

Case Study

To help you understand how to use the QUEST worksheets, a case study is presented below. This case study involves occupational therapy services provided at rehabilitation center for challenged children.

Facility Information:

Clients: Children (0-18 years old) living in the targeted area of K city
Services: Individual intervention, special preschool (group), school/preschool visits (consultation)
Purpose: Provide occupational therapy to children who have developmental concerns or delays
Number of occupational therapists (full-time and part-time): 5 full-time occupational therapists

Before completing the QUEST worksheets, a SWOT analysis was conducted to identify strengths, opportunities, weakness, and threats relating to the occupational therapy services provided for patients. The SWOT analysis was undertaken to develop an understanding of the overall positive and negative issues faced by the occupational therapy service.

Results of the SWOT analysis outlined below:

Strengths	Weaknesses
<ul style="list-style-type: none"> • Able to see the child outside of the training room (in a group) • Occupational therapy is required in many situations because activities of daily living are included in the demands of group living setting • Easy to make relationships with local health care providers and offices • Able to deal with a variety of cases (diagnosis and family situations), including group and individual cases 	<ul style="list-style-type: none"> • Lack of medical care environment (x-rays) makes medical examination and intervention impossible (need to refer to another hospital) • Limited space in the training room (max.2 pairs) →limited opportunities for individual intervention • Since it is an individual service, it is difficult to be seen from the outside (in terms of risk management) • Providing occupational therapy to a diverse client requires knowledge and experience • Due to the small number of OTRs, the number of years of experience of senior OTRs is also limited (many of them are young)
Opportunities	Threats
<ul style="list-style-type: none"> • Opportunities to be involved in research and presenting case studies • Able to participate in training programs (especially online) • Pediatric training programs are only few • Limited continuous educational opportunities 	<ul style="list-style-type: none"> • Few services accepting children with medical care or severe conditions (difficult to accept) • There is an overflow of information, and the demands of mothers are becoming more complex • The number of children in the community is increasing, and children with disabilities are not being cared for and seem to have difficulty living

in the community

- Special needs schools are over capacity and children with severe conditions are also placed in special needs classes

From the SWOT analysis, quality issues were identified to focus the development of SMART indicators on significant concerns that impact the delivery of occupational therapy services. The quality issues identified are outlined below.

Quality Dimensions	Quality Issues
APPROPRIATENESS	<ul style="list-style-type: none"> • Although there are opportunities to participate in research and presenting case studies, there are only few continuous education programs for pediatrics. Also, small number of OTRs in one workplace limits opportunities to participate the continuous education program.
SUSTAINABILITY	<ul style="list-style-type: none"> • Regarding human resources, there are many OTRs in the child-rearing generation, and it is difficult to provide continuous services while maternity and childcare leaves.
ACCESSIBILITY	<ul style="list-style-type: none"> • Due to limitations in personnel (number of OTRs) and environment (size of OT room), it is difficult to provide services to all children attending special preschool (about 200 children). We are not able to deal with those who have needs. The need (priority) is often determined on a medical basis • It is difficult to make appointments during after-school hours and on weekends, as there are many applicants for the service
EFFICIENCY	<ul style="list-style-type: none"> • Since there are various tasks such as individual intervention, preschool, feeding, and home visits, it is necessary to coordinate time efficiently • Children often cancel on short notice, and sudden changes in schedules often occurs
EFFECTIVENESS	<ul style="list-style-type: none"> • Difficult to clearly indicate whether the differences are the child's own development or the effects of OT intervention • When there is a gap between the mother's needs and the child's condition, the mother's feeling of achievement does not always match, even if the goal as OTR has been achieved
PERSON-CENTREDNESS	<ul style="list-style-type: none"> • Since child satisfaction cannot be measured quantitatively, it is assessed in behavioral terms • When the mother's needs are difficult to achieve (in balance with disability acceptance), satisfaction is difficult to be obtained • It is difficult to assess the satisfaction level of mothers when their needs are unclear
SAFETY	<ul style="list-style-type: none"> • Since it is an one-on-one intervention, it is difficult to be seen from the outside (in terms of risk management) • Easily injured because play (gross motor activity) is used as a means of treatment






Step 1: Determine quality expectations



Consider the viewpoint of others for your services such as people receiving services, referral sources and funding agencies. Sample questions for consideration are provided for each quality dimension.

