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Enhancing Care of Children with Disabilities in China

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Enhancing Care of Children with Disabilities in China

Description
Working with children with disabilities in China in order to benefit therapeutic outcomes and also teach and train therapists and caregivers has been a yearly project for Pacific University staff and students since 2008.

Since 2009 the project has grown and continues to develop. In 2010 a Pacific team of OT and PT professors spent five days at the (Third Military Hospital) TMH and two days at the Social Welfare Institute (SWI) providing trainings. The first visit by recently graduated OT students, a current PT student and a special education professor, along the OT and PT professors, was made in 2011; this group spent five days at TMH and five days at SWI.

This year, 2012, saw the first visit made by current OT students and, because the team had grown so large, it was split into two travelling groups. Pacific’s first group, which included two OT students, and OT and special education professors, travelled in the spring, spending five days at TMH providing staff trainings through hands-on observational and didactic teaching, and five days at SWI, providing further training to caregivers and therapists. Pacific’s second team will travel in July 2012 and will follow-up on trainings and information provided in the spring, as well as making in-roads to establish an early childhood degree curriculum. Both teams worked together to create teaching material, such as a feeding and positioning poster for infants with cleft palate, and gather donations of toys and dress-up clothes for children at SWI.

Although the size and level of detail has developed from the original 2009 visit, the overall goal of the project remains the same, and that is to continue to provide collaboration, education, training and support to caregivers at SWI and TMH in order to increase children's educational, physical, cognitive and social outcomes. Although much work has been completed and progress made by Pacific’s team and by our partners in China, there is still progress to be made and new avenues explore. It is with this understanding and spirit that Pacific, with our partners in China, will continue to meet yearly and cultivate the project to support children with disabilities.

Disciplines
Occupational Therapy | Rehabilitation and Therapy

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ENHANCING CARE OF CHILDREN WITH DISABILITIES IN CHINA

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## Table of Contents

Author Biographies .................................................. 1  
Project Background .................................................. 2  
Gaining a Cultural Perspective .................................... 5  
Healthcare in China .................................................. 13  
  Healthcare in China (ppt) ........................................ 16  
  Occupational Therapy in China (ppt) .......................... 25  
  Traditional Chinese Medicine (ppt) ............................ 30  
  Kawa River Model (ppt) .......................................... 33  
  Community Built Model of Practice (ppt) ..................... 39  

Curriculum .............................................................. 45  
  Introduction to Curriculum ...................................... 45  
  **Unit 1: Development** .......................................... 46  
    Developmental Milestones Chart .............................. 46  
    Infant Reflexes .................................................. 50  
  **Unit 2: Conditions** ............................................. 52  
    Down Syndrome ................................................ 53  
    Cerebral Palsy .................................................. 58  
    Infants in the NICU ............................................. 63  
    NICU Best Practices (ppt) ..................................... 64  
  **Unit 3: Assessment** ............................................. 71  
    Recommended Assessments .................................... 73  
  **Unit 4: General Positioning and Handling** ............... 74  
  **Unit 5: Daily Participation and Adaptations** ............. 79  
    Positions for ADLs ............................................ 87  
    Activity Analysis Worksheet .................................. 88  
    Feeding Poster for Infants with Cleft Palate ............... 89  
    Scales of Oral-Motor Development ............................ 90  
    Adaptations ..................................................... 97  
  **Unit 6: Play** ...................................................... 99  
    Self-Assessment of Playfulness ................................ 108  
    Self-Reflection Form .......................................... 109  
  **Unit 7: Intervention Ideas** .................................. 110  
    DIR/Floortime Brochure ...................................... 111  

Conclusion ............................................................ 113  
Power Point Presentation ............................................ 116  
References ............................................................ 127
Author Biographies

Esje Woolfe will graduate in May 2012 with her Master's of Occupational Therapy. Born into a family of health practitioners and educators, she has always been drawn to helping others. In high school she volunteered at Providence Child Center to work with the medically fragile pediatric residents. In college she completed her senior capstone as a counselor for the Mt. Hood Kiwanis Camp for children and adults with disabilities and then began her education at Pacific University to become an occupational therapist. She is passionate about her involvement with this project and plans to pursue a career as a pediatric occupational therapist.

Mackenzie Schack will graduate in May 2012 with her Master's of Occupational Therapy. She has a range of cultural experience as she has travelled to many countries including nine months living in Morocco. She devoted her time to studying the language (Moroccan Arabic) and working in a pediatric physical therapy clinic. In addition she spent the summer of 2007 working in an orphanage in Malawi. Mackenzie hopes to utilize her education and experiences to serve in a country in need of further development of health care/therapy services.

Kristia Halverson will graduate in May 2012 with her Master's of Occupational Therapy degree from Pacific University in Hillsboro, Oregon. Kristia's interest and passion for learning about and working with infants led her to pursuing a career in occupational therapy. She is excited to be involve in this project and provide therapy to underserved children, as well as increase her experience in working with infant populations.

Elizabeth Chau will graduate in May 2012 with her Master's of Occupational Therapy degree from Pacific University in Hillsboro, Oregon. Growing up with an aunt with cognitive and physical disabilities gave Elizabeth a passion to help people with disabilities and led her onto a career path in occupational therapy. She is interested in working with children with disabilities, particularly in the school system. Her interest in cross-cultural experiences and health care interactions led her to be involved in this project.
Project Background

Working with children with disabilities in China in order to benefit therapeutic outcomes and also teach and train therapists and caregivers has been a yearly project for Pacific University staff and students since 2008. The project was started in 2008 through networking between Mandy Littlewood, at the time an occupational therapy master’s degree student and Kathlene Postma, whose daughter was adopted from China, and a Pacific University professor (Culver & Littlewood, 2011).

Kathlene, being co-founder of a group, Fuling Kids International, which provides support to her daughter’s orphanage, saw a need for increased caregiver training to benefit outcomes for children living at the orphanage in Fuling, China. Mandy introduced Kathlene to professors from the occupational therapy department and, eventually, the discussion grew to include other disciplines from the college, such as physical therapy and special education (Culver & Littlewood, 2011).

Fuling Kids International (FKI) is a United States-based non-profit group which began partnering with the Social Welfare Institute (SWI), or orphanage in Fuling, China, in 2001. FKI’s mission is to provide education and support for children at the orphanage and also support the families who adopt from SWI. FKI aids the orphanage in creating programs that fulfill the vision of FKI parents and also the recommendations of multidisciplinary specialists that the group consults (Culver & Littlewood, 2011).

SWI sits on a beautiful site above the city of Fuling and looking over the countryside. Their buildings, constructed in 2008, house infants and children and also elders in foster care who are on-site, but in a separate building. SWI is currently experiencing an increase in the number of children being brought to the orphanage with disabilities. Most of these children, who
have cognitive and/or physical disabilities, will be long-term residents of the orphanage. It is the goal of SWI to provide excellent care for all children and to place as many as possible into happy homes. One of SWI’s continuing challenges is the limited knowledge and experience their caregivers have in working with children with disabilities (Culver & Littlewood, 2011).

A team from Pacific University, made up of occupational therapy (OT) and physical therapy (PT) professors made their first trip to China in 2009. Unfortunately, the team was not allowed admittance into the orphanage because of the Swine Flu epidemic, but they were able to give staff trainings at the Third Military Hospital in Chongqing, a city approximately 2 hours away from Fuling (Culver & Littlewood, 2011).

The Third Military Hospital (TMH) houses a large children’s unit, which includes acute care and rehabilitation centers. The rehabilitation unit is comprised of rooms for OT, PT, speech therapy, special education and traditional Chinese medicine. Children receiving therapy often receive several disciplines in 1-hour increments back-to-back and receive these appointment blocks several times a week, a more intense therapy regimen than what is practiced in the United States. Pacific’s team first visited the hospital in 2009 and provided training to pediatric rehabilitation doctors and therapists.

Since 2009 the project has grown and continues to develop. In 2010 a Pacific team of OT and PT professors spent five days at TMH and two days at SWI providing trainings. The first visit by recently graduated OT students, a current PT student and a special education professor, along the OT and PT professors, was made in 2011; this group spent five days at TMH and five days at SWI.

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disabilities.
Gaining a Cultural Perspective

With technological advances, the ease of access between countries has become a predominant feature in today's society. Connections are being built around the world as countries work together and as people travel between them. As such a trend has developed cultural competency has been developed. Culture is defined as living patterns that develop from and are dictated by values, beliefs, and norms (Ekman & Emami, 2007). To those within the culture, these behaviors are automatic and often believed to be rational. Those who do not necessarily adhere to these patterns are seen to have a problem, whether it is a disability, rudeness, or social incompetence. Going to China and working in the Third Military Hospital and Social Welfare Institute in Fuling is not only about the children, but it is also about crossing cultures and intercultural collaboration. In this project, Chinese and American cultures are intermingled as the team brings American customs and Westernized theories and practices to work with the Chinese doctors, parents, caregivers, and children in their own culture. A key to intercultural collaboration is understanding the cultures interacting and approaching both of them with respect.

Chinese culture is an ancient culture based on thousands of years of experience and wisdom. While in terms of science, industry, and healthcare the Chinese are investing in becoming more and more Western, those roots run deep (Hu et al., 2008). Much of Chinese culture comes from Confucianism (Chang & Hsu, 2006). Taoism and Buddhism are prominent religions in the history of China and also play major roles in their value system. All three belief systems aim at achieving balance and harmony to achieve wellness of self and wellness of community. To achieve harmony one must work as a group and put group ideas and goals ahead of their own (Lee & Weiss, 2009). It is through this belief that there is such a strong value of
family. Family comes before the individual (Chang & Hsu, 2006; Lee & Weiss, 2009). There is an old Chinese saying that says "a harmonious family can accomplish anything." Heirarchy within the family system places the father as the head. Men are dominant, are the providers, as the women are viewed as helpers, the caregivers (Chang & Hsu, 2006; Zhu et al., 2007). Everyone has a responsibility (Chang & Hsu, 2006). As primary caregivers, mothers tend to be attentive to the physical needs of the child (Zhu et al., 2007). There is an emphasis on physical well-being. Since there is such a strong desire for harmony and balance, there is passivity in terms of having a differing view from authority (Lee & Weiss, 2009).

Chinese tend to be very private individuals, particularly when it comes to their problems (Chang & Hsu, 2006). They do not involve outsiders and generally look to their families for support. There is also a strong value place on self-control. Emotions are suppressed and passivity is the method of choice when dealing with contradicting views as there is such a strong emphasis on harmony. Self-assertion is discouraged (Jankowiak, Joiner, & Khatib, 2011). There is a strong sense of duty and honor (Hsieh, Huang, Lin, Wu, & Lee, 2009). The way to bring honor to the family is to provide a legacy for the family name to live on.

To have a successful life is to have a good education and to be industrious (Parmar, Harkness, & Super 2004). This is based on an old Confucian saying, "ye jing yu quin hung yu xi; Industry becomes fine because of hard work and is deserted because of play" (Wu & Rao, 2011, p. 471). Academic success and industry is built into the culture and engrained in individuals.

Views of disability are shaped from the idea of karma (Chang & Hsu, 2006). It is believed that disability, particularly a child with a disability, is karma for a past sin or sins committed by ancestors or parents (Chang & Hsu, 2006; Hu, Wang, & Fei, 2012). Thus,
particularly when a child is born with a disability there is shame for the sin as well as a lot of parental guilt. Lo et. al. (2007) found that despite the stigma and shame society puts on people with a handicap, persons with disability in China put a high emphasis on physical independence and their own ability to occupy their time. This stems from values of autonomy, self-reliance, and a sense of control.

The United States of America is known as a melting pot. Cultures are blended together and this country has only been around for less than 300 years. While there is a conglomerate of cultures mixing together, Western thought is pervasive. Self-expression is encouraged and many societal supports are in place for that in the form of counseling. There is a focus on the individual and individual's goals. There is also a strong sense of competition as everyone tries to climb to the top. The question is often, can we do it faster (Gottman, Shapiro, & Hedenbro, 2006). At the same time, from the mix of cultures there is a strong sense of acceptance and forgiveness for differences. In American lives there is much to balance from work and making money to raising a family. With this blend of cultures and drive for individual goals comes a difficulty of focus in regards to values.

Spring team member, Kristia Halverson shared,

The first thing I learned is never to just casually hand another person money. Money is respectfully presented to everyone, even the grocery store cashier, with both hands and with intent. I was so embarrassed thinking back on the other times when I carelessly handed over bills without another thought, how rude I must have seemed.

There are many ways cultures can differ. One of the main ways is through means of expression (Qureshi & Collazos, 2011). Differences can range from signs of distress, emphasis on context,
hierarchy, and expectations. An area that often shows communication breakdown is high versus low context. Low context means to say what you mean. There is little value on interactions. High context means the meaning of what is being communicated is not only literally, but through cues are gathered from body language, vocal tone, etc.

A main difference between Chinese and American cultures is that Chinese culture is traditional while American culture is modern. Qureshi and Collazos (2011) summed up the differences between traditional and modern cultural systems well. In a traditional culture, God is the center, so what happens is "beyond human control (p.11)," and externally controlled. Time is viewed as fluid and inexact. An individual's identity is in the group as a whole, and power is distributed hierarchically. Roles are set and human relations are formal. Self-disclosure tends to be minimal and stays within the family. Values are relational. Modern cultures center around the human being, hence what happens is understandable and controllable, is controlled internally. Time is precise. Identity lies in the individual and families are nuclear. Power is divided and relationships are informal. Roles are chosen. There is a lot of self-disclosure and values are placed on the task.

Keeping these ideas of the difference of modern versus traditional cultures in mind, there are many differences between Chinese culture and American culture. Americans in general can be viewed as confrontational. There is high value placed on self-expression and freedom of speech. In China, there is high value placed on harmony and balance, for which self-expression is not always conducive. So individuals are trained to be passive and value is placed on self control. There has been noted views that Chinese tend to withdraw from arguments or disagreements (Parmar, Harkness, & Super, 2004). Along the lines of self-control and discouragement of self-expression, affection is shown differently. Chinese individuals will show
affection by doing, whereas Americans will show affection through holding and hugging (Lee, Kim & Chen, 2010). Chinese emphasize emotional control whereas Americans emphasize honest expression (Wise & da Silva, 2007). Since there is a high emphasis on honor, family, hierarchy, and the group as a whole, Chinese tend to use guilt and corporal punishment as a means of punishment for discipline (Jankowiak, Joiner, & Khatib, 2011). Whereas Americans utilize reasoning. There is even a difference in developmental expectations (Wise & da Silva, 2007). In Chinese culture, mobilization and completing daily living activities is expected later than in American culture.

In terms of play, Chinese put an emphasis on academics. Value of play emanates from the Confucian quote about industry earlier stated, and play is not valued while play in America is highly valued and encourages exploration (Parmar, Harkness, & Super, 2004). This is evident not only in the classrooms but also in the sheer amount of toys. In Chinese families, children tend to have fewer toys that go in a designated space, while American children have oodles of toys filling a play room. Chinese children tend to choose quiet activities. Another cultural difference noted is the value of saying please, thank you, and sorry. While Americans highly value these phrases and say it often and sometimes all the time, Chinese view this as only needed for outside the family--to strangers.

After travelling to China, Esje Woolfe, one of the spring team members noted, "While traveling in China I encountered cultural differences ranging from food etiquette to beliefs regarding how one acquires a cold." As there is an emphasis on physical well-being, there is a high value on warmth. It is believed that one can catch a cold from being sick, so mothers wrap their children in layers of clothing (Zhu et al., 2007).

Upon reflection, Halverson, shared this insight.
The second my American group and I de-boarded the plane the new culture was in full swing with masses of people going every which way, lining up and everybody seeming to know where to go, besides us. It was a beautifully organized and peaceful chaos. This theme continued throughout many aspects of our trip, especially when crossing the street or driving in the car. I began to realize that, although it was my intent to enter this culture with no expectations, that I certainly came with plenty. This new culture was much different than mine, with completely different manners and expectations, so I better learn a few things and get in the game...What was not different was the basic human communication of smiles and mutual interest in another person; I am hoping I eked by on this.

