Original Paper

Roles and Collaboration of ASD Specialists and Social Workers in TEACCH Programs: From Qualitative Analysis of Interviews with TEACCH Center Staff

Kazunori NAGASAKI^{*1}, Sanae ODAGIRI^{*1}, Toshiaki SUWA^{*1}, Akane YAMAMOTO^{*1}, Takako SHINDOU^{*2}, Sawako ARAI^{*2} and Ishin OKANO^{*2}

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Key words: TEACCH, Social Worker, ASD Specialist, qualitative analysis

Abstract

An interview survey was conducted to determine the roles of psychologists and Social Workers (SWrs) in TEACCH, which has become a comprehensive support program for persons with autism spectrum disorder (ASD). Qualitative analysis revealed that the TEACCH program had four foundations. All staff members worked as ASD specialists. These foundations are consistent with the values of SWrs. Later, as the needs of ASD individuals expanded, residential and employment support programs were initiated in addition to traditional educational programs. However, changes in social conditions, particularly financial difficulties, led to cuts in spending on TEACCH and insurance coverage to ensure the continuation of support through TEACCH. Also, differences in eligibility for coverage arose in response to insurance coverage, making it a challenge to meet the needs of people with ASD. These changes greatly affect comprehensive support in a negative way. In Japan, TEACCH programs focus on individual-level educational programs such as structuring, but it is particularly important that all staff members, from treatment to daily life support, share the generalist approach to support.

1. Introduction

TEACCH (Treatment and Education of Autistic and related Communication handicapped Children) is a life support system for people with autism that began to be studied and developed in North Carolina in the 1960s^{1,2)}. The TEACCH program aims to (1) provide community-based services, (2) meet needs beyond adulthood, (3) meet needs immediately after birth, (4) ensure the quality of the workforce for people with autism spectrum disorder (ASD), and (5) ensure continuity³⁾. Starting from the diagnosis and evaluation of disabilities, medical care, rehabilitation, and education, a group home for autistic children was established, followed by the sequential establishment of adult group homes, health work centers, vocational training

^{*1} Department of Social Work, Faculty of Health and Welfare Kawasaki University of Medical Welfare, 288 Matsushima, Kurashiki, 701-0193, Japan E-Mail: kaz-n@mw.kawasaki-m.ac.jp

^{*2} Department of Clinical Psychology, Faculty of Health and Welfare Kawasaki University of Medical Welfare

facilities, and "Carolina Farms" that combine residential and vocational functions to meet the wishes of the local community and provide comprehensive services⁴).

In this context, TEACCH program staff are called therapists and act as generalists. However, there are many different specialists. For example, there are pediatricians, psychiatrists, teachers, Social Workers (SWrs), psychologists, ST (Speech Therapists), OT (Occupational Therapists), behavior therapists, family therapists, and diet specialists. What is the role of SWrs in the context of a TEACCH program that has become a comprehensive service?

A search of CiNii Articles for studies involving TEACCH programs in Japan yielded 483 hits (as of August 9, 2023). Many of these were introductions to TEACCH programs, reports from TEACCH program training in North Carolina, reports at academic conferences, and so on. Note that a search for "TEACCH" + "social worker" resulted in one article on training issues for SWrs in support⁵), which discussed the need to incorporate TEACCH into social worker training. In addition, a search for "TEACCH" + "social work" yielded one article on a keynote speech given at the Japanese Association for the Study of Social Work⁶). This content was limited to the idea of working as a generalist, even if one is a social worker. In addition to this, the role of social workers in TEACCH programs has not been well studied in the international literature^{7,8}.

As described above, to the best of our knowledge, there are no studies primarily concerned with how SWrs are involved in TEACCH programs. In addition, there are no reports on the relationship between TEACCH programs and social work in Japan.

2. Methods

2.1 Subjects and methods

To support individuals with ASD living in the community and with their families, it is necessary to study the role of SWrs in TEACCH. To support parties with autism spectrum disorders and their families, there is a great need to study the role of SWrs in TEACCH. Therefore, this study aims to clarify the position and role of psychologists and SWrs in the TEACCH program. Interviews were conducted in May 2021 using Zoom. The interview content was analyzed using content analysis, a qualitative research method. The study subjects were one psychologist and three SWrs. One psychologist was added because the director of the TEACCH Center is a psychologist (formerly a therapist, now called an ASD specialist) who, in her position, can speak in detail about the TEACCH Center and psychologists and social workers in TEACCH.