<p>APPROPRIATENESS :</p> <p>What knowledge and skills are necessary to ensure the right services are provided at the right time and right place to the right person?</p>	<p>Input: Participate in the new continuous education program by JAOT. Participate in incumbent training and specialized OT seminars related to pediatrics (special needs education, feeding). Participate in national congresses (JAOT, Society of Pediatrics Occupational Therapy, Academy of Sensory Integration, Bobath-Voita, etc.)</p> <p>Output: Lecture for parents in the preschool → Give lectures at parent meetings and presenting case studies at congresses, etc.</p> <p>In a span of about 10 years</p>
<p>SUSTAINABILITY :</p> <p>What resources are required for long term service provision?</p>	<ul style="list-style-type: none"> • Human resources are secured to provide continuous services while OTRs of child-rearing generation take maternity/childcare leave
<p>ACCESSIBILITY :</p> <p>What are acceptable timelines and costs for service?</p>	<ul style="list-style-type: none"> • Clients who are prescribed occupational therapy should be able to make the first appointment for the therapy within a month
<p>EFFICIENCY :</p> <p>What are productivity expectations relating to use of resources (e.g. staffing and equipment)?</p>	<ul style="list-style-type: none"> • Workers are expected to coordinate their work efficiently in their own way and finish work within their working hours.
<p>EFFECTIVENESS :</p> <p>What research evidence guides the provision of service?</p>	<ul style="list-style-type: none"> • The goals of the rehabilitation plan must be achieved within the timeframe
<p>PERSON-CENTREDNESS :</p> <p>What do people receiving services want?</p>	<ul style="list-style-type: none"> • Parental satisfaction on the goals of the rehabilitation plan • Satisfaction of the children with the occupational therapy program
<p>SAFETY :</p> <p>What are expectations relating to safety? What are significant risks to safety?</p>	<p>Safety requires compliance with the following:</p> <ul style="list-style-type: none"> • Client is comfortable with the occupational therapy intervention • In a safe environment, the client is carefully considered for therapeutic risks

Step 2: Define SMART indicators

Identify SMART indicators that measure performance in relation to quality expectations

QUALITY DIMENSION	CORE QUALITY INDICATORS	SMART QUALITY INDICATORS	QUALITY PERSPECTIVE
APPROPRIATENESS	Availability of competent occupational therapists	<p>As Input:</p> <ul style="list-style-type: none"> • Complete the new continuous education program and incumbent training by the end of the third year • Attend at least one congress per year (JAOT, Society of Pediatrics Occupational Therapy, Academy of Sensory Integration, Bobath-Voita, etc.) • Participate in seminars (e.g., IT support) considered clinically necessary <p>As Output:</p> <ul style="list-style-type: none"> • Lecture for parents in the preschool, give lectures at parent meetings and presenting case studies at congresses, etc. (by the 10th year) 	 <p>Structure</p>
SUSTAINABILITY	Long term supply of resources	<ul style="list-style-type: none"> • Meets human resources for continuous service provision 	 <p>Structure</p>
ACCESSIBILITY	Ability to access services	<ul style="list-style-type: none"> • Average number of waiting days before a client who has been prescribed occupational therapy actually receives an initial occupational therapy assessment 	 <p>Process</p>
EFFICIENCY	Optimal use of resources	<ul style="list-style-type: none"> • Coordinate work efficiently in one's own way and finish work on time 	 <p>Process</p>
EFFECTIVENESS	Success in attaining occupational therapy goals	<ul style="list-style-type: none"> • Achievement of the plan's goals within the timeframe 	 <p>Outcome</p>

<p>PERSON-CENTREDNESS</p>	<p>Satisfaction throughout service delivery</p>	<ul style="list-style-type: none"> • Parental satisfaction with the plan's goals within the timeframe • Satisfaction of children with occupational therapy program 	 <p>Outcome</p>
<p>SAFETY</p>	<p>Incidents resulting in harm</p>	<ul style="list-style-type: none"> • Number of near-misses and incidents of injuries and other adverse events of clients during occupational therapy interventions 	 <p>Outcome</p>

Clarify each SMART indicator and the source of information, calculation method, definition, and reporting. SMART indicators should be established with Specific, Measurable, Agreed upon, Relevant, and Timely in mind.

CORE INDICATOR AVAILABILITY OF COMPENTENT OCCUPATIONAL THERAPISTS	
Quality Dimension:	APPROPRIATENESS
SMART Indicator:	As Input: <ul style="list-style-type: none"> • Complete the new curriculum and incumbent training by the end of the third year • Attend at least one congress per year (JAOT, Society of Pediatrics Occupational Therapy, Academy of Sensory Integration, Bobath-Voita, etc.) • Participate in seminars (e.g., IT support) considered clinically necessary
Calculation:	Number of seminars and congresses attended/year
Definitions required:	Continuous education programs sponsored by OT Associations
Potential data sources:	Membership Portal record on the Association's website

CORE INDICATOR AVAILABILITY OF COMPENTENT OCCUPATIONAL THERAPISTS	
Quality Dimension:	APPROPRIATENESS
SMART Indicator:	As Output: Lecture for parents in the preschool, give lectures at parent meetings and presenting case studies at congresses, etc. (by the 10 th year)
Calculation:	Number of lectures for parents and congress presentations
Definitions required:	Lecture for parents in the preschool; mini-lectures for small groups
Potential data sources:	Fiscal Year-End Summary