In two cultures working together, some key values to keep in mind are "mutual respect, equal recognition of knowledge, willingness to interact, and flexibility to change as a result of these interactions" (Mignone, Bartlett, O'Neil & Orchard, 2007, para. 2). As individuals working in collaboration with other cultures one needs cultural awareness, competence, knowledge, and sensitivity (Taylor et al., 2011). These all involve knowing one's own culture, values, and beliefs as well as the other culture's. Cultural sensitivity entails the individual characteristics developed and needed for intercultural collaboration: empathy, interpersonal communication skills, trust, acceptance, appropriateness, and respect. Best practice characteristics of an intercultural health practice are that the program can continue, is responsive and relevant, is client-focused, improves patient access to healthcare, coordinates and integrates, is efficient and flexible, demonstrates leadership, is innovative, could be replicated, identifies health and policy needs, and can be evaluated (Mignone, Barlett, O'Neil & Orchard, 2007).

Along the lines of mutual respect, it is important to remember that culture does not say
anything about insight or scientific understanding, rather it shows tendencies in behavior and day
to day life (Quershi & Collazos, 2011). Currently, Chinese are westernizing their healthcare
system (Hu et al., 2008). They are creating more of a market economy with health insurance and
the government investing more money into coverage and advances in health care. They are also
developing regulating bodies for doctors to ensure quality of care is provided to health
consumers (Bloom, Kanjilal, & Peters, 2008). It is from this idea and integrated with the culture
that this partnership was formed and continues to thrive as China continues to change its
healthcare system. The cultural difference still rings through the "westernization" of the Chinese
healthcare system as it is done and envisioned in conjunction with traditional Chinese medicine.

It was important to remember how cultural differences may influence the understanding
disabilities and appropriate interventions when providing education and training to
family members and staff. Cultural differences impacted the way we provided services as
well as the way these services would be utilized (E. Woolfe, personal communications,
April 1, 2012).

This project also requires awareness of one's own cultural values, attitudes and beliefs (Qureshi
& Collazos, 2011).

Besides having confirmed that China has a beautiful and abundant cultural history the
most important lesson I realized is that one needs to be constantly mindful and aware of
entering new and vastly different situations, such as this trip, with a clearly open mind
and limited expectations. Although the culture of China is very different than mine, I
experienced an endless amount of welcoming, friendly and very curious people and am
grateful for that, as well as this experience (K. Halverson, personal communications,
April 1, 2012).
Intercultural collaboration requires respect and understanding not only for the sake of this partnership but for the sake of the children and the population that is being served.

Educating the team and having a basic understanding of Chinese culture gave some instruction on efficient ways to approach practice and information on the best medical and therapeutic practices in China. These best practices include exploring healthcare in China, occupational therapy education in China, research into traditional Chinese medicine, and two models of practice based on Eastern ideas.
Healthcare in China

In the 1980’s China’s healthcare system underwent a massive restructuring. The central government’s role in healthcare was greatly reduced. Social and market reforms have resulted in a transfer of healthcare financing and delivery responsibilities from the central government to the regional and provincial governments, and ultimately to the individual. China has moved from a universal healthcare like system to a complicated system based on out-of-pocket fees, employer-based insurance schemes, and limited government services (Hougaard, Osterdal & Yu, 2011).

Today, healthcare coverage is determined by an individual’s employment in the public sector or private sector and whether they are a urban or rural resident. “The rise in free enterprise and the reduction of the central government’s investment in medical services has left many urban residents without affordable health care, and limited access to affordable private health insurance. It is estimated that 50% of China’s 350 million urban population has no health coverage” (Haley, Zhao, Nollin, Dunning, & Quiang, 2008). For those that do have health coverage, it is typically provided through the Government Health Insurance or Labor Health Insurance programs. The Government Health insurance program provides coverage to government employees as well as government retirees, disabled veterans, university teachers, union officials, and students of approved universities and colleges. The Labor Health Insurance program provides coverage for employees, retirees and dependents of the state and collective owned enterprises with more than 100 employees. Rural residents receive services through the New Cooperative Medical Scheme, which is based on voluntary participation at the household level. Services provided by this scheme are usually for catastrophic care and the out-of-pocket costs are often unaffordable for rural residents (Hougaard, Osteral & Yu, 2011).
Government employees receive the most healthcare coverage, followed by individuals who are covered by employer-based insurance schemes, and then individuals with limited coverage through voluntary insurance schemes for which the central and provincial governments provide subsidies. There is a great disparity between rural and urban residents in terms of access to healthcare services. “Only 20% of China’s medical resources are located in rural areas, which are home to approximately 60% of China’s total population” (Healey et al, 2008). The limited access to healthcare experienced by a large portion of China’s population was observed during the Spring team’s time in China. The children with disabilities living at the orphanage were often reported to be there due to their family’s inability to afford the medical care the child required.

The healthcare system in China is financed by three main parties: government, enterprise, and individuals. Enterprise includes state-owned, collectively owned, and private enterprise. Government-owned city hospitals provide the majority of services in urban areas while rural residents at the town or village level are typically referred to local community hospitals or medical care centers which provide a limited number of services. Costs to the government are mainly covered by taxation and user fees. Hospitals are partially funded by the government, but also must maintain a certain level of profit, generated through patient out-of-pocket expenses and reimbursement from social insurance plans.

China is unique in that it offers 2 medical approaches, traditional Chinese medicine (TCM) and Western medicine at almost every level of healthcare (Haley et al, 2008). This is evidenced in our collaboration with The Third Military Hospital and the Social Welfare Institute to provide current evidence-based treatment and education to staff and caregivers, as well as our observations during our time in China. The pediatric clients seen at the hospital’s rehab center received occupational therapy, physical therapy, speech therapy, as well as acupuncture
treatments throughout the day. Although Western medicine is now accepted as the primary system in China, TCM remains an integral component of the system. The Government currently encourages the use of both Western medicine and TCM, and supports research efforts to validate the efficacy of TCM practices. Patients with access to healthcare often consult a TCM doctor along with a Western doctor (Haley et al, 2011).

China currently has one of the world’s largest healthcare systems and faces many challenges in providing affordable access to healthcare services to all of its citizens. (Haley et al, 2008). In our collaboration with current and future organizations in China we hope to provide services that many children may not be have available to them.
HEALTHCARE IN CHINA
BY ESJE WOOLFE, OTS

History

- Healthcare system underwent massive restructuring in early 1980’s
- Responsibility for financing and delivering of healthcare shifted from central govt. to provincial govt. to individual
- Move towards market economy= healthcare no longer provided by govt.= lack of access to affordable services
Structure

- Separation of population into 2 groups
  - U group- urban residents, 45% of population
  - R group- rural residents, 54% of population

- U group covered by employer-based insurance system
  - Urban Employee Basic Medical Insurance
  - Urban resident Basic Medical Insurance

- R group covered by the New Cooperative Medical Scheme
  - Based on voluntary participation at household level

U Group (urban residents)

- Unofficially divided into 3 subgroups according to job function
- A group- staff in all levels of govt.
- B group- staff in all kinds of enterprises in urban areas
- C group – urban residents without formal employment (children, elderly, unemployed, etc.)
A Group (public sector)

- Govt. ‘parties’, non-governmental organization groups, public organizations, army, public health sector, research institutions, education system
- Regulated by China National Labor Union, Ministry of Organization
- All healthcare costs basically covered by govt.

B Group (industry)

- Regulated by Ministry of Labor and Social Security
- Healthcare expenses covered by employer-based insurance scheme
  - Individual account
  - Social pooling
- Implementation of scheme varies between provinces and businesses with different types of ownership
Group C (unemployed)

- Participation is voluntary
- Covered by Urban Resident Basic Medical Insurance
- Goal of Central Govt. to enroll all cities in insurance scheme by 2010

R Group (rural residents)

- Covered by Cooperative Medical Scheme
  - Local level insurance schemes for which Central and local (Provincial and Regional/County) Govt. provide subsidies
  - provides some access to health care coverage, primarily catastrophic care
  - Premiums and out-of-pocket costs still unaffordable for most of rural population
Healthcare Financing

- Healthcare system financed by 3 main parties:
  - Government
  - Enterprise
  - Individuals
- Costs to Govt. mainly covered by taxation and user fees
- Central Govt. emphasizing participation of private enterprise as well

Healthcare Benefits: U Group

- Group A: members mostly fully covered, but moving towards system more like Group B
- Group B: outpatient treatments covered by individual account, inpatient treatments covered by social insurance plan (Urban)
- Group C: varies between cities, focus on in- and outpatient services for chronic or fatal diseases
Healthcare Financing: R Group

- No uniform conditions, varies from county to county
- Majority of counties use a model with impatient reimbursements according to a formula plus a household savings account for outpatient visits

Location

- Individual and social accounts are city or region specific =
  - Individual is covered in one city or region, but does not have the right to coverage if they move
  - Huge problem for growing migrating labor force
Healthcare Providers

- Govt. owned city hospital provide majority of healthcare services in urban areas
- In rural areas patients referred to local community hospital or medical center
- Hospitals ranked at 3 levels
  1. Ministry of Health administered hospitals financed by central govt.
  2.-3. Administered by provincial govt.’s

Financing Service Delivery

- Hospital income from:
  - Govt. subsidies (cover fixed costs like buildings, equipment, wages)
  - Patient out-of-pocket expenses
  - Individual account payments and reimbursements form social insurance plans
- Hospitals receive some govt. funding, must maintain certain level of profitability
Healthcare services

- Integrated system of Western medicine and traditional Chinese medicine (TMC)
- “China is the only country where 2 medical approaches coexist at almost every level of the healthcare system” (Haley, et al, 2008).
- Patients often consult Western doctor as and a TCM doctor.
- Govt. funds research into efficacy of TCM treatments to encourage use of both Western medicine and TCM

Current Challenges

- Rising cost of healthcare services. Lack of expenditure control
- Lack of access to affordable healthcare
- Lack of access to basic healthcare services in rural areas
- Rising need for healthcare providers due to aging population
References


Occupational Therapy in China

Kristia Halverson, OTS

Background

- Contemporary rehabilitation medicine (RM) was started in the early 1980s.
- Large regional hospitals have inpatient and outpatient services.
- Rehab team comprised of:
  - Physiatrist
  - PT
  - OT
  - SLP and orthotist (occasionally)
- About 2000 RM facilities in 2002
Philosophy of care

- Western medicine is the mainstream of RM practice.
- Traditional Chinese Rehabilitation Therapy (TCRT): employs the philosophy of Chinese medicine and Chinese-style manipulation exercises and other physical modalities.
- TCRT is used extensively in many hospitals with Western medicine.
- Current trend is the integration of both Eastern and Western RM approaches.

Calling all OTs!

- In 2002 there were approximately 5,640 rehab therapists (PTs/OTs) practicing RM.
- 100 therapists out of 5,640 specialized in OT.
- Severe shortage of OTs and demand is great.
- Only way to meet demand is to develop formal education and training for professional OTs.
OT Education in China

- Gap between standards of Chinese national and international OT fields.
- 5-10% graduate from universities
- 30-40% receive training in health colleges or polytechnic institutes
- 45-60% graduate from secondary schools.
- Two WFOT approved education programs in China.
- Typical rehab therapy training programs combine PT and OT education.
  - Total teaching hours for OT subjects in these programs is approximately 80 hours.
- OT concepts taught in rehab therapy programs are technician level rather than professional level.
  - Typical OT services mainly focus on remedial activities rather than task-oriented and client-centered approaches.

Educating New OTs

- **Main issue in training OTs is the lack of professional educators.**
- No national PT or OT societies in China.
  - Strong push to establish these bodies so they can become members of WCPT and WFOT.
- Only way to meet demand for OT is to develop formal education training for professional OTs.
Models of Care

- Community-Based Rehabilitation (CBR): devised and adopted by Chinese government to make rehab services available to all in need.
- Model proposes ability to receive rehab in the community, using community resources, not only in a hospital or rehab center.

Models of Care, con’t

- Traditional OT theoretical models may not be culturally appropriate because they are based on Western values.
- Kawa River Model: OT’s first substantial theoretical model to emerge from outside the West.
  - Collective-oriented
  - Interdependent view of human occupation
  - Infused with Eastern philosophical perspectives and world views
  - Brings nature and ecology into OT thinking
References


Traditional Chinese Medicine

Presented by Elizabeth Chau, OTS

Philosophy

- Eight Guiding Principles
  - Cold/ hot
  - Interior/exterior
  - Deficiency/excess
  - Yin and Yang
    - An imbalance of Yin and Yang causes bad health
    - Dynamic and interactive
    - Restore harmony
Five Elements

- Controlled to heal
- Five Elements document
- Principle of control
  - Mutual production
  - Mutual conquest

Meridians

- Regulate qi and blood flow
- 12 crucial in acupuncture
- Connected by Xue (points)
  - One source cited 20
    - 8 along head and trunk
    - 12 along viscera
Practices

- Diagnosing
- Acupuncture
- Massage
- Chinese Herbs
- Moxibustion
- Diet
- Exercises
- Cupping
- surgery

Questions to ponder

- What would this mean for practitioners?
- What would patients practicing traditional Chinese medicine expect/behave like?
The Kawa Model

Kristia Halverson, OTS

Kawa and Eastern Philosophy

- All elements of the universe, including “self”, exist in one inseparable whole. A change to one element creates changes in all other elements.
- Time is “here and now”. Cannot make the past or future.
- Well-being occurs when all parts of the whole are in balance.
- Focus on collective “self”, part of a group, interdependent relationships.
Western Philosophy

- “Self” is individual, singular
- Importance on independence, autonomy, egalitarianism, assuming control over immediate circumstances and planning for/constructing the future
- Well-being is a balance between the “self” and environment through control over surroundings

The River (Kawa)

- River is a symbol for the life course (can flow at different speeds or stop, can combine and split, can go around things).
- The river is always affected by the interrelation of other elements: as other elements affect the flow of a river, the river affects the other elements.
- Life flows like a river (birth at the top of a mountain, changes due to life circumstances- rocks, driftwood, end of life at the ocean).
Kawa Elements

- Mizu = water. Fluid, pure, cleansing, renewing. Symbolizes life energy or flow. Water touches all other elements, but is directed by other elements.
- Weak flow = disharmony. Death comes when the flow is stopped or moves to the ocean.
- As water is shaped by its container, so self is shaped by social context.
- OT is designed to enhance life flow; flow encompassing self and context.

Kawa Elements

- A river’s walls and bottom symbolize environment; the most important determinant of life flow.
- River walls and sides = social and physical context
- Shape of the river bed describes person’s life flow (many or few obstructions).
Kawa Elements

- Rocks or obstructions disrupt the river flow and represent life disharmony.
- Rocks in the river are problematic and difficult to move: big problems.
- There can be one rock or many jammed together to greatly reduce river/life flow.
- When rocks are identified intervention can be planned to increase flow.

Kawa Elements

- Driftwood= personal attributes and resources (values, character, personality, special skills, assets- material and immaterial, and living situation).
- Positively or negatively affects circumstances and life flow.
- Driftwood is transient and has a certain fate or coincidence.
- Driftwood can create a block in the river flow or knock a blockage free.
- Can be enhanced or de-emphasized by OT in order to steer intervention outcomes.
Kawa Elements

- Spaces between obstructions = points through which the river (life energy) flows.
- The spaces through which life flows represents occupation: things that sustain hope.
- These spaces (occupations) are important areas to focus intervention because they occur within a client’s context and environment (rocks, driftwood, walls).

Occupation in the Kawa Lens

- Occupation is seen as a whole, including the meaning of activity to self and community to which the client inseparably belongs.
- Disability is a collective experience.
  Consequences and impact of disability broadly impact a wider social sphere.
- “Occupation is life flow and occupational therapists are enablers of people’s life flow.”
References


Community-built practice is an emerging model in occupational therapy practice that is based on community-and-capacity building models in population-based and health promotion practice (Wittman & Velde, 2001).

Community built occupational therapy programs are “open systems in constant interaction with their physical, natural, temporal, social and political environment” (Elliot et al., 2001, p. 106).

