ORAL PRESENTATIONS

Oral Research Presentations A
Development of diagnostic tools and measurement instruments in SP

1. Development and Validation of the Assessment of Competence of Speech Pathology Clinical Instructors Scale

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Background: Speech pathology is a complex discipline that requires a high standard of practice to facilitate quality care and service. Clinical training of speech pathology students is then critical. Despite concerted efforts on creating holistic internship programs, actions to ensure effective clinical teaching are limited.

Objectives: This study presents the development and initial validation of the Assessment of Competence of Speech Pathology Clinical Instructors (ACSPCI) Scale. The objectives of the study are (1) to develop a scale that will measure the competency of speech pathology clinical instructors and (2) to determine its reliability and validity.

Method: Scale items and dimensions were constructed after a review of internationally-published documents on SP clinical instructor competencies. The initial tool was evaluated by three external reviewers and pilot-tested to ten practicing speech pathologists. After further modifications, the 61-item ACSPCI was field tested to 192 SP interns and professionals. Descriptive statistics were applied, the results of which were used for drafting the final version.

Results: The resulting 61-item scale has a computed Cronbach alpha of .970 and acceptable item-total correlations. Exploratory factor analyses identified six to eight variables, generally corresponding to the researcher-developed dimensions of competency. A final version containing 31 items has a Cronbach’s alpha of .948, with the following dimensions: (1) knowledge on clinical education/instruction, (2) interpersonal communication and the supervisor-supervisee relationship, (3) development of supervisee’s critical thinking and problem-solving skills, (4) development of supervisee’s competency in assessment, (5) development of supervisee’s competency in intervention, (6) evaluating the growth of the supervisee, (7) professional and ethical behaviors.

Conclusion: The ACSPCI is a valid and reliable tool to measure SP clinical instructor competency. It is recommended to extend the study to devise scoring system and initiate its use as intended.

Implications for Clinical Practice: In the higher education setting, the scale can function as a yardstick for their current clinical supervisors and in hiring future ones. Results and feedback from the scale can be reference points for continuing education and training. Certain parts of the dimensions and performance indicators, on the other hand, can be infused within the curriculum to develop beginning clinical supervisory skills in the SP students. Lastly, since the culture of mentoring is at the forefront of clinical practice these past years, the scale can be a blueprint in practice standards and guidelines in this area.
2. Cross-cultural Adaptation of the Boston Diagnostic Aphasia Examination - Short Form in Filipino

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**Background:** Current methods for assessing various aphasia types in the Philippines lack diagnostic accuracy and compromise management as clinicians often use aphasia batteries developed abroad or correlate symptoms to lesion sites. The Short Form of the Boston Diagnostic Aphasia Examination is one test that was designed to comprehensively evaluate language function in all modalities and classify aphasia syndromes. This study aimed to create an aphasia test that is culturally and linguistically appropriate for Filipinos by adapting the BDAE-SF.

**Method:** A narrative literature review was done to assess relevance of constructs measured by the BDAE and the influence of Filipino culture and language on aphasia testing. Keyword searches to multiple online bases and grey literature review were done. Three bilingual translators independently translated the original instructions and items. Translations were synthesized and contextually adapted by a multidisciplinary expert panel to resolve discrepancies and attain item equivalence. The resulting adaptation I and the original BDAE-SF were pre-tested to 30 lay people to appraise comprehensibility and cultural acceptability. Group differences in error rates between test versions were evaluated using paired samples t-test. Final modifications were made by the expert panel to produce adaptation II.

**Results:** Despite the increasing number of research on aphasia in culturally and linguistically diverse groups, none of these focused on Filipinos. Constructs in the BDAE-SF are mostly applicable in the Philippines due to influence of Western countries in Philippine culture and language. 75% of the items exhibited equivalence issues, with majority being cultural (38%), followed by structural/linguistic (31%), conceptual (26%) and operational (14%). Pre-test participants made significantly lower error rates in adaptation I than in the original BDAE-SF at 1.9% and 6.1%, respectively (p < .0001). Overall, 85 out of 118 items were modified to produce adaptation I and 11 items for adaptation II. To maximize its clinical utility, succeeding studies are needed to establish its clinimetric and psychometric properties.

**Implications for Clinical Practice:** This study illustrates the meticulous process of adapting a an aphasia test and the specific considerations when designing valid diagnostic instruments.

3. Speech Intelligibility of Typically-Developing Filipino-Language Dominant Children Aged 4 Years Old Enrolled in ECCD-monitored Daycare Centers in Metro Manila: A Secondary Data Analysis

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Background: Speech intelligibility is the degree of understandability of an individual when conveying his or her message. Several factors can affect speech intelligibility, namely the speaker, listener, and context of the message. Speech intelligibility has become a measure for communicative competence, and is therefore an indicator of the need for SLP services.

Objectives: This study aims to perceptually rate and objectively measure the degree of speech intelligibility of typically-developing Filipino language-dominant children ages 4-years to 4-year and 11 months, enrolled in Early Childhood Care and Development (ECCD) Day Care Centers in Metro Manila. It also aims to compare the measurements of speech intelligibility from perceptual ratings and objective measurements.

Method: The researchers obtained secondary data in the form of audio-recorded narrative samples of 19 typically-developing Filipino language-dominant 4-year old children enrolled in ECCD-monitored day care centers in Metro Manila. The audio samples were rated perceptually using a 5-point Likert scale adapted from the National Technical Institute for the Deaf (NTID). After which, objective measurement of speech intelligibility was done by calculating the percentage of intelligible words and syllables. Both measurements were done in two levels: the first level involved listening to the samples with elicitor utterances, and the second one without. Results between the objective and perceptual measurements were then compared.

Results and Conclusion: Out of the 19 samples obtained, an average perceptual rating of 4.32 and 3.95 was obtained when rated with and without elicitor utterances respectively. For objective measurements, an average percentage of 96.53% and 95.62% was garnered in words, and 98.60% in syllables for both levels. Pearson correlation revealed that there is a strong positive correlation between the average scores from both measurements. These results should be interpreted with caution due to the small sample size of the study. This may only be applicable to children with the same characteristics as the ones used. Hence, the researchers recommend further studies on the speech intelligibility of typically-developing children in Metro Manila.

Oral Research Presentations B
Evidence-based practice and research in SLP

4. Application of the ICF in Clinical SLP Practice: Preliminary Results of Thematic Analysis in a Scoping Review

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Introduction: The use of the International Classification of Functioning, Health and Disability (ICF) framework is advocated in the field of Speech-Language Pathology (SLP) practice. Its utility focuses on improving health-related quality of life in relation to communication and swallowing. Since the ratification of
the ICF in 2001, multiple articles on its use on the SLP field have been published. Clinical SLP practitioners in the Philippines can benefit from having a reference material that compiles these available literature and summarizes the plausible clinical utility of the ICF. Thus, the authors aimed to identify and analyze literature about the use of the ICF in clinical SLP practice. The specific objectives included: (1) to compile a list of available reference materials relevant to using the ICF in clinical SLP practice, (2) to quantitatively describe the scope of the articles, and (3) to summarize the clinical utility of the ICF framework in SLP practice.

**Methods:** The York Framework for scoping reviews (Arksey & O’Malley, 2005) was adapted by the study. The framework consists of six stages: (1) identifying the research question, (2) identifying relevant studies, (3) study selection, (4) charting the data, (5) collating, summarizing, and reporting results, and (6) optional consultation exercise.

**Results:** The study identified that a majority of the articles collated were research studies in developed countries. The ICF was applied equally across age groups (i.e., pediatric and adult population), and focused on activities and participation rather than health conditions. Thematic analysis showed that ICF has been applied in assessment, intervention and health care service delivery. However, gaps exist in using ICF based tools in a practical context and in social understanding of the ICF. These gaps were also observed in other rehabilitation professions.

**Conclusions/Recommendations:** With the strong push for the use of the ICF from various international organizations (e.g., World Health Organization and American Speech-Language-Hearing Association), Filipino SLP practitioners are encouraged to learn and adapt the ICF framework in their practice. The ICF framework can aid them in holistically understanding their client’s functioning and disability, thus, contributing to more effective clinical decisions. The study attempted to synthesize the clinical utility of the ICF that has been documented in various published articles to serve as a guide for Filipino SLP practitioners as they incorporate the use of ICF in their practice. As the use of ICF in the local practice increases, research on the process of adapting and utilizing the framework in actual practice will be needed. Another recommendation is to further research on the gaps and challenges raised in this study.

**Implications for Clinical Practice:** The findings of this study can help Filipino Speech and Language Pathologists in understanding how the ICF framework can be applied in clinical practice.

**5. Speech-language Pathology Research in the Philippines: Perspectives on Potential Future Research Directions**

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**Introduction:** There is a need for speech-language pathology (SLP) research in the Philippines in order to fill in knowledge gaps relevant to the local context. Information about the local SLP research status remains inadequate. This study describes local SLP research done over the almost past four decades.

**Method:** Using a descriptive retrospective design, a search was made for all empirical research articles completed by Filipino SLPs from 1978 to 2015. The sources of SLP studies were two major electronic databases; academic institutions containing repositories of SLP unpublished literature; and snowball
sampling from Filipino SLPs. The collection of research records underwent a rigorous study selection process that excluded studies that did not meet the selection criteria. This was followed by an analysis of each study in terms of nine parameters. The specific frequencies of each parameters were then computed.

**Results:** A total of 250 research articles were identified and described along several parameters. A predominant number were authored by the SLPs in the academe (97.20%). There was a focus on language (27.60%) and the nature of communication/swallowing disorders (20.80%). More than half utilized quantitative exploratory research designs (69.20%). Several used survey forms to generate data (38.41%). Nearly all were unpublished (93.60%) and were unfunded (94.80%).

**Conclusions:** The current study revealed a dearth of research studies, limited diversity of research articles, limited research dissemination, and funding concerns. It is suggested that the results of the current study can serve as a reference point to restructure research systems in the Philippines and in other developing countries, and offer data that can be used to develop a research agenda for the profession.

**Implications for Clinical Practice:** These challenges highlight research gaps and understudied clinical SLP subfields, and calls for future work to fill in these gaps.

6. A Qualitative Profile of EBP among Filipino Speech-Language Pathologists

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**Background:** Evidence-based practice (EBP) is a clinical decision-making framework that most speech language pathologists (SLP) across the world are advocating for. Observed benefits from employing EBP include better patient outcomes and greater professional accountability. In the Philippines, the Commission on Higher Education included a separate EBP formal course for its BS Speech Language Pathology curriculum. However, studies on Filipino SLPs’ current practice, knowledge of, and attitudes toward EBP are limited. In addition, a quantitative study on the subject matter revealed conflicting results.

**Objectives:** The present qualitative study explored the current understanding, attitude, and practice patterns of Filipino SLPs regarding EBP.

**Method:** Using a multiple case studies design, 6 Filipino SLPs were individually interviewed. Data gathered from transcripts of these interviews, memo notes, and written observations were analyzed using the constant comparative method.

