DISCOVERING "PUNTO & VIRGOLA". ANALYSIS OF A PEDAGOGICAL PATH FOR THE MANAGEMENT OF EMOTIONS AND BEHAVIORAL CONTROL WITH CHILDREN AGED 8 TO 11

SCOPRENDO "PUNTO & VIRGOLA". ANALISI DI UN PERCORSO PEDAGOGICO PER LA GESTIONE DELLE EMOZIONI E IL CONTROLLO COMPORTAMENTALE CON BAMBINI DA 8 A 11 ANNI

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Abstract

In the developmental process of children a fundamental role is assumed by emotional skills. Meta-emotional knowledge and attitudes (Goleman, 2005) and the use of self-regulation strategies can be promoted through specific educational programs (Fedeli, 2013, 2008). This study describes an educational project aimed at learning emotional skills through games and targeted activities. The pedagogical intervention protocol envisages the intersection of the operational principles of Mindfulness (Saltzman, 2014, Dal Zovo, 2020), of the ABC path of emotions (Di Pietro, 2014) based on the Rational Emotional Behavioral Therapy model (Ellis, 1998). The contribution will present the project structure, the areas of pedagogical intervention and the efficacy study on the preliminary pre/post intervention data with an initial exploratory sample of five students with special educational needs, as well as the critical issues and possible areas for improvement.

Nel processo evolutivo dei bambini un ruolo fondamentale è assunto dalle competenze emotive. Conoscenze e atteggiamenti meta-emotivi (Goleman, 2005) e l'uso di strategie di autoregolazione possono essere promossi attraverso specifici programmi educativi (Fedeli 2013, 2008). Il presente contributo descrive un progetto educativo finalizzato ad apprendere e generalizzare le competenze emotive attraverso giochi e attività mirate. Il protocollo di intervento presentato prevede l'intersezione dei principi operativi della Mindfulness (Saltzman, 2014, Dal Zovo, 2020) e del percorso ABC delle emozioni (Di Pietro, 2014) basato sul modello della Terapia Razionale Emotiva Comportamentale-REBT (Ellis, 1989). Il contributo presenterà la struttura progettuale, le aree di intervento pedagogico e

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lo studio di efficacia sui dati preliminari raccolti pre/post intervento con un primo campione esplorativo composto da 5 studenti con bisogni educativi speciali, nonché le criticità e le possibili aree di miglioramento.

Key-words

Educational path, self-regulation, emotions
Intervento educativo, autoregolazione, emozioni

Introduction

In recent years emotional literacy programs have assumed a central role in educational contexts. The purpose of these programs is to give children the basics of emotional intelligence (Mayer & Salovey, 1990) or the ability to discriminate their own and others' emotions and know how to monitor and modulate them to translate them into adaptive behaviours (Pinnelli & Sorrentino, 2014).

Emotional skills, such as awareness and self-control of affective states, are known as meta-skills (Goleman, 2005), necessary to establish successful interpersonal relationships, understand the consequences of one's behaviour, and support the cognitive processes underlying learning (Fedeli, 2008).

As regards awareness in emotions, cognition plays a key role in determining it.

Appraisal theories have shown how emotion is not only the response to situational stimuli but also the result of a cognitive evaluation (Lazarus, 1991), which transforms some objective circumstances into situations that are personally meaningful for the individual's goals, expectations and well-being.

"Emotions arise when something important to us is at stake" (Gross, 2002, p. 281). Sometimes they are triggered automatically in response to the emotional stimuli. Other times they are the product of a conscious situational appraisal. In both cases, emotion results from the union of several components: experience, behavioural and physiological response, which together influence how individuals respond to the challenges and opportunities of everyday life (Gross, 2002).

Emotional regulation is a crucial component for a person's intellectual and emotional growth (Salovey & Mayer, 1990). Good self-management, understood as the ability to withstand "emotional storms" (Goleman, 2005) refers to a range of skills that define adaptive functioning, especially in difficult situations where negative emotions can trigger problematic behaviour. However, having regulatory skills is not enough; only people with a good level of perceived emotional self-efficacy know how to use these skills to control their emotional events, directing efforts towards achieving their own and others' well-being (Bandura, 2005; Caprara et al., 1998).

Emotional regulation is structured during a person's development, resulting in an adaptive or maladaptive individual emotion regulation style (Bridges & Denham, 2004).

