The Development of a Social Service Quality Scale for Disabled Adults

Park, Susie

(Gangneung-Wonju National University)

The purpose of this study is to identify the components of social service quality, and to develop a reliable and valid measurement instrument. The concept of a social care service quality for disabled adults is clarified and the processes involved in scale development presented. Three core components of social care service quality are identified, namely, process, outcome, and engagement quality. The reliability and validity of this three-factor scale are verified using empirical data. Disability service institutions were selected using Korea Health & Welfare Information Service's disability service institution information. Survey subjects 1000 case were selected from institutions and service users in 11 regions. It was found that the social service quality scale has predictive capability in relation to correlation among the three core components (X^2=77.638, RMSEA=.047, GFI=.984, CFI=.987). The quality scale tool described in this article will allow disabled adults to have more involvement choosing the social care services that best fit their needs.

I. Introduction

With reformation of the social care service system, the authority of service providers has been extended to both non-profit organizations and profit organizations (Forder et al, 1996; Ikegami and Campell, 2003). More people are showing interest in the quality of social care services and the government's quality management. Consumer-directed care reforms are increasing the choices available, and broadening control over the services (Leadbeater, 2004; Malley & Fernandez, 2010). Users are comparing services for their availability and range of choices, and both government and user' demands for quality information are increasing. The following section discusses findings of previous studies measuring the quality of social service delivery, based on the Donabedian' model to quality of care; outcome, process, and structure (Donabedian, 1980; Donabedian, 1986; Donabedian, 1988).

Social care service studies generally assume that the ultimate goal of the service is to increase users' quality of life, and they measure "quality of a user's life" in terms of autonomy, everyday abilities, and happiness (Miller et al., 2008; Sorenson & Mossialos, 2007; Castle & Ferguson, 2010; Forder & Caiels, 2011). Recently, many studies have approached the quality of social care service from the perspective of "quality of care," and measure users' perceptions of the quality of the process in terms of accountability, staff attitudes and behavior, continuity of care workers, fluid communication of changes when in care, flexibility of care workers in meeting changing needs, reliability, and responsiveness (Kramer & Glazer, 2001; Qureshi & Nicholas, 2001; Francis & Netten, 2004; Sangl et al., 2005). The quality of service structures and operations is often measured from the traditional approach to service perspective, for purposes of policy making and management needs. For example, Total Quality Management (TQM) can be applied to measure the quality of service using structural efficiency (Donabedian, 1988; Donabedian, 2003; Devaney & Rossi, 1997; Kettner, 2002).

Historically, quality scale tools are less developed in the care service area than

other service industries or public services (McMillan et al., 2005; Megivern et al., 2007; Malley & Fernandez, 2010). This is mostly because the care service area is perceived as a very complex area that only experts can evaluate－evaluation by clients or third parties is not considered－and because of conceptual issues and analytical problems involved in the measurement and operationalization of the concept of service quality in social care.

With multifaceted consumer-directed care reform, the quality of care service concept has become relatively simple (OECD, 2013). The reform has given greater importance to the quality items that need to be evaluated by non-expert users, and user satisfaction with the service process and outcomes has become more important than structural process efficiencies. Further, it is very difficult to measure structural quality of the public sector, private non-profit organizations, and private profit organizations consistently, since structural quality typically remains relatively unchanged over time, and it is difficult to apply the general properties of service quality that change from time to time (Malley & Fernandez, 2010; Megivern et al., 2007). Finally, perceiving structural efficiency as a measure of service quality in the case of social care services that are provided for daily living at home is a questionable practice.

This study developed a quality scale tool for the service that supports the daytime activities of adults with severe disabilities. The heightening of consumerism through the consumer-directed reform of social services for disabled adults is related to self-support of the disabled. Dejong (1979, 1981) suggested consumerism－along with self-determination, self-reliance, and political and economic rights－should be the philosophy underlying the independence of the disabled. Consumerism authorizes the disabled to demand and purchase the services that best fit their needs, and the right to choose how and when to use the services that can affect their quality of life. The user-oriented method that provides vouchers directly to the disabled is intended to promote competition among institutions by allowing the users to select service institutions and ultimately enhance user satisfaction and service quality.