**Results and Conclusion:** Results revealed that Filipino SLPs appear to base clinical decisions on traditional sources of information that may have low levels of evidence. Their lack of formal training and exposure to EBP were identified as primary factors that contribute to their insufficient knowledge about the approach, further hindering their EBP application. Lack of time and culturally-relevant articles were also cited as potential barriers to EBP. Despite these misconceptions and identified barriers, Filipino SLPs have positive attitudes toward EBP as an approach to clinical practice as they recognized its benefits to their practice. They expressed their openness to learning more about EBP. Several recommendations were also
provided by the participants, particularly on instituting formal EBP education in existing speech language pathology curricula and creating training programs for practicing SLPs.

Oral Research Presentations C
Language in infants, toddlers, preschool children

7. Sentence, Clause, and Phrase Structure Development in 18-36 Month Old Tagalog-Speaking Children: Longitudinal Case Studies

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Background: Describing typical language development is necessary for diagnostics and goal setting. Few studies have looked into the syntactic development of Tagalog-speaking children; all analyzed the structure of utterances in a linear fashion.

Objectives: This study aimed to describe how Tagalog-speaking children’s utterances become more complex at three tiers (Crystal, Fletcher, & Garman, 1976): sentence, clause, and phrase.

Method: The Filipino Early Language Child Development Database (FELCDD; Marzan, 2009) is a corpus constituted by language sample transcripts of five children. Using the Computerized Language Analysis (CLAN) program, two-word utterances in the 17-38 month transcripts of three of these children (two female, one male; all Tagalog-dominant bilinguals/multilinguals) were analyzed.

Results: Complex sentences emerged in the form of structures with embedded predicates at 18-30 months. Simple sentences with initial conjunctions followed at 26-30 months. In terms of clause structure, the children progressed from producing single, to two, three, and then four constituent utterances. The first clear transitive and intransitive constructions emerged at 19-24 months. Among utterances with a verbal predicate, focus or non-predicate-initial constructions emerged at 24-25 months. Among utterances with non-verbal predicates, subject-focused constructions emerged ahead if not at the same time as their predicate-initial counterparts, at 18-21 months. Non-verbal-predicate-containing utterances coding non-existence emerged first at 18-19 months. Across all three children, phrases were first expanded by adding clitic particles at 15-19 months, then case markers (‘ni’, ‘si’, ‘sa’) at 15-36 months, and then ‘(i)yung’ at 17-30 months. Recursion of patterns for further phrasal expansion was noted as early as 24-28 months.

Conclusions and Recommendations: Multiple sentence and clause structure development patterns (e.g., acquisition of complex sentences and clause structure constituent order) seemingly unique to Tagalog-speaking children were observed. These patterns are likely related to the grammatical characteristics of Tagalog. Owing to the limitations of this study, an analysis taking into account the interaction of semantics and non-linguistic context with syntax is recommended. The generalizability of the patterns found in this study also have to be confirmed by conducting similar longitudinal studies and then large-scale cross-sectional studies.
Implications for Clinical Practice: This study can inform the assessment of syntax and the development of expressive language goals for Tagalog-speaking children.

8. Developmental changes in the correctness of verb inflections used by Filipino children and those interacting with them

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Background: Developmental changes in the correctness of children’s use of verb inflections is useful for understanding the phenomenon of child language development, and hence of cognitive development in children. It provides data against which a Filipino child’s verb inflection can be compared to determine if development is as expected.

Objectives: To describe (1) changes over time in Filipino children’s use of inflectional forms (a. The proportion which are consistent in form and meaning with that accepted for competent adult speakers across verb aspects, b. The proportion which are present when required across aspects, c. Changes in the correctness of specific inflectional forms across ages, including error patterns; (2) Changes over time in the inflectional forms used by persons when interacting with Filipino children, a. Proportion of verbs that were inflected and uninflected, b. Aspects and tenses used by interlocutors; (3) The relationship between verb aspect and verb inflection used by the children and by those interacting with the children

Method: Sixty-five (65) videos with corresponding transcripts of five bilingual Filipino children aged 14-44 months were obtained from the Filipino Early Language and Child Development Database (FELCDD). These language samples recorded natural interactions of the participants and their families for each child over a span of two years with an average of two months between each recording. Verbs were extracted using CHAT and CLAN programs of the Child Language Data Exchange System[2]. Verb aspect, tense and the correctness of verb inflections embedding temporal notions in the verb were analyzed.

Results: The children used inflections in ways consistent with the form and meaning accepted for competent adult speakers 95% of the time. They inappropriately omitted required inflections only 11% of the time. They omitted required inflections more frequently than they used inappropriate substitutes for obligatory inflections; substitution of inflections was minimal (only 21). These findings are consistent with those of Brown (1973) for English speaking children and Aljenaie (2010) for children speaking Arabic. All five children combined used 1489 inflected verbs and 2,574 uninflected verbs. Persons interacting with the children used 6187 inflected verbs and 9863 uninflected verbs. The proportion of verbs used by children that were uninflected is greater than that used by their interlocutors. Both populations decreased their use of uninflected verbs over time. Of the inflected verbs coded by persons interacting with the children, 1,603 verbs (30%) were infinitive, 919 (17%) were contemplated, 768 (14%) were perfective, 691 (13%) were in progressive tense, 562 (10%) were imperfective, 207 (9%) were in past tense, and 242 (4%) were in present tense. Both children and their interlocutors used markedly more uninflected than inflected verbs.
Conclusions and Implications for Clinical Practice: Filipino children tend to use verb inflections correctly. The correctness of verb inflections in obligatory contexts is somewhat lower than the correctness of those inflections actually used. The patterns of correctness of verb inflection use among these five Filipino children shows patterns similar to those of children in other cultures and languages. There appears to be a direct relationship between interlocutor’s input and child’s output, specifically for the changes in use of uninflected verbs in terms of frequency and type. It is not certain whether children imitate interlocutors or interlocutors adjust to children. It is recommended that appropriateness of uninflected verbs and interlocutor’s production of other grammatical morphemes be further studied.

9. A Secondary Data Analysis Examining Personal Narratives of Filipino Language Dominant 4:0 – 4:11 Year Old Children in ECCD Monitored Day Care Centers in Metro Manila

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Objectives: This study aims to describe the parts of a narrative, structural pattern, narrative productivity (total number of words, total number of clauses, number of C-units), and mean length of C-units present on nineteen typically developing Filipino-dominant 4:0-4:11 year old children in ECCD-monitored day care centers in Metro Manila.

Method: This study utilized secondary data analysis based on the speech samples from the study Phonological Development of Filipino-Language Dominant Four-Year Old Children in Metro Manila. Narrative samples were transcribed then analyzed to identify the narrative productivity, parts of a narrative present and structural patterns present per story theme and among all the participants.

Results and Discussion: The structural patterns showed that children may already be at the transitioning phase from producing two-event to chronological pattern of narratives. Literature on narratives of Japanese and American children showed similar results for the parts exhibited by the participants in this study, with an orientation complicating action-resolution pattern. Among the participants, the average number of C-units produced was 8.13, average number of words was 34.11, average MLCU was 4.40 and average number of clauses was 7.73.

Conclusion: This study provided preliminary data on the personal narratives of the 4:0-4:11 year old Filipino children that may still be explored and delved further in future studies. The small sample size and inconsistent elicitation methods limit the generalizability of the study. Along with this, age, gender, socioeconomic status, and parent educational attainment may have also affected the results of the study. Future studies must take into consideration how these relevant factors may affect the personal narratives produced by Filipino children.

10. Measurements of Lexical Diversity and Density of Filipino Language Dominant Four-Year Old Children in ECCD-Monitored Day Care Centers in Metro Manila
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Objectives: The objective of this study is to provide preliminary normative data and protocol regarding lexical diversity and density of typically-developing Filipino-dominant children ages 4 to 4 years 11 months in Metro Manila. The specific research objectives are as follows: (a) To identify the lexical diversity values obtained from both English and Filipino protocol for children ages 4 to 4 years and 11 months. (b) To identify the lexical density values obtained from both English and Filipino protocol for children ages 4 to 4 years 11 months old. (c) To contrast the results and protocols for measuring Filipino lexical diversity and density of children ages 4 to 4 years 11 months old.

Method: This is a cross-sectional descriptive study that involved the description and analysis of children’s lexical diversity and density. This study utilized 19 narrative language samples of children ages 4:0 to 4:11 gathered by a previous study. The samples were transcribed, segmented, and analyzed based on Filipino and English Protocol. Two measures of lexical diversity (Number of Different Words [NDW] and Type-Token Ratio [TTR]) and one measure of lexical density (Ure’s equation) were utilized.

Results and Discussion: The study found that children at this age have higher lexical diversity values when computed using the Filipino Protocol (NDW of 81.68 and TTR of 0.4345) as compared to the English Protocol (NDW of 73.89 and TTR of 0.40). However, values obtained from these protocols are lower compared to the western normative data for type-token ratio by Templin (0.448-0.469). On the other hand, the mean lexical density value using the Filipino Protocol was 135.31% which are comprised of root density of 58%, affix density of 27%, and particles density of 15%. This was significantly higher than the value obtained using the English Protocol garnering only 57.96% of lexical items. Moreover, these values were significantly higher as compared to the western norms taken by Ure which was a median of 38.66%. Overall, results are due to the nature of Filipino language being agglutinative and derivational in nature (using multiple word transformations to change a word’s meaning). Thus, these suggest that analyzing Filipino words based on roots alone is insufficient, because Filipino words can only be classified lexically only when the affixes and particles are already attached to the roots. As for the clinical implication in the practice of Speech-Language Pathology, this study highlights the use of Filipino Protocol in revealing the child’s true language skills in terms of lexical richness.

Conclusion: Findings revealed that there is a significant difference between the protocols used and the values derived. Although these values are said to be not interchangeable, however, to some extent, these measures scaffold and support in describing the overall lexical richness of Filipino children. Thus, it would not be sufficient to describe Filipino Language in terms of lexical diversity only; rather, lexical density should also be included as well. To conclude, the use of Filipino protocol utilized in the study was deemed to be more sensitive in measuring both lexical diversity and density of Filipino children’s spoken discourse.

Oral Research Presentations D
Aphasia and other neurogenic communication disorders

11. Increasing Spontaneous Verbalization in Chronic Aphasia: Enhanced Protocol of Constraint Induced Aphasia Therapy

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Introduction/Background: The increasing prevalence of aphasia with the impending projection of a Speech-Language Pathology (SLP) personnel shortage suggests an increased demand for speech and language therapy services in the future. With this, identification of effective and efficient group aphasia therapy is important. Recent modification in the intensive, social-functional restorative communication approach, also called as Constraint Induced Aphasia Therapy II (CIAT II), has shown promising results with increasing spontaneous speech in everyday life situations in individuals with chronic aphasia. However, the extent of applicability of the enhanced CIAT II protocol in terms of outcomes in other areas of language as well as aphasia severity has not been fully explored.

Objectives: This research study aimed to: (1) determine the effect of CIAT II on language measures (aphasia severity, naming and quality of spontaneous speech), and (2) examine the effect of CIAT II on the amount and quality of participation in spontaneous speech in life situations in an adult with severe chronic aphasia.

Method: This is a single-subject case study design involving an adult with severe chronic aphasia (12 years and 9 months-post stroke during first CVA and 1 year post stroke during 2nd CVA). The participant received intensive treatment based on the CIAT II protocol (Johnson, et.al, 2014).

