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Context Focused Therapy for Children: Theory, Principle and Protocol. A Review

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Abstract

Context focused therapy is a new interventional approach that is used for the rehabilitation of children. This novel treatment approach concentrates on altering the factors in the child's tasks and surroundings instead of treating the impairment of the child. This approach works using the primary therapist model that cooperates with the caregivers to identify the tasks that the child has to learn. The therapist then starts to modify the tasks and the environment, accordingly. The modifications applied on the tasks and/or the surroundings allow the child to do activities that they were incapable of doing earlier. The aim of this review is to discuss the concept of context focused therapy, its theoretical background, its principles and treatment protocol, and to clarify the advantages and disadvantages of this new approach.

1. Introduction

Context focused therapy is a unique interventional rehabilitation approach used for children with various developmental delays that may result from cerebral palsy, genetic disorders, etc. It focuses on the environment where the child lives and plays (1). The concept of this approach is different than the traditional approaches that focus on improving the child's function by targeting the impairment (2), such as

improving the balance, posture (3) and motor skills (4).

The principles of context focused therapy are similar to other activity focused therapies (5), such as the identification of functional aims, the participation of parents, (6) and a 'top-down' activity based approach for intervention and assessment. However, the unique aspect of context focused therapy is the modification of environmental

characteristics or tasks without trying to treat the child's impairment, simultaneously. Despite other intervention approaches that concentrate mainly on treating the child's disabilities, the acknowledgement of the significance of environmental factors for motor achievement and tasks performed by the child is necessary (1).

In the beginning, therapists were allowed to modulate and manage the child's impairment as part of the treatment plan. However, the therapists preferred to improve the child's abilities and did not attempt to modify the tasks and/or the environmental aspects; so, the context focused therapy was incorporated into their training to focus on modulating the activity itself or the surroundings and not the impairment.

The context focused therapy uses a primary therapist model where an occupational or physical therapist conducts the rehabilitation program for the child, while another therapist provides professional consultation (7).

The context therapy approach is considered novel because it doesn't allow remediation of impairments at all; it also encourages therapists to build on the child's current motor abilities and it discourages changing the child's impairment.

The context therapy approach differs from other approaches that are directed towards task achievement, because therapists must not work on changing the child's physical constraints. They are only allowed to modulate tasks or environmental constraints (1).

The primary therapist works with the caregivers to identify the tasks that the child is interested in learning. The therapist assists in making the necessary task related and environmental modifications to enable task practice. The family and the child are then left to try with a suitable practice time. The therapist monitors progress and changes the strategies that have proven to be ineffective after two weeks of practice.

2. Methods

PubMed and Google Scholar were systematically searched using the search terms 'Context focused therapy', 'Context focus Therapy', 'Context focused Intervention' and 'Context focused therapy cerebral palsy' for the period between January 1970 and January 2019 (Appendix A). The list of references of identified articles was manually explored. Articles were included if they described context focused therapy in cerebral palsy. No language restrictions were applied.

3. Results

A total of 26 studies describing context focused therapy in cerebral palsy and central nervous system dysfunction (CNS) (n = 5) were identified (Appendix II).

3.1. Theoretical framework

Many different theories and models were integrated in the development of the context focused approach such as the dynamic systems theory, family-centered theory, models of health status and the influence of people with disabilities model (1).

Dynamic systems theory is applied on motor development (8). According to this theory, a functional task organized by

motor behaviors occurs by the interaction of three systems which include environmental characteristics, task characteristics, and the child. The characteristics of child are divided into physical impairments and non-physical impairments. Physical impairments refer to elements considered in the rehabilitation of children such as the range of motion, muscle strength and tone, and balance; whereas, non-physical impairments relate to other elements such as cognition, attention, and motivation. The child's intention to do any act which affects motor performance such as reaching the height of the chair or the desk is known as task characteristic. Finally, environmental influences are factors that improve or limit the performance or completion of the motor task. These factors may be physical, attitudinal, or social, such as the effect of gravity, the breadth of place at which the child performs the task or the caregivers' cooperation (1).

Dynamic systems theory also stresses encouraging new motor skills which is called 'in transition'. A pilot study made to determine the transition parameters for children with motor impairments concluded that the best indicator for motor transition of the child is the parental belief about the readiness of the child (9). So, researchers integrated the concept of transition in the goal identification process with caregivers.

The context focused therapy also adopts the family-centered theory where there is cooperation between family members and therapists; where families participate in goal identification and in the intervention strategies for their children (10).

Context focused therapy uses the ICF (international classification of function and disability) model of health status to identify the primary goals of the intervention program and to evaluate the treatment results. This model discusses the cause and effect relationship between impairments and functional constraints (11).

In the ICF model, therapists are encouraged to integrate the personal and environmental aspects in the achievement of functional goals for children with physical disabilities due to the inclusion of contextual factors in it (12). The introduction to internal and external concepts that influence the child's functional motor success results in a reevaluation of the current treatment approaches which are based on the hierarchy of the neuro-developmental model that focuses mainly on changing the child's abilities (13).

Finally, context focused therapy adapts the surrounding influences over children with disabilities as social attitudes towards disability. In the past, disability was considered a problem within the person and the aim was to treat, prevent or fix this problem. Persons with disabilities tried for many years to change the society's false judgment about them. The social construction model of disability stated that the values and beliefs of the society divide people into the categories of 'disabled' and 'able-bodied', preventing the disabled persons from fully participating in the community (14). This situation has changed.

