poor relationship between husband and wife, imbalance of parent-child interaction and difficulties in the process of parenting special children". Abidin categorized parenting stress into three areas: parental stress, parent-child interaction disorders, and difficult child. Parental stress refers to the pressure that parents directly feel in the parenting process, i.e., the cognitive conflict between the parent's self and the parenting role, the decrease or lack of parenting skills, and the negative emotions caused by the parent's role. Parent-child interaction disorder refers to parents' feeling that their children are not expected to perform well, that they do

not form a reliable communication model, that they feel disappointed in the process of parent-child interaction, and that children perceive alienation and negative feedback. Difficult child mainly refers to the pressure that the children's characteristics and behaviors put on their parents. Because of the children's temperament, behavioral norms, learning abilities, and social skill, parents feel that their children are difficult to handle.

1.8.5 Social Support

Social support refers to the emotional, informational, and instrumental help that individuals receive from their social networks. This help can be tangible, such as the provision of resources and goods, or intangible, such as the verbal and emotional support (Kanu et al., 2008). Kerres and Kilpatrick (2002) view social support as general or specific supportive behaviors of others that can improve a person's social adjustment and protect him or her from adverse circumstances. Devoldre et al. (2010) consider social support as the way people help each other overcome personal difficulties and the way they support each other in everyday life.

Social support is a concept that can be analyzed from a variety of perspectives, with individuals, groups, and environments interacting with one another, but regardless of the perspective from which it is defined, these definitions share common

characteristics that all imply some type of positive interaction or beneficial behavior for those in need of support (Taylor, 2007).

In this study, social support refers to the various forms of help and support that an individual receives from his or her social network, which can come from family, friends, co-workers, community organizations, and other social relationships (Devoldre et al., 2016). Social support is measured through perceived social support, emphasizing the individual's belief that support is available, as a large body of literature suggests that perceived social support is more predictive and functional than received social support (Başarı et al., 2024). Zimet et al. (1988) categorized perceived social support into three components: family support, friend support, and important others support.

1.9 Significance of the Study

The results of the proposed study will provide some important insights from both theoretical and practical perspectives.

Firstly, this study enriches the knowledge domain of social skill of children with ID. Given the limited research on how family factors influence children's social skill, and even when such research exists, it primarily focuses on the impact of individual

family environment factors. This study explores how multiple aspects of the family environment interact to affect children's social skill. Additionally, it extends its focus to children with ID, examining how parental involvement influences and the mechanisms on the social skill of children with ID, thus making an important and valuable contribution to the field of social skill research for children with ID in China.

Second, the present study incorporates subjective home environment characteristics mediated by parenting stress and moderated by parental perceived social support, variables that have not yet been tested in research on the social skill of children with ID. Thus, the results of this study will meaningfully extend the existing literature in these specific areas.

Third, this study highlights the critical role of the family environment and family parenting in the social skill development of children with ID. According to this study, schools develop intervention programs for children with ID that take into account the perspective of the entire family system, which includes intervention programs for parenting stress and social support that can promote high-quality parental involvement in the children's education and thus support all aspects of children's outcomes, including cognitive and social development.

Fourth, the results of this study will benefit the Ministry of Education of the People's Republic of China, the CDPF and other organizations involved in China's

education policymaking process. According to China's "14th Five-Year Plan of Action for Enhancing the Development of Special Education" (Ministry of Education of the People's Republic of China, 2021) , the government wants to emphasize and strengthen the development of social adaptive skill of children with ID in the teaching and learning process, so the results of this study will help the government to adopt the best strategies for improving the social adaptive skill of children with ID and to make decisions when the government plans for the development of education.

Overall, the findings of this study highlight the importance of interventions for children with ID from a family perspective. To improve the social skill of children with ID, collaborative solutions for direct and indirect pathways may be most effective.

1.10 Limitations of the Study

Limitations refer to potential weaknesses or constraints that might affect the validity, reliability, and generalizability of the research findings (Pyrczak, 2016) . These limitations can stem from various aspects of the research process and acknowledging them helps to clearly understand the scope and context of the study. This study also has certain limitations.

First, four variables measured in this study were based solely on parental ratings, and the rating system was homogeneous. Because of the cognitive impairment and literacy deficits of children with ID, it is difficult for children with ID to self-assess their social skill, since parental ratings were used. Since parents know their children best and can provide a relatively unbiased view of their development, the parent-report method was used in this study. Similarly, Khadi et al. (2015) and Neuhaus et al. (2019) used parental ratings to assess children's social skill. Some studies asked teachers to rate students' social skill. Nitzan and Roth (2014) used both parent and teacher reports to assess children's social skill and found significant differences between parent and teacher reports of children's social skill, with teachers reporting better social skill. Future research could use multiple assessment methods, such as behavioral observations, parent reports, and teacher reports, to diversify data sources and assess children's social skill from different assessment domains.

Second, a serial longitudinal design was not used to examine the developmental trajectory and characteristics of social skill of children with ID and parental involvement. Although this study revealed the relationship between the four key variables, it was unable to show the change trends between groups and the structure of causality between variables. Sun (2016) suggested that the social and cognitive development of parents and children may be bidirectional. Parenting style and child behavior influence each other, and the social skill development of children with ID may also affect parenting style, thus influencing parental involvement, parenting

stress, and perceived social support. The mechanisms of interaction between these factors need to be explored through longitudinal studies.

Third, the results of this study are specific to the Chinese cultural context, and the sample was limited to two provinces in China, Shandong and Guangdong. The results would have been more convincing if the sample size had been expanded to include all regions of the country. Therefore, caution should be exercised in generalizing these results to other cultures. To increase the representativeness of the sample, subsequent studies could use random sampling methods that take into account the regional representativeness of the subjects. In addition, increasing the size of the sample would reduce the risk of sampling bias and make the sample more representative of the whole.

Fourth, among the many variables that influence the relationship between parental involvement and children's social skill, this study focuses only on the role of parenting stress and parental perceived social support, while ignoring factors such as family functioning, family closeness, parental mental health, parental conflict, parent-child relationship quality, parenting style, and family economic status, as well as how these factors interact and influence children's social skill. These aspects require further investigation in future research.

1.11 Summary

This study attempts to examine the mechanisms by which parental involvement, parenting stress, and parental perceived social support influence the social skill of children with ID in China. Continued research on social skill development in children with ID is paramount to building effective support for this growing population. This chapter is divided into 11 parts. The introduction provides a definition and prevalence of ID. The background of the study introduces special education in China, ID in China, and China's concern for social adaptation of ID. The problem statement describes the social skill deficit and family factors of children with ID, on the basis of which the problem of this study was formulated. Then, the research objectives, research questions and research hypotheses are presented. Section 1.7 presents the conceptual framework of this study. Section 1.8 presents the operational definitions of the main terms of this study. This is followed by the significance and limitations of the study and finally 1.11 summarizes chapter one.