Results: Results revealed significant gains on tests of aphasia severity as well as measures of lexical diversity (type token ratio, percentage of nouns and percentage of verbs) both in narrative and discourse tasks. However, no significant change was observed on naming measures as well as perception in the amount and quality of spontaneous speech in everyday activities.

Conclusion: This study suggests that, for an individual with severe chronic aphasia, the enhanced CIAT protocol (CIAT II) may not produce significant improvements in naming and everyday speech but, may result in significant changes on standardized test of aphasia severity and measures of lexical diversity.

Implications for Clinical Practice: Massed practice, shaping and addition of transfer package within the context of CIAT II may reduce aphasia severity and increase quality of speech in narrative and conversational discourse in individuals with severe chronic aphasia.

12. Deficits in Tagalog Speakers with Agrammatism on Declarative Clauses

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Introduction: Hallmarks of agrammatic aphasia in European languages include the production of telegraphic speech and difficulty with patterns such as the passive voice. Little is known about agrammatism in Tagalog, whose signature syntactic features include special voice morphology on the verb and cross-
This study investigates the effect of agrammatic aphasia on the comprehension and production of declarative sentences.

**Method:** Using an exploratory design, five native Tagalog speakers diagnosed with Broca’s aphasia and 16 neurologically-intact controls took part in two tasks: (i) a production task in which participants described pictures depicting two characters engaged in a transitive event; and (ii) a comprehension task in which they responded to an audio-recorded transitive sentence by choosing between a picture in which x acts on y and a picture in which y acts on x. Items were crossed for voice (agent/actor voice [AV] and patient/undergoer voice [PV]) and for word order (verb-agent-patient [VAP] vs verb-patient-agent [VPA]).

**Results:** In the production task, controls produced no errors, but manifested a preference for PV sentences in the VAP word order. In contrast, the agrammatic participants produced virtually no case marking and voice morphology. In the comprehension task, the controls were equally accurate in both voices, while the agrammatic participants did significantly better on PV patterns. Both groups did better on patterns involving VAP word order.

**Conclusions:** The performance of our Tagalog participants manifested two signs of impairment found in other languages—trouble with grammatical morphemes and a preference for the VAP word order. At the same time, there were signs of a phenomenon not reported for other languages, namely a preference for patterns in which the patient rather than the agent is syntactically prominent. These findings call for increased research to better understand both the nature of agrammatism and its manifestations in languages such as Tagalog.

**Implications for Clinical Practice:** Voice morphology and case marking should be used as measures in the diagnosis and assessment of agrammatism. Intervention strategies that focus on the re-learning of voice morphology and case marking must be developed.

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**13. Digital Speech Therapy Solution for Stroke, Brain Injury and Progressive Neurological Disorders**

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**Background:** Computer therapy that aids in assessment and intervention in speech therapy for people with communication difficulties after stroke, brain injury or other neurological deficits have been reported to be useful in maximising speech therapy practice to increase intensity and frequency of treatment. However to date, the use of emerging mobile technologies have been limited from speech therapist and have not shown inclusive or participatory principles in designing the software. This research will contribute to the
knowledge gaps by providing design guidelines, functional framework on how to optimise user interface in various platforms when integrating merging mobile technologies/software in clinical practice

**Method:** Speech therapists and patients were interviewed to gather information that can identify common themes that explores the feasibility of using emerging mobile technology platforms to improve speech and language therapy services for people with communication difficulties after a stroke, brain injury or progressive neurological diagnosis. The secondary measure is to identify aspects of user interface that can facilitate or negatively affect speech therapy engagement for people with communication difficulties resulting from a stroke, brain injury or progressive neurological diagnosis.

**Results:** The range of codesign techniques with people who have aphasia is a key to success in including them in the overall design process. There needs to be a clear focus in developing customised code sign activities using visuals, gestures, demonstrations and prototypes.

**Conclusion:** It is both feasible and desirable to involve people with aphasia in design. Supported conversation are important when verbal language is impaired, thus facilitating a more creative design process.

**Implications for Clinical Practice:** Inclusion of people with aphasia in design and user experience testing greatly impacts on how software and technology are perceived and integrated in rehabilitation pathways.

**14. Intervention for Agrammatic Production: Targeting Sentences with Adjectives for Canonical and Non-canonical Sentence Structures**

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**Introduction:** The present research examines the production and comprehension of semantically reversible sentences in a person with agrammatic aphasia. According to Garrett’s model of language production, a disruption at any of the sequential levels that are necessary for language processing would bring about deficits in language production. In this study, a treatment program based on this model was designed to examine a) comprehension and production of semantically reversible sentences with adjectives in canonical and non-canonical structures, b) generalization patterns of sentences with different predicates and c) improvement in narrative discourse and metalinguistic tasks.

**Method:** The subject was asked to construct sentences, using cut-out phrases, to match a given picture. Both canonical (active) and non-canonical (object cleft) sentence structures were included in the intervention materials. Feedback focused on thematic role assignment, difference between canonical and non-canonical structures and sentence construction.

**Results:** Significant improvement for comprehension and production of trained and untrained sentences with adjectives was seen in both active and object cleft sentences. Results showed generalization patterns to sentences with agentive verbs in canonical and non-canonical sentences but not for sentences with non-agentive verbs. This dissociation provides additional evidence for a possible category-specific disorder in verbs (agentive vs. non-agentive verbs). Aspects of sentence production in narrative context that are related
to skills trained during therapy also showed improvement in post-intervention measures. Metalinguistic tasks did not show improvement, probably because these tasks require additional skills aside from the ones targeted in therapy.

**Conclusion:** Findings from this study highlight the value of using a thorough pre-therapy assessment to identify the breakdown(s) in language processing and the importance of a sound theoretical framework upon which to base therapy.

**Implications for Clinical Practice:** Generalization effects have important implications for clinical treatment of sentence comprehension and production impairments in individuals with agrammatic aphasia. It is essential that clinicians provide treatment that will result in greater generalization to other language skills.

### Oral Research Presentations E
Swallowing, feeding, and dysphagia

#### 15. Compliance of Dysphagia Recommendations of Hospitals in North-West of Ireland

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**Background:** After The Irish National Quality Standards for Residential Care Settings for Older People recommended removal of all bed signs, including dysphagia safe swallowing information, there has been significant concerns regarding compliance of modified diet, thickened fluids and feeding strategies for patients and residents in community hospitals. Non-compliance with dysphagia management recommendations in long term care settings are often associated with adverse outcomes including risk of choking, aspiration pneumonia, increase cost and significant mortality.

**Objectives:** The study measured compliance of recommended diet and fluids for patients and residents referred for dysphagia management before and after dysphagia training packages to hospital staff.

**Method:** An observational audit was conducted in two community hospitals in HSE North-West. The audit was conducted by 4th year Speech & Language Pathology students to act as an independent body in evaluating compliance of modified diet and fluids after a dysphagia assessment by an SLT. They have received training from the Senior Speech Pathologist in identifying various consistencies of modified diets and thickened fluids as per the Irish Consistency Descriptors for Modified Fluids and Food. The Director of Nursing in each hospitals were informed that an audit would be conducted however in order to prevent any change in behaviour at the time of the study, the specific day and time were not provided. Dysphagia training packages were provided to all hospital staff after the audit and a follow-on training was made available for new staff. Furthermore, a multidisciplinary dysphagia group on meal and mealtimes practice was created comprising of a dietitian, catering staff and nurses to direct clinical pathways that are based on collaborative policies and ensure adherence to an inclusive dysphagia management.

**Results:** Compliance to dysphagia recommendations has not significantly improved immediately after training. Positive change in compliance was seen only after key members of the multi-disciplinary team were included in policy making and subsequent audits.
Conclusion: Behaviour change and positive compliance to dysphagia recommendations involves a multidisciplinary effort in providing training, collaborative policy making and efficient risk reporting.

Implications for Clinical Practice: A robust training and communication system ensures safety and compliance of dysphagia recommendation. Multidisciplinary groups can be created in each hospital to address meal and mealt ime issues which includes: developing a robust communication pathway; risk assessments and reporting; development of new menus to provide more choices for modified diets.

16. Reducing diet preparation errors in elderly patients with dysphagia at an acute hospital in Singapore

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Introduction: For patients with dysphagia requiring diet texture modification, accurate diet preparation is paramount to patient safety as their risk of choking can be minimized. From June to September 2017, the Speech Therapy department at Ng Teng Fong General Hospital (Singapore) observed up to 50% error rate on diet preparation by our centralised kitchen. The objectives of this project were to identify factors contributing to these errors, implement initiatives to reduce errors and evaluate the effectiveness of these initiatives.

Methods: A team of two clinicians, two kitchen executives and a chef was formed to identify factors contributing to errors. The team reviewed existing workflows, interviewed kitchen staff and conducted meetings with stakeholders between September and October. Three main contributing factors were identified: inconsistencies in diet ordering procedures, insufficient knowledge on dysphagia and ineffective communication between stakeholders. The following initiatives were implemented: standardizing workflow for diet orders, education and training to kitchen staff and the creation of a platform to facilitate communication between stakeholders. Effectiveness of initiatives were evaluated across four months through weekly meal audits, dysphagia education assessments of kitchen staff and bimonthly audits of clinicians’ adherence to standardized workflow.

Results: Diet preparation error rate decreased steadily to 12.5% at the 4th month post implementation of initiatives. Clinicians’ adherence rate to standardized workflow was 95%. After attending a 45-minute training session by clinicians, kitchen staff achieved higher assessment scores of 67.7%, from 51.8%. Additionally, reported incidence of diet preparation errors dropped from 5 incidents to 1.

Conclusion: This project highlights the importance of identifying preventable factors contributing to inaccurate diet preparation. When conducted collectively, the initiatives to standardise workflow, educate staff and optimise communication among staff were effective in reducing diet preparation errors. A committed team comprising of clinicians, kitchen executives and chef ensured the success of the initiatives implemented. Future directions to ascertain the sustainability of these initiatives would involve the Nursing Department as they routinely assist in diet orders.

Implications for Clinical Practice: Aspiration due to inaccurate diet preparation in patients with dysphagia is preventable and accurate diet preparation is one of the key components in delivering high quality care in dysphagia management.
17. Perceptions, Attitudes and Beliefs of Filipino Elderly Regarding Tube-Feeding

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Background: Tube-feeding has historically been utilized for supportive nutrition therapy particularly among older patients with dysphagia. While nasogastric tubes (NGTs) and percutaneous endoscopy gastrostomy (PEG) tubes guarantee the unimpeded delivery of nutrients into the human body, the discomfort, aftercare, infection and aspiration issues these pose on its elderly users are many and persistent. The acceptance of feeding tubes vary across Asian cultures where there is a strong need to keep the physical body intact and views on what supports life and health are rooted in societal beliefs. In the face of illness, the aging patient’s cultural concepts of integrity and autonomy are constantly put in question. This project interrogated the significance of NGTs against the older Filipino’s concepts of mahirap, nakakahiya, lasa vs. busog, informed medical decision-making, and the desire to preserve bodily Integrity.

Methods: The personal narratives of 10 older Filipinos aged 60+ who were using or had used NGTs were elicited via in-depth episodic interviews. These narratives were audio-recorded, transcribed verbatim, and were subjected to Burnard’s (1991) qualitative data analysis method where the data was coded, categorized, and subjected to further category selection, ordering, and clustering to identify patterns or recurrent themes.