Nevertheless, there is a concern about whether the provision of user-oriented services can promote competition between institutions and users' sections thereby actually enhancing the service quality experienced by the disabled in the reality where services for the disabled are insufficient in quantity and the types of services have not been diversified (Kang, 2012; Kim, 2013). In particular, in the case of services provided to those disabled persons who lack social coping abilities or have low cognitive abilities in users' independent spaces (mainly user's home), there is a concern whether good quality services can be provided to users. That is, the government should realize the provision of user-oriented services to the disabled while paying attention to how to effectively guarantee the quality in the process of provision of the services.

Recently, as interest in the government's quality management has been increasing, diverse efforts have been attempted. The efforts are mainly implemented with surveys of overall satisfaction after using services. In addition, the Ministry of Health and Welfare (2010) distributes common quality standard guidelines and manuals to institutions to present guidelines for service quality management. However, the government's management of the quality of services per se with such approaches is limited. That is, a measure is necessary that will enable users to evaluate the process of using services by themselves. The Care Quality Committee (CQC) in the UK has developed quality scales by type of services so that users can evaluate the quality. In addition, the CQC manages service organizations based on the foregoing (CQC, 2010, 2011).

In conclusion, this study derived the concept of quality as being that perceived as quality by users, and developed a corresponding quality scale. This study corrected and supplemented the five quality components of the SERVQUAL quality model, which is widely used to measure the quality perceived by consumers, to fit the characteristics of the services provided for the everyday lives of severely disabled adults, and statistically proved the validity and reliability of the new quality model. The remainder of this paper is organized as follows: First, it considers the

components and items underlying a service quality scale for the disabled. Second, it proved the validity of the scale, and the reliability of its internal consistency. Third, the major findings and implications of this study are discussed.

II. Literature Review

1. SERVQUAL

The studies of Parasuraman, Zeithaml, and Berry are most widely used for companies' service quality research. Here, service quality is defined as the judgment or attitude toward the overall services perceived by service users while they are interacting with service providers in the process through which services are provided. In addition, to clarify the concept of services as such more concretely, the components of service quality were analyzed and the SERVQUAL model was proposed. The SERVQUAL model (here after SERVQUAL) based on qualitative research (Parasuraman et al., 1985; Parasuraman et al., 1988; Zeithaml, 1988; Zeithaml et al., 1996). They interviewed focus group members to suggest ten criteria customers used to evaluate service quality, improved them using qualitative and quantitative methods, and identified five quality components: "reliability," "responsiveness," "empathy," "assurance," and "tangibles" (Parasuraman et al., 1988). The SERVQUAL model also measures the "performance" and "expectations" of these five quality components, and defines quality as the gap between them. Most service quality scale studies since then have discussed SERVQUAL's limitations, and how to overcome them (Boulding et al., 1993; Cronin & Taylor, 1992; Ding et al., 2011; Udo et al., 2011; Saraei & Amini, 2012).

Recently, discussions about quality have become active in the fields of public services and medical services too. The most widely used model in such discussions

is SERVQUAL (Kim & Jung, 2009). As electronic voucher services have been introduced into the area of social welfare, quality studies using SERVQUAL have been actively conducted in the area of elderly and child services and recently (Kim & Jung, 2009; Maeng & Sim, 2011; Han & Im, 2011; Park, 2014), studies of service qualities for the disabled have been increasing. In this study, we investigate the effect of SERVPERP quality factor on satisfaction of perceived service value of disabled people. Lee and Park (2011) analyze the effects of SERVPERP quality factors (reliability, responsiveness, assurance) of personal assistance services for the disabled on the disabled's satisfaction through perceived service values. Through the analysis, they empirically analyze the relationships between service quality factors, service values, and satisfaction. Lee (2014) analyzes the relationship between the effects of SERVQUAL quality factors (reliability, responsiveness, empathy, assurance, tangibles) on the satisfaction felt by the protectors of the users of services for disabled children and reuse intentions. Park (2014) analyzes the quality of the daily support service for severely disabled adults and the factors of the effects of service institutions on the quality. Here, service quality is set with five areas (reliability, responsiveness, empathy, assurance), which are four areas of SERVQUAL and the area of 'participation.'