Basis of model is in collaboration with a strength-based approach and “ends when the client-defined-community has affectively built the capacity for empowerment” (Wittman & Velde, 2001, p. 3).
FOUNDING PRINCIPLES

1. Each community member and community has strengths.

2. Community members are equal partners in program development, implementation, and evaluation.

3. Community members “own” the program

4. The occupational therapy practitioner must be culturally aware for the program to succeed.

COMMUNITY-BUILT PRACTICE vs. COMMUNITY-BASED PRACTICE

| Community-Based                                                                 | Community-Built                                                                 |
|                                                                               | Framework for community practice                                               |
|                                                                               | Takes place in community context                                                |
|                                                                               | Focus on applying concepts of OT practice to community settings to develop      |
|                                                                               | programs that address occupational needs                                        |
|                                                                               | Ex: Program based on MOHO addressing the work rehabilitation needs of          |
|                                                                               | individuals with HIV/AIDS offered by community organization                     |
|                                                                               |                                                                             |
|                                                                               | Framework for community practice                                               |
|                                                                               | Takes place in community context                                                |
|                                                                               | Utilizes collaboration model and focuses on the needs and capacities of the     |
|                                                                               | community and its members                                                       |
|                                                                               | Community is built with OT practitioner as facilitator                          |
|                                                                               | Ex: OT student’s developed program following community-built model for a       |
|                                                                               | small rural community with a large African American population.                 |
|                                                                               |                                                                             |
|                                                                               | Student’s immersed themselves in the community to learn about the people and   |
|                                                                               | face their own biases                                                           |
|                                                                               | Through building relationships, students able to collaborate with older         |
|                                                                               | African Americans in community and develop Senior Wellness program focused on   |
|                                                                               | physical activity, spirituality, nutrition education, and cognition activities   |
**SUMMARY**

- Both models offer approaches for practitioner
- Community-based model focuses on variety of health promotion and program development approaches
- Community-built model provides structured way of viewing the community and program development

**RESOURCES**

Doll, J. *Program Development and Grant Writing in Occupational Therapy: Making the Connection*. Sundbury: Jones and Barlett, 2010. Print
By Esje Woolfe, OTS

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Introduction to Curriculum

Throughout Pacific University’s partnership with the rehab hospital in Chongqing, students and professors have identified a need for further training in pediatric therapy principles. A curriculum was developed with the vision of becoming a two-week intensive training program building a foundational holistic education on pediatric therapy. Background research was completed in the areas of Chinese approaches to healthcare and education, overall program development, and a review of therapy program curricula including early childhood education, early intervention specialist certificate, occupational therapy assistant, physical therapy assistant, and speech language pathology assistant. In addition, OT/PT pediatric syllabi were evaluated to identify focus areas foundational to pediatric therapy. The goal is to develop a comprehensive program that addresses the goals and scope of practice of each of these disciplines to present a simplified two-week certificate program for the rehab specialists at Chongqing hospital.

The program consists of seven units including: development, common conditions, assessment, general handling and positioning, daily activity adaptation for increased participation (activity analysis and grading activities), using play as a therapeutic modality, and intervention ideas. The following section outlines the basic scheduling of the certificate program and included resources and some teaching materials for each unit.
## Developmental Milestones
(www.cdc.gov)

<table>
<thead>
<tr>
<th>Age</th>
<th>Social/Emotional</th>
<th>Language/Communication</th>
<th>Cognitive (learning, thinking, problem solving)</th>
<th>Movement/Physical Development</th>
</tr>
</thead>
</table>
| **2 months** | • Begins to smile at people  
• Can briefly calm himself (may bring hands to mouth and suck on hand)  
• Tries to look at caregiver. | • Coos, makes gurgling sounds  
• Turns head toward sounds. | • Pays attention to faces  
• Begins to follow things with eyes and recognize people at a distance  
• Begins to act bored (cries, fussy) if activity doesn’t change | • Can hold head up and begins to push up when lying on tummy.  
• Makes smoother movements with arms and legs. |
| **4 months** | • Smiles spontaneously, especially at people.  
• Likes to play with people and might cry when playing stops.  
• Copies some movements and facial expressions, like smiling or frowning. | • Begins to babble  
• Babbles with expression and copies sounds.  
• Cries in different ways to show hunger, pain, or being tired. | • Lets you know if he/she is happy or sad.  
• Responds to affection.  
• Reaches for a toy with one hand.  
• Uses hands and eyes together, such as seeing a toy and reaching for it.  
• Follows moving things with eyes from side to side.  
• Watches faces closely.  
• Recognizes familiar people and things at a distance. | • Holds head steady, unsupported.  
• Pushes down on legs when feet are on a hard surface.  
• May be able to roll over from tummy to back.  
• Can hold a toy and shake it and swing at dangling toys.  
• Brings hands to mouth  
• When lying on stomach, pushes up to elbows. |
| **6 months** | • Knows familiar faces and begins to know if someone is a stranger.  
• Likes to play with others, especially parents.  
• Responds to other people’s emotions and often seem happy.  
• Likes to look at self in a mirror. | • Responds to sounds by making sounds.  
• Responds to own name.  
• Makes sounds to show joy and displeasure.  
• Begins to say consonant sounds. | • Looks around at things nearby.  
• Brings things to mouth.  
• Shows curiosity about things and tries to get things that are out of reach.  
• Begins to pass things from one hand to the other. | • Rolls over in both directions (front to back, back to front)  
• Begins to sit without support.  
• When standing, supports weight on legs and might bounce.  
• Rocks back and forth, sometimes crawling backward before moving forward. |
### 9 months
- May be afraid of strangers.
- May be clingy with familiar adults.
- Has favorite toys.
- Understands “no”
- Makes a lot of different sounds.
- Copies sounds and gestures of others.
- Watches the path of something as it falls.
- Looks for things he sees you hide.
- Plays peek-a-boo.
- Puts things in his mouth.
- Moves things smoothly from one hand to the other.
- Picks up small objects between the thumb and index finger.
- Responds to simple spoken requests
- Uses simple gestures.
- Makes sounds with changes in tone (sounds more like speech)
- Says simple words
- Tries to say words you say
- Explores things in different ways, like shaking, banging, throwing
- Finds hidden things easily
- Looks at the right picture or thing when it’s named
- Copies gestures
- Starts to use things correctly; for example, drinks from a cup, brushes hair
- Bangs two things together
- Puts things in a container, takes things out of a container
- Lets things go without help
- Pokes with index (pointer) finger
- Follows simple directions like “pick up the toy”
- Stands, holding on.
- Can get into sitting position.
- Sits without support.
- Pulls to stand.
- Crawls

### 1 year
- Is shy or nervous with strangers
- Cries when mom or dad leaves
- Has favorite things and people
- Shows fear in some situations
- Hands you a book when he wants to hear a story
- Repeats sounds or actions to get attention
- Puts out arm or leg to help with dressing
- Plays games such as “peek-a-boo” and “pat-a-cake”
- Says several single words
- Says and shakes head “no”
- Points to show someone what he wants
- Knows what ordinary things are for; for example, telephone, brush, spoon
- Points to get the attention of others
- Shows interest in a doll or stuffed animal by pretending to feed
- Points to one body part
- Scribbles on his own
- Gets to a sitting position without help
- Pulls up to stand, walks holding on to furniture (“cruising”)
- May take a few steps without holding on
- May stand alone

### 18 months
- Likes to hand things to others as play
- May have temper tantrums
- May be afraid of strangers
- Shows affection to familiar people
- Plays simple pretend, such as feeding a doll
- Drinks from a cup
- Eats with a spoon
<table>
<thead>
<tr>
<th>2 years</th>
<th>3 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Copies others, especially adults and older children</td>
<td>• Copies adults and friends</td>
</tr>
<tr>
<td>• Gets excited when with other children</td>
<td>• Shows affection for friends without prompting</td>
</tr>
<tr>
<td>• Shows more and more independence</td>
<td>• Takes turns in games</td>
</tr>
<tr>
<td>• Shows defiant behavior (doing what he has been told not to)</td>
<td>• Shows concern for crying friend</td>
</tr>
<tr>
<td>• Plays mainly beside other children, but is beginning to include other children, such as in chase games</td>
<td>• Understands the idea of “mine” and “his” or “hers”</td>
</tr>
<tr>
<td></td>
<td>• Shows a wide range of emotions</td>
</tr>
<tr>
<td></td>
<td>• Separates easily from mom and dad</td>
</tr>
<tr>
<td></td>
<td>• May get upset with major changes in routine</td>
</tr>
<tr>
<td></td>
<td>• Dresses/undresses self</td>
</tr>
<tr>
<td></td>
<td>• Follows instructions with 2 or 3 steps</td>
</tr>
<tr>
<td>• Points to things or pictures when they are named</td>
<td>• Can name most familiar things</td>
</tr>
<tr>
<td>• Knows names of familiar people and body parts</td>
<td>• Understands words like “in,” “on,” and “under”</td>
</tr>
<tr>
<td>• Says sentences with 2 to 4 words</td>
<td>• Says first name, age, and sex</td>
</tr>
<tr>
<td>• Follows simple instructions</td>
<td>• Names a friend</td>
</tr>
<tr>
<td>• Repeats words overheard in conversation</td>
<td>• Says words like “I,” “me,” “we,” and “you” and some plurals (cars, dogs, cats)</td>
</tr>
<tr>
<td>• Points to things in a book</td>
<td>• Talks well enough for strangers to understand most of the time</td>
</tr>
<tr>
<td></td>
<td>• Carries on a conversation using 2 to 3 sentences</td>
</tr>
<tr>
<td>• Can follow 1-step verbal commands without any gestures; for example, sits when you say “sit down”</td>
<td>• Can work toys with buttons, levers, and moving parts</td>
</tr>
<tr>
<td></td>
<td>• Plays make-believe with dolls, animals, and people</td>
</tr>
<tr>
<td></td>
<td>• Does puzzles with 3 or 4 pieces</td>
</tr>
<tr>
<td></td>
<td>• Understands what “two” means</td>
</tr>
<tr>
<td></td>
<td>• Copies a circle with pencil or crayon</td>
</tr>
<tr>
<td></td>
<td>• Turns book pages one at a time</td>
</tr>
<tr>
<td></td>
<td>• Builds book pages one at a time</td>
</tr>
<tr>
<td></td>
<td>• Builds towers of more than 6 blocks</td>
</tr>
<tr>
<td></td>
<td>• Screws and unscrews jar lids or turns door handle</td>
</tr>
<tr>
<td></td>
<td>• Stands on tiptoe</td>
</tr>
<tr>
<td></td>
<td>• Kicks a ball</td>
</tr>
<tr>
<td></td>
<td>• Begins to run</td>
</tr>
<tr>
<td></td>
<td>• Climbs onto and down from furniture without help</td>
</tr>
<tr>
<td></td>
<td>• Walks up and down stairs holding on</td>
</tr>
<tr>
<td></td>
<td>• Throws ball overhand</td>
</tr>
<tr>
<td></td>
<td>• Makes or copies straight lines and circles</td>
</tr>
<tr>
<td></td>
<td>• Climbs well</td>
</tr>
<tr>
<td></td>
<td>• Runs easily</td>
</tr>
<tr>
<td></td>
<td>• Pedals a tricycle (3-wheel bike)</td>
</tr>
<tr>
<td></td>
<td>• Walks up and down stairs, one foot on each step</td>
</tr>
<tr>
<td>4 years</td>
<td>5 years</td>
</tr>
<tr>
<td>---------</td>
<td>---------</td>
</tr>
</tbody>
</table>
| • Enjoys doing new things  
• Plays “Mom” and “Dad”  
• Is more and more creative with make-believe play  
• Would rather play with other children than by himself  
• Cooperates with other children  
• Often can’t tell what’s real and what’s make-believe  
• Talks about what she likes and what she is interested in |
| • Knows some basic rules of grammar, such as correctly using “he” and “she”  
• Sings a song or says a poem from memory such as the “Itsy Bitsy Spider” or the “Wheels on the Bus”  
• Tells stories  
• Can say first and last name |
| • Names some colors and some numbers  
• Understands the idea of counting  
• Starts to understand time  
• Remembers parts of a story  
• Understands the idea of “same” and “different”  
• Draws a person with 2 to 4 body parts  
• Uses scissors  
• Starts to copy some capital letters  
• Plays board or card games  
• Tells you what he thinks is going to happen next in a book |
| • Hops and stands on one foot up to 2 seconds  
• Catches a bounced ball most of the time  
• Pours, cuts with supervision, and mashes own food |
| • Wants to please friends  
• Wants to be like friends  
• More likely to agree with rules  
• Likes to sing, dance, and act  
• Shows concern and sympathy for others  
• Is aware of gender  
• Can tell what’s real and what’s make-believe  
• Shows more independence (for example, may visit a next-door neighbor by himself [adult supervision is still needed])  
• Is sometimes demanding and sometimes very cooperative |
| • Speaks very clearly  
• Tells a simple story using full sentences  
• Uses future tense; for example, “Grandma will be here.”  
• Says name and address |
| • Counts 10 or more things  
• Can draw a person with at least 6 body parts  
• Can print some letters or numbers  
• Copies a triangle and other geometric shapes  
• Knows about things used every day, like money and food |
| • Stands on one foot for 10 seconds or longer  
• Hops; may be able to skip  
• Can do a somersault  
• Uses a fork and spoon and sometimes a table knife  
• Can use the toilet on her own  
• Swings and climbs |
# Infant Reflexes

<table>
<thead>
<tr>
<th>Reflex</th>
<th>Picture</th>
<th>Description</th>
<th>Age Emerges/Age Fades</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Moro reflex</strong></td>
<td><img src="image" alt="Moro reflex" /></td>
<td>When baby is held facing upward and the head is suddenly allowed to fall back, the arms swing outward then close in towards the body.</td>
<td>birth 1-4 months</td>
</tr>
<tr>
<td><strong>Rooting</strong></td>
<td><img src="image" alt="Rooting" /></td>
<td>When the baby is touched near the corner of the mouth, the baby will turn his head towards the stimulus.</td>
<td>birth 4 months</td>
</tr>
<tr>
<td><strong>Sucking</strong></td>
<td><img src="image" alt="Sucking" /></td>
<td>The child to instinctively suck at anything that touches the roof of their mouth</td>
<td>birth 4 months</td>
</tr>
<tr>
<td><strong>Stepping</strong></td>
<td><img src="image" alt="Stepping" /></td>
<td>This reflex is also called the walking or dance reflex because a baby appears to take steps or dance when held upright with his/her feet touching a solid surface.</td>
<td>birth 3-6 weeks</td>
</tr>
</tbody>
</table>
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<table>
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<th>Age Emerges/Age Fades</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asymmetrical Tonic Neck Reflex</td>
<td><img src="image" alt="Tonic neck reflex" /></td>
<td>Extremities on side to which head is turned will extend, and opposite extremities will flex when newborn’s head is turned to one side while resting. Response may be absent or incomplete immediately after birth.</td>
<td>birth 6 months</td>
</tr>
<tr>
<td>Palmer grasp</td>
<td><img src="image" alt="Grasp reflex" /></td>
<td>The baby will close his hand if an object is placed in the palm.</td>
<td>birth 6 months</td>
</tr>
<tr>
<td>Plantar grasp</td>
<td><img src="image" alt="Grasp reflex" /></td>
<td>Toes flex when the sole of the foot is gently stroked.</td>
<td>birth 6 weeks</td>
</tr>
<tr>
<td>Babinski</td>
<td><img src="image" alt="Babinski reflex" /></td>
<td>When the sole of the foot is firmly stroked, the big toe bends toward the top of the foot and the other toes fan out.</td>
<td>birth 2 years</td>
</tr>
</tbody>
</table>
Unit 2: Conditions

Having an understanding of typical development is the first step as it provides a foundation to further understanding various conditions and their functional implications. Knowledge of both typical development and the impact of various conditions assists in goal setting and treatment planning. While every child is unique it is crucial to understand these foundational principles for proper treatment planning.
Down Syndrome

Description: a chromosomal disorder usually resulting in mental retardation and unique physical features.

Prevalence: According to a study conducted by Zhang et al. (2001) the prevalence of down syndrome is increasing, with an estimated 154,000 cases in China.