Results: Themes on living with an NGT, sensation of an NGT in one’s body, insertion/reinsertion issues dominated these narratives, often recounted with words reflective of the person’s abject suffering. The NGT was told by most as symbolic of illness, a perpetual mark that one is different, thus nakakahiya. An unexpected theme on walang lasa and hindi nakakabusog highlighted the importance of food and its role on satiety.

Conclusions: Concepts about the NGT as one that renders difficult both eating and the act of being fed, and as symbolic of illness yet is a means toward recovery may be common among older Filipinos on the tube. Understanding the role of patient education and informed medical decision-making in tube-feeding may merit further investigation.

Implications for Clinical Practice: Understanding the older person’s perspectives and beliefs on wellness in an arena where the human body is seen as problem that needs to be treated may help guide dysphagia treatment planning, healthcare counseling, and the formulation of advance directives.

Oral Research Presentations F
Service delivery models and innovation

18. Starting a Voice Service: Pitfalls and Pearls from Singapore
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Background: Setting up a health service brings a gamut of challenges depending on the economic, cultural and political environment. Singapore is a small nation state with a multicultural society and an ageing population. This demographic creates unique issues when setting up a voice service. Some issues include linguistic differences, varying perceptions of voice difficulties and a unique health system. We aim to share our experience setting up and developing our multidisciplinary voice service in Singapore. Our voice service encompasses stroboscopy services, acoustic and aerodynamic measurement clinics, and voice therapy services.

Method: This is a retrospective, intrinsic, case study review of our site and set up in the first 2 years of service. The analysis and discussion is based on our observations gathered through personal engagement in the process of setting up a new voice service.

Results: In the first 2 years of our service, we assessed and managed a total of 208 distinct patients (87 females; 121 males) with a range of laryngeal pathologies. Their ages were between 17 and 88 years old. Through our experience assessing and managing these patients, we identified three main pitfalls in starting a laryngology service within our setting. The pitfalls are: (a) failing to consider language related barriers (b) failing to account for the population’s perceptions of a voice service and (c) over- looking access barriers to a hospital-based service.

Conclusions: Retrospectively, societal pitfalls were more insidious and difficult to resolve. In order to minimize the impact of these pitfalls some suggestions include: (a) organizing language specific tools for assessment protocols and therapy, (b) considering where and how the service is promoted (c) ensuring transparency of service (d) exploring novel service delivery methods to minimize access barriers. These recommendations will be discussed in the presentation in further detail.

Implications for Clinical Practice: As the case-study is based on first-hand experience, it will provide practical suggestions that can be transferred to clinical practice and setting up of a new service. The knowledge shared will be especially useful for clinicians setting up and running a voice service in an increasingly globalised world with multi-cultural societies.

19. Communication Disorders and other Disabilities and the Community

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Background: In the Philippines, 80% of persons with disabilities (PWDs) are 15 years old and over. Bicol region ranks second in disability rate with Naga City as its most populous municipality. Disabilities aren’t merely impairments. They limit daily life activities and restrict community participation. Disabilities must then be viewed within the community context. This study is part of a 5-year partnership among the local
government, non-governmental organization, and higher education institutions for adult PWDs and senior citizens. This aims to establish a disability profile using the ICF framework and a community profile using the community-based rehabilitation (CBR) matrix for situational analysis.

**Method:** The 36-item WHO Disability Assessment Schedule 2.0 was translated to Bicolano and validated to generate the disability profile. The Bicolano Community Health and Disability Profile was developed, validated, and used for community profiling. Trained CBR Specialists administered both through household surveys in Barangay Concepcion Pequeña, Naga City. Data was analyzed using descriptive statistics.

**Results:** From 302 households surveyed, 309 PWDs were identified. Almost all have restricted community participation (90%). Cognition and communication problems were felt by 80%. Thirty-nine percent experience all disability domains including mobility, self-care, getting along, and life activities. Only 40% were referred for rehabilitation, and only 59% of them received services. Over a third attained primary education, while less than quarter were employed. Thirty-nine percent of families encouraged socialization, and only 16-19% prioritized attending social engagements of cultural and religious activities. Their decision-making involvement varies on participating in self-help groups and disabled persons organization, keeping personal relationships, and voting (13-30%). They perceived that 22-24% of the community know about PWDs and PWD policies. These collectively suggest why only 31% feel valued as community members.

**Conclusions:** Regardless of disability, nearly all adult PWDs of Barangay Concepcion Pequeña have limited involvement with their community’s health, education, livelihood, social, empowerment, and environment sectors. Almost all encounter cognition and communication disabilities. Continuing the disability and community profiling of barangays will serve as basis of CBR programs.

**Implications to Clinical Practice:** A community perspective of biopsychosocial approach to adult communication disorders is highlighted. Strengthening CBR in the local practice of speech-language pathology can potentially break the poverty-disability cycle.

**20. Involvement of People with Aphasia in Training Hospital Staff on Effective Communication**

Sheiladen M. Aquino¹, Sharon Cawley¹

¹ Cog Neuro Speech Therapy, UK

**Introduction:** The Irish Health Service Executive and Health Services National Partnership Forum have published a national strategy to improve service user involvement in the country’s health service. However even with this policy, it poses a challenge to encourage user involvement from patients with aphasia whose core impairment is communication.

**Objectives:** The project aims to measure the effectiveness of including people with aphasia in training hospital staff on effective communication. This is a part of a bigger research study that developed an integrated communication policy for hospitals in the North West Executive Health Service of Ireland.

**Method:** Five people with aphasia participated in group speech therapy program once a week for 6 weeks. They were given the opportunity to discuss strategies that have significantly helped with their communication. They were supported to prepare a 5-10 minute talk about a their chosen strategy. On week 6, they presented and provided training to nurses, allied health staff and junior doctors on how to effectively
communicate with patients who have communication difficulties. At the end of the presentation, questionnaires were given to evaluate the training. Both quantitative and qualitative analyses were used to interpret the results.

**Results**: 67% of the audience rated the training 5/5 (5 highest), 22% rated it 4/5 and the remaining 11% 3/5. All who attended (100%) said that they benefitted from having people with aphasia in the presentation. Hospital staff also showed increased awareness of communication difficulties resulting from aphasia, acknowledged the need for social inclusion and the importance of using communication strategies with their patients.

**Conclusion**: Given the opportunity and support, people with aphasia can be involved in delivering training to hospital staff to successfully improve communication between staff and patients.

**Implications for Clinical Practice**: The above procedure can be replicated in other clinical settings to include people with communication disabilities in training, policy development, quality assurance research and other consumer service initiatives.
LIST OF ACCEPTED POSTERS

1. Increasing Spontaneous Verbalization in Chronic Aphasia: Enhanced Protocol of Constraint Induced Aphasia Therapy
2. Communication Disorders and other Disabilities and the Community
3. Enhancing Communication and Person-Centered Care for People with Dementia Using Life Story Books
4. Involvement of People with Aphasia in Training Hospital Staff on Effective Communication
5. Compliance of Dysphagia Recommendations of Hospitals in North-West of Ireland
6. A Qualitative Profile of EBP among Filipino Speech-Language Pathologists
7. Systematic Review of Measurement Instruments and Procedures Used for Collecting Normative Data on Voice
8. A campaign to Reduce Bias and stereotype about Stuttering in Indian cinema
11. The Healthcare Practitioner as the Primary Caregiver to the Elderly Filipino Parent: A Preliminary Study
12. Content-Form Interactions of Selected Filipino Children Aged 14 to 60 Months
13. Developmental changes in the correctness of verb inflections used by Filipino children and those interacting with them
14. Telerehabilitation for Service Delivery in Speech-Language Pathology for Adults with Disability in Barangay Concepcion Pequeña, Naga City
15. Application of the ICF in clinical SLP practice: Preliminary results of thematic analysis in a scoping review
16. Phonological Development of Filipino-Language Dominant Four-Year Old Children in Metro Manila
17. Development of a Tagalog Sentence Repetition Test for 2- to 100-year-old Tagalog Speakers
18. A Glimpse of Speech Development of Typical 2-4 Years Old Children in Selected Public Day Care Centers in Cebu City
19. Clinical Instructors’ Use of Three Affective Instructional Methods
20. Development and Validation of the Assessment of Competence of Speech Pathology Clinical Instructors Scale
21. Perceptions, Attitudes and Beliefs of Filipino Elderly Regarding Tube-Feeding
22. Treatment of benign vocal fold lesions: Comparing the voice outcomes of laser surgery and voice therapy
23. A Secondary Data Analysis Describing the Syllable Structure Exhibited by Four-Year-Old Filipino-Dominant Speaking Children
24. Measurements of Lexical Diversity and Density of Filipino Language Dominant Four-Year Old Children in ECCD-Monitored Day Care Centers in Metro Manila
25. Speech Intelligibility of Typically-Developing Filipino-Language Dominant Children Aged 4 Years Old Enrolled in ECCD-monitored Daycare Centers in Metro Manila: A Secondary Data Analysis
26. AAC Preference
1. Increasing Spontaneous Verbalization in Chronic Aphasia: Enhanced Protocol of Constraint Induced Aphasia Therapy

Ma. Concepcion P. Segismundo1, 2, Kristen K. Maul2, Yasmeen Faroqi-Shah3, Robin Goften2

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Introduction/Background: The increasing prevalence of aphasia with the impending projection of a Speech-Language Pathology (SLP) personnel shortage suggests an increased demand for speech and language therapy services in the future. With this, identification of effective and efficient group aphasia therapy is important. Recent modification in the intensive, social-functional restorative communication approach, also called as Constraint Induced Aphasia Therapy II (CIAT II), has shown promising results with increasing spontaneous speech in everyday life situations in individuals with chronic aphasia. However, the extent of applicability of the enhanced CIAT II protocol in terms of outcomes in other areas of language as well as aphasia severity has not been fully explored.

Objectives: This research study aimed to: (1) determine the effect of CIAT II on language measures (aphasia severity, naming and quality of spontaneous speech), and (2) examine the effect of CIAT II on the amount and quality of participation in spontaneous speech in life situations in an adult with severe chronic aphasia.

Method: This is a single-subject case study design involving an adult with severe chronic aphasia (12 years and 9 months-post stroke during first CVA and 1 year post stroke during 2nd CVA). The participant received intensive treatment based on the CIAT II protocol (Johnson, et.al, 2014).

Results: Results revealed significant gains on tests of aphasia severity as well as measures of lexical diversity (type token ratio, percentage of nouns and percentage of verbs) both in narrative and discourse tasks. However, no significant change was observed on naming measures as well as perception in the amount and quality of spontaneous speech in everyday activities.

Conclusion: This study suggests that, for an individual with severe chronic aphasia, the enhanced CIAT protocol (CIAT II) may not produce significant improvements in naming and everyday speech but, may result in significant changes on standardized test of aphasia severity and measures of lexical diversity.

Implications for Clinical Practice: Massed practice, shaping and addition of transfer package within the context of CIAT II may reduce aphasia severity and increase quality of speech in narrative and conversational discourse in individuals with severe chronic aphasia.