Each of the four interviews were conducted for one hour on either May 19, 20 or 27, 2020.

2.2 Methods of analysis

The interviews were analyzed using qualitative content analysis. The following steps were taken in the analysis: (1) the interview content was written down, (2) the content of the text was read carefully and codes were assigned by focusing on clusters of meanings, (3) codes were compared and their names were adjusted, (4) codes were compared and similar codes were assigned to categories by focusing on their meanings, (5) categories were graphically represented and a result chart was created, and (6) the resulting chart was explained and prepared. (6) The whole process was organized by explaining the resulting diagram.

3. Results

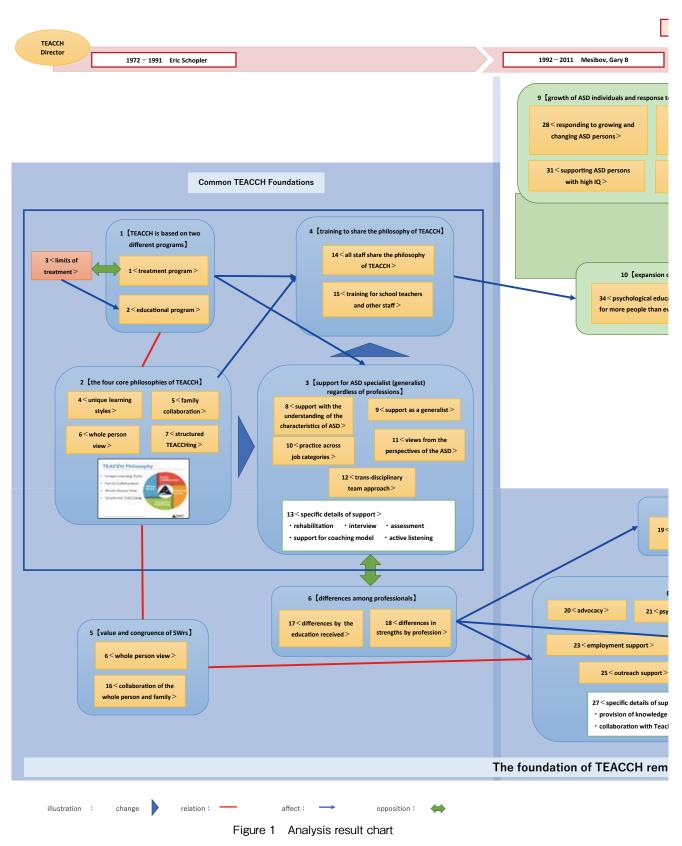
The analysis resulted in 51 codes and 14 categories (Table 1: Category & code). These categories and codes were organized to identify changes in TEACCH and the roles of psychologists and SWrs in TEACCH (Figure 1: Result Diagram). The following is the storyline of the findings. The [] indicates a category and the < > indicates a code.

3.1 Analysis results

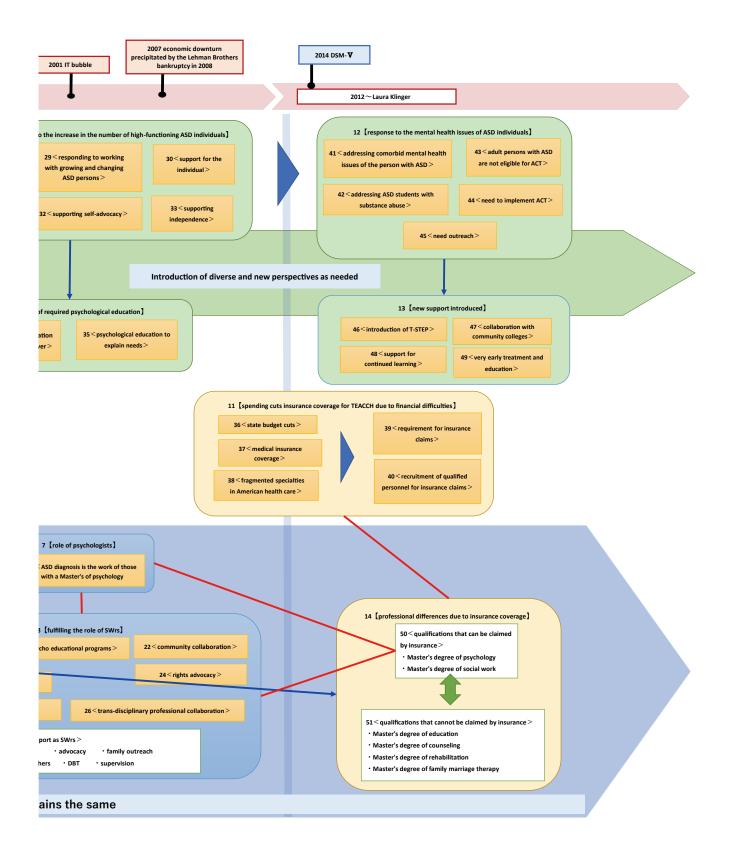
The analysis indicated that TEACCH had three major periods^{\dagger 1}. The first period began in 1972, when Dr. Schopler was director, and was the period in which the foundations upon which TEACCH activities