Symptoms:
- Delayed intellectual development
- Immature behavior
- Limited self-care skills
- Decreased curiosity
- Delayed language development

Physical development: often slower including distinct physical features:
- Decreased muscle tone at birth
- Flattened nose
- Separated joints between the bones of the skull
- Single crease in the palm of the hand
- Small ears
- Small mouth
- Upward slanting eyes
- Wide short hands with short fingers

Cognitive and social development:
- Impulsive behavior
- Poor judgment
- Short attention span
- Slow learning

Health conditions connected to Down syndrome:
- Birth defects involving the heart
- Dementia
• Vision/eye problems
• Vomiting caused by GI blockage
• Hearing impairments
• Hip problems
• Constipation problems
• Sleep apnea (smaller mouth, throat, and airway)
• Teeth appear later

General Intervention guidelines: (S. Rogers, presentation, March 12, 2010)

1. Engagement in daily tasks
   a. Encourage independence in dressing, grooming, and feeding.
   b. Encourage exploratory and symbolic play activities.
   c. Implement a toileting routine

2. Repetition of tasks
   a. Repetition, reinforcement, practice practice practice!
   b. Provide positive reinforcement and feedback

3. Use of specific cognitive strategies (http://www.mychildwithoutlimits.org)
   a. Provide visual cues, written instructions, memory notebooks
   b. Simplify tasks
      i. Allow the child to learn portions of a task
      ii. It is important for the child to learn the correct way the first time around.
   c. Use visual schedules: picture cues used to build a schedule of daily activities

4. Emphasize capabilities, not impairment

5. The environment needs to be familiar, consistent and predictable. (Matusiak, 1998)
   a. Provide structure in the environment to increase orientation to time, place, person, and situation.
   b. Remove clutter to decrease extraneous stimuli
   c. Provide visual reminders or tactile cues to decrease confusion, increase awareness, and facilitate independence (written directions, picture schedule)
   d. Keep things in the same plan for consistency and ease
   e. Use contrasting colors to discriminate background from foreground.
6. Place baby on his belly to encourage the development of head control and the muscle control of the body.
7. Encourage baby to play in sitting position.
8. Provide play opportunities for the following skill areas:
   a. Visual tracking: following objects with eyes
   b. Grasping and releasing
   c. Reaching

Sensorimotor Interventions: (Reed, 2001)
1. Encourage gross motor skills (rolling, crawling, creeping, sitting, pulling to stand, etc) through visually stimulating activities.
2. Assist in reflex development by lifting and bouncing child in the air.
3. Increase range of motion with activities while supporting the child’s joints as they work against gravity.
4. Improve motor skills through imitation and gestures.
5. Improve use of hands together by placing objects and requiring the child to reach for the object using the opposite hand (reaching across midline).
6. Provide tactile activities, including different textures, shapes, and surfaces. (sand and water)
7. Provide proprioceptive input through identification of body parts, bouncing in a swing.
8. Provide auditory input through activities with varying sounds, and copying rhythms.

Feeding Interventions:
1. Bottle feeding (Case Smith, 2005)
   a. Do not enlarge the hole of the nipple for children with Down syndrome. Enlarged holes decrease the need for strong sucking, and there is a risk of too much fluid flow.
   b. Gentle facial massage before feeding
   c. Make sure the tongue is retracted before feeding
   d. Use fingers to ensure a seal around the nipple.
   e. Place index finger under the chin to aid in swallowing.
2. Positioning during feeding (Down Syndrome Ireland, 2010):
   a. Stability: the baby’s body should be stable when feeding
   b. Alignment: the head, neck, and body should be lined up
   c. Flexed: the body should be in a slightly flexed position
   d. Comfort

3. Preparatory Interventions for feeding (Down Syndrome Ireland, 2010):
   a. Mouth play: babies learn about the world through their mouths. Encourage exploration through the mouth.
      i. Exploring the mouth with fingers and toes. This promotes sensory development and oral stimulation.
      ii. Provide toys/objects that the baby can suck/chew on. Vary object textures.
   b. Wiping: Don’t be too quick to wipe away the mess from the face and hands during feeding. The feeling provides sensory information.
   c. Make mouth play fun and interesting!

4. Spoon feeding:
   a. Don’t empty the spoon into the baby’s mouth and don’t pull the spoon out. Wait for the baby’s lips to close to let the mouth do the work. This strengthens the muscles of the mouth. Babies with Down syndrome have poor muscle tone in the lips.

Social engagement: is a key for children with Down Syndrome. Provide opportunities for the child to play with peers. This will greatly impact the child’s development.


Infants:
- Move an object slowly in front of the infant’s eyes so that the infant can follow the moving object.
- Partially hide a toy under a towel within infant’s reach.
- Hide a toy in an easy to open box.
- Show the infant pictures with lots of colors.
Social Interventions:

- Be direct in verb instructions, rather than making suggestions.
- Provide opportunities for socializing.
- To increase the length of the child’s engagement, change activities/toys frequently.
- Allow the child to initiate activities.

Daily activities:

- Encourage independence in Feeding.
  - Provide support in positioning during mealtimes.
  - It is important to provide adequate support and positioning for the child with Down syndrome during meals. Establishment of proper positioning early will facilitate the child’s learning to feed him or herself when ready.

- Independence in Dressing:
  - It is recommended that adequate support be provided to optimize the motor control the child has for self-care activities. For example, for self-dressing, the child may need to sit in a chair with arms if he/she does not have adequate postural stability or awareness of position in space.
  - As for any child, it is important to make sure that the child has developmentally appropriate opportunities for self-care that will facilitate both independence and progression of skills, such as provide clothing without fasteners until the child has mastered buttoning, zipping, etc.
Cerebral Palsy

**Defined:** a group of disorders that can involve brain and nervous system functions such as movement, learning, hearing, seeing, and thinking.

**Causes:** injuries or abnormalities of the brain during development. Potential causes include low oxygen levels during birth, prematurity, bleeding in the brain, brain infections, head injury, infections during pregnancy, and severe jaundice. (A.D.A.M., 2009)

**Prevalence:** It is estimated that there are 310,000 children with Cerebral Palsy (CP) in China, 5 babies in every 1000 are born with some form of CP. (“What is cerebral palsy,” 2010)

**Symptoms:** (A.D.A.M., 2009)
- Muscles are very tight and do not stretch.
- Abnormal gait: arms tucked in toward the sides, knees crossed or touching, legs make “scissors” movements, walk on the toes.
- Joints are tight and do not open all the way (joint contracture)
- Muscle weakness or complete loss of movement in a group of muscles.

Other potential symptoms:
- Abnormal movements (twisting, jerking, or writhing) of the hands, feet, arms, or legs
- Tremors
- Unsteady gait
- Loss of coordination
- Floppy muscles

Other brain and nervous system symptoms:
- Learning disabilities: there is a wide range of intellectual ability in kids with CP. It is often difficult to assess learning ability in the early years.
  - Severe physical disability does not indicate intellectual disability.
- Speech problems
- Hearing or vision problems
• Seizures
• Pain
• Abnormal sensation and perception

Eating/digestion problems:
• Difficulty sucking or feeding in infants
• Problems chewing and swallowing
• Vomiting or constipation

Types of Cerebral Palsy (CP): (Willard et al, 2009)

Basic classification:
1. High tone: an increase in muscle tone, resistance to passive movements.
   - Characteristics:
     - Hands held in a fist with thumb inside
     - Difficulty moving arms and legs
     - Jerky movements
     - Thrusting of tongue, increased drooling
     - Choking or gagging during feeding
     - Stiff, rigid movement
     - Spasticity interferes with mobility, self care, and positioning

2. Low Tone
   - Characteristics:
     - Limited resistance to passive movement
     - Muscles feels soft
     - Reflexes are less apparent
     - “Floppy” limbs
     - poor head control
     - decreased coordination
     - Poor endurance
Therapy goals:

• Develop coordination
• Use both hands together in activities
• Build strength
• Improve balance
• Maintain flexibility
• Optimize physical functioning levels
• Maximize independence

Intervention:

Recommendations for handling and care:

1. Positioning, carrying, feeding, and dressing techniques that promote symmetry, limit abnormal postures and movement, and facilitate functional motor activity. (Case-Smith, 2005)
   a. Focus activity towards midline.
   b. Use a variety of movements and postures to promote sensory variety.
   c. Include positions that promote full lengthening of spastic muscles.
   d. Use positions that promote functional voluntary movement of limbs.

2. Sensorimotor Development (Reed, 2001)
   a. Focus on motor skills such as reaching, rolling, sitting, crawling, standing, and prewalking skills.
   b. Movements should include trunk rotation, dissociation of body segments, weight shifting, weight bearing, and isolated movements.
   c. Promote these movements using toys for engagement.
   d. Promote use of arms and hands to support, reach grasp, and hold, and decrease dependence on arms for postural control.
   e. Provide tactile stimulation to promote oral motor and hand functions.

Positioning: (Tailford, n.d.)

3. Positioning: support the infant at the pelvis, knees and ankles
   a. Sitting position promotes visual attending, upper extremity use, and social interaction.
i. Support infant at hips or trunk
ii. Roll up towels to surround the baby in sitting for support
iii. Prevent “W” sitting

b. Tummy Time:
   i. Purpose
      1. Low tone: to increase strength, sensory input, and improve head control.
      2. High tone: to improve shoulder range of motion, and increase weight bearing.
   ii. Methods:
      1. Support child on a large rubber ball.
      2. Place infant across your legs.

c. Crawling position
   i. Support child for head and trunk control
   ii. Make sure hands are open on the ground
   iii. Arms straight
   iv. Knees under hips

d. Standing (low tone characteristics)
   i. Wide base of support
   ii. Toes pointing out
   iii. Knees locked
   iv. Back arched forward

e. Standing (high tone characteristics)
   i. Narrow base of support
   ii. Feet touching
   iii. Up on toes
   iv. Knees locked

Some functional suggestions:
   a. Change the child’s position frequently. Children should play on the floor as well as in a chair.
b. Position the child with both arms forward when playing with toys. If you are guiding the child’s hands, make sure they see what is happening.
c. Talk to the child at eye level.
d. Give the child time to respond to what you say.
e. Present toys/objects that encourage the child to reach and grasp with the hand that is more difficult to use, but allow the child to use whichever hand he chooses.
f. When helping the child put on clothing, put the more affected arm or leg into the clothing first. Move slowly, never forcing movements.
g. When walking with the child, hold the more affected hand.
h. Encourage two-handed activities such as rolling clay or throwing a ball, but do not insist that the child use both hands.
Infants in the NICU

It is not unusual for infants born with the conditions, such as Down's Syndrome and Cerebral Palsy, to spend time in the Neonatal Intensive Care Unit (NICU) after they are born. Occupational therapists have an important role in the NICU, which includes education of the family and staff and intervention with the infant. In order for an occupational therapist to be competent in working in the NICU the therapist needs a solid knowledge base of medical and specialized knowledge.
OTs in the Know

- OTs working in the NICU must have an essential knowledge base to work from.
- Medical knowledge base as a foundation for understanding infant behavior.
- Factors that may influence infant and child development.
- Knowledge of the developmental course, abilities and vulnerabilities of infants in the NICU.
OTs in the Know, con’t

- Knowledge of evolving developmental approaches in the NICU.
- Specific skills related to OT with infants in the NICU.
- Knowledge of the family as a basis for collaboration.
- Specific skills related to OT with families of infants in the NICU.

OTs in the Know, con’t

- Knowledge of the unique sensory properties of the NICU and their relationship to an infant’s neurobehavioral organization.
- Knowledge of the social environment and its relationship to each infant’s neurobehavioral organization, including interactions and relationships.
- Knowledge of the physical environment and its relationship to an infant’s maturation and behavioral organization.
OTs in the Know, con’t

- Knowledge of the NICU culture.
- Specific skills related to OT in assessing and adapting the environment.
- Knowledge of structures that support OT practice in the NICU.
- Professional and personal characteristics necessary for OTs practicing in the NICU.
- See AOTA’s NICU Knowledge & Skills paper here: http://ajot.aotapress.net/content/60/6/659.full.pdf

Indicators for OT Intervention in the NICU

- Very low birth weight (VLBW): <1500 g
- Gestational Age: <32 weeks
- Small-for-gestational-age (SGA) or Intrauterine Growth Restriction (IUGR): <3% (or <10%) typical height/weight/length for age
- CNS disorders:
  - Moderate-severe Intraventricular Hemorrhage (IVH)
  - Cystic Periventricular Leukomalacia (PVL)
  - Hydrocephalus
  - Seizures
  - Atypical neurological exam
Indicators con’t

- Maternal factors:
  - Drug/alcohol use
  - SSRIs
  - Cancer
  - Lupus
  - Toxemia
- Meconium aspiration with NICU stay >4 days
- Discordant twins: >20% difference in weight

Indicators, con’t

- CNS infection, intrauterine or neonatal:
  - Meningitis
  - Viral encephalitis
- Feeding difficulties
- Asphyxia/Hypoxic Ischemic Encephalopathy (HIE)
- Genetic disorders
- Neonatal abstinence syndrome
Indicators, con’t

- Events of potential neurodevelopmental significance:
  - Polycythemia
  - Hyperbilirubinemia
  - Hypoglycemia
- Musculoskeletal disorders:
  - Contractures
  - Congenital anomalies
- Late preterm

OT Intervention

- Provided only at “cares” times, approximately every 3 hours, when babies are fed and changed
- Baseline neurodevelopmental evaluation
  - Includes assessment of motor skills, behavior and identification of need for follow-up and physician referral to other agencies
- Feeding evaluation and treatment (some sites use SLPs exclusively for feeding)
- Positioning to enhance development of typical movement patterns and decrease emergence of atypical motor patterns
Intervention, con’t

- Range of motion to decrease/prevent contractures and deformities
- Parent training and education:
  - Handling
  - Positioning
  - Feeding
  - Behavioral cues
  - Infant massage
  - Development of appropriate home program to promote neurodevelopment, self-regulation, engagement and motor skills

Intervention, con’t

- Therapy to facilitate normal development and organization of sensory-motor systems
- Adaptive equipment
- Equipment and environmental modifications
- Splinting
- Infant massage
Positioning in the NICU

- May facilitate an improved ability to self-regulate and promote calm sleep states, thereby conserving energy for growth.
- Full-body postural support may reduce postural and orthopedic abnormalities.
- Supine or lateral decubitus positions may increase psychomotor and neurobehavioral outcomes.
- Prone or lateral decubitus positions may improve self-regulation.
- Reposition infants at cares times.

References


Providence St. Vincent Rehabilitation Department. (2010). *NICU inpatient scheduling procedures.* Unpublished manuscript, Department of Rehabilitation, Providence Health & Services, Portland, Oregon.
Unit 3: Assessment

**Basic Assessment Considerations:**
A child’s ability to engage in daily activities might be influenced by their condition, the demands of the activity they are trying to complete, and the environment in which the activity is being completed.

- Consider the child’s physical endurance, attention span, emotional state, etc when conducting formal or informal assessments.

**Evaluation Areas** (“Assessment strategies,” 2007):
- Motor skills
- Posture
- Range of motion
- Strength
- Endurance
- Coordination
- Functional Skills
- Visual perceptual
- Visual motor integration skills
- Communication skills

**Motor Skills:** It is important to observe the child’s ability to perform age-appropriate, meaningful fine, gross, visual-motor, and oral motor skills in the context of play (Case Smith 2005).

- Fine motor: Observe the child’s ability to perform age-appropriate fine motor skills (reaching, grasping, releasing, stacking blocks, stringing beads, using scissors, lacing, feeding)
- Visual motor skills: Observe the child’s ability to perform activities such as shape sorters, puzzles, scissors, pencil and paper tasks, including coloring, tracing, design copy, and handwriting.
- Oral-motor structures: Examine the oral structures, including the lips, jaw, tongue, teeth, gums, and soft and hard palate.
- Oral-motor control: Swallowing and reflexes: evaluate sucking, rooting, and the movements of the mouth during feeding, including chewing ability, lip closure on a spoon and sup, tongue movements, jaw control, initiation of the swallow reflex, and signs of aspirations.
- Oral praxis: Note the child’s ability to imitate various mouth and tongue movements and sequences.
- Oral motor sensitivity: Observe the child’s response to touch inside and outside the mouth.