3.2. Principles of the context focused therapy approach

There are four main principles of the context focused therapy. Firstly, it is intended to enhance functional performance where the aim of the treatment is to perform a particular functional task that has been developed by the therapist, caregivers and the child, collaboratively. The success of the approach depends on task achievement, not on the achievement of normal movement patterns. The underlying concept is that there is no ultimate way to do a specific task. Various problem solving ideas adapted from dynamic system theory may be employed to enable a child perform the task in an environment with different characteristics, such as in order to make him/her walk without parents' assistance the child may try to walk alone at home, sitting on specialized designed furniture, or by using walker in the streets (15). Secondly, it is necessary to identify the transition periods because interventions may become successful when the child tries to do a new and different task (16). Parents and children both play an equally important role in the child's willingness and readiness to do a new task. According to the dynamic system theory, transition is the phase when the movement patterns of children are disturbed and take a long time to get back to a steady state. Transition is an interesting phase because it enables us to predict the exact time of the child's ability to perform a new functional task (17). Thirdly, the identification of changes in primary constraints where interventions are based on the enablers of task such as therapists, children, and parents or limitations that preclude an enabler to attain functional goals. Mostly, the enablers and limitations are present in the

environment, task, or children (15). Therapist must determine the need of modification for each limitation, such as environmental limitations can be the inclination of the surface or the humidity of the weather. The tasks can be modulated by changing the type of shoes and using assistive aids. The limitations within the child can be muscle weakness, lack of motivation or joint stiffness. In case a specific limitation is observed in a child, intervention must be applied to bring modification in that limitation (at the level of activity or participation).

The child focused approach concentrates on enhancing the child's abilities at the level of body structure and function; therefore, it's different from the context focused approach (18). Finally, an important element is the practice time. The child has a chance to perform a new skill in an appropriate environment. Appropriate modification of a particular limitation may bring spontaneous improvement in the skills but in childhood, the development of motor skills requires practice to be refined. So, practice will be included into the treatment protocol. The focus will be on performing the functional task in the most suitable environment (19).

3.3. Training protocol

The training protocol of the context focused therapy is divided into two main foundations, that is, the primary therapist service delivery model and the intervention protocol.

The primary therapist service delivery model is a model where only one therapist is assigned to assess the child, make the intervention and deal with the child and family. Consultation with the primary

therapist is performed via other therapists or team members.

This model is recommended for school going children. It may improve the child's understanding of his/her condition as compared to the multidisciplinary team approach (20, 21).

The intervention protocol includes three core steps which are goal identification, assessment and intervention. In the first step which is goal identification, the therapist must be trained to interview the parents using the Canadian Occupational Performance Measure (COPM) to ensure that families are involved in identifying their child's goals. COPM was developed as a client centered tool to enable individuals to identify and prioritize everyday issues. It has broad focus on occupational performance in all areas of life, including self-care, leisure and productivity, taking into account the development throughout the lifespan and the personal life circumstances (22). The second step is the assessment process where the therapist videotapes the child's performance of each identified goal within the natural setting, then the caregivers and the therapist watch the video together and perform a task analysis to identify factors that are either limiting or assisting the child's performance. These factors may be assigned within the task or within the environment.

Then, the therapist identifies the factors that could be modulated to achieve the goal as soon as possible. They send the first assessment video to the consultation team and they receive feedback about their goals and intervention strategies.

The final step is deciding the intervention strategy with the parents. This is followed by continuous reassessment of the child's tasks and environmental modulation and it also assists in adopting new strategies when needed (20). To summarize the training protocol, the therapist works intensively with a child and family for a few days consecutively in order to find the best strategy through trial and error. He then leaves the family to experiment with it independently and provides practice time for the child.

3.4. Advantages of the context focused therapy

The benefits of the context focused therapy include providing creative solutions to the child and parents that result in a quick goal achievement and facilitating an immediate change in performance via simple environmental modification (15, 23).

3.5. Disadvantages of the context focused therapy

The context focused therapy has limitations as children with severe involvement or cognitive impairments may not benefit from this approach because the functional goals focused on the child can't be identified. Some therapists feel that the family goals such as carrying, transportation or bathing, may not be fulfilling the therapeutic needs of the child although they are often the most demanding concerns for the parents. Similarly, some therapists reported that focusing on the task and environment is insufficient because they did not feel that it is real therapy. Finally, therapists are challenged to write goals that don't fix the expected movement solution and that have

no focus on changing the child's movement abilities.

4. Conclusion

Context focused therapy is a novel treatment approach that depends on modulating the tasks and surrounding environment, rather than focusing on enhancing the child's functional abilities.

5. Appendix I

Search of PubMed—last performed 30 January 2019

#1 Context focused therapy (n = 4412)

#2 Context focus Therapy (n = 8792)

#3 Context focused Intervention (n = 6821)

#4 Context focused therapy cerebral palsy (n = 22)

Search of Google scholar—last performed 30 January 2019

#1 Context focused therapy (n = 572,000)

#2 Context focus Therapy (n = 1,170,000)

#3 Context focused Intervention (n = 2,490)

#4 Context focused therapy cerebral palsy (n = 20,000)

6. Appendix II

#Law, 2011 (7)

#Darrah, 2011(1)

Ketelaar, 2010 (21)

Kruijssen-terpstra, 2016 (18)

Paithankar, 2018 (23)

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