	Category	Code
1	[TEACCH is based on two different programs]	1 <treatment program=""></treatment>
T	[TEACCH is based on two dimerent programs]	2 <educational program=""></educational>
		3 limits of treatment>
	[the four core philosophies of TEACCH]	4 < unique learning styles>
2		5 < family collaboration >
4		6 < whole person view >
		7 < structured TEACCHing>
	S [support for ASD specialists (generalists) regardless of professions]	8 < support with the understanding of the characteristics of ASD>
_		9 < support as a generalist >
3		10 <practice across="" categories="" job=""></practice>
		11 < views from the perspectives of the ASD>
		12 <trans-disciplinary approach="" team=""></trans-disciplinary>
		13< specific details of support>
		14 <all of="" philosophy="" shares="" staff="" teacch="" the=""></all>
4	(training to share the philosophy of TEACCH)	15 <training and="" for="" other="" school="" staff="" teachers=""></training>
		6 <whole person="" view=""></whole>
5	value and congruence of SWrs	16 < collaboration of the whole person and family >
	•	17 < differences by the education received >
6	(differences by profession)	18 < differences in strengths by profession >
		19 < ASD diagnosis is the work of psychologists with a Master'
7	role of psychologists	degree (professional)>
		20 <advocacy></advocacy>
	[fulfilling the role of SWrs]	
		21 < psycho educational programs >
		22 <community collaboration=""></community>
8		23 <employment support=""></employment>
		24 <rights advocacy=""></rights>
		25 <outreach support=""></outreach>
		26 <trans-disciplinary collaboration=""></trans-disciplinary>
		27 < specific details of support as an SWrs $>$
	[growth of ASD individuals and response to the increase in the number of high-functioning ASD individuals]	28< responding to growing and changing ASD persons>
		29< responding to working with growing and changing ASI
9		persons>
		30 <support for="" individuals="" the=""></support>
		31< supporting ASD persons with high IQ>
		32 <supporting self-advocacy=""></supporting>
		33< supporting independence >
	_	34 <psychological education="" ever="" for="" more="" people="" than=""></psychological>
10	expansion of required psychological education	35 < psychological education to explain needs >
		36 <state budget="" cuts=""></state>
	Spending cuts insurance coverage for TEACCH due to financial difficulties	37 <medical coverage="" insurance=""></medical>
11		_
		38 <fragmented american="" care="" health="" in="" specialties=""></fragmented>
		39< requirement for insurance claims>
		40< recruitment of qualified personnel for insurance claims>
	2 [addressing mental health issues of persons with ASD]	41 <addressing asd="" comorbid="" health="" issues="" mental="" of="" person="" the="" wit=""></addressing>
וי		$42 \le$ addressing ASD students with substance abuse \ge
14		$43 \le$ adult persons with ASD are not eligible for ACT >
		44< needs to implement ACT>
		45 <need outreach=""></need>
	3 [new support introduced]	46 <introduction of="" t-step=""></introduction>
		47 < collaboration with community colleges >
13		48 <support continued="" for="" learning=""></support>
		49 <very and="" early="" education="" treatment=""></very>
14	professional differences due to insurance coverage	50 < qualifications that can be claimed by insurance> 51 < qualifications that cannot be claimed by insurance>
т т		

Table 1 Category & code



A Study on the TEACCH Program, psychological education, and social work for comprehensive community care



were based were laid. These foundations are 1 [TEACCH is based on two different programs], 2 [the four core philosophies of TEACCH], 3 [support for ASD specialists (generalists) regardless of profession], and 4 [training to share the philosophy of TEACCH]. These four philosophies are to be applied to all individuals, and are common to all staff members regardless of their profession.