2. Criticism of the SERVQUAL Model's Quality Scale

Cronin and Taylor (1992) criticized SERVQUAL's measures of service quality using the performance-expectation (P-E) model, and proposed the SERVPERF model, which measures service quality using only performance. They compared 22 items in the five SERVQUAL components to their SERVPERF model. They proved that the SERVPERF model was superior, and argued that measurements based on performance are less sensitive to the industrial characteristics used to address the attitudes and change of long-term service quality more clearly.

Teas (1993) also suggested that there were problems with conceptual and

operational aspects of SERVQUAL's "perception-minus expectation" (P-E) approach, and developed a model of perceived service quality based on evaluated performance (EP) and the normated quality (NQ). Based on a substantial study of SERVQUAL, weighted SERVQUAL, NQ, and EP, he argued that the EP model is the best model for overcoming limitations of the P-E model. Ever since, more researchers have used only performance to measured service quality (Ding et al., 2011; Udo et al., 2011; Brady & Cronin, 2001; Duncan & Elliott, 2002).

3. Improving the Service Quality Components of the SERVQUAL Model

A. Addition of outcome quality

Parasuraman, Zeithaml, and Berry (1988) suggested five components of service quality using SERVQUAL, whereas Grönroos (1984) classified service quality into two components: process quality and outcome quality. Outcome quality is the "technical quality" namely, "what" customers acquire from the service. Process quality is the "functional quality," namely, "how" customers receive the service.

Llosa, Chandon, and Orsingher (1988) criticized SERVQUAL by pointing out that its five quality components are too focused on the process quality of the components where process and outcome qualities are ambiguously mixed. Also, Powpaka (1966) proved that the outcome quality of service determines the overall quality of service. In other words, the studies that have revised and improved SERVQUAL have considered outcome quality one of SERVQUAL's quality components.

The importance of outcome quality is greater In the case of social care services than in the service delivery of most companies. The concept of social care service itself is based on the premise of responding to the issues of care experienced by most users, not that experienced by individuals (Forder & Caiels, 2011; Bahle, 2007).

B. Addition of environment quality

Rust and Oliver (1994) suggest three types of quality: "service product," "service delivery," and "service environment." Service environment is the background of service, and corresponds to SERVQUAL's tangibles. "Service product" is similar to Grönroos' outcome quality, while "service delivery" is the process quality, which is mainly addressed by SERVQUAL. Later, Brady and Cronin (2001) adopted Rust and Oliver's(1994) three-component model to develop the three-dimensional hierarchical model of service quality－"interaction quality," "outcome quality," and "physical environment quality." This model emphasized the importance of service environment quality, in addition to the process quality and outcome quality that are traditionally considered important. The importance of service environment quality is even greater for user-perceived service quality (Brady & Cronin, 2001; Chase, 1994; Spangenberg et al., 1996; Wakefield et al., 1996).

However, environment quality is not the physical environment of service in social care service. It may apply to the care services provided at an institution or a nursing home, but the physical environment of the service provider cannot be considered quality in the case of home care service. Home care service provides a greater portion of social care service, and it is necessary to discuss the environment that can apply to both services fairly equally. In this regard, other conditions considered important include the intangible environment, through which the service provider can have either a direct or indirect impact on the services provided, including service monitoring, acceptance of user complaints, handling of user complaints, early service users, and service agreements. Institutions' activities are the important intangibles that affect how staff members provide their services (McMillan et al., 2005; Megivern et al., 2007; Clancy, 1999; Darby, 2002)

4. Revision of the SERVQUAL Model: Development of Disability Service Quality Model

A. Basic principles of modeling

This study developed a model to measure the service quality of social care services for severely disabled adults, considering the trends apparent from earlier quality studies. The basic principles used to develop a new model are described next.