**Principles and recommendations for early childhood assessments should:**
- Bring about benefits for children
- Have a specific purpose
- Be reliable, valid, and fair
- Be age-appropriate
• Value the caregivers as an important source of assessment information.
• Be administer tests in a one-on-one setting
• Keep the testing session as short as possible
• Reinforce the child throughout the testing session

**Areas to Evaluate** (Case Smith, 2005)

**Participation**
1. Feeding
2. Dressing
3. Play
4. Social participation

**Performance skills, activities, activity limitations, activity demands**
1. Motor
2. Process
3. Interaction

**Client factors, body functions, impairments**
1. Sensory processing
2. Range of motion
3. Strength
4. Balance
5. Eye-hand coordination
6. Manipulation
7. Praxis
8. Visual perception

**Contextual factors**: (Case Smith, 2005)
2. Cultural: expectations within the child’s home
3. Physical
4. Social

**Performance of Activities**: 
1. Activity and participation limitations can be measured by quality of performance, amount of assistance required, safety, and developmental level

**Physical and social contextual factors**: (Case Smith, 2005)
1. Does the environment allow physical access?
2. Are there toys and activities available to promote development?
3. Does the environment provide an optimal amount of supervision?
4. Is the environment safe?
5. Are there opportunities to engage in sensory activities?
6. Does the environment support social interaction?
7. Are there opportunities for exploration, play, and learning?
Recommended Assessments:

Alberta Infant Motor Scale (AIMS) (Case Smith 2005)

A norm-referenced measure designed to identify and monitor infants with gross motor delays from birth to 18 months of age.

- Designed for children birth to 18 months.
- 58 items that rate the infant’s posture and motor function in four positions: on their back, on their stomach, sitting, and standing.

Ages and Stages Questionnaire:

Parent questionnaire designed to screen children from birth to 5 years of age in communication, gross motor, fine motor, problem solving, and personal-social development.

- 10-15 minutes to complete
- Strengths based: reveal a child’s strengths as well as area of concern.
Unit 4: General Positioning and Handling

I. Why is Positioning and Handling Important
   A. Promote skeletal alignment
   B. Preparation for mobility
   C. Often vital for working with tone and movement
   D. Allows for participation in activities
   E. It improves physiological health
      1. Respiration
      2. Bowel and Bladder
      3. Major organ system function
      4. Skin integrity

II. Key points
   A. Don't leave in one position longer than 30 minutes
   B. Child can be more interactive

III. Goals for positioning
   A. Midline orientation
   B. Both sides the same
   C. For low tone children use gravity to assist and always support extremities
   D. For high tone children it is used to prevent deformities

IV. Carrying
   A. Keep motor patterns in mind
   B. Fully support all appendages and trunk for low tone individuals
   C. Keep knees and hips flexed for high tone individuals

V. Guidelines for transfers
   A. Make a plan (physically/mentally)--make sure everyone involved is clear on the plan
      1. Why
      2. Where
      3. Characteristics
      4. Precautions
      5. Position
      6. When lifted
      7. End position
      8. Equipment? do you need help?
   B. Move obstacles
   C. Make sure you have a stable base of support-
      1. Your feet should be shoulder width apart, shoes flat
   D. Hold child close
   E. Keep your back straight and use your legs
   F. Move smoothly
   G. Don't twist, take tiny steps
   H. Ensure child's safety before moving away

VI. Importance of utilizing proper body mechanics
   A. Conserve energy
   B. Reduce stress and strain to muscles, joints, ligaments
C. It's efficient, effective, and safe movement
D. It promotes effective, efficient respiratory and cardiopulmonary function for care provider

VII. Points of Control
A. Pelvis
B. Shoulders
C. Hips
D. Head

VIII. Positions
A. Sitting
   1. Ensure adequate support and stability for trunk (pillows, straps, back of chair, lean on table)
   2. No pressure from edges on distal posterior thigh
   3. Goals:
      a) Pelvis in line with trunk
      b) Hips at 90 degree flexion
      c) Neutral rotation of pelvis
      d) Hips abducted 10-20 degrees symmetrically
      e) Trunk is straight with shoulders over hips, not rotated
      f) Head is in neutral position, facing forward, head evenly on shoulders
      g) Arms are fully supported with elbows in flexion, 0-45 degree internal rotation of shoulders
      h) Knees and ankles at 90 degrees, feet fully supported, thighs fully supported
   4. Areas of support
      a) Feet on footstool or floor
      b) Anterior trunk if leaning on table
      c) Behind patient
      d) Arms supported by pillow, table, lapboard, armrests
   5. Pressure Points:
      a) Ischial tuberiosities
      b) Posterior thighs
      c) Sacrum
      d) Spinous process of vertebrae
      e) Medial epicondyle of humerus
   6. Common Contracture sites
      a) Hip and knee flexors
      b) Hip adductors and internal rotators
      c) Shoulder adductors, extensors and internal rotators
   7. Seating support
      a) Build support from the back, then sides, then front
      b) Build support upward from foundation
      c) Variations in types of seat and back surfaces

B. Lying on back
   1. Goals:
a) Pelvis in line with trunk
b) Hips 30-90 degrees flexion
c) Neural pelvis
d) Hips symmetrically abducted 10-20 degrees
e) Shoulders in line with hips, straight, neutral rotation of trunk
f) Head in neutral, facing forward, slight cervical flexion
g) Arms fully supported
h) Arms forward of trunk
i) Forearms on trunk or pillow
j) Knees supported in flexion, feet at 90 degrees

d. Areas of Support
a) Put a roll at under head
   (1) No upper back flexion or scapular abduction
b) Support behind knees
   (1) Don't keep for a long time
c) Support under ankles to relieve pressure
   (1) Watch for knee hyperextension
d) Can put support under arms
e) Rolled towel/sandbag can keep hip neutral
   (1) Should be in inward rotation
f) Whole body supported on mat/bed

e. Pressure Points
a) Occipital tuberosity
b) Spine and inferior angle of scapula
c) Spinous processes of vertebrae
d) Posterior iliac crests
e) Sacrum
f) Posterior calcaneus
g) Possible areas of pressure
   (1) Medial epicondyle of humerus
   (2) Head of fibular
   (3) Greater trochanter of hip
   (4) Lateral malleolus

f. Common Contracture Sites
a) Hip and knee flexors
b) Ankle plantar flexors
c) Shoulder extensors, adductors, and internal rotators
d) Hip external rotation

C. Lying on stomach
1. Goals
a) Pelvis in line with trunk
b) Hips in extension
c) Neutral rotation of pelvis
d) Hips symmetrically Abducted 10-20 degrees
e) Trunk straight, in line with hips, neutral rotation
f) Head neutral facing one side, slight cervical flexion
g) Arms supported forward of trunk  
h) Shoulders and elbows flexed  
i) Knees extended  
j) Feet supported at 90°  

2. Areas of support  
a) Forehead on rolled towel or special headrest  
b) Pillow under lower abdomen  
c) Anterior shoulder area adduct scapulae  
d) Anterior portion of patient's ankles  
   (1) Don't maintain for long  

3. Pressure Points  
a) Forehead  
b) Lateral ear  
c) Tip of acromion process  
d) Anterior head of humerus  
e) Sternum  
f) Anterosuperior iliac spine  
g) Patella  
h) Crest of tibia  
i) Dorsum of foot  

4. Common Contracture Sites  
a) Ankle plantar flexors  
b) Shoulder extensors, adductors, and internal/external rotators  
c) Neck rotators (right or left)  

D. Side-lying  

1. Goals  
a) Pelvis in line with trunk  
b) Head, trunk, and pelvis should be aligned  
c) Head in neutral, facing forward, slight cervical flexion  
d) Trunk straight, shoulders and hips aligned  
   (1) Slight side-bending is okay  
e) Both arms supported  
f) Uppermost arm slightly forward  
g) Lower arm forward  
h) Not lying on point of shoulder  
i) Lower arm neutral rotation  
j) Upper arm 0-40 degrees internal rotation  
k) Both legs flex at hip and knee  
l) Hips at 10-20 degrees abduction  
m) Neutral pelvis  
n) Feet at 90°  

2. Areas of support:  
a) Uppermost arm  
b) Can add safety straps or foam bolster to maintain position  
c) Distal to greater trochanter under lowermost extremity (no pressure if prone to ulcers)
3. Pressure Points:
   a) Lateral ear
   b) Lateral ribs
   c) Lateral acromion process
   d) Lateral head of the humerus
   e) Medial or lateral epicondyle of the humerus
   f) Greater trochanter of femur
   g) Medial condyle of femur
   h) Malleolus of fibula
   i) Malleolus of tibia of upper leg
4. Common Contracture Sites
   a) Hip and knee flexors
   b) Hip adductors and internal rotators
   c) Shoulder adductors and internal rotators

IX. Handling
   A. Just to allow child to feel movement and to facilitate motor learning
      1. Changes demands of the activity
      2. Do not be used with every attempt
   B. Decreases number of errors produced by child
   C. Increase motor output
      1. Tactile input - rubbing, tapping, deep pressure
      2. Vestibular - bouncing, spinning, swinging
      3. Use a loud voice
      4. Joint approximation
   D. Reduce excessive motor output
      1. Relaxation techniques
         a) Gently rhythmic movements
         b) Soft music
         c) Rocking
         d) Firm pressure through a flat surface
         e) Warm colors
         f) Warmth (ie: wrap in a blanket)
   E. Facilitate functional positions
   F. Gentle rotation to move out of locked positions

X. Activity: Lab to practice techniques, transfers and positioning, utilize dolls or peers
Unit 5: Daily Participation and Adaptations

I. Importance of functioning and occupation
   A. Occupation is a basic human need.
   B. Health is influenced by participating or lack of participation in meaningful activities.
   C. Occupation-based intervention: There are studies that show patient performance improves when doing a meaningful, purposeful activity.
      1. Practice part of a skill followed by entire flow for motor learning to occur
      2. Activity-focused approach works for CP long-term
   D. Natural environments
      1. Makes therapy more generalizable
      2. Natural learning incidents occur--just like real life
   E. It is important for children with disabilities to be independent as possible in activities of daily living (ADLs).

II. Activity analysis
   A. Activity analysis: breaking down an activity into parts in order to understand the needed abilities to complete the activity.
   B. Activity analysis considers
      1. Space demands: describe the physical environment
      2. Social demands: what are the social expectations?
      3. Sequence, timing, and patterns: what are the steps involved in the activity?
      4. Required skills: movement, cognitive, sensory, emotional, and social demands
      5. Safety hazards: what are potential safety hazards for the activity?
      6. Ability to adapt the activity: Can the activity be easily changed to make it easier to participate?

III. Grading
   A. Adaptation: modification of the activity to meet the needs of the situation - enables a person to perform a task or activity.
   B. General factors:
      1. Brief description of activity
      2. Space needed
      3. Equipment needed
   C. Time factors:
      1. Length of entire process
      2. Number of steps
      3. Length of each step
      4. Sequence of steps
   D. Sensory factors:
      1. Vision: discrimination
      2. Hearing: discrimination of sounds or language
      3. Tactile input: discrimination of temperature, texture, etc.
      4. Smell: need for discrimination of smells
5. Taste: need for discrimination of tastes

E. Perceptual factors:
   1. Spatial relationships
   2. Size or color discrimination
   3. Eye-hand coordination

F. Positioning:
   1. Usual position for activity
   2. Other possible position for activity
   3. Most comfortable position for the activity
   4. Is sitting or standing required?

G. Motor:
   1. Gross motor or fine motor activity?
   2. What joints move during the activity?
   3. Fine motor skills: pinch, release, isolated finger movements

H. Cognitive:
   1. Are there simple directions?
   2. How many steps are involved?
   3. Is memory a key component?
   4. How much concentration or attention span is needed?
   5. Is problem solving needed?

I. Social:
   1. Is it an independent activity?
   2. How many people are involved in the activity?

J. Emotional and psychological aspects:
   1. Are coping skills needed
   2. Is time management necessary?
   3. Is it a creative activity or does it involve copying a model?

IV. Grading
A. The purpose of grading the activity is to either increase or decrease the demands.
B. "The "Just-Right" Challenge- engages, motivates and challenges the child at his or her current level, but is do-able for the child to accomplish if focused (Case-Smith, 2006, p. 10)."
C. The activity remains the same, however, grading either makes it easier or harder.
D. Methods of grading:
   1. Sequence: change the order in which the activity is done
   2. Duration: adjust the length of time in an activity
   3. Position
   4. Size, shape, weight, texture of materials.
   5. Procedures of the task: simplify the activity
   6. Alter the position and number of tools/materials
   7. Help the child do parts of the task that are too hard. This allows the task to be completed, and the therapist can gradually decrease their level of assistance until the child is independent. As the child improves their skills, gradually step back. (Willard and Spackman, 367)
8. Give verbal instruction as a support.
9. Change the physical environment to support the child.

V. Activity: Activity Analysis Worksheet
VI. Importance of Independence
A. Improves body function (strength, ROM, coordination, memory), cognition (sequencing, problem-solving, concept understanding), and self-image
B. Meaningful and purposeful - helps fulfill human need for occupation
C. Sense of accomplishment
D. Develop and maintain routines to prevent further illness.
E. By actively participating in activities that meet their daily needs, children are learning routines and skills that will help them when they are adults.

VII. Activities of Daily Living
A. Questions for evaluating
   1. What are the limitations keeping this child from fully participating in this task?
   2. Why are these limitations present?
   3. Can this child change his or her routine? Can something be done to change the limitations to support the child?
   4. What can be done to accommodate or work around those limitations?
B. ADLs dependent on:
   1. Ability in grip
   2. Bilateral coordination
   3. Using hands w/ without visual feedback
   4. Sequencing
   5. Development of automaticity

VIII. General adaptations (See Adaptations, Positioning for ADLs Table)
A. Chaining forward and backward
   1. Great for children low frustration tolerance
   2. Forward chaining is good for children who have difficulty generalizing activities
B. Reduce input
C. Adapt the context with tools, work surface, positioning

IX. Feeding
A. Resources included: Food Progression based on Texture Consistency, Feeding Poster, Feeding Templates
B. Activity: Sequence Feeding
C. Skills to Evaluate
   1. Sensory
   2. Postural development - should be stable
   3. Oral motor control
   4. Oral motor structures
      a) Ability to close mouth while feeding
         (1) Able to do lip closure around nipple or cup rim or spoon?
         (2) Examples of things to watch for
(a) Tonic bite: gums/teeth clamp tight and won't open again, often can be fixed with repositioning (generally due to a neck extensor pattern) or child has extreme tactile defensiveness
(b) Tongue thrust: common in down syndrome, may be fixed with repositioning - neck extensor problem, observe jaw thrust as well
(c) Lip retraction or pursing - tight seal - rigidity of lips, postural alignment or emotional reaction

5. Ability to swallow
6. Various textures
   a) Poor oral motor control = thicker foods to provide more sensory input and opportunity for control

D. These skills develop over time.
1. Sucking/drinking
2. Swallowing
3. Biting and chewing
   a) Positioning

E. Interventions
1. Handling
   a) Tapping or quick stretch of cheek and mouth to increase tone,
   b) Deep, firm pressure, downward stroke to cheek and lips to decrease tone
2. Finger support on cheek and jaw
3. Small spoon pushed in the middle of tongue to facilitate response (movement of tongue)
4. PACING
   a) Too slow = sleepy baby
   b) Too fast = coughing, choking, aspirating baby
5. Reverse chaining
6. Possible Adaptations (Reed, p. 859)
   a) Built up handles on utensils
   b) Tray for arm stability
   c) Extend/lengthen handle
   d) Rocker utensils
   e) Small diameter glasses
   f) Non breakable items
   g) Friction/nonskid surface
   h) Cups with handles large enough to insert fingers
   i) Plate guard
   j) Long straw
   k) Utensil cuff
   l) Swivel utensils
   m) Bent handles
7. Desensitization activities
Often beneficial right before meals

b) Utilizing playful ix between mealtimes to de sensitize

c) Nook brush

d) Rubber toys

e) Warm wash cloth around and inside mouth, deep pressure/rubbing to increase tolerance to touch

8. Posture
a) Neutral pelvis alignment of spine
b) 90 degree flexion at hip and knees
c) Head, neck, and shoulder alignment with head in slight flexion
d) Chin tuck

9. Serve various food items in consistent spots on plate.

X. Dressing
A. Activity: Sequence Dressing

B. Interventions
1. Social stories
2. Lying supine
3. Side lying - lessens effect of gravity
4. Possible Adaptations: (Reed, p. 858)
   a) Velcro to replace buttons
   b) Elasticized thread on button cuffs
   c) Clothes easy to put on -- slip over hips and front fasteners
   d) Lower closet rod
   e) Long-handled shoe horn

5. Elastic shoe laces
6. Large rings for zipper tabs
7. Fasten bra in front and then turn around
8. Reacher or dressing stick to LE dressing
9. Shoes with soft upper material that gives or stretches
10. Dress affected side first
11. Use a sock aid
12. Lower clothing racks and dresser