2. Communication Disorders and other Disabilities and the Community

Joyce Anne Ponciano-Villafania1, 2, 3, Cheryl R. Peralta, DrPH, PTRP1, Mark Anthony D. Abenir, DSD1, Jordan Barbra P. Nava, MSPT, PTRP1

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Background: In the Philippines, 80% of persons with disabilities (PWDs) are 15 years old and over. Bicol region ranks second in disability rate with Naga City as its most populous municipality. Disabilities aren't merely impairments. They limit daily life activities and restrict community participation. Disabilities must then be viewed within the community context. This study is part of a 5-year partnership among the local government, non-governmental organization, and higher education institutions for adult PWDs and senior citizens. This aims to establish a disability profile using the ICF framework and a community profile using the community-based rehabilitation (CBR) matrix for situational analysis.

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Conclusions: Regardless of disability, nearly all adult PWDs of Barangay Concepcion Pequeña have limited involvement with their community’s health, education, livelihood, social, empowerment, and environment sectors. Almost all encounter cognition and communication disabilities. Continuing the disability and community profiling of barangays will serve as basis of CBR programs.

Implications to Clinical Practice: A community perspective of biopsychosocial approach to adult communication disorders is highlighted. Strengthening CBR in the local practice of speech-language pathology can potentially break the poverty-disability cycle.

3. Enhancing communication and person centered care for people with dementia using life story books

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Introduction: Life story books have been used with older people to enhance person centred care, improve quality of life and empower their personhood. It has been shown to facilitate communication and gain insight into a person’s needs and behaviours. It is a program that showed mutual benefits for participants receiving and providing care. However, due to scarce resources, this is not practiced in community hospitals in the north-west of Ireland. The purpose of the study is to introduce Life Story Books in a community hospital and explore how these are developed in practice, experienced by various participants and how this affect delivery of care.
Method: A total of twenty residents, five residents from four wards, were recruited to participate in the project. Twenty Life Story Books were collaboratively developed with the resident, their family, and a speech and language therapist or speech and language therapy student. Two community volunteers and a staff member were recruited and trained on how to best use the Life Story Books. After six weeks, the health care assistant and volunteers were interviewed by the speech and language therapist responsible for the project. A Grounded Theory style approach was taken in the compilation of results of this study.

Results: Staff and volunteers report that reading life story books to residents aids communication and quality of life. Residents can express their personal preferences which in turn helped to develop individualized activities catered to residents’ interests. Staff also reports that using life story books made the job more rewarding and significantly developed relationships with residents. One volunteer felt that she became “a part of the team” in the hospital and another said that she enjoyed learning from the residents themselves. Suggestions on future implementation of the program were elicited to include: increase privacy (some wards do not have available rooms), better pictures and improved communication between staff and volunteers.

Conclusion: Life story books in long term care settings have shown to have a number of benefits for residents, staff and community volunteers.

Implications for Clinical Practice: It is possible to integrate life story books in speech therapy practice to enhance communication and care for people with dementia especially when hospital staff and people from the community are involved.

4. Involvement of People with Aphasia in Training Hospital Staff on Effective Communication

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Introduction: The Irish Health Service Executive and Health Services National Partnership Forum have published a national strategy to improve service user involvement in the country’s health service. However even with this policy, it poses a challenge to encourage user involvement from patients with aphasia whose core impairment is communication. The project aims to measure the effectiveness of including people with aphasia in training hospital staff on effective communication. This is a part of a bigger research study that developed an integrated communication policy for hospitals in the North West Executive Health Service of Ireland.

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**Conclusion:** Given the opportunity and support, people with aphasia can be involved in delivering training to hospital staff to successfully improve communication between staff and patients.

**Implications for Clinical Practice:** The above procedure can be replicated in other clinical settings to include people with communication disabilities in training, policy development, quality assurance research and other consumer service initiatives.

**5. Compliance of Dysphagia Recommendations of Hospitals in North-West of Ireland**

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**Background:** After The Irish National Quality Standards for Residential Care Settings for Older People recommended removal of all bed signs, including dysphagia safe swallowing information, there has been significant concerns regarding compliance of modified diet, thickened fluids and feeding strategies for patients and residents in community hospitals. Non-compliance with dysphagia management recommendations in long term care settings are often associated with adverse outcomes including risk of choking, aspiration pneumonia, increase cost and significant mortality.

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**Method:** An observational audit was conducted in two community hospitals in HSE North-West. The audit was conducted by 4th year Speech & Language Pathology students to act as an independent body in evaluating compliance of modified diet and fluids after a dysphagia assessment by an SLT. They have received training from the Senior Speech Pathologist in identifying various consistencies of modified diets and thickened fluids as per the Irish Consistency Descriptors for Modified Fluids and Food. The Director of Nursing in each hospitals were informed that an audit would be conducted however in order to prevent any change in behaviour at the time of the study, the specific day and time were not provided. Dysphagia training packages were provided to all hospital staff after the audit and a follow-on training was made available for new staff. Furthermore, a multidisciplinary dysphagia group on meal and mealtimes practice was created comprising of a dietitian, catering staff and nurses to direct clinical pathways that are based on collaborative policies and ensure adherence to an inclusive dysphagia management.

**Results:** Compliance to dysphagia recommendations has not significantly improved immediately after training. Positive change in compliance was seen only after key members of the multi-disciplinary team were included in policy making and subsequent audits.

**Conclusion:** Behaviour change and positive compliance to dysphagia recommendations involves a multidisciplinary effort in providing training, collaborative policy making and efficient risk reporting.

**Implications for Clinical Practice:** A robust training and communication system ensures safety and
compliance of dysphagia recommendation. Multidisciplinary groups can be created in each hospital to address meal and mealtime issues which includes: developing a robust communication pathway; risk assessments and reporting; development of new menus to provide more choices for modified diets.

6. A Qualitative Profile of EBP among Filipino Speech-Language Pathologists

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Background: Evidence-based practice (EBP) is a clinical decision-making framework that most speech language pathologists (SLP) across the world are advocating for. Observed benefits from employing EBP include better patient outcomes and greater professional accountability. In the Philippines, the Commission on Higher Education included a separate EBP formal course for its BS Speech Language Pathology curriculum. However, studies on Filipino SLPs’ current practice, knowledge of, and attitudes toward EBP are limited. In addition, a quantitative study on the subject matter revealed conflicting results.

Objectives: The present qualitative study explored the current understanding, attitude, and practice patterns of Filipino SLPs regarding EBP.

Method: Using a multiple case studies design, 6 Filipino SLPs were individually interviewed. Data gathered from transcripts of these interviews, memo notes, and written observations were analyzed using the constant comparative method.

Results and Conclusion: Results revealed that Filipino SLPs appear to base clinical decisions on traditional sources of information that may have low levels of evidence. Their lack of formal training and exposure to EBP were identified as primary factors that contribute to their insufficient knowledge about the approach, further hindering their EBP application. Lack of time and culturally-relevant articles were also cited as potential barriers to EBP. Despite these misconceptions and identified barriers, Filipino SLPs have positive attitudes toward EBP as an approach to clinical practice as they recognized its benefits to their practice. They expressed their openness to learning more about EBP. Several recommendations were also provided by the participants, particularly on instituting formal EBP education in existing speech language pathology curricula and creating training programs for practicing SLPs.

7. Systematic Review of Measurement Instruments and Procedures Used for Collecting Normative Data on Voice

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Background: Collecting normative data on vocal functions requires identifying, selecting, and using measurement instruments that are valid, reliable, easy to use, and population-specific instruments. However, selecting eligible instruments poses a huge challenge as there is an incredibly large number and types of existing measurement instruments notably within the field of communication disorders and rehabilitation.

Objective: This study aims to (1) describe the data collection procedures used for obtaining normative data on voice, (2) describe the characteristics of normative voice studies, and (3) recommend applicable instruments or procedures for normative studies done in the Philippine context.

Method: We performed a systematic review guided by PRISMA standards. We searched both published and unpublished studies in several electronic databases (e.g. MEDLINE, EMBASE, Google Scholar, CINAHL, Herdin) from inception until May 2018 using a combination of free text and subject headings. Grey literature and hand-searches were done. Studies that examined the theoretical background, development, and/or measurement properties of voice instruments and cross-sectional studies were included. Adequate inter-rater reliability in screening eligible articles, extraction, and appraisal of methodological quality of studies was achieved by training raters and adopting consensus ratings for disagreements. Data from each study were extracted using a tool developed based on the STARD, STROBE, and COSMIN guidelines. The COSMIN Risk of Bias Checklist was used to assess the methodological quality of studies. Qualitative synthesis was done and selected procedures were recommended based on feasibility, accessibility, and biologic and cultural appropriateness.

Results: Of the 14,314 studies, 133 articles were cross-sectional voice studies and 2,053 were studies on measurement instruments. Forty-eight of the 133 (36%) were eligible for data extraction and synthesis. Participants were mostly adults (52%) and varied in terms of inclusion criteria employed. Majority (85%) of studies had sample sizes of 500 or less. Acoustic parameters (56%), dysphonia prevalence (23%), and aerodynamic voice characteristics (19%) were the focus of most studies. Sustained phonation and PRAAT were the dominant procedures used for data collection and analysis. Heterogeneity was seen in terms of the instruments used. Future normative studies should employ methods to minimize biases by using proper sample size calculation, validated instruments, exhaustive inclusion criteria, and by adhering to published reporting guidelines (e.g STROBE).

Implications for Clinical Practice: This systematic review will guide researchers in designing a protocol for a large, cross-sectional study documenting vocal performance among healthy Filipinos. It may inform practicing clinicians on the current diagnostic tools available and aid policy makers and managers of health institutions in setting up policies and programs.

8. A campaign to Reduce Bias and stereotype about Stuttering in Indian cinema

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Background: In most cultures, stuttering has had a negative social stigma associated with it. In India, movies and entertainment industries have for long used characters with stuttering as objects of ridicule. Movies are a passion with Indians (Bollywood is a $2.28 billion industry) and are largely recognized as socio political influencers. Therefore a campaign to "Prevent stuttering being portrayed inappropriately in Indian cinema " was thought to be vital. Garnering public support for this campaign and submitting a
petition to the information and broadcast ministry under which the censor board functions was the aim of this advocacy project. The censor board is a statutory body that regulates the content of all the films and television programs of the country.

**Method:** Samvaad institute of speech and hearing in Bangalore, India, started an online campaign to stop the inappropriate portrayal of stuttering in Indian cinema. The online petition was started on the change.org portal. The petition was addressed to the Minister of Information and Broadcasting, Govt of India. The petition link was sent to all well wishers, students and speech pathologists by email requesting them to sign their support. A movie star was requested to be the spokesperson for this campaign. A press conference was held which received wide publicity.

**Results:** The campaign has gathered over 3500 signature so far. Press coverage in print, online and on TV has been good. The petition will be submitted to the concerned Minister at the end of April 2018. We expect the ministry to give directions to the censor board to pass an order that ensures that stuttering is portrayed appropriately in Indian cinema.

**Conclusion:** We, Speech Pathologists have largely focused on improving the fluency of our clients, but we definitely need to also focus on how people with stuttering are perceived by society. We need to advocate for a change in people’s mind sets and to dispel myths surrounding stuttering.

**Implications for Clinical Practice:** Reduction in the negative social stigma attached to stuttering will help our clients speak without fear or shame. Fluency shaping strategies will be more effective too.


