Effects of Shantala massage combined with Sherborne Developmental Movement method

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Summary

Study aim: The aim of the study was to evaluate the effectiveness of Shantala massage during the classes conducted using the Developmental Movement method in improving the “with” relationship in healthy children aged 3 to 4 years.

Material and methods: The study involved 12 healthy children aged 3 to 4 years participating in SDM classes with their parents. The participants were divided into two groups. In the experimental group, Shantala massage was used during play based on the “with” relationship, whereas the massage proposed by Veronica Sherborne was performed in the control group. The Child Behaviour Observation Scale (SOZ-D) was employed to assess the improvements of psychomotor development. The study was a two-stage study, before the Sherborne Developmental Movement Method programme (initial observation) and after six months of classes (post-observation). The duration of the programme was 6 months. Classes were conducted once a week for 40 minutes.

Results: It was found based on the analysis of the results that the introduction of Shantala massage led to a significant increase in the assessment of child development on the subscale of emotional development.

Conclusions: The use of Shantala massage during SDM classes has a positive effect on emotional development of healthy children aged 3 to 4 years.

Keywords: Psychomotor development – Preschool children – Therapy of Veronica Sherborne

Introduction

The development of technology, which makes life easier, has a significant impact on physical, mental and social deficits in healthy children. The problem of hypokinesia affects an increasingly high number of children [2]. Pedagogues, therapists and physiotherapists begin to introduce activities that help develop children in a holistic (psychomotor) manner based on their physical and psychosocial needs that were not met. Veronica Sherborne’s Developmental Movement (SDM) is becoming more and more popular in this field. It turned out that children feel a great need to spend time with their parents, whose professional duties limit their daily contact, and consequently the need to communicate and spend time together is not met [19].

The Veronica Sherborne Developmental Movement method is based on three activities-relationships: “with”, “against” and “together” [23]. Each of these activities has a significant effect on the course of classes and the

achievement of the set goals. The Developmental Movement method integrates various elements of psychomotor development as shown in Fig. 1. Using the method, the child learns about his or her own body and its functioning in the surrounding space [13, 24]. Classes are adapted to the individual needs of children, taking into account variables such as mood or instructor’s involvement [22]. Developmental Movement is defined as a process of interpersonal communication. This method offers a chance to effectively support child development, especially in the emotional, social, cognitive and motor areas. Time, space and another person are needed to conduct the classes. SDM provides an opportunity to learn about oneself and other people and form mutual relationships through a variety of natural and simple movement experiences. Developmental Movement classes enhanced by Shantala massage can become an indispensable therapeutic tool not only in working with children with deficits but also with healthy children to prevent hypokinesia, emotional and cognitive disturbances, and cognitive and social maladjustment. The main argument

Fig. 1. SDM classes in the control group

for the use of Shantala massage as an experimental factor is simplicity of teaching both children and their parents. Massage can be performed in all conditions, without the use of lubricants (massage through clothing) or massage table (sitting on the floor). The massage is oriented towards communication: through touch, verbal communication, eye contact, proximity of another person. With all the above arguments, both the Developmental Movement and the Shantala massage have a common ground of establishing a strong emotional bond between the parent and the child, based on respect and trust through movement and touch. In this research we decided to assess the effect of Shantala massage on the “with” relationship during the activities of Sherborne Developmental Movement.

In these studies, relational games “with” (with concern for another person) are based on building a sense of physical and emotional security. These games are based on touch and performance, taking into account the feelings of the other person. Veronika Sherborne offers games containing broadly understood touch: massage, embracing, rocking, rolling, creeping, patting or hugging. The sense of touch is our first contact with the external environment. Ayres divided the touch organ into protective and discriminating receptors [3]. The former are located in the hair follicles and receive delicate stimuli such as air movement or sound. They are the boundaries between space and us. Discriminating receptors are found in the dermis. They receive stimuli directly in contact with our body. A child who reacts improperly to touch may feel reluctant to engage in physical contact, which will cause difficulties in showing feelings and establishing close