First, considering SERVQUAL's limitations, namely measuring quality with expectation-performance, this study uses SERFPERF to measure service quality based solely on performance. Second, to address the critical reviews of SERVQUAL's quality components, this study reinforces SERVQUAL, which leans toward process quality, with outcome quality and environment quality. Third, this study balances the number of items in each quality component to develop a quality model. The variables of process, performance, and environment quality are equally applied to the quality model.

B. Addition of outcome quality

Limitations caused by SERVQUAL's focus on service process were overcome by adding questions on service performance. If the process quality of service is focused on the way the service is delivered, the outcome quality of service is focused on the result or outcome of that care activity. The purpose of social care service is to improve service users' quality of life. Megivern (2007) notes four outcomes of care service desired by service users: improvement in functioning; improvement of daily living activity; subjective well-being of service users; and the ultimate satisfaction of social service systems take holders, including funders, advocates, and families. On the other hand, Malley and Frernandez (2010) describe users' expected outcomes of social care service in terms of the care-related quality of life and reductions in

care giver stress. The care-related quality of life perceived by service users specifically refers to improved health and emotional well-being, improved quality of life, and physical and mental functioning.

This study conceptualized the following items as measures of the outcome quality of social care services for the daytime activity of disabled adults in this study:

1) The use of service has improved daily living activity (OQ_1)

2) The use of service has improved overall quality of life (OQ_2)

3) The use of service has reduced family caregiver stress (OQ_3)

C. Addition of environment quality

The items of environment quality were added to SERVQUAL. As discussed, the environment of social care service should consider the intangible environment of the service institution that can directly or indirectly affect the services provided, rather than the physical environment. The major factors that affect the contents and methods of service provided include how the service users sign the agreement with the service institutions before using the service, how the service users report complaints while using service, how the institutions resolve them, and whether there is a group that represents the interests of service users within the institutions. The intangible environment of service institutions is indicated either by their quality improvement efforts (Megivern et al., 2007) or engagement in the services provided to service users (Clancy, 1999; Darby, 2002; McMillan et al., 2005). In this study, to set items measure engagement quality, 'engagement in the services provided to service users' will be considered. First, for the engagement of initial service users, whether the service has been planned with the service institution will be examined. In addition, for 'engagement' in the process of using the service, the existence of an official site where users can report complaints about the service was regarded to be important. In addition, as services that can support 'engagement' after using services, 'gatherings for user prior learning about disability, gatherings of user

families, and disability organizations while using the service' were set.

In conclusion, this study configured these items by approaching the quality of service environment from the quality of engagement of service users Engagement quality included the following:

1) There is an official site where users can report complaints about the service (EQ_1)

2) Users have learned about disability gatherings, user family gatherings, and disability organizations while using the service (EQ_2)

3) The service has been planned with the service institution (EQ_3)

III. Analysis: development of social care service quality for disabled adults

The scale development process consists of item generation, scale development, and scale evaluation (Churchill, 1979). The first step is generating quality model items, and generally involves literature reviews, focus group discussions, and domain experts' input (Boudreau et al., 2001). Then, the items` are further grouped to suggest desirable validity and reliability measures for scale development. Finally, the desirable psychometric properties are verified for evaluation. This study performed exploratory factor analysis to identify factors that structuralize the item, and proved the validity of the developed scale with confirmatory factor analysis. Cronbach's alpha for internal consistency was used to estimate there liability of these results. The correlation between the scale developed for evaluation and users' satisfaction and loyalty was verified. The data were analyzed using SPSS 21 and AMOS 8.

1. Measurement Item Generation

This was a theoretical study, which added three items for service performance and three items for engagement to SERVQUAL. Then, the 22 items of the five SERVQUAL components were adjusted to fit the study's principles.

First, tangibles among the five components were excluded. This study considers the service for the daytime activity of severely disabled people, including the service provided at the facilities and the service provided at home. The home care service was not suitable for measuring the quality of tangibles, such as the facilities, equipment, and atmosphere.

Second, the reliability of SERVQUAL depends on service performance, unlike other quality components that focus on the service process (Llosa et al., 1988), was excluded from this study, as it was redundant with the concept of outcome quality.