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**Objective:** The study aimed to describe the implications of the midwives’ level of awareness and practices of the Newborn Hearing Screening Program in selected birthing centers in Cebu City to the early detection of hearing loss.

**Method:** This study utilized a descriptive study design. The total number of respondents were sixty (62) midwives employed in the selected PhilHealth-accredited birthing centers in Cebu City. The researchers used the “Newborn Hearing Screening Survey for Midwives” which is a researcher-made survey tool modified from the Newborn and Infant Hearing Screening Survey by Goedert, Moeller, and White (2011).

**Results:** Findings showed that majority 55 (89%) of the midwives in the selected birthing centers in Cebu City do not offer NHS. Out of the 62 midwives, 29 (46.8%) refer newborns to other facilities that offer NHS while 33 (53.2%) midwives do not refer newborns to other facilities that offer NHS. 30 (48.8%) midwives inform parents/family about hearing loss and NHS while 32 (51.6%) midwives do not. Out of the 62 midwives, 42 (67.7%) midwives show a high level of awareness on hearing loss and its consequences while 20 (32.3%) are moderately aware about hearing loss and its consequences. 41 (66.1%) midwives are fully aware of the facts regarding newborn hearing screening and are considered to have high-level of
awareness. 20 (32.3%) midwives have mid-level awareness or are moderately aware of the facts regarding newborn hearing screening while 1 (1.6%) midwife has low-level of awareness or is least aware of the facts regarding newborn hearing screening. Out of 62 midwives, 50 (80.65%) midwives have high level of awareness regarding their roles and responsibilities related to NHS, while 12 (19.35%) midwives have mid-level of awareness. Overall, 62 (100%) midwives have high level of awareness on hearing loss, NHS, and their roles and responsibilities, while, 12 (19.35%) midwives have mid-level of awareness.

**Conclusion:** In conclusion, most of the midwives in the birthing centers in Cebu City have not complied with the NHS protocol as stated in Republic Act 9709 which requires the NHS to be offered in each birthing center. This negatively affects early detection of hearing loss in newborns. However, the midwives’ overall high awareness regarding hearing loss, NHS, and their roles and responsibilities is a good indication that implementation of the NHS program is not impossible. Based on the findings, the researchers would like to recommend meeting with the midwives in their respective birthing centers and holding a lecture and open forum.

**Implications for Clinical Practice:** With the hope of reducing the incidence of hearing loss among newborns, we decided to look into midwives’ awareness and practices. By sharing to the public, we aim to help the midwives with their roles and increasing the chances of newborns with hearing impairment to early intervention.


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**Background and Objective:** The study aims to develop a home instruction manual focused on stimulating the auditory and speech skills of children with hearing impairment and determine its face validity. The material is created to provide parents with a textual guide on how to stimulate their child’s hearing and speech skills at home.

**Method:** The study is conducted via survey to determine the material's face validity in terms of content, literary presentation, illustrations, specificity, and printing characteristics. Study design: Qualitative, quantitative, mixed methods. Setting: 1 school for the hearing impaired and 1 speech and language therapy center. Subjects: 35 speech and language pathologists handling children with hearing impairment, 21 audiologists working with pediatric cases, and 26 parents of children diagnosed with hearing loss. Data collection: Developed material was given to the participants for viewing and evaluation. An adapted questionnaire was provided for the ratings and recommendations. The ratings of the 2 groups are analyzed and compared to derive on a significant result. Analysis: Descriptive statistics (mean) analysis within groups (parents and specialists) and t-test for independence to determine differences within the two groups. 82 participants contributed to the study (56 specialists and 26 parents).

**Results:** Both groups produced similar mean scores, which signify the material has achieved its objectives. The t-test results show limited differences in terms of the responses of the 2 groups.
Conclusion: The results from both groups suggest a positive face validity outcome. Both groups agree that the material can be beneficial for parent teaching at home. Some limitations raised involve material modifications such as the vocabulary used and the lack of visuals. Further validation studies are recommended for its content and construct.

Implications for Clinical Practice: Research has shown a faster improvement in the child’s skills when parents are able to follow-up speech therapy goals at home. The content of the home instruction manual is based on the information needed by parents to properly carry-over methods to improve the child’s hearing and speech skills at their own home.

11. The Healthcare Practitioner as the Primary Caregiver to the Elderly Filipino Parent: A Preliminary Study

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Background: Filial piety has been the driving force for many Filipino families to take care of their elderly at home. Among the elderly parent’s children, the healthcare practitioner (HCP) often becomes the primary caregiver by default. While the HCP is capable of making crucial medical decisions, role shifts occur: the caregiver is all grown and the care recipient is the parent. The burden of knowledge and the responsibility for preserving a loved one’s life comes with this role shift, and with it, a potential change in power relations. This research provides preliminary information for a future investigation that intends to study the factors involved when the aging Filipino parent and the grown child engage in medical decision-making.

Method: Episodic interviews were done with three nurse-managers (mean age=50.67 years; mean years as healthcare practitioner=24.67) from a tertiary hospital in Quezon City. Content analysis was done on the transcribed interviews in order to identify and analyze themes. Relevant concepts, particularly with the primary caregiver as the main medical-decision maker, inform the analysis.

Results: Dominant themes came out of the analysis such as prerequisites to becoming a primary caregiver and thoughts and beliefs on medical decision-making. A distinct major theme resulted from all three narratives: the primary caregiver in a position of power. Each of the four themes revealed salient thematic categories that may be explored in subsequent studies.

Conclusion and Recommendations: Major thematic categories such as residential proximity, parental autonomy, and the grown child’s decisions overruling the parent’s may manifest in similar caregiving narratives. The concept of the primary caregiver being in a position of power may merit further investigation as it can help understand how power relationships facilitate or hinder efficient medical decision-making.

Implications for Clinical Practice: Understanding the family dynamics involved in eldercare may guide HCPs who provide counseling to older Filipino families. Appreciating these same dynamics may aid in facilitating the follow-through of home therapy instructions for the older person with cognitive-communication and swallowing difficulties. By seeing the client in the lens of Filipino gerontology, insights may be gained on the role of parental autonomy in culturally-sensitive elderly healthcare.
12. Content-Form Interactions of Selected Filipino Children Aged 14 to 60 Months

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Objective: This study described the content-form interactions of selected Filipino children aged 14-60 months and compared those interactions with the interactions presented by Lahey (1988) for English-speaking children.

Method: Seventy-eight transcripts acquired from FELCDD were divided into Phases based on Lahey’s (1988) MLU groupings. Language form and content were analyzed using codes and coding guidelines derived from Marzan (2013). After establishing inter-rater reliability, 5 researchers coded argument structure of 15-16 transcripts. Free marginal inter-rater reliability for argument structure was established at 0.93 kappa. Coding and data extraction were performed with CLAN. Extracted data were analyzed using Microsoft Excel. Frequency counts for semantic category and argument structure were cross-tabulated for transcripts; each cross-tabulation was counted as a single content-form interaction (C/F interaction). The frequency counts for each interaction were tallied across children. The number of children with productive use of that interaction was noted. To facilitate comparison, Lahey’s (1988) criteria was utilized: interaction was deemed productive when at least 5 different exemplars were used by at least 4 children within a Phase. It was deemed emerging when 3 children used the interaction at least 5 times. Productivity and emergence of the embedding of nonverb categories in utterances were similarly analyzed.

Results: Filipino children showed productive use of existence and volition-intention using single words. As MLU increased, coding of more concepts such as action, attributive state, locative state in more complex argument structures were observed. Coding of nonverb categories was also observed in which children embedded possession, quantity, notice and temporal concepts in existence and action concepts.

Conclusion and Recommendations: This study provides preliminary data on the content-form interactions of Filipino children and the stages in which they emerge or become productive. Similarities and differences between the results from the study and from Lahey’s content-form grid were noted. Recommendations are inclusion of additional content categories from Marzan et al. (2013), use of intra-rater reliability, a more comprehensive understanding of linguistics, and expansion of data collection to increase generalizability of results.

Implications for Clinical Practice: Description of Filipino language development in terms of content-form interactions is significant for culturally appropriate goal-setting in pediatric language intervention.

13. Developmental changes in the correctness of verb inflections used by Filipino children and those interacting with them
Background: Developmental changes in the correctness of children’s use of verb inflections is useful for understanding the phenomenon of child language development, and hence of cognitive development in children. It provides data against which a Filipino child’s verb inflection can be compared to determine if development is as expected.

Objectives: To describe (1) changes over time in Filipino children’s use of inflectional forms (a. The proportion which are consistent in form and meaning with that accepted for competent adult speakers across verb aspects, b. The proportion which are present when required across aspects, c. Changes in the correctness of specific inflectional forms across ages, including error patterns; (2) Changes over time in the inflectional forms used by persons when interacting with Filipino children, a. Proportion of verbs that were inflected and uninflected, b. Aspects and tenses used by interlocutors; (3) The relationship between verb aspect and verb inflection used by the children and by those interacting with the children

Method: Sixty-five (65) videos with corresponding transcripts of five bilingual Filipino children aged 14-44 months were obtained from the Filipino Early Language and Child Development Database (FELCDD). These language samples recorded natural interactions of the participants and their families for each child over a span of two years with an average of two months between each recording. Verbs were extracted using CHAT and CLAN programs of the Child Language Data Exchange System[2]. Verb aspect, tense and the correctness of verb inflections embedding temporal notions in the verb were analyzed.

Results: The children used inflections in ways consistent with the form and meaning accepted for competent adult speakers 95% of the time. They inappropriately omitted required inflections only 11% of the time. They omitted required inflections more frequently than they used inappropriate substitutes for obligatory inflections; substitution of inflections was minimal (only 21). These findings are consistent with those of Brown (1973) for English speaking children and Aljenaie (2010) for children speaking Arabic. All five children combined used 1489 inflected verbs and 2,574 uninflected verbs. Persons interacting with the children used 6187 inflected verbs and 9863 uninflected verbs. The proportion of verbs used by children that were uninflected is greater than that used by their interlocutors. Both populations decreased their use of uninflected verbs over time. Of the inflected verbs coded by persons interacting with the children, 1,603 verbs (30%) were infinitive, 919 (17%) were contemplated, 768 (14%) were perfective, 691 (13%) were in progressive tense, 562 (10%) were imperfective, 207 (9%) were in past tense, and 242 (4%) were in present tense. Both children and their interlocutors used markedly more uninflected than inflected verbs.

Conclusions and Implications for Clinical Practice: Filipino children tend to use verb inflections correctly. The correctness of verb inflections in obligatory contexts is somewhat lower than the correctness of those inflections actually used. The patterns of correctness of verb inflection use among these five Filipino children shows patterns similar to those of children in other cultures and languages. There appears to be a direct relationship between interlocutor’s input and child’s output, specifically for the changes in use of uninflected verbs in terms of frequency and type. It is not certain whether children imitate interlocutors or
interlocutors adjust to children. It is recommended that appropriateness of uninflected verbs and interlocutor’s production of other grammatical morphemes be further studied.