relationships with parents or other people [8]. According to Pecuch, “*proprioception and balance are the most common motor problems in children with disorders*” [19, p. 12]. Stimulation of deep sensation receptors is necessary for the proper functioning of the child. The increasingly popular sensory integration programmes confirm this assumption by pointing to such advantages of sensory integration as: alleviation of over-reactivity or sub-reactivity, ability to use reading, writing, counting; control of emotions; concentration of attention; efficiency; improving coordination, balance, precision of movements, and manual skills, sense of value, social relations [2, 3, 8, 16]. The use of Shantala massage for older children during the Developing Movement classes in this study was the obvious choice. Shantala massage is the first massage stimulating touch and recommended from the first days of a child’s life, especially for women after caesarean section [14]. Studies show that massage has a positive effect on the child’s overall behaviour, ease of falling asleep, quality of sleep, stimulates the digestive system, reduces irritability and tearfulness, and strengthens the parents’ relationship with the child [18]. Modification of the massage proposed by Veronica Sherborne for Shantala massage was to check whether using the diagnostic tool we can see a significant difference in the aspect of *emotional development* in older, healthy children and whether the use of massage will affect other aspects of development: cognitive, social and motor.

The aim of the study was to assess the effect of Shantala massage on the “with” relationship during the activities of Sherborne Developmental Movement.

Research questions:

1. Do 6-month classes using the Sherborne Developmental Movement method have an effect on *cognitive, emotional, social and motor development* in healthy children aged 3 to 4 years?
2. Have the children from the experimental group who took part in the classes enhanced with Shantala massage reached a higher level of *emotional development* (according to the research tool – the Child Behaviour Observation Scale) than the children who were deprived of this effect?

Material and methods

The research was conducted during classes using the Developmental Movement method by Veronica Sherborne for healthy children aged 3 to 4 years in the Municipal Cultural Centre “Tkacz” in Tomaszów Mazowiecki. Parents and children take an active part in the classes. Parents gave written consent to participate in the study with the children (SKE-01-15/2018). The experimental factor was Shantala massage. The Child Behaviour Observation Scale (*Skala Obserwacji Zachowania Dzieci; SOZ-D*) developed by Bogdanowicz was used [4]. The tool allows for the assessment of the level of cognitive, emotional, social and motor development of children. Each aspect of development consists of five elements: the total score of points awarded indicates the level of child development in a given aspect [4]. The therapeutic method of Veronika

Sherborne is most often used in working with disabled children and described in research as a case study due to the careful observation that the researcher must carry out. Therefore, for the reliability of the observations carried out, the authors consciously conducted an experiment on a small number of subjects. The participants were children aged 3 to 4 years. The experimental group consisted of 6 children (4 girls and 2 boys), who during SDM classes and the play based on the “with” relationship performed Shantala massage with their parents (mother or father) instead of using Veronica Sherborne massage. The control group consisted of 6 children (4 girls and 2 boys) who participated in standard SDM classes together with their parents. The two groups did not differ significantly in terms of age or gender and were chosen randomly. The research was conducted at 6-month intervals, before and immediately after the beginning of the cycle of classes. The cycle consisted of 24 units of 40 minutes each. The classes took place in the gymnasium at the same time of the day. They were conducted by a motor physiotherapist with a licence of therapist in the field of Veronica Sherborne Developmental Movement method. The supporting persons were appropriately trained employees of the Municipal Cultural Centre “Tkacz” in Tomaszów Mazowiecki. All activities and tasks during the classes were adjusted to the age of the participants [17]. The distributions of research results were, in the vast majority of cases, close to normal. The analysis of variance for repeated measures and the Mann-Whitney test were used. Effect size was estimated using partial eta squared; significance level – $\alpha = 0.05$.

Fig. 2. Shantala massage performed by a child

Methodology and application of Shantala massage during the sdm sessions

Shantala massage was developed by Frederique Leboyer – a French obstetrician who met a poor woman massaging her child during his stay in India. Inspired by this sight (in 1976), he published the book *Shantala. Un art traditionnel: le massage des enfants* (Shantala. Traditional art, massage of children) [14]. Currently, the massage takes place on all continents. In Europe, it was initiated in the Netherlands. Massage has a positive effect on the human body, regardless of age. It supports the work of the heart, respiratory system and body immunity [25].

The Shantala massage used in the study was adapted for older children [6, 7, 14]. All techniques remained unchanged. The positions of the massage and the possibility of massaging through clothing were modified in order to maintain privacy and reduce the discomfort of being massaged in the room with the other participants of the classes, as shown in Fig. 2. Although Shantala massage is characterized by a certain order of techniques, it should be emphasized here that both the order and the number of repetitions are not the most critical. It is important that the touch provided by parents meets the child's needs such as love, acceptance, safety and respect.