The second period, 1992-2011, when Dr. Gary Mesibov served as director, introduced diverse and new perspectives as needed. During this period, 9 [growth of ASD individuals and response to the increase in the number of high-functioning ASD individuals] and 10 [expansion of required psychological education] occurred.

The third period began in 2012 when Dr. Laura Klinger became the director. This period will accelerate the introduction of diverse and new perspectives to meet the needs of the second period. One of the most significant changes that occurred was 11 [spending cuts to TEACCH due to financial difficulties and insurance coverage]. In addition, 14 [professional differences due to insurance coverage] can be categorized into 51 <qualifications that can be billed for insurance> and 52 <qualifications that cannot be billed for insurance>. In addition, during this period, 9 [response to the growth of ASD individuals and the increase in the number of high-functioning ASD individuals] developed during Dr. Mesibov's time affected 12 [response to the mental health issues of ASD individuals] and changed the need for 12 [response to the mental health issues of ASD individuals].

3.2 Contents of categories

The first category is 1 [TEACCH is based on two different programs]. This category consists of 1 <treatment program> and 2 <educational program>. Note that 1 <treatment program> is an idea contrasted with the conventional psychoanalytic 3 <limits of treatment>, which influences 2 <educational program>. Also, 1 [TEACCH is based on two different programs] is related to 2 [the four core philosophies of TEACCH].

The second category is 2 [the four core philosophies of TEACCH]. This category includes 4 <unique learning styles>, 5 <family collaboration>, 6 <whole person view>, and 7 <structured TEACCHing>. And 3 [support for ASD specialists (generalists) regardless of profession] is built on 2 [the four core philosophies of TEACCH].

The third category is 3 [support for ASD specialists (generalists) regardless of professions]. This category includes 8 <support with an understanding of the characteristics of ASD>, 9 <support as a generalist>, 10 <practice across job categories>, 11 <views from the perspective of the ASD>, 12 <trans-disciplinary team approach>, and 13 <specific details of support>. Note that 13 <specific details of support> includes "rehabilitation, interview, assessment, support of coaching model, active listening, and meeting". And 4 [training to share the philosophy of TEACCH] was created to realize 3 [support for ASD specialists (generalists) regardless of profession].

The fourth category is 4 [training to share the TEACCH philosophy] which includes 14 <all staff shares the philosophy of TEACCH> and 15 <training for school teachers and other staff>. 5 [values and congruence of SWrs] is a category related to the role of SWrs in TEACCH and is composed of 6 <whole person view> and 16 <collaboration of the whole person and family>. 5 [values and congruence of SWrs] is one of the four foundations above, and especially 2 [the four core philosophies of TEACCH] is closely related to them. In addition, 6 [differences by profession] includes 17 <differences by education received> and 18 <differences in strengths by profession>, allowing each profession to use its own strengths while sharing the common TEACCH foundation.

7 [role of psychologists] is based on the expertise of psychologists found in 19 <ASD diagnosis is the work of the master of psychology (professional)>. This is one of the most important aspects of TEACCH for determining ASD and is closely related to the University of North Carolina School of Medicine and the diagnosis of ASD. In contrast, the role of SWrs is summarized in 8 [fulfilling the role of SWrs], which includes 20 <advocacy>, 21 <psycho educational programs>, 22 <community collaboration>, 23 </advocacy>, 24 <rights advocacy>, 25 <outreach support>, 26 <trans-disciplinary

collaboration>, and 27 <specific details of support as a SWrs>. In addition, 27 <specific contents of support as SWrs> includes "provision of knowledge, advocacy, family outreach, collaboration with teachers, DBT (dialectical behavior therapy), and supervision".

9 [growth of ASD individuals and response to the increase in the number of high-functioning ASD individuals] includes 28 <responding to growing and changing ASD persons>, 29 <responding to working with growing and changing ASD persons>, 30 <supporting the individuals>, 31 <supporting ASD persons with high IQ>, 32 <supporting self-advocacy>, and 33<supporting independence>. In addition, 9 [growth of ASD individuals and response to the increase in the number of high-functioning ASD individuals] impacted 10 [expansion of required psychological education]. 10 [expansion of required psychological education for more people than ever> and 35 <psychological education to explain needs>.