14. Telerehabilitation for Service Delivery in Speech-Language Pathology for Adults with Disability in Barangay Concepcion Pequeña, Naga City

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Background: There are 1.44 million persons with disabilities (PWDs) out of 92.1 million people in the Philippines; a 1.57% disability proportion. Bicol region has the second highest disability proportion in the country at 1.85%. Only one speech-language pathologist (SLP) works in Bicol out of the 452 SLPs nationwide. Telerehabilitation becomes a viable service delivery through info-communication technologies (ICTs). Before implementing this, readiness and appropriateness in the local context must be established.

Objective: This study describes the feasibility of telerehabilitation in delivering speech-language pathology services to adults with disabilities in Barangay Concepcion Pequeña, Naga City in terms of ICTs, stakeholder perspectives (SLP, community-based rehabilitation specialist [CBRS], PWDs and families), and facilitators and barriers. This is part of a 5-year community-based rehabilitation (CBR) partnership among the local government, non-governmental organization, and higher education institutions.

Methods: Various ICTs were tested throughout 4 individualized intervention sessions provided by a certified SLP based in Manila. The sessions were conducted in the homes of 2 PWDs with communication problems (52 and 65 years old) with 1 CBRS present. Participants wrote experiences in journals, and were interviewed on the last session. These were transcribed and coded using NVIVO, later analyzed through thematic analysis, data triangulation and member checking.

Results: The 7.2 Mbps internet falls short of the ideal 10 Mbps. MacBook laptop makes telerehabilitation plausible because of optimized video messaging (FaceTime) and integrated messaging (iMessage) applications, and stable audio-video feedback. The SLP focused on telerehabilitation’s technological requirements and similar conduct with face-to-face intervention. PWDs and families expressed satisfaction with telerehabilitation and recognized its benefit in reducing health care costs while improving health. CBRS bridges the SLP and PWDs with their perception of telerehabilitation’s benefit in rehabilitation and effectiveness of intervention. Improving internet connection solves the barriers. Strengthening Naga City’s CBR policy, supporting CBRS training, having SLP technological knowledge, and conducting telerehabilitation in homes of PWDs facilitates telerehabilitation. The only drawback is the expensive Macbooks, which enables telerehabilitation.

Conclusions and Recommendations: Telerehabilitation is feasible in Barangay Concepcion Pequeña. Creation of guidelines is recommended prior to effectiveness study and full-scale implementation.

Implications to Clinical Practice: Telerehabilitation maximizes the number of SLPs in the Philippines, consequently equalizing rehabilitation opportunities across regions.
15. Application of the ICF in clinical SLP practice: Preliminary results of thematic analysis in a scoping review

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Background: The use of the International Classification of Functioning, Health and Disability (ICF) framework is advocated in the field of Speech-Language Pathology (SLP) practice. Its utility focuses on improving health-related quality of life in relation to communication and swallowing. Since the ratification of the ICF in 2001, multiple articles on its use on the SLP field have been published. Clinical SLP practitioners in the Philippines can benefit from having a reference material that compiles these available literature and summarizes the plausible clinical utility of the ICF.

Objectives: Thus, the authors aimed to identify and analyze literature about the use of the ICF in clinical SLP practice. The specific objectives included: (1) to compile a list of available reference materials relevant to using the ICF in clinical SLP practice, (2) to quantitatively describe the scope of the articles, and (3) to summarize the clinical utility of the ICF framework in SLP practice.

Method: The York Framework for scoping reviews (Arksey & O’Malley, 2005) was adapted by the study. The framework consists of six stages: (1) identifying the research question, (2) identifying relevant studies, (3) study selection, (4) charting the data, (5) collating, summarizing, and reporting results, and (6) optional consultation exercise.

Results: The study identified that a majority of the articles collated were research studies in developed countries. The ICF was applied equally across age groups (i.e., pediatric and adult population), and focused on activities and participation rather than health conditions. Thematic analysis showed that ICF has been applied in assessment, intervention and health care service delivery. However, gaps exist in using ICF based tools in a practical context and in social understanding of the ICF. These gaps were also observed in other rehabilitation professions.

Conclusions and Recommendations: With the strong push for the use of the ICF from various international organizations (e.g., World Health Organization and American Speech-Language-Hearing Association), Filipino SLP practitioners are encouraged to learn and adapt the ICF framework in their practice. The ICF framework can aid them in holistically understanding their client’s functioning and disability, thus, contributing to more effective clinical decisions. The study attempted to synthesize the clinical utility of the ICF that has been documented in various published articles to serve as a guide for Filipino SLP practitioners as they incorporate the use of ICF in their practice. As the use of ICF in the local practice increases, research on the process of adapting and utilizing the framework in actual practice will be needed. Another recommendation is to further research on the gaps and challenges raised in this study.
Implications for Clinical Practice: The findings of this study can help Filipino Speech and Language Pathologists in understanding how the ICF framework can be applied in clinical practice.

16. Phonological Development of Filipino-Language Dominant Four-Year Old Children in Metro Manila

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Background: Speech and Language Pathologists (SLPs) use phonological development normative data in the assessment, diagnosis and management of children with speech sound disorders. SLPs look into what consonants can a child produce to come up with their consonant inventory and what phonological changes they are exhibiting during the assessment. They will then compare it with normative data to properly assess and plan intervention, if necessary. However, Filipino SLPs depend on published American phonological development normative data as local data are not yet established. Cultural and linguistic biases exist when using foreign normative data. Looking at what consonants and what phonological changes are expected for a typically-developing Filipino-Language dominant child of a certain age will help SLPs assess and plan intervention for Filipino children with SSDs.

Objective: The study aimed to document the consonant inventory and phonological changes exhibited by one hundred (100) Filipino-Language dominant 4 year old children in public Day Care Centers in Metro Manila.

Method: A descriptive cross-sectional study design was used. A stratified non-probability sampling was used to recruit 100 4-year old Filipino-language dominant children across the 17 cities of Metro Manila. Connected speech samples from the participants were recoded, transcribed, and analysed to identify the participant's consonant inventory and describe the exhibited phonological changes.

Results: A total of 100 recorded speech samples with an length of eight minutes were transcribed and analysed. All Tagalog consonants were produced by the participants. However, only the following consonants were considered mastered: /p/, /t/, /k/, /b/, /d/, /g/, /l/, /r/, /h/, /s/, /m/, and /n/. The participants exhibited 31 phonological changes. However, only two phonological changes were exhibited by at least 50% of the participants. These are: stopping (/f/ to /p/) and de-palatization (/l/ to /r/).

Conclusion and Implications for Clinical Practice: The data contained in this study may serve as normative indications for phonological development of 4 year old Filipino-language dominant children in...
Metro Manila. This may be used to guide assessment, diagnosis and intervention of speech sound disorders for the population described.

17. Development of a Tagalog Sentence Repetition Test for 2- to 100-year-old Tagalog Speakers

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Background: Tagalog norms regarding Filipinos’ phonemic development is still absent in the country. Because of this, a standardized Filipino articulation tool cannot yet be created, affecting the quality of service delivery for speech assessment and intervention.

Objectives: This study aimed to develop a sentence repetition test that will elicit all present Tagalog speech sounds in the initial, medial, and final positions for Tagalog-dominant individuals aged 2 to 100. It will also be able to identify typical Tagalog phonological development, and to observe any changes throughout the lifespan.

Method: The study involved three phases employing a simple literature review, a judgment research design, and a quantitative cross sectional design, respectively. Reviewing the existing screening and formal assessment tools for articulation was done to identify the different types of test stimuli, materials, administration, and scoring of existing Articulation tests in Tagalog. Approximately twenty-five to thirty four-word Tagalog sentences were created using high-frequency Tagalog words (Marzan, 2013 and Chua, 2015). Consultation with a linguist specializing in Tagalog, and a non-linguist were also done separately to confirm Tagalog phonemic inventory and the “language acceptability” of the sentence stimuli. Created sentences are to be pilot tested to three people from each age group to determine the efficacy and repeatability of the stimuli.

Results: Twenty-five to thirty sentences not more than 4 words were created. The target phonemes were presented at the initial, medial, and final positions in three opportunities. Ensuring “language acceptability” was done by placing the target phonemes in the stressed position, as well as using the Swadesh list for additional words not present in Marzan and Chua’s word list. The sentences will be audio-recorded by one male and one female model to ensure the consistency in the presentation of stimuli.

Conclusion and Recommendations: The study is currently ongoing. Conclusions and recommendations will be made once data collection and analysis are complete

Implications for Clinical Practice: The sentence repetition test will identify Tagalog phoneme development and changes throughout the lifespan, which can then lead to development of norms once used on the the general population.

18. A Glimpse of Speech Development of Typical 2-4 Years Old Children in Selected Public Day Care Centers in Cebu City

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Background: Speech-language pathologists in Cebu use standardized tools that are normed and created for the English language. However, the primary language in Cebu is Cebuano. The use of standardized tools (English) for Cebuano speaking children could lead to inaccurate diagnosis. Thus, the researchers gathered initial data on speech sound repertoire and the phonological processes of Cebuano children. This contributes to the knowledge base needed in giving an appropriate speech diagnosis and treatment.

Method: A qualitative case study framework was used. Four typically developing children aged 2;6 to 4;11 years were invited. To collect 30-minute speech samples, the participants engaged in free-play using different toy-sets once a week for four consecutive weeks.

Results: From 16 collected speech samples, the participants utilized 24 consonants. They also used 12 monophthong vowels. Eight of these monophthongs were employed as allophones. The participants demonstrated phonological processes that were reported to be typically used by children within that age range. However, the participants also demonstrated phonological processes deemed to be atypical, such as deletion of the initial consonant of the word, deletion of a stressed syllable, deletion of the final vowel, and the addition of a syllable or a consonant.

Conclusions and Recommendations: In addition to the 16 consonants and three vowels identified by Litogo (2011) and Rubrico (2015) to be part of the Cebuano language, the participants’ speech sound repertoire included speech sounds from the English and Tagalog languages. This implies the bilingual influence on their speech development. The data gathered on phonological processes indicate that atypical patterns appear to occur naturally in the speech development of Cebuano children and may not be an indication of a speech disorder.

Implications for Clinical Practice: To further support the observation from this study, it is recommended to use a larger sample size and a longitudinal study. Research on the effects of bilingualism could further explain the phenomena of the sounds as adapted by children from other languages.

19. Clinical Instructors’ Use of Three Affective Instructional Methods

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Background: With the current technology and research advancement in medical and allied health science, the bar for excellence and competence is continually set higher. In spite of this, health professionals are increasingly subjected to scrutiny due to poor attitude and undesirable behaviors towards their colleagues, health team members and even clients. Attention of educational institutions are called for the need to
effectively and intentionally teach affective learning objectives to their graduates, i.e., learning objectives relating to attitudes.

**Objectives:** This study investigates UP Manila Clinical Instructors’ use and level of confidence on three affective instructional methods (AIM) – Indoctrination, Values Clarification, and Modeling – in achieving affective objectives.

**Method:** A total of eight (8) clinical instructors from the UP College of Medicine and UP College of Allied Medical Professions-Department of Speech Pathology were interviewed and given a questionnaire created for purposes of this study. Participants were asked to describe how they teach affective learning outcomes in their respective clinics. They then rated their level of confidence in a Likert Scale per described affective teaching strategy (DATS). Sixteen out of the nineteen responses were subjected to thematic analysis and resulted to five DATS themes. Directive feedback and training protocol were classified under Indoctrination, demonstration was put under Modeling, and leading feedback and reflective learning were categorized as Values Clarification.