The direction of massage, time and intensity of tactile stimuli were adjusted to the intended effects. The massage in the direction towards the heart, central direction, and along the course of blood and lymphatic vessels has a stimulating effect on the child's body. The massage performed in the opposite (distal) direction has a calming and

relaxing effect. It is recommended in children without deficits to use the calming direction [5].

Research tool

The assessment on each subscale is a total score of five selected aspects of psychomotor development. The Child Behaviour Observation Scale is a tool for the assessment of the specific range of child development, facilitating observation during SDM classes. It is advisable for the same child to be observed and assessed simultaneously and independently by three people who do not work with the child. The scores obtained should be discussed and the average score should be adopted as objective. Two measurements are performed, at the beginning of the cycle of classes and after 6 months. The observation was conducted in the same conditions by the same people. *"If we want to be sure that the progress in the development of the observed group actually results from participation in the activities of the Developmental Movement rather than from the natural dynamics of development and other educational effects, the research should meet the conditions set for scientific research. A comparison should be made between the initial and final results obtained at the beginning and at the end of the cycle of the experimental group (supporting the development), the SDM and the control group that did not participate in such classes"* [4, pp. 5-15].

Aspects of development are evaluated on a five-point scale (with the option of assigning 0.5 points):

1 point – very low level of development

2 points – low level of development

Table 1. Criteria for assessment of desired behaviours of SOZ-D according to Bogdanowicz [4]

Assessment	Frequency of occurrence of desired behaviours	Scope of occurrence of desired behaviours	Behavioural motivation	Behavioural control
1 point	never	does not exist	Total lack of motivation, despite encouragement and external aid	No self-control, control only from the outside
2 points	from time to time	insignificant	Necessary external encouragement and assistance	Mainly control from the outside; passive movements and following physical prompts
3 points	frequently	large	Insignificant external encouragement and assistance is needed	Independent movements and gesture or verbal hints, not very well controlled
4 points	almost always	nearly full	Internal motivation in general	Independent movements, controlled quite well (possible verbal hint)
5 points	always	full	Internal and strong motivation	Full and effective self-control

Source: The scale of Child and Parent Behaviour Observation by Bogdanowicz [4].

Table 2. Description of the assessments of the desired behaviours according to M. Bogdanowicz

Assessment	Description
1 point	The desired behaviour never occurs, in any respect, even with substantial encouragement and help from the outside (sometimes passive movements are performed). Lack of self-motivation, full control from the outside.
2 points	The desired behaviour occurs sometimes, to a small extent; encouragement and help from the outside are needed (in the form of physical prompts or gesture hints). Poor self-motivation, mainly control from the outside.
3 points	The desired behaviour occurs often, to a large extent; little encouragement and help from the outside are needed (gesture or verbal hints); substantial self-motivation, insufficient self-control.
4 points	The desired behaviour occurs almost always, almost to the full extent. Internal motivation in general (possible verbal hints). Significant self-control, well controlled movements.
5 points	The desired behaviour is always present, to the full extent. Strong self-motivation. Full and effective self-control.
	1 _____ 2 _____ 3 _____ 4 _____ 5

Source: The scale of Child and Parent Behaviour Observation by Marta Bogdanowicz [4].

3 points – sufficient (average) level of development

4 points – good level of development

5 points – very good level of development

A detailed description of assigning scores from 1 to 5 points to the observed behaviours is presented in Table 1.

Aspects of development are characterized by subscales. The *cognitive development* subscale consists of 5 observed activities: *ability to focus attention, understanding of messages and interest in communication, considering body and space, learning to perform new tasks and creativity*. The *emotional development* subscale focuses on: *assessing mood, emotional expression, ability to relax, response to physical contact and caress* (assessed in this study by adding Shantala massage), and *response to difficult exercises and failures*. The *social development* subscale assesses the *attitude towards classes, attitude towards tasks, attitude towards a partner in a pair and towards another child*, as well as *attitude towards group and group tasks*. The subscale for *motor development* assesses the *level of physical activity, motor skills, independence in performing motor tasks, controlling movements and adapting them to tasks and adapting movements in cooperation with a partner* [4].