Third, to consider each component of quality equally, the items of the three remaining SERVQUAL components were adjusted. Considering that outcome and engagement quality consisted of three items each, the other SERVQUAL components were reduced to three items, using the advice of three disability welfare experts, the focus group discussion of six disability service users, and selecting one question to represent each component. In these process, The following three items were selected through two criteria, 'items that can reflect the field of services for the disabled' and 'expressions that can be easily understood by the disabled.'

The following questions were selected:

1) Care worker is always willing to help service user (responsibility) (PQ_1)

2) Care worker instills confidence in you (assurance) (PQ_2)

3) Care worker has your best interests at heart (empathy) (PQ_3)

Finally, nine questions were configured as the measurement items of this study, including the three process quality items from the adjusted SERVQUAL model, the three outcome quality items reinforced by theoretical discussion, and the three engagement quality items. All items were phrased positively, and were scored on

a seven-point scale ranging from "strongly disagree" (1) to "strongly agree" (7).

2. Results

A. Measurement Scale Application

To survey the characteristics of disability service institutions, they were selected using Korea Health & Welfare Information Service's Disability Service institution information. To select survey subjects, we considered the population of each region, financial independence, and the number of people registered with disability, to sample a total of 11 average regions, including four large cities, four small/medium cities, and three farm/fishery towns. Then, each of the region's institutions that provide daytime activity services for severely disabled adults was considered. Each institution was asked to recommend 8-10 service users to survey a total of 1,000 subjects. The survey was conducted at the institutions selected, between September 9, 2013 and October 21, 2013. Users of services for severely disabled adults were asked to complete the survey themselves or with the help of the guardian. The research objective was explained to all the participants and written informed consent was obtained.

The demographic characteristics of survey respondents are provided in Table 1 below.

Table 1. Profiles of the respondents

Variables	Subcategory	Sample (people)	Ratio (%)
Total		(1000)	100.0
Sex	Male	(595)	59.5
	Female	(399)	39.9
Age	Under 18 (15-18)	(29)	2.9
	18-29	(471)	47.1
	30-39	(214)	21.4
	40-49	(136)	13.6
	50 or older	(150)	15.0
Marital Status	Unmarried	(774)	77.4
	Living with a partner	(157)	15.7
	Widowed	(21)	2.1
	Divorced	(43)	4.3
	Separated	(5)	0.5
Type of Disability	Physical	(476)	47.6
	Mental	(481)	48.1
	Physical+mental	(43)	4.3
Severity of Disability	Grade 1	(579)	57.9
	Grade 2	(283)	28.3
	Grade 3	(121)	12.1
	Grade 4	(11)	1.1
	Grade 5	(2)	0.2
	Grade 6	(4)	0.4
Education	Elementary school graduation or under	(185)	18.5
	Middle school graduation	(137)	13.7
	High school graduation	(600)	60.0
	Some college	(10)	1.0
	College graduation or higher	(68)	6.8
Region	Large city	(530)	53.0
	Small/medium city	(380)	38.0
	Farm/fishery town	(90)	9.0

B. Exploratory factor analysis

For measurement of appropriateness of factor analysis of this sample performed the Kaiser-Meyer_Olkin (KMO) measure and Bartlett's sphericity test. The result was KMO=.884 and=4162.485 (p<.001), which shows that they are suitable for the factor analysis. The factors were extracted using principle component analysis to minimize the number of factors and the loss of data, while the factor rotation applied varimax rotation for orthogonal rotation.

By extracting the factors whose eigen values were 0.9 or greater, a total of three factors that explained 73.35% of the overall variance were extracted. Considering each factor, Factor 1 accumulated three items derived by adjusting SERVQUAL, and explained 51.67% of the overall variance. Factor 2 accumulated three items on the outcomes of disability service added through the theoretical discussion, and explained 11.19% of overall variance. Finally, Factor 3 accumulated three items on the disabled people's engagement in service and explained 10.49% of the overall variance. Also, the accumulated value of the factors of these nine questions satisfied 0.40 or higher. As all nine items of the three factors matched the composition of the original tool, Factor 1 was named "process quality," Factor 2 "outcome quality," and Factor 3 "engagement quality," as in the original tool.