11 [spending cuts and insurance coverage for TEACCH due to financial difficulties] was 36 <state budget cuts>, 37 <medical insurance coverage>, and 38 <fragmentation of specialties in American health care>. Changes to these were occurring in response to 39 <requirements for insurance claims> and 40 <recruitment of qualified personnel for insurance claims>.

12 [addressing mental health issues of persons with ASD] included codes such as 41 <addressing comorbid mental health issues of persons with ASD>, 42 <addressing ASD students with substance abuse>, 43 <adult persons with ASD are ineligible for ACT>, 44 <need to implement ACT>, and 45 <need outreach>. In addition, 13 [new supports introduced] was initiated as a diverse and new perspective on need. 13 [new supports introduced] includes 46 <introduction of T-STEP>, 47 <collaboration with community colleges>, 48 <support for continued learning>, and 49 <very early treatment and education>. In addition, 14 [professional differences due to insurance coverage] includes 50 <qualifications that can be claimed by insurance>, and 51 <qualifications that cannot be claimed by insurance>.

Discussion

4.1 Phase 1: The era of Dr. Eric Schopler - the period when the foundations of the TEACCH program were established. 4.1.1 Four foundations of the TEACCH program

The first foundation (1) [TEACCH is based on two different programs] consists of 1 <treatment program> and 2 <educational program>. Note that 1 <treatment program> is an idea contrasted with the conventional psychoanalytic 3 <limits of treatment>, which influences 2 <educational program>. Also, 1 [TEACCH is based on two different programs] is related to 2 [the four core philosophies of TEACCH].

The second foundation (2) [four core philosophies of TEACCH] includes 4 <unique learning styles>, 5 <family collaboration>, 6 <whole person view>, and 7 <structured TEACCHing>. And foundation (3) [support for ASD specialists (generalists) regardless of profession] was created based on (2) [four core philosophies of TEACCH].

The third foundation is (3) [support for ASD specialists (generalists) regardless of profession]. This category has five codes: 8 <support with an understanding of the characteristics of ASD>, 9 <support as a generalist>, 10 <practice across job categories>, 11 <view from the perspective of the ASD>, and 12 <trans-disciplinary team approach>. In addition, the specifics of support include "treatment, interview, assessment, coaching model support, active listening, and meeting. To realize (3) [support for ASD specialists (generalists) regardless of profession], foundation (4) [training to share philosophy of TEACCH] was created.

The fourth foundation (4) [training to share the philosophy of TEACCH], includes 14 <all staff shares the philosophy>and 15 <training for school teachers and other staff>.

4.1.2 Two strengths of the profession

5 [values and congruence of SWrs] is closely related to the above four foundations, especially (2) [the four core philosophies of TEACCH]. 5 [values and congruence of SWrs] comprises 6 <whole person view> and 16 <collaboration of the whole person and family>. This subcategory indicates that SWers are aligned with the values of social work and the philosophy of TEACCH. In addition, 6 [differences among profession]

includes 17 <differences by education received> and 18 <differences in strengths by profession> so that the common foundations of TEACCH can be shared and the strengths of each profession can be used.

In response to this, psychologists and SWrs are using (3) [support for ASD specialists (generalists) regardless of their profession], while also using the strengths of their respective specialties. 7 [role of psychologists] is based on the expertise of psychologists found in 19 <ASD diagnosis is the work of the master of psychology (professional)>. In contrast, the role of SWrs is summarized in 8 [fulfilling the role of SWrs], which includes 20 <advocacy>, 21 <psychoeducation programs>, 22 <community collaboration>, 23 <employment support>, 24 <rights advocacy>, 25 <outreach support>, and 26 <trans-professional collaboration>. In addition, the specific contents of SWrs support includes "provision of knowledge, advocacy, family outreach, collaboration with teachers, DBT (dialectical behavior therapy), and supervision. *4.2 Phase 2: Gary Mesibov era: Introduction to diverse and new perspectives*

4.2.1 Introduction of diverse and new perspectives tailored to autistic individuals

In the second phase, 9 [growth of ASD individuals and response to the increase in the number of high-functioning ASD individuals] and 10 [expanding the required psychological education] occurred. 9 [growth of ASD individuals and response to the increase in the number of high-functioning ASD individuals] includes 28 <responding to growing and changing ASD persons>, 29 <responding to working with growing and changing ASD persons>, 30 <support for the individual>, 31 <supporting ASD persons with high IQ>, 32 <supporting self-advocacy>, and 33 <supporting independence>. In addition, 9 [growth of ASD individuals] and response to the increase in the number of high-functioning ASD individuals] influenced 10 [expanding the required psychological education], which also consists of 34 <psychological education for more people than ever> and 35 <psychological education to explain needs>.