Results

The results were divided into 4 aspects of development according to M. Bogdanowicz's Child and Parent Behaviour Observation Scale and are presented below.

Emotional development

Indexes of emotional development before and after the experiment are presented in Figure 3.

Fig. 3. Index of emotional development (mean ± standard error) before and after the experiment: control and experimental groups

There was a strong interaction effect between the repetition of the measurement (before-after) and the group factor (control and experimental) for the emotional development index ($F_{1,10} = 49.0$; $p < 0.001$; $\eta^2 = 0.83$). This means that children in the experimental group achieved, within 6 months, a greater development than children in the control group. The indexes of the five components of emotional development are presented in Table 3.

The Mann-Whitney test showed that among the components of emotional development, the *reactions to physical contact and caresses* significantly ($Z = 2.80$;

Table 3. Components of emotional development (ED) in the experimental and control groups before and after the intervention

ED components	Experimental group		Control group	
	Before	After	Before	After
	X $\pm$ SD	X $\pm$ SD	X $\pm$ SD	X $\pm$ SD
Mood	3.33 $\pm$ 0.516	4.17 $\pm$ 0.753	3.17 $\pm$ 0.753	3.83 $\pm$ 0.753
Expression of emotions	3.50 $\pm$ 0.836	4.50 $\pm$ 0.548	3.67 $\pm$ 0.816	3.83 $\pm$ 0.408
Ability to relax	3.17 $\pm$ 0.750	4.00 $\pm$ 0.632	3.17 $\pm$ 0.408	3.33 $\pm$ 0.516
Reactions to physical contact and caresses	4.00 $\pm$ 0.894	4.67 $\pm$ 0.516	3.17 $\pm$ 0.408	3.17 $\pm$ 0.408
Responding to difficult exercises and failures	3.33 $\pm$ 0.516	4.50 $\pm$ 0.548	3.00 $\pm$ 0.000	3.00 $\pm$ 0.000

$p = 0.0051$) differentiated between the experimental and control groups. A greater increase in this development was observed in the experimental group.

The Mann-Whitney test showed that among the components of emotional development, the *reactions to physical contact and caresses* significantly ($Z = 2.80$; $p = 0.0051$) differentiated between the experimental and control groups. A greater increase in this development was observed in the experimental group.

Cognitive development

Indexes of cognitive development before and after the experiment are presented in Figure 4.

Cognitive development index, presented in Figure 4, values increased significantly in both groups ($F_{1,10} = 53.5$; $p < 0.001$; $\eta^2 = 0.84$) but no interactions were found between the repetition factor and group factor ($F_{1,10} = 2.58$; $p = 0.1393$; $\eta^2 = 0.21$). This means that the effect of the experimental factor was not significant for the development of the respondents in this respect. The indexes of the five components of cognitive development are presented in Table 4.

Analysis by means of the Mann-Whitney test revealed that none of the components of cognitive development

Fig. 4. Index of cognitive development (mean $\pm$ standard error) before and after the experiment: control and experimental groups

differentiated between the experimental and control groups.

Table 4. Components of cognitive development (CD) in the experimental and control groups before and after the intervention

CD components	Experimental group		Control group	
	Before	After	Before	After
	X $\pm$ SD	X $\pm$ SD	X $\pm$ SD	X $\pm$ SD
Ability to focus attention	3.17 $\pm$ 0.983	4.00 $\pm$ 0.632	2.83 $\pm$ 0.753	3.83 $\pm$ 0.753
Understanding instructions and interest in communication	3.67 $\pm$ 0.816	4.50 $\pm$ 0.837	3.00 $\pm$ 0.894	3.83 $\pm$ 0.753
Awareness of your own body and space	3.17 $\pm$ 0.753	4.17 $\pm$ 0.408	3.17 $\pm$ 0.983	3.67 $\pm$ 0.516
Learning to perform new tasks	4.00 $\pm$ 0.632	4.50 $\pm$ 0.548	3.67 $\pm$ 0.516	3.83 $\pm$ 0.408
Creative attitude (creativity)	3.83 $\pm$ 1.329	4.83 $\pm$ 0.408	3.50 $\pm$ 0.548	3.67 $\pm$ 0.516

Fig. 5. Index of social development (mean $\pm$ standard error) before and after the experiment: control and experimental groups

Social development

Indexes of social development before and after the experiment are presented in Figure 5.