XI. Bathing and Toileting
A. Activity: Sequence Toileting and discuss ways to adapt
B. As individual gets older bathing becomes tedious as requires constant awareness and attention.
C. Activity: sequence toileting
D. Skills
1. On and off toilet
2. Wiping
3. Bowel/bladder control
4. Managing fasteners and clothing
5. Washing hands
E. Positioning
1. Bathing: keep head and arms forward
F. Interventions
1. Slow and gentle movements [Bathing]
2. Drain and wrap first [Bathing]
3. Adaptive positioning or equipment (grab bars, bath chairs, floatation device) [Bathing]
4. Toileting schedule
5. Visual schedule
6. Develop routine
7. Support body
8. Dress in easy to manipulate clothes/fasteners [toileting]
9. Timer
10. Wet/dry chart [toileting]
11. Warm bath to calm, decrease tonicity and increase ROM [bathing]
12. Rub with wash cloth [bathing]
13. Water play [bathing]
15. Utilize a bath mitt or soap on a rope [bathing]
16. Wash at the sink [Bathing]
17. Possible adaptations: (Reed, p. 856)
   a) Long-handled sponge or brush to soap body
   b) Shower bench/chair to allow to sit in shower
   c) nonskid on shower floor
   d) grab bars
   e) long shower spray hose
   f) grab bar on wall or floor next to toilet
   g) adapted seating
   h) grab bars

XII. Personal hygiene
A. Culture plays a strong role in development of personal hygiene skills
B. Activity: Sequence brushing teeth and discuss adaptations
C. Activity: Sequence brushing hair and discuss adaptations
D. Activity: Sequence washing hands and discuss adaptations
E. Interventions
   1. Mount mirror at appropriate height.
   2. Possible Adaptations: (Reed, p. 860)
      a) Sit on a stool/propped elbows on countertop
      b) Long handled attachments with combs or brushes
      c) Large handles
      d) Electric toothbrush
      e) Heel of hand to squeeze toothpaste

XIII. Mobility
A. Positive effect on social, emotional, and intellectual state
B. Less dependent on controlling through verbal cues and more active participation
C. Wheelchair Fitting
   1. Seat length-
a) Support femur
b) 1-2 inches behind knee to prevent pressure

2. Seat width
   a) Leave room for growth
   b) Narrow enough to be able to self-propel
   c) Not too narrow or wide

3. Seat height
   a) Distance from floor to sitting surface

4. Seat to back angle should be 90-100 degrees

5. Back surface
   a) Vinyl/fabric/solid?

6. Height and position of backrest
   a) Not higher than scapula

7. Arm rest
   a) Position and support
   b) Removable/flip up?

8. Wheels and tires
   a) 2 large, 2 small

9. Wheel locks

10. Handrim

11. Tip bars
   a) In the back

12. Chair Weight
   a) Ease to transport

D. Interventions
   1. Sit first in car seat and then swing legs in
   2. Use a sliding board
   3. Arrange furniture so wheelchair can be next to bed or most utilized furniture

XIV. Barriers in the home
A. Steps
B. Narrow doorways
C. Stairs with no railings
D. Heavy doors
E. Thresholds higher than 1/2 inch
F. Locks difficult to manipulate
G. Slippery floors
H. Uneven floor surface
I. Multiple levels
J. Loose carpets
K. Bad lighting
L. Lack of color contrast at edges or thresholds
M. Clutter
N. No grab bars by tub/toilet
O. Height of tub/shower threshold
P. Height of toilet
Q. Not enough space for mobility devices
R. Slippery floors
S. Counters too high
T. Height of shelves
U. Tiny controls on appliances
V. Loose cords
W. Quiet phone/doorbell
X. Height of seats
Y. Small print on items
Z. Sharp corners to run into

XV. Caregiver burden
A. Activity: How could having to do ADLs affect the family? This activity could be done as cases, skits or in a class discussion.
B. Adaptive seating can decrease caregiver burden in feeding, transporting, and caring for child with disabilities
C. In the long run, caregivers report having more time and energy.
D. How can you help?
   1. Help organize schedule to allow for self-care.
   2. Teach body mechanics for transfers.
   3. Facilitate ways to communicate with child.
   4. Teach parenting skills.
   5. Create accessible living area.
   6. Help caregiver access resources.
   7. Teach ways to minimize fatigue.
   8. Help caregiver recognize support network.
Positioning for ADLs

<table>
<thead>
<tr>
<th>Area of Occupation</th>
<th>Optimal Position</th>
<th>Equipment/Interventions Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeding</td>
<td>- Trunk is stable.</td>
<td>- Adapted chairs</td>
</tr>
<tr>
<td></td>
<td>- Chin tucked.</td>
<td>- Tray attached to chair/wheelchair</td>
</tr>
<tr>
<td></td>
<td>- Head in midline.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Neck and shoulders aligned.</td>
<td></td>
</tr>
<tr>
<td>Bathing</td>
<td>- Ensure child is safe.</td>
<td>- Tub/shower chair</td>
</tr>
<tr>
<td></td>
<td>- Trunk stable</td>
<td>- Reclined bath seat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Sink</td>
</tr>
<tr>
<td>Grooming/Hygiene</td>
<td>- Stable posture</td>
<td>- Placement of supplies</td>
</tr>
<tr>
<td></td>
<td>- Sitting or standing</td>
<td>- Where performing task</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toileting</td>
<td>- Stable trunk</td>
<td>- Adapted toilet seat</td>
</tr>
<tr>
<td></td>
<td>- Feet fully supported</td>
<td>- Commode</td>
</tr>
<tr>
<td></td>
<td>- Knees bent</td>
<td>- Utilize wall or grab bars for stability</td>
</tr>
<tr>
<td>Dressing</td>
<td>- Trunk is stable</td>
<td>- Lie down for dressing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Utilize a chair</td>
</tr>
</tbody>
</table>

## Activity Analysis Worksheet

**Problem: Difficulty paying attention in therapy due to poor attention and concentration.**

<table>
<thead>
<tr>
<th>Modify the Activity/Occupation</th>
<th>Modify the Method (Person)</th>
<th>Modify the Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Problem: Difficulty learning a morning self-care routine due to poor memory.**

<table>
<thead>
<tr>
<th>Modify the Activity/Occupation</th>
<th>Modify the Method (Person)</th>
<th>Modify the Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Problem: Difficulty writing due to poor fine motor coordination**

<table>
<thead>
<tr>
<th>Modify the Activity/Occupation</th>
<th>Modify the Method (Person)</th>
<th>Modify the Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

**Problem: Difficulty dressing due to poor balance**

<table>
<thead>
<tr>
<th>Modify the Activity/Occupation</th>
<th>Modify the Method (Person)</th>
<th>Modify the Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

**Problem: Poor follow through in toy clean up**

<table>
<thead>
<tr>
<th>Modify the Activity/Occupation</th>
<th>Modify the Method (Person)</th>
<th>Modify the Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Reference: Tiffany’s grading lecture and worksheet
Correct Feeding

1. Position: Semi-reclined

2. Control Flow

   DANGER:
   - Too fast = choking, gagging, wheezing, coughing
   - Too slow = Baby gets tired

3. Take short breaks
<table>
<thead>
<tr>
<th>Name:</th>
<th>Examiner:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Birth:</td>
<td>Diagnosis and concerns:</td>
</tr>
<tr>
<td>Date of Assessment:</td>
<td></td>
</tr>
<tr>
<td>Age:</td>
<td></td>
</tr>
<tr>
<td>Body Position (circle below):</td>
<td></td>
</tr>
<tr>
<td>Supine</td>
<td>Prone</td>
</tr>
<tr>
<td>Sitting with support</td>
<td>Sidelying</td>
</tr>
<tr>
<td>Support Required (circle below):</td>
<td>Head Position:</td>
</tr>
<tr>
<td>None</td>
<td>Minimal</td>
</tr>
<tr>
<td>Total</td>
<td>Extension</td>
</tr>
<tr>
<td></td>
<td>forward</td>
</tr>
</tbody>
</table>

**Bottle**

Indicate liquid amount administered:

<table>
<thead>
<tr>
<th>Unable to administer</th>
<th>Rated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refused</td>
<td>Omitted</td>
</tr>
<tr>
<td>Reaction 2</td>
<td>Anticipates mouth opening</td>
</tr>
<tr>
<td>Reaction 4</td>
<td>No liquid enters mouth</td>
</tr>
<tr>
<td>Accept 2</td>
<td>Accepts liquid within 2 seconds</td>
</tr>
<tr>
<td>Lip 3</td>
<td>Upper lip firmly seals around nipple</td>
</tr>
<tr>
<td>Lip 5</td>
<td>Intermittent/incomplete upper lip contact/seal</td>
</tr>
<tr>
<td>Lip 6</td>
<td>Intermittent/incomplete lower lip contact/seal</td>
</tr>
<tr>
<td>Lip 7</td>
<td>Lip closure during swallow</td>
</tr>
<tr>
<td>Jaw 1</td>
<td>Small vertical movements</td>
</tr>
<tr>
<td>Sequence</td>
<td>Smooth rhythmic sequence</td>
</tr>
</tbody>
</table>

Sum of Shaded boxes (shaded boxes indicate delay)

Cut-off scores:  
- > 5 indicates oral motor dysfunction  
- < 5 indicates normal oral motor function

**General Guidelines for this level:**
- At 1-2 months child takes thin liquids from breast or bottle only and consumes 2-6 oz of liquid per feeding (6 or more feedings per day)  
- At 3 months child consumes 7-8 oz of liquid per feeding (4-6 feedings per day)  
- 6 months takes 9 or more ounces of food or liquid per feeding (4-6 feedings per day)  
- 9 months takes 6-8 ounces (3-5 times per day)  
- 12 months takes 6-8 ounces (3-4 times per day)
Scales of Oral Motor Assessment
Category: Purée (6-9 months)

<table>
<thead>
<tr>
<th>Name:</th>
<th>Examiner:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Birth:</td>
<td>Diagnosis and concerns:</td>
</tr>
<tr>
<td>Date of Assessment:</td>
<td></td>
</tr>
<tr>
<td>Age:</td>
<td></td>
</tr>
</tbody>
</table>

Body Position (circle below):
- Supine
- Prone
- Sitting
- Sitting with support
- Sidelying

Support Required (circle below):
- None
- Minimal
- Moderate
- Forward Flexion
- Side Flexion
- Total

Head Position:
- Extension
- Extension forward
- Extension backward

**Puree (circle choice)**

<table>
<thead>
<tr>
<th>Fromage Frais</th>
<th>Mousse</th>
<th>Puréed Fruit</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unable to administer</td>
<td>Rated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>React 1</td>
<td>Head orientation to spoon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sequence 1</td>
<td>Smooth rhythmic sequence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lip 1</td>
<td>Lower lip draws inwards around spoon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lip 2</td>
<td>Upper lip removes food from spoon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lip 3</td>
<td>Lower/upper lip assists in cleaning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lip 11</td>
<td>Lower lip active during suck/munch/chew</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tongue 11</td>
<td>Consistent/considerable protrusion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tongue 12</td>
<td>Protrusion beyond incisors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jaw 1</td>
<td>Graded jaw opening</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Cut-off scores:
- > 3 indicates oral motor dysfunction
- < 3 indicates oral motor function

**General Guidelines for this level:**

6 months:
- Introduce cereal and pureed texture (thin purees first, then thick purees)
- Takes 9 or more ounces of food or liquid per feeding (4-6 feedings per day)
- Expanding of tastes primarily bland, sweet,

9 months:
- Temperature of foods primarily room temperature to slightly warmed
- May gag with new textures
- Thin liquids (breast milk or formula) 6-8 ounces 3-5 times per day
Scales of Oral Motor Assessment  
Category: Semi-Solids (9-12 months)

<table>
<thead>
<tr>
<th>Name:</th>
<th>Examiner:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Birth:</td>
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<td>Date of Assessment:</td>
<td></td>
</tr>
<tr>
<td>Age:</td>
<td></td>
</tr>
<tr>
<td>Body Position (circle below):</td>
<td></td>
</tr>
<tr>
<td>Supine</td>
<td>Prone</td>
</tr>
<tr>
<td>Sitting with support</td>
<td>Sidelying</td>
</tr>
<tr>
<td>Support Required (circle below):</td>
<td>Head Position:</td>
</tr>
<tr>
<td>None</td>
<td>Minimal</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>

### Semi-solids

<table>
<thead>
<tr>
<th>Peas</th>
<th>Baked beans</th>
<th>Cottage cheese</th>
<th>Other</th>
<th>(Circle choice)</th>
</tr>
</thead>
</table>

### Unable to administer

<table>
<thead>
<tr>
<th>Refused</th>
<th>Omitted</th>
<th>Not observed</th>
<th>Rated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Drool 1: Consistent/considerable drooling
- Sequence 1: Smooth rhythmic sequence
- Initiation 1: Sequence initiated within 2 seconds
- Lip 13: Lips closed during swallow
- Jaw 1: Graded jaw opening
- Jaw 2: Internal jaw stabilization
- Jaw 3: External jaw stabilization required 100%
- Jaw 10: Associated jaw movements

**General Guidelines for this level:**

- Cut-off scores:  
  - > 4 indicates oral motor dysfunction
  - < 4 indicates normal oral motor function

- Sum of Shaded boxes (shaded boxes indicate delay)
• 9 months:
  - Pureed and fork mashed table foods
  - Dissolvable solids/meltable hard solids
  - Soft foods/soft cubes at 10 months
  - Single textured soft mechanical at 11 months
• 12 months
  - Breast milk or formula (6-8 ounces 3-4 times per day)
  - Beginning to eat table foods (chopped coarsely)
  - Mixed texture soft mechanical
  - Easily chewed foods, including meats
  - Increased finger feeding with improved security when seated

Scales of Oral Motor Assessment
Category: Trainer Cup (6-12 months)

<table>
<thead>
<tr>
<th>Name:</th>
<th>Examiner:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Date of Birth:</th>
<th>Diagnosis and concerns:</th>
</tr>
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<tbody>
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</table>

<table>
<thead>
<tr>
<th>Date of Assessment:</th>
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</table>

<table>
<thead>
<tr>
<th>Age:</th>
<th></th>
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</thead>
<tbody>
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</table>

<table>
<thead>
<tr>
<th>Body Position (circle below):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Supine</td>
<td></td>
</tr>
<tr>
<td>Prone</td>
<td></td>
</tr>
<tr>
<td>Sitting</td>
<td></td>
</tr>
<tr>
<td>Sitting with support</td>
<td></td>
</tr>
<tr>
<td>Sidelying</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Support Required (circle below):</th>
<th>Head Position:</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Minimal</td>
<td></td>
</tr>
<tr>
<td>Moderate</td>
<td></td>
</tr>
<tr>
<td>Forward Flexion</td>
<td></td>
</tr>
<tr>
<td>Side Flexion</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Extension</td>
</tr>
<tr>
<td></td>
<td>forward</td>
</tr>
<tr>
<td></td>
<td>Extension</td>
</tr>
<tr>
<td></td>
<td>backward</td>
</tr>
</tbody>
</table>

## Trainer Cup

<table>
<thead>
<tr>
<th>Indicate liquid amount administered:</th>
<th></th>
<th></th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

***Unable to administer***

<table>
<thead>
<tr>
<th>Refused</th>
<th>Omitted</th>
<th>Not observed</th>
<th>Rated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Liquid loss</th>
<th>Profuse/marked liquid loss</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Sequence 2</th>
<th>Panic reactions when liquid presented</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Sequence 3</th>
<th>Choking</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<table>
<thead>
<tr>
<th>Tongue 10</th>
<th>Tongue thrust</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Tongue 11</th>
<th>Asymmetry</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jaw 1</td>
<td>Small vertical movements</td>
<td></td>
</tr>
<tr>
<td>Jaw 6</td>
<td>Jaw alignment during drinking</td>
<td></td>
</tr>
<tr>
<td>Jaw 10</td>
<td>External jaw stabilization required 100%</td>
<td></td>
</tr>
<tr>
<td>Jaw 12</td>
<td>Internal stabilization</td>
<td></td>
</tr>
<tr>
<td>Swallow 1</td>
<td>Jaw alignment</td>
<td></td>
</tr>
<tr>
<td>Swallow 4</td>
<td>Panic reactions during/after swallow</td>
<td></td>
</tr>
<tr>
<td>Swallow 5</td>
<td>No swallow observed</td>
<td></td>
</tr>
<tr>
<td>Swallow 6</td>
<td>Uses gravity, e.g. head extension</td>
<td></td>
</tr>
<tr>
<td>Swallow 7</td>
<td>Numerous attempts to initiate swallow</td>
<td></td>
</tr>
</tbody>
</table>