**Results:** Among the three AIM, Values Clarification was found to be most used by the participants, followed by Indoctrination and Modeling respectively. Yet, only Modeling was the AIM explicitly named by the participants during the interview. Only one participant used all three AIM in teaching, while one other participant was found to not use any of the AIM but instead provided the researchers an evaluation method (e.g., writing a reflection paper) and hopes that by doing it the affective learning objectives are met. The Mean Confidence Rating per participant DATS showed that participants were most confident in using Modeling, followed by Values Clarification and Indoctrination.

**Conclusions and Implications for Clinical Practice:** Overall, it can be concluded from the study that at least one of the three AIM investigated are utilized by most of the Clinical Instructors of the University of the Philippines Manila UPCM and UPCAMP-SP. Findings indicate the need for 1) CS continuing education emphasizing intentional teaching of affective learning objectives and 2) a need to orient CSs on affective instructional methods that can enhance clinical teaching. Future studies can involve a larger sample size of CSs and research limited to the pool of clinical teachers per degree program.

**20. Development and Validation of the Assessment of Competence of Speech Pathology Clinical Instructors Scale**

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**Background:** Speech pathology is a complex discipline that requires a high standard of practice to facilitate quality care and service. Clinical training of speech pathology students is then critical. Despite concerted efforts on creating holistic internship programs, actions to ensure effective clinical teaching are limited.

**Objectives:** This study presents the development and initial validation of the Assessment of Competence of Speech Pathology Clinical Instructors (ACSPCI) Scale. The objectives of the study are (1) to develop a
scale that will measure the competency of speech pathology clinical instructors and (2) to determine its reliability and validity.

**Method:** Scale items and dimensions were constructed after a review of internationally-published documents on SP clinical instructor competencies. The initial tool was evaluated by three external reviewers and pilot-tested to ten practicing speech pathologists. After further modifications, the 61-item ACSPCI was field tested to 192 SP interns and professionals. Descriptive statistics were applied, the results of which were used for drafting the final version.

**Results:** The resulting 61-item scale has a computed Cronbach alpha of .970 and acceptable item-total correlations. Exploratory factor analyses identified six to eight variables, generally corresponding to the researcher-developed dimensions of competency. A final version containing 31 items has a Cronbach’s alpha of .948, with the following dimensions: (1) knowledge on clinical education/instruction, (2) interpersonal communication and the supervisor-supervisee relationship, (3) development of supervisee’s critical thinking and problem-solving skills, (4) development of supervisee’s competency in assessment, (5) development of supervisee’s competency in intervention, (6) evaluating the growth of the supervisee, (7) professional and ethical behaviors.

**Conclusion:** The ACSPCI is a valid and reliable tool to measure SP clinical instructor competency. It is recommended to extend the study to devise scoring system and initiate its use as intended.

**Implications for Clinical Practice:** In the higher education setting, the scale can function as a yardstick for their current clinical supervisors and in hiring future ones. Results and feedback from the scale can be reference points for continuing education and training. Certain parts of the dimensions and performance indicators, on the other hand, can be infused within the curriculum to develop beginning clinical supervisory skills in the SP students. Lastly, since the culture of mentoring is at the forefront of clinical practice these past years, the scale can be a blueprint in practice standards and guidelines in this area.

### 21. Perceptions, Attitudes and Beliefs of Filipino Elderly Regarding Tube-Feeding

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**Background:** Tube-feeding has historically been utilized for supportive nutrition therapy particularly among older patients with dysphagia. While nasogastric tubes (NGTs) and percutaneous endoscopy gastrostomy (PEG) tubes guarantee the unimpeded delivery of nutrients into the human body, the discomfort, aftercare, infection and aspiration issues these pose on its elderly users are many and persistent. The acceptance of feeding tubes vary across Asian cultures where there is a strong need to keep the physical body intact and views on what supports life and health are rooted in societal beliefs. In the face of illness, the aging patient’s cultural concepts of integrity and autonomy are constantly put in question. This project interrogated the significance of NGTs against the older Filipino’s concepts of mahirap, nakakahiya, lasa vs. busog, informed medical decision-making, and the desire to preserve bodily Integrity.
**Methods:** The personal narratives of 10 older Filipinos aged 60+ who were using or had used NGTs were elicited via in-depth episodic interviews. These narratives were audio-recorded, transcribed verbatim, and were subjected to Burnard’s (1991) qualitative data analysis method where the data was coded, categorized, and subjected to further category selection, ordering, and clustering to identify patterns or recurrent themes.

**Results:** Themes on living with an NGT, sensation of an NGT in one’s body, insertion/reinsertion issues dominated these narratives, often recounted with words reflective of the person’s abject suffering. The NGT was told by most as symbolic of illness, a perpetual mark that one is different, thus nakakahiya. An unexpected theme on walang lasa and hindi nakakabuog highlighted the importance of food and its role on satiety.

**Conclusions & Recommendations:** Concepts about the NGT as one that renders difficult both eating and the act of being fed, and as symbolic of illness yet is a means towards recovery may be common among older Filipinos on the tube. Understanding the role of patient education and informed medical decision-making in tube-feeding may merit further investigation.

**Implications for Clinical Practice:** Understanding the older person’s perspectives and beliefs on wellness in an arena where the human body is seen as problem that needs to be treated may help guide dysphagia treatment planning, healthcare counseling, and the formulation of advance directives.

22. Treatment of benign vocal fold lesions: Comparing the voice outcomes of laser surgery and voice therapy

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**Background:** Benign laryngeal lesions, depending on type and severity, can be treated surgically or with conservative voice therapy. Clinically as well as in the literature, there is still controversy on the more favorable treatment choice. The controversy extends to the type of therapy and surgical techniques employed.

**Objective:** This study aims to analyze and compare the treatment outcomes between surgery with a carbon dioxide (CO2) laser and individually tailored voice therapy.

**Method:** The study is designed as a retrospective cohort study. We will review the notes of all patients with benign vocal fold lesions treated in our multidisciplinary voice clinic. The cases will be categorised into three groups, namely those who underwent (a) CO2 laser surgery (b) voice therapy or (c) CO2 laser surgery and voice therapy. Pre- and post-treatment outcome measures including (a) perceptual voice measurements (b) quality of life measures (c) acoustic measures and (d) aerodynamic measures will be analysed and compared between groups.

**Results:** Based on preliminary counts, there were a total of 208 patients (87 females and 121 males) in our multidisciplinary clinic with a range of vocal fold pathologies. As per our monthly clinical indicators, there appear to be improvements in pre- and post- outcome measures in selected patient groups. We will further
analyse the results to tease out the significance of the changes observed and compare the outcomes between groups.

**Conclusion and Recommendations:** The results from the study will allow us to conclude if one form of treatment is better than another in selected groups of patients with benign vocal fold lesions.

**Implications for Clinical Practice:** Given that the study stems from clinical practice, it looks beyond efficacy and allows us to evaluate the effectiveness of each treatment in a real-world setting. The comparison of outcome measures between different treatments will guide decision making when managing similar conditions. As the study is written with a multi-disciplinary focus and considers a range of outcome measures, it will provide a more holistic view on each treatment option with carefully curated clinical considerations.

23. **A Secondary Data Analysis Describing the Syllable Structure Exhibited by Four-Year-Old Filipino-Dominant Speaking Children**

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**Objectives:** The objective of the study is to describe the syllable structures exhibited by Filipinodominant speaking four-year-old children from the secondary data obtained from the study of Jacinto et al. (2017).

**Method:** A total of nineteen audio-recorded connected speech samples from Jacinto et al. (2017) were transcribed, segmented, and analyzed to describe the syllable structures through identifying the parts of a syllable, the number of syllables in a word, and the combination of the different syllable structures exhibited by the participants. Descriptive and cross-sectional secondary data analysis was used to describe the different syllable structures.

**Results and Discussion:** The most frequently occurring syllable structure is CV followed by CVC. Consonants /n/ and /ʔ/ are the most frequently occurring onset and coda, and vowel /a/ for the nucleus. Furthermore, the most frequently occurring number of syllables are one-syllable and two-syllable words with syllable structure combinations CVC, CV.CV, CV.CVC and CV. As for diphthongs and clusters, the occurrence was less frequent (less than 5% of the total sample) as Filipino words primarily do not contain these. The increase in number of syllables resulted from the reduplication of the verbs and affixes.

**Conclusion:** Overall, the results of the current study may serve as basis for word structure, monitoring, and regulating the expected skills and development of Filipino children.

24. **Measurements of Lexical Diversity and Density of Filipino Language Dominant Four-Year Old Children in ECCD-Monitored Day Care Centers in Metro Manila**

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Objectives: The objective of this study is to provide preliminary normative data and protocol regarding lexical diversity and density of typically-developing Filipino-dominant children ages 4 to 4 years 11 months in Metro Manila. The specific research objectives are as follows: (a) To identify the lexical diversity values obtained from both English and Filipino protocol for children ages 4 to 4 years and 11 months. (b) To identify the lexical density values obtained from both English and Filipino protocol for children ages 4 to 4 years 11 months old. (c) To contrast the results and protocols for measuring Filipino lexical diversity and density of children ages 4 to 4 years 11 months old.

Method: This is a cross-sectional descriptive study that involved the description and analysis of children's lexical diversity and density. This study utilized 19 narrative language samples of children ages 4:0 to 4:11 gathered by a previous study. The samples were transcribed, segmented, and analyzed based on Filipino and English Protocol. Two measures of lexical diversity (Number of Different Words [NDW] and Type-Token Ratio [TTR]) and one measure of lexical density (Ure’s equation) were utilized.

Results and Discussion: The study found that children at this age have higher lexical diversity values when computed using the Filipino Protocol (NDW of 81.68 and TTR of 0.4345) as compared to the English Protocol (NDW of 73.89 and TTR of 0.40). However, values obtained from these protocols are lower compared to the western normative data for type-token ratio by Templin (0.448-0.469). On the other hand, the mean lexical density value using the Filipino Protocol was 135.31% which are comprised of root density of 58%, affix density of 27%, and particles density of 15%. This was significantly higher than the value obtained using the English Protocol garnering only 57.96% of lexical items. Moreover, these values were significantly higher as compared to the western norms taken by Ure which was a median of 38.66%. Overall, results are due to the nature of Filipino language being agglutinative and derivational in nature (using multiple word transformations to change a word’s meaning). Thus, these suggest that analyzing Filipino words based on roots alone is insufficient, because Filipino words can only be classified lexically only when the affixes and particles are already attached to the roots. As for the clinical implication in the practice of Speech-Language Pathology, this study highlights the use of Filipino Protocol in revealing the child’s true language skills in terms of lexical richness.

Conclusion: Findings revealed that there is a significant difference between the protocols used and the values derived. Although these values are said to be not interchangeable, however, to some extent, these measures scaffold and support in describing the overall lexical richness of Filipino children. Thus, it would not be sufficient to describe Filipino Language in terms of lexical diversity only; rather, lexical density should also be included as well. To conclude, the use of Filipino protocol utilized in the study was deemed to be more sensitive in measuring both lexical diversity and density of Filipino children’s spoken discourse.