Table 2. Summarized results of exploratory factor analysis (n=971)

Item	Mean (S.D.)	Factor loading	Eigen-value	Variance explained (%)	Cronbach's alpha value
Process quality					
Care worker are always willing to help service user (PQ_1)	5.76 (.95)	.828	4.651	51.674	.834
Care worker instills confidence in you (Assurance) (PQ_2)	6.05 (.85)	.807			
Care worker has your best interests at heart (empathy) (PQ_3)	5.86 (.87)	.788			
Outcome quality					
The use of service has improved daily living activity. (OQ1)	5.84 (.89)	.838	1.007	11.190	.826
The use of service has improved overall quality of life. (OQ_2)	5.86 (.88)	.797			
The use of service has reduced family care giver stress. (OQ_3)	5.97 (.97)	.775			
Engagement quality					
There is an official site where users can report complaints about the service. (EQ_1)	5.57 (.98)	.864	.944	10.494	.763
Users have learned about disability gatherings, user family gatherings, and disability organizations while using the service. (EQ_2)	5.41 (.99)	.714			
The service has been planned with the service institution. (EQ_3)	5.59 (.98)	.662			

C. Confirmatory factor analysis

Based on the results of exploratory factor analysis, confirmatory factor analysis analyzed the nine questions of the 1st, 2nd, and 3rd factors. As a result of analyzing the model fit of questions in the subcategories, =77.638 with p<.05 for significance, the value verifies whether the model matches the actual data in the confirmatory factor analysis, and it is considered valid when is greater than .05. When the number of samples increases, however, it generally becomes valid below .05. Therefore, it was determined that it would be valid to consider other fit indices besides. Generally,

the root mean square error of approximation (RMSEA) is below .05 as the absolute fit index, and it is considered fair if the goodness of fit index (GFI) is greater than .90. As an incremental fit index, the comparative fit index (CFI) should be greater than .90 for the model to be fit (Bentler & Bonett, 1980; Bollen, 1989). The model for this study showed RMSEA=.047, GFI=.984, CFI=.987, and the model of quality scale of service for disabled adults with nine questions in three areas was fit.

Table 3. Fit statistics of final 9-scale items

x2	df	NFI	CFI	GFI	AGFI	RMSEA
77.638	24	.981	.987	.984	.969	.047

Figure 1. Result of confirmatory factor analysis
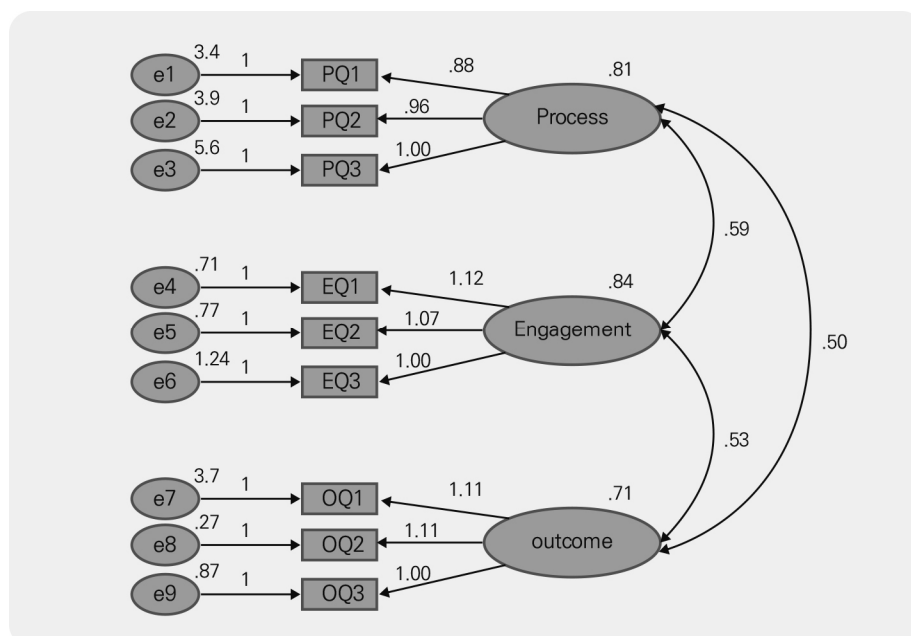
D. Reliability Assessment