Under Dr. Mesibov's leadership, this phase continued to develop practically as new issues such as independence and employment support for ASD individuals emerged and were addressed as autistic children grew and their lives expanded. Responses include the establishment of group homes, Carolina Living & Learning Centers (CLLC), and Supported Employment programs⁹.

4.2.2 Responding to the growth of ASD and the increase in the number of high-functioning ASD persons

During this phase, 9 [growth of ASD individuals and response to the increase in the number of highfunctioning ASD individuals] occurring during Dr. Mesibov's time was needed for 12 [addressing mental health issues of persons with ASD]. 12 [addressing mental health issues of persons with ASD] included 41 <addressing comorbid mental health issues of a person with ASD>, 42 <addressing ASD students with substance abuse>, 43 <adult person with ASD are ineligible for ACT>, 44 <needs to implement ACT>, and 45 <need outreach>. In addition, 13 [new supports introduced] was initiated as a diverse and new perspective on needs. 13 [new supports introduced] included 46 <introduction of T-STEP>, 47 <collaboration with community colleges>, 48 <support for continued Learning>, and 49 <very early treatment and education>.

This phase was a time when autistic patients, who were children when TEACCH began, grew, and changed as they aged, and their living environment also changed. Therefore, various responses were necessary to meet the needs of the growing and changing autistic people and the environment in which they lived.

4.2.3 Third phase: The Dr. Laura Klinger era - financial difficulties and responses to them

This phase saw the acceleration of the introduction of diverse and new perspectives to meet the needs of the second period. There was a major change in 11 [spending cuts and insurance coverage for TEACCH due to financial difficulties].

11 [spending cuts and insurance coverage for TEACCH due to financial difficulties] includes 36 <state budget cuts>, 37 <medical insurance coverage>, and 38 <fragmentation of specialties in American health care>. The response to these changes were found in 39 <requirements for insurance claims> and 40 <recruitment of qualified personnel for insurance claims>. In addition, 14 [professional differences by insurance coverage] can be categorized into 50 <qualifications that can be claimed by insurance> and 51 <qualifications that cannot be claimed by insurance>.

4.3 Changes and responses to changes

The environment surrounding TEACCH has changed significantly during this period. However, we could not find any literature describing why these changes occurred or what types of situations existed. While compiling this interview survey, several points became clear. As shown in Figure 1, Dr. Laura's appointment was preceded by the IT bubble in 2001 and the Lehman Shock in 2007. During the interview research, these influences led to budget cuts to the TEACCH program in North Carolina for fiscal reasons. In addition, this financial impact led to the development of a new medical insurance program.

5. Conclusion

5.1 Philosophy of the TEACCH program and comprehensive support

Originally, to support the development of children with ASD, TEACCH began as an educational program to medically diagnose and understand the characteristics of children with ASD and to support them in life situations. Despite the characteristics of children with ASD, their lives are naturally as diverse and inclusive as those of many people without disabilities. Therefore, to deal with the characteristics of ASD, psychologists who make the diagnosis were required to and played an important role. In addition, collaboration with the families with whom they share their lives was considered inevitable. However, providing comprehensive support for the lives of children with ASD inevitably requires additional support for their lives. Focusing on this "lifer's perspective", SWrs have a significant role to play in supporting the person to live as a person, as a matter of course, even though he or she has a disability.

5.2 Professional names and positioning in TEACCH

In the TEACCH program, there was a difference in how staff were referred to. The three terms were (1) generalist, (2) therapist, and (3) licensed ASD specialist.

5.2.1 Generalist

The use of the term generalist, as the analysis shows, differs from the traditional characterization of "expertise." Specialization here is often thought of as a narrower, deeper specialization of fields and subjects; in the context of TEACCH programs, it is also the ability of distinguishing autistic individuals from other diseases and disorders, viewing them as special, and pursuing more effective treatment and coping methods.