CORE INDICATOR LONG TEAM SUPPLY OF RESOURCES	
Quality Dimension:	SUSTAINABILITY
SMART Indicator:	Meets human resources for continuous service provision
Calculation:	Number of occupational therapists, number of credits, etc.
Definitions required:	Human resources for continuous service provision: whether or not staff capacity is met
Potential data sources:	Working records, control ledgers, and summaries
Countermeasure:	Accepting students as placement practice to help recruit new employees. Calling experienced consultants

CORE INDICATOR ABILITY TO ACCESS SERVICE	
Quality Dimension:	ACCESSIBILITY
SMART Indicator:	Average number of waiting days before a client who has been prescribed occupational therapy actually receives an initial occupational therapy assessment
Calculation:	Number of days from the time the occupational therapy prescription was issued to the initial assessment (days)
Potential data sources:	Electronic clinical record
Countermeasure:	For clients who are assigned to a specific day of the week, more than one staff member should be in charge

CORE INDICATOR OPTIMAL USE OF RESOURCES	
Quality Dimension:	EFFICIENCY
SMART Indicator:	Coordinate work efficiently to finish tasks with one's working hours
Calculation:	Overtime hours/month
Definitions required:	Tasks (individual intervention, preschool, feeding, and home visits, etc.)
Potential data sources:	Monthly report (intervention in preschool, number of visits, number of credits, etc.)
Countermeasure:	Miscellaneous tasks (e.g., report writing) should be completed when there are cancellations. Coordination tasks (exchanging information with the preschool) are done by internal e-mail to save time.

CORE INDICATOR	LONG TERM SUPPLY OF RESOURCES
Quality Dimension:	EFFECTIVENESS
SMART Indicator:	Achievement of the plan's goals within the timeframe
Calculation:	Degree of achievement of the goals stated in the plan (out of 10 points)
Definitions required:	<p>Plan: Rehabilitation plan, MTDLP Assessment Sheets</p> <p>Occupational Therapy Goal: For the physical disability, the patient will be able to use the affected side of the body. For the IT assistance, the patient will be able to operate switches. For eye input assessment, the patient will be able to move his/her gaze in accordance with the indicators, etc. In developmental disorders, the patient will be able to use specific tools (e.g., scissors). In writing, the ability to hold three fingers, use the joints of the hand, and so on.</p> <p>Time period: Set and reviewed every 3 months. May be discussed with other professionals (PT, etc.). Decided by agreement with the parents.</p>
Potential data sources:	Rehabilitation plan, MTDLP Assessment Sheets

CORE INDICATOR	SATISFACTION THROUGHOUT SERVICE DELIVERY
Quality Dimension:	PERSON-CENTREDNESS
SMART Indicator:	Parent satisfaction with the plan's goals within the timeframe
Calculation:	Average satisfaction (on a 10-point scale) with the goals stated in the plan
Definitions required:	<p>Plan: Rehabilitation plan, MTDLP Assessment Sheets</p> <p>Occupational Therapy Goal: For the physical disability, the patient will be able to use the affected side of the body. For the IT assistance, the patient will be able to operate switches. For eye input assessment, the patient will be able to move his/her gaze in accordance with the indicators, etc. In developmental disorders, the patient will be able to use specific tools (e.g., scissors). In writing, the ability to hold three fingers, use the joints of the hand, and so on.</p> <p>Time period: Set and reviewed every 3 months. May be discussed with other professionals in charge (PT, etc.). Decided by agreement with the parents.</p>
Potential data sources:	Rehabilitation plan, MTDLP Assessment Sheets
Countermeasure:	<p>If the parent's need is uncertain, it is difficult to gain understanding even if the therapist explains it, but the parent may not have enough time in his/her own life, so the therapist should present it in writing and be there for the parent without rushing.</p> <p>If the needs of the parents are difficult to achieve, it may be helpful to have the medical doctor talk to the parents to get their agreement on setting achievable goals.</p>

CORE INDICATOR SATISFACTION THROUGHOUT SERVICE DELIVERY	
Quality Dimension:	PERSON-CENTREDNESS
SMART Indicator:	Children's satisfaction with occupational therapy programs
Calculation:	Number of times the child appears satisfied
Definitions required:	<p>State of satisfaction: spontaneous behavior, secure and stable both mentally and physically</p> <p>Child's state of satisfaction: child participates/performs without refusal (reaches out on his/her own), facial expressions (anxious, good at what he/she does, at ease), speech and behavior (says what he/she wants to do next), vital signs (SPOs, BPs, etc.)</p>
Potential data sources:	Medical records

CORE INDICATOR INCIDENTS RESULTING IN HARM	
Quality Dimension:	SAFETY
SMART Indicator:	Number of near-misses and incidents of injuries and other adverse events during occupational therapy interventions
Calculation:	Number of near-misses and other adverse events
Definitions required:	<p>Subject's injury: physical pain requiring medical intervention</p> <p>Near-miss: An event that does not lead to an adverse event but is one step short of a direct cause</p>
Potential data sources:	Near-miss Sheets and Accident Report Forms