Cognitive social index values (Fig. 5) increased significantly in both groups ($F_{1,10} = 41.26$; $p < 0.001$; $\eta^2 = 0.80$). It was found that interaction between the repetition factor and group factor ($F_{1,10} = 3.75$; $p = 0.0815$; $\eta^2 = 0.27$) was at the level of a tendency ($p < 0.1$). This means that it is unlikely that the experimental factor contributed to the increase in the index. The indexes of the five components of social development are presented in Table 5.

The Mann-Whitney test showed that among the components of social development, the *attitude to tasks* differentiated significantly ($Z = 2.08$; $p = 0.0378$) between the experimental and control groups. A greater increase in this development was observed in the experimental group.

The Mann-Whitney test showed that among the components of social development, the *attitude to tasks*

Fig. 6. Index of motor development (mean $\pm$ standard error) before and after the experiment: control and experimental groups

differentiated significantly ($Z = 2.08$; $p = 0.0378$) between the experimental and control groups. A greater increase in this development was observed in the experimental group.

Motor development

Indexes of motor development before and after the experiment are presented in Figure 6.

Values of motor development index increased significantly in both groups ($F_{1,10} = 20.99$; $p < 0.001$; $\eta^2 = 0.68$). The results are presented in Figure 6. No interactions were found between the repetition factor and group factor ($F_{1,10} = 0.058$; $p = 0.8143$; $\eta^2 = 0.0058$). This means that the effect of the experimental factor was not significant for the development of the respondents in this respect. The indexes of the five components of motor development are presented in Table 6.

The Mann-Whitney test showed that among the components of motor development, the *level of physical*

Table 5. Components of social development (SD) in the experimental and control groups before and after the intervention

SD components	Experimental group		Control group	
	Before	After	Before	After
	X $\pm$ SD	X $\pm$ SD	X $\pm$ SD	X $\pm$ SD
Attitude to classes	4.00 $\pm$ 0.632	4.50 $\pm$ 0.548	3.50 $\pm$ 0.548	4.00 $\pm$ 0.000
Attitude to tasks	3.17 $\pm$ 0.753	4.50 $\pm$ 0.548	3.33 $\pm$ 0.516	3.83 $\pm$ 0.408
Attitude to the partner in a pair	3.83 $\pm$ 0.983	4.17 $\pm$ 0.983	3.83 $\pm$ 0.408	3.83 $\pm$ 0.408
Attitude to another child	3.33 $\pm$ 1.032	4.17 $\pm$ 0.753	3.33 $\pm$ 0.516	3.83 $\pm$ 0.753
Attitude to the group and group tasks	3.67 $\pm$ 0.516	4.33 $\pm$ 0.516	3.33 $\pm$ 0.516	3.67 $\pm$ 0.516

Table 6. Components of motor development (MD) in the experimental and control groups before and after the intervention

MD components	Experimental group		Control group	
	Before	After	Before	After
	X ± SD	X ± SD	X ± SD	X ± SD
Level of physical activity	3.67 ± 0.516	4.50 ± 0.548	3.67 ± 0.816	3.83 ± 0.408
Motor efficiency	3.50 ± 0.548	4.83 ± 0.408	3.17 ± 0.753	3.83 ± 0.408
Independence in performing motor tasks	4.17 ± 0.408	4.33 ± 0.516	3.50 ± 0.548	4.00 ± 0.632
Movement control and adjustment of movements to tasks	3.50 ± 0.548	4.17 ± 0.408	3.17 ± 0.753	3.83 ± 0.408
Adjustment of movements in cooperation with a partner	3.00 ± 0.632	4.17 ± 0.983	2.83 ± 0.408	3.33 ± 0.516

activity differentiated significantly ($Z = 2.11$; $p = 0.0341$) between the experimental and control groups. A greater increase in this development was observed in the experimental group.

Discussion

Analysis of the above results revealed the importance of touch to the child development. Evaluation of the effectiveness of therapeutic procedures using the Sherborne Developmental Movement demonstrated a significant increase in average point scores for all subscales studied, reflecting an improvement in the functioning of children undergoing therapy.