In contrast, the generalist specialization in TEACCH programs views the child as a person, even with the disability of autism, and tries to consider the child as a whole person. Thus, the term generalist implies that there is a generalist philosophy and that support is provided with this philosophy in mind, as opposed to a specialist.

5.2.2 Therapist

This term seems to have been used since the early days of the TEACCH program. This may be because the TEACCH program began as a therapeutic response for autistic children. In other words, the TEACCH program began to improve the maladaptive state of autistic children. Therefore, it is important to determine how to treat autistic children with problems, and it is considered necessary to respond using psychotherapy.

A characteristic usage is that therapists are usually psychologists. This is consistent with the role of psychologists. The diagnosis of autism is positioned as an occupational role of psychologists, as well as the results of the analysis: 7 [role of psychologists] and 19 <ASD diagnosis is the work of a master of psychology (professional)>.

5.2.3 Autism specialis^{† 2)}

This term is closely related to the idea of viewing the autistic child as a person with a 6 <whole person view> rather than in a traditional way. This analysis also revealed that in TEACCH, the staff currently referred to as ASD specialists were called therapists (generalists) and were positioned as psychologists. In addition to psychologists, social workers were also included among these therapists. On the basis of these

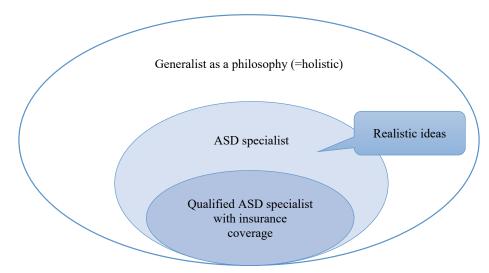


Figure 2 ASD specialists and qualified ASD specialists in generalist philosophy

examples of usage, we created the following diagram (Figure 2), in which we consider a generalist as the philosophy of the TEACCH program. To realize this philosophy, various professionals work as generalist Autism specialists beyond their respective specialities. Note that Autism Specialists with insurance coverage qualifications are referred to as those who work in TEACCH with a master's degree, which is required for insurance billing, which has increased rapidly since 2012.

The TEACCH approach has much in common with social work. In fact, there has been a change in TEACCH to deal not only with TEACCH centers but also with adult individuals with ASD. The change occurred during the second generation of Dr. Gary Mesibov's time, 9 [in response to the growth of ASD individuals and the increase in the number of high-functioning ASD individuals]. This change was partly due to the expansion of the target population to include adolescents and adults with ASD to accommodate those with ASD who had reached adulthood in 1979 (Gary Mesibov: 219). Residential and employment support and adult programs were developed at the Carolina Life Living Center (CLLC)^{†3)}.

This change is an expansion from the TEACCH program, a psychological treatment program, to residential planning and employment support programs, and is truly a shift to comprehensive support.

In Japan, TEACCH programs focus on individual-level educational programs as typified by structuring, but total support is provided with a view to daily life. The generalist approach is shared by all staff members who provide support from treatment to daily living. This is also important in Japan, where education has its own way of thinking, and social welfare and social work fields have their own ways of thinking, which are not always shared.

Based on the results of this study, it is necessary to consider the support needed not only in the TEACCH program but also in various other fields. In addition, continuous research on the four philosophies used in the TEACCH program and the principles and practices of social work should be conducted to determine what is needed for children with ASD to live a normal life in the community, with a view to collaboration among multiple professions.

Notes

† 1) Mesibov GB, Shea V, Schopler E, *The TEACCH approach to autism disorders*, translated by Tomoko Haramaki and Shigeru Haramaki, *What is TEACCH: A total approach for people with autism spectrum disorders*, 22, Empowerment Research Institute. divides the years 1966-1972 as early TEACCH, 1972-1978 as the second phase of TEACCH, 1978-1983 as the third phase of TEACCH, and 1983 onward as early TEACCH.

 \dagger 2) In this study, autism is uniformly described as ASD, but since this term describes the term used by

the interviewees in their narratives, we use the term as it is used in the narratives and refer to them as Autism Specialists.

† 3) For more information on CCLC, please refer to the following URL. https://teacch.com/cllc/carolina-living-and-learning-center/ (August 12, 2023)

Acknowledgments

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