The reliability of internal consistency was assessed with Cronbach's alpha. The Cronbach's alpha of the nine questions was 0.876 with a high level of reliability. Considering the reliability coefficient of each subcategory, it was 0.834 for "process quality," 0.826 for "outcome quality," and 0.763 for "engagement quality," and exceeded the base value of 0.06 in all areas (see Table 2). Therefore, all nine questions and three components of this quality scale were found to be reliable.

E. Predictive Value of Service Quality for Disabled Adults (SQDA)

In the final stage of scale development, the author sought to examine how the SQDA predicted user behavior, as the measurement was designed to do. According to Zeithaml, Berry, and Parasuraman (1996). the behavioral intention variables play an important role in assessing the nomological validity of service quality measurements.

This study considered user satisfaction and loyalty intentions for the predictive validity of the SQDA. For user satisfaction, it asked, "Were you satisfied with the service overall?" and for loyalty intention, "Will you use this service again in the future?" The statements were assessed using the same scale, with endpoints "strongly disagree"(1) and "strongly agree"(7).

The causality between service quality and satisfaction, and between service quality and behavioral loyalty, was significant. The results are shown in Table 4. It was found that service quality affects both satisfaction and loyalty. As this model's fitness also showed R2 greater than 0.2, it was valid. Therefore, SQDA can be used as an important indicator to predict behavioral loyalty as well as satisfaction.

Table 4. Relationship of SQDA to user satisfaction and loyalty

Construct	User Satisfaction	User Loyalty
Service quality for disabled adults (SQDA)	.681(28.929)***	.536(19.747)***
Conatant	.880	2.294
R2	.463	.287
n	971	971

Note: Each model's value is regression value beta (t value) under standard *** p<.001

Ⅳ. Conclustion

The purpose of the present study was threefold: (i) to discuss the limitation of the 5-dimensional SERVQUAL model, and the application of Groenroos' 2-dimensional model, and Rust and Oliver's 3-dimensional model; (ii) to develop and test SQDA, a service quality scale for the disabled, considering the characteristics of social service; and (iii) to test the relationship of service quality measured by SQDA with satisfaction and loyalty.

The SERVQUAL model, which is currently the most widely used service quality scale, has been criticized for being too process-centered and not able to include all the various services of the modern society. This study applied SERVQUAL to the social care service for the disabled. This study's social service quality scale for severely disabled adults is significant, as it assessed the validity and reliability of the improved outcome quality and engagement quality of the SERVQUAL model, and developed a quality scale for the disability service of social care service.

This study also examined the quality-satisfaction-loyalty chain to discuss the efficacy of research models' predictions of consumer behavior in social care service settings. Most preceding studies on service quality discussed the relationship between customer satisfaction and behavioral intentions, with an emphasis on market services or the public services of the government, whereas this study's proposed framework

supports extensions to the quality-satisfaction-loyalty chain (Service Quality → User Satisfaction → Reuse intension) in the social care service contexts (Ennew and Binks, 1999).

This study's social service quality scale for disabled adults (SQDA) has a number of managerial benefits, in contrast to SERVQUAL. First, for the convenience of disabled people who have difficulties responding to surveys, it asks only a few questions. The SQDA model's quality components included nine questions in three areas, compared to SERVQUAL's 22 questions in five areas. This survey can be applied to a greater number of disability service institutions, within a shorter period of time. Second, SERVQUAL's configuration was too focused on the service process, and managerial implications were limited. The SQDA model includes outcomes and engagement for managerial interests regarding quality components. In other words, the SQDA model can make a more inclusive contribution to service quality management for the disabled, compared to the SERVQUAL model. Third, the quality of disability service can be measured as an area of service and compared with other areas. SERVQUAL is currently the most widely used quality scale in all areas of service, and customized versions are being developed for each area. The revised quality scale based on SERVQUAL makes it easier to compare the care service area with other service areas.