Sum of Shaded boxes (shaded boxes indicate delay)

Cut-off scores:  > 5 indicates oral motor dysfunction
< 5 indicates normal oral motor function

**General Guidelines for this level:**
- 6 months takes 9 or more ounces of food or liquid per feeding (4-6 feedings per day)
- 9 months takes thin liquids (breast milk or formula) 6-8 ounces 3-5 times per day
- 9 months:
  - Pureed and fork mashed table foods
  - Dissolvable solids/meltable hard solids
  - Soft foods/soft cubes at 10 months
  - Single textured soft mechanical at 11 months
- 12 months Breast milk or formula (6-8 ounces 3-4 times per day)
  - Beginning to eat table foods (chopped coarsely)
  - Mixed texture soft mechanical
  - Easily chewed foods, including meats
  - Increased finger feeding with improved security when seated

---

**Scales of Oral Motor Assessment**
**Category: Cup (12-24 months)**

| Name: | Examiner: |
| Date of Birth: | Diagnosis and concerns: |
| Date of Assessment: | |
| Age: | |
| Body Position (circle below): | | | | |
| Supine | Prone | Sitting |
| Sitting with support | Sidelying |
| Support Required (circle below): | | | | |
| None | Minimal | Moderate | Forward Flexion | Side Flexion |
| Total | Extension | Extension | | |
## Scales of Oral Motor Assessment

### Category: Solids (16-24 months)

<table>
<thead>
<tr>
<th>Name:</th>
<th>Examiner:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Birth:</td>
<td>Diagnosis and concerns:</td>
</tr>
<tr>
<td>Date of Assessment:</td>
<td></td>
</tr>
<tr>
<td>Age:</td>
<td></td>
</tr>
<tr>
<td>Body Position (circle below):</td>
<td></td>
</tr>
<tr>
<td>Supine</td>
<td>Prone</td>
</tr>
<tr>
<td>Sitting with support</td>
<td>Sidelying</td>
</tr>
</tbody>
</table>

### Cup (circle choice)

<table>
<thead>
<tr>
<th>Fromage Frais</th>
<th>Mousse</th>
<th>Pureed Fruit</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unable to administer</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refused</td>
<td>Omitted</td>
<td>Not observed</td>
<td></td>
</tr>
<tr>
<td>Accept 2</td>
<td>Accepts within 2 seconds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sequence 2</td>
<td>Panic reactions when liquid placed in mouth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sequence 3</td>
<td>Choking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liquid loss</td>
<td>Profuse/marked liquid loss</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tongue 10</td>
<td>Tongue thrust</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tongue 11</td>
<td>Asymmetry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jaw 1</td>
<td>Small vertical movements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jaw 4</td>
<td>Jaw clenching</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Swallow 9</td>
<td>Gagging</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sum of Shaded boxes (shaded boxes indicate delay)

Cut-off scores:
- > 5 indicates oral motor dysfunction
- < 5 indicates oral motor function

### General Guidelines for this level:

<table>
<thead>
<tr>
<th>12 months:</th>
<th>18 months:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cup drinking by exploring coordination of suck-swallow-breathe for up to 2-3 consecutive swallows</td>
<td>Coarsely chopped table foods and mixed textures</td>
</tr>
<tr>
<td>16 months: Coarsely chopped table foods (Some cut up soft meats and steamed vegetables)</td>
<td>24 months: All table foods except those with skins, very tough meats, or foods that break into large pieces</td>
</tr>
</tbody>
</table>

General Guidelines for this level:
<table>
<thead>
<tr>
<th>Support Required (circle below):</th>
<th>Head Position:</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None/Minimal</td>
</tr>
<tr>
<td>Minimal</td>
<td>Moderate</td>
</tr>
<tr>
<td>Forward Flexion</td>
<td>Forward Flexion</td>
</tr>
<tr>
<td>Side Flexion</td>
<td>Extension</td>
</tr>
<tr>
<td>Total</td>
<td>Extension</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Head Position:</th>
<th>Extension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extension</td>
<td>Extension</td>
</tr>
<tr>
<td>Forward Flexion</td>
<td>Extension</td>
</tr>
<tr>
<td>Backward</td>
<td>Extension</td>
</tr>
</tbody>
</table>

### Solids (circle choice)

<table>
<thead>
<tr>
<th>Potato salad</th>
<th>Fruit salad</th>
<th>Other</th>
</tr>
</thead>
</table>

### Unable to administer

<table>
<thead>
<tr>
<th>Refused</th>
<th>Omitted</th>
<th>Not observed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

| Food loss 1 | None/trivial |
| Drop 1      | Consistent/considerable drooling |
| Sequence 1  | Smooth rhythmic sequence |
| Lip 1       | Lower lip draws inwards around spoon |
| Lip 2       | Upper lip removes food from spoon |
| Lip 4       | Lower lip behind upper teeth/sucking |
| Lip 11      | Lower lip active during suck/munch/chew |
| Tongue 10   | Transient/minimal tongue protrusion |
| Jaw 1       | Graded jaw opening |

**Sum of Shaded boxes (shaded boxes indicate delay)**

**Cut-off scores:**
- > 4 indicates oral motor dysfunction
- < 4 indicates oral motor function

### General Guidelines for this level:

**16 months:**
- Mashed foods
- Coarsely chopped table foods
- Some cut up soft meats and steamed vegetables
- Hard mechanical
- Refinement and maturation with increased textures

**18 months:**
- Coarsely chopped table foods
- Most meats and raw vegetables
- Mixed textures

**24 months:**
- All table foods except those with skins, very tough meats, or foods that break into large pieces
Adaptations

**Low vision or hearing**
- Use other senses
- Amplify sensory characteristics of objects- color, size, tactile, auditory
- Cues consistently re start or finish of activity
- Use tactile, verbal, visual or object cues
- Use gestures
- Decrease auditory and visual distractions

**Tactile Defensiveness**
- Use deep pressure and rhythmic touch to prepare
- Provide tactile preferences
- Wear snug/loose clothing, whichever is preferred

**Difficulty with dressing**
- Emphasize characteristics of clothing
- Visual cues
- Reduce distractions
- Encourage systematic scanning routine to search for objects

**Difficulty with postural control**
- Provide external support
- Change child's position
- Change activity position

**Limited reach**
- Change Activity position
- Lengthen handles

**Poor grasp**
- Build up handles
- Utilize straps/universal cuffs
- Stabilize with other body parts

**Weakness and poor endurance**
- Work in gravity-eliminated planes
- Reduce load
- Utilize power equipment

**Limited motor control**
- Stable base of support
- Reduce need for precise movement
- Weighted objects for proprioceptive input

**Poor Memory**
- Routines
- Grade activity- backward/forward chaining
- Visual schedule
- Checklists
- Assistive tech
- Verbal cues

**Easily frustrated**
- Identify why child is behaving that way
Limit exposure to the cause of behavior
Provide choices
Reinforce appropriate behavior
Use prompts and generalization

Unit 6: Play

I. What is play?

A. Play is practice separating thought from world and reliance on ideas to guide behavior.
B. Play is inherent, in other cultures where they may not have time to play, children weave play into their chores.
C. A way for children to rearrange world to make it more accessible to them.
D. Play allows for participation learning and development.
E. Values, behaviors and roles are defined in cultures and through play.
F. Play provides a variety of opportunities for creativity, illusion, change, chance.
G. Children with disabilities tend to need a little more assistance to free play.
H. Characteristics of Play (Miller Kuhaneck, Spitzer, & Miller, 2010, p. 6)
   1. Flexibility
   2. Spontaneity
   3. Intrinsic motivation
   4. Non literal use of objects
   5. Voluntary
   6. Fun
I. Conditions for Play
   1. Provides opportunities to try out environment and develop wide repertoire of responses.
   2. Allows for calibrating emotions, motor system, stress response, and attachment systems.
   3. Sufficient energy
   4. There's a buffer from severe stress.
   5. There's a need for stimulation
   6. There are a complex sequences of behaviors.
   7. It's in a natural spaces that is free from danger and does not have a lot of adult restrictions.
J. Play and learning
   1. Child's work- child is in control
   2. Experiment, practice, improve

II. Importance of Play

A. The child develops motivation, internal control, ability to suspend reality, ability to give and read cues.
B. Play is important to survival, well-being, and development.
C. Play is viewed as the foundation for adult competency.
D. It helps develop reasoning, thinking, and problem solving skills.
E. It helps children develop behavioral strategies.
F. Play also helps physical and motor development.
G. Play also helps develop self-protecting enhance adaptive capabilities and resilience.
H. It teaches humans pleasure, enjoyment, emotional regulation, stress response, attachment, learning and creativity.
I. Play can be an arena for difficult lessons, but can also be a place for coping and acceptance

J. Play has been shown to be effective for skill building.

K. Play encourages more active participation in tasks for individuals with disabilities.

L. Current theories for Function of Play
   1. Play is to prepare for adulthood.
   2. Play builds social competence.
   3. Play exists to test competence.
   4. Play is utilized to develop creativity and flexibility.
   5. Play encourages brain development.

M. Types of interaction in play
   1. Child-child
      a) This interaction teaches the child how to interact and behave with peers in society.
      b) This interaction also provides new perspectives to the child into terms of thinking and problem solving.
   2. Adult-child
      a) Children learn by observation and imitation of those around them.
      b) Fun for the adult too!
      c) Adults express through speech, facial expressions, body language. The child learns from these.
      d) Affects caregiver interaction
      e) Decrease negative behaviors
      f) Facilitates child to child play
      g) Building rapport with child
         (1) Reduce power difference- Don't act/convey yourself as an authority figure
         (2) Look for strategies
            (a) Individualize activities and approaches
         (3) Develop history
            (a) Interview care givers
            (b) Share personal stories
         (4) Follow child's direction
         (5) All your actions communicate something
         (6) Provide choices
         (7) Encourage and facilitate joint problem solving
         (8) Use humor/joke
         (9) Believe in potential
         (10) Know self and control responses

N. Benefits of play
   1. Mitigate stress
      a) Severe stress can led to impaired brain development and functioning
      b) Develop resilience to toxic stressors
   2. Provides feedback in
a) Emotion regulation
   (1) Balancing primary and secondary emotions

b) Stress response systems
   (1) Fine tune stress response to respond appropriately to new challenges

c) Social interaction and engagement
   (1) Attachment
   (2) Mutual emotional regulation
   (3) Peer relationships

d) Learning social dynamics

e) Learning rules of engagement

f) Allows children to perceive world from different angles

g) Learn to recognize threats and opportunities

3. Learn to recognize connections

O. Chance for independence

P. Absence of play can lead to disruption in emotional regulation, which in turn leads to physical, social, cognitive decrease

Q. Good health is facilitated by a balance of work, rest and play.

III. What is Playfulness

A. Associated with wellness

B. Playfulness encourages active participation.

C. Considerations to conveying playfulness
   1. Flexibility
   2. Change/adapt the physical location
   3. Redefine the problem
   4. Find the core problem
   5. Look at the big picture
   6. What are the alternative
   7. Experiment with different activities- It's all about trial and error.
   8. Keep an open mind
      a) Entertain possibilities
      b) Consider and adapt similar approaches
      c) Question assumptions
      d) Change the restrictions
      e) Be persistent

D. Conveying Playfulness
   1. Body Orientation/Language
      a) Turn toward the child
      b) Use exaggerated, slow body movements
      c) Hold out, manipulate, hid, or point to objects
      d) Facial expression
      e) Exaggerate and hold positive emotion
      f) Imitate
      g) Stay close
   2. Voice characteristics/Language
      a) Use a playful tone
b) Vary pitch, loudness, rhythm  
c) Repeat sounds  
d) Imitate sounds and ways that sounds are used  
e) Imitate words  
f) Match language to child’s  
g) Use song/rhythm/ melody  
h) Use kid words  
i) Use humor or a mischievous tone  
j) Talk as if toys are alive and thinking

3. Therapeutic touch  
a) Use appropriate to context

4. Eye gaze  
a) Look at the child  
b) Look between child and toy

E. Research has shown playful individuals show more adaptive behavior.

F. Activity: Self-Assessment of Playfulness  

G. Resource: Self-Reflection Form

IV. Play as a primary occupation  
A. There is a concept of the functional view of play  
B. Stress-achieving balance  
C. relationships

V. Development in terms of play  
A. 0-6 months  
1. Object Play  
a) Uses a variety of grasps  
b) Transfers objects  
c) Visually explores objects  
d) Plays with hands at midline  
e) Grasps at objects

2. Social Play  
a) Focus on bonding with caregiver  
b) Repeats pleasurable experiences  
c) Simple emotions through facial expression or noises such as cuing

3. Motor Play  
a) Bounces when standing with support from parents  
b) Rolls

B. 6-12 months  
1. Object Play  
a) Exploratory play begins to be functional play  
b) Exploring toys with mouth  
c) Looks at picture book  
d) Accurate reach for toys  
e) Plays with toys at midline  
f) Bangs objects  
g) Waves objects
h) Releases toys
i) Exploring properties and uses of object
j) Begins to use toys for function
k) Basic use of tools

2. Social Play
   a) Attached with caregivers
   b) Give and take
   c) Interacts with peers

3. Motor Play
   a) Grasps with fingertips
   b) Points at toys
   c) Rolls ball
   d) Rolls
   e) Plays in standing with support

C. 12-18 months
1. Object Play
   a) Makes scribbles
   b) Holds two toys at the same time—one in each hand
   c) Stacks blocks and fits toys in shapes
   d) Opens and shuts containers
   e) Points to pictures
   f) Uses two hands to play

2. Pretend Play
   a) Explores everywhere in a room
   b) Simple pretend play toward self
   c) Simple play schemes

3. Social Play
   a) Imitates
   b) Interacts with peers
   c) Parallel play
   d) Uses trial and error to problem solve
   e) Shares toys
   f) Responds to facial expressions
   g) Solitary play

4. Motor Play
   a) Rolls and crawls to play
   b) Plays in standing
   c) Squats to pick up toys
   d) Flings ball
   e) Pulls toys while moving
   f) Runs

D. 18-24 months
1. Social Play
   a) Parallel play
   b) Imitates parents and peers
   c) Participates in groups of children
d) Watches other children

e) Demonstrates frustration

f) Takes turns

2. Pretend play

a) More elaborate play schemes

b) Relates toys and actions together

c) Has objects perform actions

d) Symbolizes other objects

3. Object Play

a) Completes simple puzzles

b) Builds towers

c) Draws simple figures

d) Strings beads

e) Uses simple tools

f) Turns pages

g) Participates in multistep activities

4. Motor Play

a) Enjoys sensory input

b) Climbs furniture

c) Climbs jungle gym

d) Kicks ball

e) Throws ball at a target

f) Jumps with both feet

E. 24-36 months

1. Pretend play

a) Uses toys to represent characters

b) Creates scenarios

2. Social Play

a) Associative

b) Dress-up

c) Cooperative play

d) Socializing with peers

e) Shy with strangers

f) Minimal engagement in dialogue

g) Parallel play

3. Object Play

a) Drawing

b) Colors

c) Lines up objects

d) Snips

4. Motor Play

a) Jumping

b) Rough-housing

c) Tricycle

d) Catches large ball

e) Jumps from small height
3-4 years
1. Motor Play
   a) Physical play - slides, jumping, running, swinging
   b) Skips
   c) Hops
   d) Rides tricycle
2. Social Play
   a) Associative play
   b) Plays with other children
   c) Prefers group play
   d) Builds friendships
   e) Works with other children toward a goal
3. Object Play
   a) Categorizes/sorts
   b) Attempts challenging activities
   c) Creates art with some assist
4. Pretend Play
   a) Constructs 3-D designs
   b) Imaginary objects in play
   c) Has toys interact

