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## SPEECH-LANGUAGE PATHOLOGY TELETHERAPY IN RURAL AND REMOTE EDUCATIONAL AND EARLY CHILDHOOD SETTINGS: EFFICACY, FEASIBILITY, AND ACCEPTABILITY

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**Statement of the Problem:** Telehealth therapy services, or teletherapy, have been increasingly applied by allied health professionals, such as speech-language pathologists, to overcome barriers of access to assessment and treatment. In rural and remote areas especially travel is a significant issue for both clients and clinicians. A range of teletherapy programs for children is becoming available in schools, and early childhood settings yet these are often difficult to establish and sustain. Research has insufficiently examined factors affecting teletherapy stakeholder attitudes crucial to these programs functioning, efficacy, and sustainability. The purpose of this study is to investigate the efficacy of a speech-language pathology teletherapy program for children in rural schools and early childhood settings and to describe the views and experiences of stakeholder parents, school executives and therapy assistants regarding the program's feasibility and acceptability.

**Methodology & Theoretical Orientation:** A group treatment study with a mixed method evaluation was utilized. Program efficacy was evaluated through analysis of Goal Attainment Scaling (GAS) results for all skill-based intervention goals. Thematic content analysis with constant comparison was applied to semi-structured in-depth interviews for three groups of participants, identifying relationships in the data.

**Findings:** The majority of treatment goals were achieved to expected levels. All three groups of stakeholders found the program both feasible and acceptable, describing both its advantages as a practical, convenient and easier learning process, some disadvantages, and ideas to improve effectiveness, support and satisfaction.

**Conclusion & Significance:** Speech-language pathology teletherapy programs in rural schools and early childhood settings can improve the speech and language skills of children and be considered feasible and acceptable to stakeholders but should address key areas of communication and support. Recommendations are made for allied health teletherapy programs' structure and delivery to help address these priorities of stakeholders.

## STUDY OF THE TRANSLOCATION AND DISTRIBUTION OF CADMIUM INTO BEAN PLANTS (*PHASEOLUS VULGARIS*) USING LABELLED CD-109

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The motivation of this work was dictated by a concern of using bioaccumulative plant species likely to be used in the technique of bioindication. The obtained results and discussions proposed are approaches of chemist, because the mechanisms of the effect of cadmium on the various plant cells have been widely developed by several biologists. The use of labeled cadmium is important to study the uptake, the translocation and the metabolism at very low levels of this element in plants. Bean (*Phaseolus vulgaris*), the model chosen for the investigation, was cultivated in vermiculite for 12 days. After this period, plants were transferred into 100 ml flasks containing nutrient solution and radioactive Cd-109 ( $\gamma$ ,  $t_{1/2} = 461.3$  days) with variable activity of: 0.05, 0.1 and 1.0 micro Currie ( $\mu\text{Ci}$ ). Samples were transferred to a growth room and left for periods of 4 and 7 days, then analyzed by the solid scintillation method. The counting was carried out for roots, stems and leaves.