In conclusion, this study examined SERVQUAL and revised it to fit the characteristics of disability service in social care service, to develop a social service quality scale for severely disabled adults (SQDA). The goal was to develop a tool that was easy for disabled users to use, while providing useful managerial information. The model developed for this study reinforces the quality component of "engagement." It reflects changes in policies concerning social care service from provider-centered to consumer-centered, which is important because consumer-centeredness for the disabled is ultimately related to the discussion of an independence paradigm for the disabled. This study argues that engagement in the quality of social care service is an important component of the quality perceived

by users, as the users actively engage in the provision of services.

This study has several limitations. First, it was focused on the development of a new quality scale, and did not comparatively assess fitness with the SERVQUAL model. The new scale should be comparatively analyzed with the SERVQUAL model in the future. Second, the satisfaction and loyalty variables used for the substantial analysis of the expected outcome of service quality were indirectly measured based on the subjective judgment of service users. In the future, objective data, such as the improvement of perceived welfare, and the selection of actual service, should be used to assess the new model directly.

박수지는 연세대학교 사회복지학과를 졸업하고, 동 대학 일반대학원에서 사회복지학으로 석사학위를 취득하였다. 이후 독일 Justus-Liebig대학에서 사회정책학으로 박사학위를 취득하고, 현재 강릉원주대학교 사회복지학과 교수로 재직 중이다. 전공분야는 사회서비스 정책이며, 주요 관심 분야는 품질관리, 장애인서비스, 사회적 경제 등이다.

(E-mail: susiepark@gwnu.ac.kr)

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장애인서비스 품질 측정을 위한 척도 개발 연구

박 수 지

(강릉원주대학교)

본 연구는 장애인 대상 서비스 품질 측정도구의 항목을 개발하고 측정도구 항목의 타당성과 신뢰성을 검증하는 것을 목적으로 한다. 이를 위해 우선 서비스 척도로 가장 널리 사용되고 있는 SERVQUAL모형의 항목을 고찰하고 이를 성인 장애인 대상 서비스의 특성에 맞게 수정, 보완하여 총 9개 항목을 개발하였다. 조사를 위해 보건복지정보개발원의 협조를 구하여 대상을 선정하였다. 연구자는 지역별 인구수, 재정자립도, 등록 장애인 수를 종합하여 중위권 지역으로 대도시 4개 지역, 중소도시 4개 지역, 농어촌 3개 지역 총 11개 지역의 총 100개 기관 1000명을 대상으로 설문조사를 실시하였다. 이 중 18세 이상 장애인 971명이 결과분석에 사용되었다. 본 척도의 검증결과는 다음과 같다. 우선, 표본의 적절성을 알아보기 위해 Kaiser-Meyer_Olkin과 Bartlett의 구형성 검증을 실시하였다. 검증 결과 KMO=.884, X^2=4162.485(p<.001)로 나타나 요인분석을 시행하기에 적합한 것으로 나타났다. 요인분석 결과 고유값이 0.9이상인 요인으로 총 3개의 요인이 추출되었으며 이를 각각 '과정', '참여', '결과' 품질로 명명하였다. 이후 추출된 3개 요인의 확인적 요인분석 결과 X^2=77.638, p<.05로 유의하게 나타났으며, 적합도 지수 RMSEA=.047, GFI=.984, CFI=.987를 통해 모형의 하위문항 구성이 적합함을 평가하였다. 본 연구는 SERVQUAL 22개 문항을 서비스 성격에 맞게 9개 문항으로 줄여 장애인 대상 조사의 편의성을 높였다는 점, SERVQUAL의 '과정' 중심의 평가 항목에 '참여'와 '결과' 품질을 추가하여 정책적 활용의 가능성을 높였다는 점, 성인 장애인 대상 서비스 영역에서도 품질-만족도-충성도의 관계가 유효하다는 점을 증명하였다는 점에서 의의가 있을 것이다.

주요 용어: 척도개발, 장애인서비스, 서비스 품질, 이용자 중심주의