The results of our own research concerning SDM showed that after 6 months of therapy with healthy children aged 3 to 4 years, the greatest improvement in emotional development occurred in terms of emotional development. The reason for such a result may be the form of conducted classes, which was based on learning the experimental factor: Shantala massage in the most convenient form for children, which is playing [6]. This may also be evidenced by the fact that the component which has a significant effect on this difference is *reaction to physical contact and caresses* in accordance with the research tool used (The Observation Scale of Child's and Parent's Behaviour by Marta Bogdanowicz).

At the level of a trend ($p < 0.1$), a greater increase in social development in the experimental group was found for *attitude to tasks*. In the case of social development, this may have been caused by the way the classes were conducted, focused on working in pairs and working in groups. No significant progress was observed between the groups in terms of motor development, but a significant difference was recorded in favour of children from the experimental group concerning the component of *level of physical activity*.

Despite the lack of differences in the aspect of cognitive development, many researchers emphasize that the method

contributes to getting to know the participants with their own body schema, development of imagination and ingenuity [1]. Studies conducted by Michalczak et al. [18] found a positive effect of massaging children from the first days of their lives. For a child, Shantala massage is a form of communication with parents. The massaged child feels accepted, understood and safe. Improvements can be observed in speech development, awareness of the child's own body in space or the ability to express emotions. The same changes are observed using the Developmental Movement method. Veronica Sherborne's aim was to improve interpersonal communication based on physical activity characterized by safety and acceptance of oneself, other participants, and the environment [10, 24]. Combination of these two therapeutic methods can be used to support the development of children not only with motor and mental deficits, but also healthy children, in the form of prevention. Following a 6-month sessions of the Developmental Movement combined with Shantala massage, significant changes in the subscale of emotional development can be observed, with particular focus on the acceptance of touch. The subscale of social development also significantly changed in the experimental group, in which the main change can be observed in the attitude of participants towards the tasks performed. The focus of Polish and foreign publications has been mainly on the positive effect of the method on children with motor and intellectual deficits such as autism, Down's syndrome, cerebral palsy, etc. [5, 9, 12, 20, 21] which represents a motivation for undertaking the research on the validity of the method in healthy children as a factor supporting development [2, 11, 15]. Therapists performing Shantala massage claim that a sensitive and regularly repeated touch can replace educational toys used to stimulate child development. A study conducted in 1965 by Castler confirmed that children additionally stimulated by stroking with gentle pressure developed faster than children from the control group [18]. Another study by Castler indicated an important link between cognitive development and the use of massage in infants at the age of 4 months [6].

The prevention of many musculoskeletal diseases should be started as early as possible by encouraging the child to be active. Stimulating development through various additional sensory stimuli is an important therapeutic method, which is why it is so important to involve parents and caregivers in this process [5, 11]. The Developmental Movement method should be constantly modified along with the achievements of medical and practical knowledge acquired while working with class participants. Therapists should pay more attention (both in diagnosis and therapy) to the individual characteristics of each organism such as the structure and function of the nervous, musculoskeletal, cardiovascular and digestive systems. The reactivity of the senses and the environment in which the body develops, stays and gains new movement experiences are also of great importance. The presented results showed the positive impact of the Developmental Movement activities enhanced with Shantala massage on the child. Therefore, they pointed to the usefulness of the method and the need to popularize it in various therapeutic and other institutions. In conclusion, it is recommended to combine SDM with other therapeutic forms to achieve better results. Shantala massage offers such improvements.

The presented results demonstrated the positive effect of the Developmental Movement classes enhanced with Shantala massage on the child. Therefore, they indicated the usefulness of the method and the need for its popularization in various types of therapeutic and other institutions. In conclusion, it is recommended to combine SDM with other therapeutic forms to achieve better results. Such improvements are offered by the use of Shantala massage.

Conclusions

- The use of Shantala massage during the activities of Veronica Sherborne's Developmental Movement (SDM) contributed significantly to the improvement of emotional development, especially *reaction to physical contact and caresses*.
- All participants of SDM, following 6 months of classes, reported harmonious cooperation based on communication which they established with children, which was previously difficult to achieve at home (children did not listen, did not want to help, did not take into account the opinions of others).
- Following the massage sessions, children were more likely to show empathic behaviour towards their parents, and with subsequent classes, also towards other participants of the classes.
- The introduction of Shantala massage to the classes of Veronica Sherborne's Developmental Movement reinforced the play based on "with" relations, which influenced the aspect of emotional development.

- In the parents' opinion, children demonstrated a greater willingness to engage in physical activity outside the classes.

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