4-5 years
1. Object Play
   a) Games with rules
   b) Understands rules
   c) Organized play
   d) Completes puzzles
   e) Draws stick figures
   f) Strings 1/4 inch beads
   g) Colors in the lines
   h) Utilizes both hands in play
2. Social Play
   a) Cooperative play
   b) Abstract problem solving
   c) Sings songs
   d) Proud of products
3. Motor Play
   a) Jumps forward
   b) Throws ball
   c) Hops
   d) Aims at a target
   e) Skips
   f) Organized gross motor play
4. Pretend Play
   a) Interest in goal
   b) Role play
c) Dress up

d) Tells a story

e) Pretend play with scripts and imaginary characters

H. 5-6 years

1. Object Play
   a) Board games
   b) Computer games
   c) Completes puzzles

2. Pretend Play
   a) Role play stories with themes
   b) Emphasis on reality
   c) Real world parallel to play world

3. Social Play
   a) Develops friendships
   b) Group activities
   c) Demonstrating empathy
   d) Reasons through simple problems

4. Motor Play
   a) Catches ball with two hands
   b) Accuracy in kicking
   c) Balances on one foot
   d) Participates in ball sports
   e) Manipulates tiny objects
   f) Bilateral coordination

I. 6-10 years

1. Object Play
   a) Computer games
   b) Card games
   c) Demonstrates hobbies
   d) Complex drawing

2. Motor Play
   a) Throws ball long distances
   b) Catches ball
   c) Run with speed and endurance

3. Social Play
   a) Participates in organized sports
   b) Talking and joking
   c) Tries to please others
   d) Regulates behaviors
   e) Peer play dominating
   f) Problem solving

J. 10-12 years

1. Object Play
   a) Video games
   b) Model building
   c) Computer games
2. Motor Play
   a) Kinetic sports
   b) Competition
3. Social Play
   a) Peers are motivating

K. 12-18 years
   1. Social
   2. Athletics
   3. Skill building

VI. Play as an intervention
   A. There is an emphasis on process, not product, which is what therapy also emphasizes
   B. Facilitate child play and relaxation
   C. Build rapport
      1. Child in control
      2. It is viewed as safe and unthreatening
      3. Intrinsic motivation
   D. Playfulness is an attitude toward play
      1. The more playful individuals are the more flexible to environment
   E. Play as an intervention tool should be a child-directed interaction involving more than him/herself for enjoyment and stimulation.
   F. 6 Keys to incorporating play in therapy
      1. Plan
      2. Be flexible
      3. Use environment
      4. Let child lead
      5. Incorporate family
      6. Integrate goals from other disciplines
   G. Play can help with attention, motor and functional skills, sensory processing, perceptual abilities, cognitive development, social, cognitive and language development.
   H. Therapeutic benefits
      1. Physical exercise
         a) Endurance
      2. Control body movements
      3. Perceptual-motor integration
      4. Testing aspects of environment
      5. Establish social roles and alliances
      6. Enhance psychological and physiological well-being and resilience
      7. Enhancing adaptive systems
      8. Joy
         a) Feelings of joy and pleasure are associated with flexible and open responses to situation with effective problem-solving, self-control, forward looking thinking and caution in dangerous situations
   I. Initiate play using established conventions
Self-Assessment of Playfulness

1. The most important type of play is _________________________________.

2. I prefer to play _________________________________.

3. List your favorite and least favorite memory of play as a child
   a. Favorite Memory:
      _________________________________.
   b. Least favorite memory:
      _________________________________.

4. I prefer that children play this way
   _________________________________.

5. I am uncomfortable when children play this way
   _________________________________.

6. What I dislike most about children’s play is
   _________________________________.

7. I am (un) comfortable being silly.

8. I am (un) comfortable acting like a child.

9. I am (un) comfortable being close to children.

10. I am (un) comfortable sharing control with a child.

11. I feel (un) comfortable waiting for a child's response.

12. I believe adults should behave with children this way:
    _________________________________.

13. I believe adults should not behave this way:
    _________________________________.

14. My three greatest strengths for utilizing play in therapy are
    _________________________________.
    _________________________________.
    _________________________________.

15. Three areas of improvement are:
    _________________________________.
    _________________________________.
    _________________________________.

Self-Reflection Form

1. How did you communicate playfulness?
   a. Nonverbal
   b. Verbal

2. How did you obtain and analyze and respond to cues from the child?

3. How did you build rapport with the child?

4. What challenges were there?

5. What part of this session was most fun for you?

6. What was most challenging for you?

7. What would you do differently?

Unit 7: Intervention Ideas

This unit is a continually developing unit. It allows the individuals participating in this program to research evidence-based interventions or maybe even suggest their own and start researching them. The culminating activity in this curriculum will be a mini-presentation on the intervention they chose to research or the intervention they came up with (including reasoning behind why this intervention may work). Previous work will be added to this unit as examples and as a resource.
DIR Floortime

Developmental
Understanding the stages of healthy emotional and cognitive development

Individual Difference
The unique way a child processes information

Relationship-based
Learning relationships enable a child to progress in his/her development

Floortime
Follow the child’s lead to enter his emotional world then create a series of opportunities and Challenges to help him/her to move up to higher levels of relating, communicating, and thinking.

Functional Goals:
1. Self-Regulation and attention: take in sights and sounds and maintain shared attention
2. Engagement and Relating
3. Use affect to convey intent-two way communication
4. Behavioral Organization
5. Creates and elaborates with symbols: represents ideas and emotional themes
6. Emotional thinking logical-abstract: bridges ideas, elaborates and can reflect on actions, motives, aware of time and space

How?
- Follow the child’s lead and join in
- Describe what the child is communicating, especially on an emotional level.
- Ask open ended questions.
- Insert obstacles into the play to challenge the child.
- Use your voice to help engage the child.
- Help the child to elaborate on the theme of his play.
- Encourage role play, dress up, or play with puppets.
- Don’t solve problems for the child; let him solve them himself, with some coaching or brainstorming.
Practical Floortime Application

Set up the environment to promote creative play which might include

- Pretend corner
- Gross motor area
- Listening and reading corner
- Sensory, music, and art area
- Oral-motor area
- Obstacle course
- Swings
- Trampolines
- Slides

Resources:


FloortimeTM DVD Training Series
http://www.icdl.com/
http://www.autismweb.com/floortime.htm
http://stanleygreenspan.com/

DIR/Floortime

A framework focused on building healthy foundations for social, emotional, and intellectual abilities, rather than focusing on skills and isolated behaviors.

Presented by:
Mackenzie Schack
Conclusion

A great deal of preparation was completed for the therapy team’s time in China. Preparation included: seminars on China’s healthcare system, occupational therapy in China, appropriate models of practice to guide our intervention approach in China, Chinese language classes, cultural competency discussions, as well as various meetings to discuss linguistics, goals, and areas of focus. Educational materials were also developed by both teams for the staff and caregivers at the Third Military Hospital and the Social Welfare Institute.

The Innovative Practice Project supervisors and the entire team developed goals and specific areas of focus for their time in China. It was decided the team would:

1. Focus on reinforcing trainings introduced during previous visits including; transfers, seating and positioning, feeding, and increased participation and engagement in everyday life,
2. Continue trainings on making treatment playful, purposeful, and inclusive of motor learning principles,
3. Provide training and education to staff and caregivers on how to promote increased independent functioning and assist them in developing plans to foster greater independence to enable the children to more closely reach their potential,
4. Provide interventions to children with a variety of disabilities in the hospital, orphanage, and foster homes,
5. Help the staff and caregivers to develop appropriate plans of care as well as identifying and hopefully generalizing goals for other children.

The spring team provided education and training as well as direct treatment services during their time at the Hospital and orphanage. During their time at the hospital, Sandra Rogers
lectured on the Alberta Infant Motor Scale (AIMS), the Ages and Stages assessment, and the concepts of validity, reliability, and standardized assessment. Chris Macfarlane completed a lecture on Learned Helplessness and how to increase participation during treatment. At the hospital’s rehab center, evaluations were completed and interventions were provided with doctors and therapists present to provide training and education simultaneously. At the outpatient clinic screenings were completed to identify children with developmental and motor delays, and intervention recommendations were provided. The hospital staff was also provided with feeding templates created by the therapy team to help develop a feeding assessment to be used at the hospital. At the orphanage, the therapy team provided evaluation services and intervention recommendations for specific children. Training and education regarding feeding interventions for cleft palate and low tone issues were continued. Communication books were introduced to use with the preschool class, as well as recommendations for behavioral issues. Positioning recommendations for the more severely disabled children were provided. Toys and dress-up clothes were provided to the preschool class and younger children for development of fine-motor skills, cause and effect skills, sequencing skills, exploratory and imaginative play, tactile stimulation, and auditory stimulation. The team stressed the importance of having the toys accessible to the children for increased stimulation throughout the day which is important for development, as well as making treatment fun and dynamic for increased engagement. The spring team was also able to identify areas for follow-up to be addressed by the summer team.

The summer team will follow-up on indentified areas of focus, continue training and education to staff and caregivers, and continue development of the curriculum for the purposed certificate program. The summer team and future team members will continue to fulfill the mission of this project to train and support local staff and to help children progress as much as
possible toward educational/academic, physical, social, and cognitive independence. This project has enormous potential for involvement of additional health disciplines, program development for increased education of therapists in China, collection of normative data from Chinese children for accurate developmental assessments, and new partnerships with organizations throughout China. The vision for this project is continued growth and development to carry on efforts to enhance the lives of children with disabilities in China and to help develop their role in society.
Background

**Fuling Kids International (FKI)**
- U. S. non-profit
- Support and create programs for SWI
- Offer support to adoptive families from SWI

**Social Welfare Institute (SWI)**
- Orphanage in Fuling
- Houses typically developing children and children with disabilities
- Adult foster care (older adults)

Source: 2011 PPT
Background con’t

Third Military Hospital
- Rehabilitation and acute care units
- Rehab unit: children receive OT, PT, speech, special education, traditional Chinese medicine
- Intensive treatment: multiple disciplines and sessions per week

Therapy Team (Pacific)
- Interdisciplinary: OT, PT, Special Education
- Previous visits

Process
1. Trip Preparation
   - Basic understanding of language, healthcare, and culture
   - Logistics
   - Feeding poster, DIR floortime brochure, Feeding template
   - Collection of toys and dress-up clothes
2. Spring team in China (March)
3. Curriculum development
4. Follow up plan
5. Synthesis of information and products
6. Summer team in China (July)
7. Continuation of IPP by future students
Cultural Differences

• Varying philosophy and therapeutic approaches
  – Nonjudgmental approach
• Differing schools of thought
  – Theoretical models
  – View of disability
• Communication barrier
  – Language
Specific Aims of Trip

• Reinforce training and education introduced during previous visits
  – Seating and positioning
  – ADLs
  – Feeding
  – Play

• Promote independence
• Provide education on interventions and training through lectures

Conditions

• Cerebral Palsy
• Down’s Syndrome
• Autism
• Cleft Lip/Palate
• Limb deformities
• Intellectual impairments
• Physical impairments
• Institutional/developmental delays
Spring Group: Third Military Hospital

- Lectures to rehabilitation doctors and therapists (OT, PT).
  - Assessments (AIMS, Ages and Stages) by Sandra Rogers, PhD, OTR/L
  - Learned Helplessness by Chris Macfarlane, PhD
- Evaluation and intervention recommendations
- Motor delay screenings in out-patient clinic.
- Education and training of staff

Spring Group: SWI

- Evaluation and intervention recommendations for specific children
- Continuation of feeding training
- Education and training of staff
- Continuation of use of communication books
- Increasing stimulation for increased engagement
- Positioning for function
Continued Focus

• Follow up on previous work
• Caregiver training
• Developing basic therapy curriculum

Resources

• Resource Binder
  • Feeding poster
  • Developmental milestones
  • Reflexes poster
• Curriculum
Curriculum

• Development of a two week curriculum combining Occupational Therapy, Physical Therapy, Speech Language Pathology, and Early Intervention perspectives.
  – Utilized therapy school curricula and OT/PT pediatric class syllabi

Curriculum Focus Areas

• Development
• General information and treatment of common pediatric conditions
• Handling and positioning
• Functional activities
• Assessment
• Play
Development Chart

<table>
<thead>
<tr>
<th>Age</th>
<th>Social/Emotional</th>
<th>Language/Communication</th>
<th>Cognitive (learning, thinking, problem solving)</th>
<th>Movement/Physical Development</th>
</tr>
</thead>
</table>
| 2 months | **Social/Emotional** | • Begins to smile at people  
• Can briefly calm himself (may bring hands to mouth and suck on hand)  
• Tries to look at caregiver. | • Coos, makes gurgling sounds  
• Turns head toward sounds. | • Can hold head up and begins to push up when lying on tummy.  
• Makes smoother movements with arms and legs. |
|       | **Language/Communication** | | • Pays attention to faces  
• Begins to follow things with eyes and recognize people at a distance  
• Begins to act bored (cries, fussy) if activity doesn’t change | |
| 4 months | **Social/Emotional** | • Smiles spontaneously, especially at people.  
• Likes to play with people and might cry when playing stops.  
• Copies some movements and facial expressions, like smiling or frowning. | • Begins to babble  
• Babbles with expression and copies sounds.  
• Cries in different ways to show hunger, pain, or being tired. | • Holds head steady, unsupported.  
• Pushes down on legs when feet are on a hard surface.  
• May be able to roll over from tummy to back.  
• Can hold a toy and shake it and swing at dangling toys.  
• Brings hands to mouth  
• When lying on stomach, pushes up to elbows. |
|       | **Language/Communication** | | • Lets you know if he/she is happy, or sad.  
• Responds to affection.  
• Reaches for a toy with one hand.  
• Uses hands and eyes together, such as seeing a toy and reaching for it.  
• Follows moving things with eyes from side to side.  
• Watches faces closely.  
• Recognizes familiar people and things at a distance. | |
| 6 months | **Social/Emotional** | • Knows familiar faces and begins to know if someone is a stranger.  
• Likes to play with others, especially parents.  
• Responds to other people’s emotions and often seems happy.  
• Likes to look at self in a mirror. | • Responds to sounds by making sounds.  
• Responds to own name.  
• Makes sounds to show joy and displeasure.  
• Begins to say consonant sounds. | • Rolls over in both directions (front to back, back to front).  
• Begins to sit without support.  
• When standing, supports weight on legs and might bounce.  
• Rocks back and forth, sometimes crawling backward before moving forward. |
|       | **Language/Communication** | | • Looks around at things nearby.  
• Shows curiosity about things and tries to get things that are out of reach.  
• Begins to pass things from one hand to the other. | |

Reflex Chart

<table>
<thead>
<tr>
<th>Reflex</th>
<th>Picture</th>
<th>Description</th>
<th>Age Emerges/ Age Fades</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moro reflex</td>
<td><img src="image" alt="Moro reflex" /></td>
<td>When baby is held facing upward and the head is suddenly allowed to fall back, the arms swing outward then close in towards the body.</td>
<td>birth, 1-4 months</td>
</tr>
<tr>
<td>Rooting</td>
<td><img src="image" alt="Rooting" /></td>
<td>When the baby is touched near the corner of the mouth, the baby will turn his head towards the stimulus.</td>
<td>birth, 4 months</td>
</tr>
<tr>
<td>Sucking</td>
<td><img src="image" alt="Sucking" /></td>
<td>The child to instinctively suck at anything that touches the roof of their mouth.</td>
<td>birth, 4 months</td>
</tr>
<tr>
<td>Stepping</td>
<td><img src="image" alt="Stepping" /></td>
<td>This reflex is also called the walking or dance reflex because a baby appears to take steps or dance when held upright with his/her feet touching a solid surface.</td>
<td>birth, 3-6 weeks</td>
</tr>
</tbody>
</table>
Vision for Project

• Expansion/Development of the curriculum
• Norms for the AIMS, Autism Checklist (CSBS)
• Certificate Program
• Continue feeding education and training
• Exploring role and expectations for children with disabilities
• Increase environmental stimulation
• Intergenerational work
• Vision care

Xie Xie

• Sandra Rogers
• Sandra Pelham-Foster
• Nancy Cicirello
• Chris Macfarlane
• Lily Tsang
• Mandy Littlewood
• Ashley Culver
• Karen
• Elin
• Fuling Kids International
• Julianne
• Kathlene Postma
• Third Military Hospital
• Social Welfare Institute
Questions?

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