In emotional development, the social and cultural context in which the individual grows up plays a crucial role. In particular, caregivers (parents and educators) regulate our emotions from childhood not only through direct intervention to alleviate distress, fear or other negative emotions, but through appropriate models and reinforcing positive emotional expression (Thompson, 1994; Bar-On et al, 2007; Ianes & Pellai, 2011). For this reason, people learn to regulate their emotions in many different ways. In his theoretical model, Gross (2002) distinguishes two types of regulation: Antecedent-focused regulation and Response-focused regulation. The first one acts in the initial phase of the generative process of emotion, producing

a change in the evaluation of the situation experienced to decrease its emotional impact, and influence behavioural responses. The second one act on the modulation of emotional behaviour when emotions are already in progress (Gross, 2002).

Although recent research highlights that Antecedent-focused regulation is preferred over Response-regulation that does not weigh on cognitive and social functioning (Richards & Gross, 2000; Davis & Levine, 2013) it is necessary to assert that strategies are not inherently good or bad. It is essential to have multiple regulatory options available and know how to use them flexibly after evaluating the costs and benefits of using one strategy over another in a specific situation (Gross, 2002).

Ellis' Rational Emotional Behavioural Theory is a theoretical model that considers reflection on the personal meanings attributed to experienced events important for emotional and behavioural self-regulation.

The Rational Emotive Behavior Therapy model (Ellis, 1998) considers the possibility for the individual to achieve emotional well-being through the mastery of positive and constructive thinking.

As a result, it is by acting on the interpretative processes (B) of experience (A) that the individual can regulate their emotional and behavioural reactions (C).

As shown in cognitive restructuring techniques, the ABC model recognizes a possible path to teach children to identify, understand and manage their emotions (Di Pietro, 2014). Fostering the real awareness of what happens in the here and now of the experienced situation and freeing oneself from immediate and automatic judgments are also possible through the principles of Mindfulness (Dal Zovo, 2020).

Although the "connection between Mindfulness and emotional regulation is not yet fully understood", some researchers consider Mindfulness "as a type of antecedent-focused regulation" (Teper et al., 2013, p. 450).

Mindfulness helps to develop awareness and acceptance of the physiological and cognitive changes that a negative affective state causes. This non-judgemental acceptance is the key element of Mindfulness, because it reduces tendencies to ruminate on or suppress feelings. "It allows to engage in regulation early in the time course of stimuli processing before intense emotional responses occur" (Teper et al., 2013, pp. 449-450), promoting adaptive behavioural response regulation.

Starting from these theoretical premises, the study intends to investigate the effects of the educational project (Punto & Virgola) aimed at learning skills that are useful for emotional and behavioural regulation in a group of students.

1. **Sample**

A total of 4 males and one girl aged 8 to 11 participated in the study. We decided to analyse only the results of 3 boys and one girl because one of the boys didn't attend the final part of the programme for health problems due to covid Pandemic.

After discussion with parents, according to them all children who participated in the project had problems in the area of emotional management, attention and three of them also had impulsivity problems.

The other children attended most of the sessions and in particular one boy attended one session online and another boy attended two sessions online. The girl participated in ten out of eleven meetings. One boy participated in eight out eleven meetings (but had the chance to recover some of the contents dealt in previous meetings).

Pre-post data were collected from seven parents of the children (four mothers and three fathers).

2.   Objective

In this study we present the project structure, the areas of pedagogical intervention and the efficacy study on the preliminary pre/post intervention data with an initial exploratory sample of four students with special educational needs, as well as the critical issues and possible areas for improvement.

In particular the efficacy study through the use of Behavioural ratings reported from one or both parents of the subjects will explore the child functioning in natural environments (family and school), on these aspects:

-        knowledge and self awareness of emotions

-        use of strategies

-        reduction of behavioural problems

3.   Methods and Materials

A quasi-experimental design was used in the study, in specific, a pre-post test design without a control group was carried out to establish whether the intervention had the intended effects.

The Analysis of Paired T Test was conducted using SDQ to test whether the average difference between the pairs of related measures (Hyperactivity, Emotion, Conduct, Peer relationship, Total Impact) was significantly different from zero.

Parents were contacted after their children finished the program for an exit meeting. We used a qualitative approach to study their perceptions about the programme, using paper pencil notes during the restitution and ad hoc questionnaire.

3.1 SDQ

The Strengths and Difficulties Questionnaire (SDQ) is a brief behavioural screening questionnaire. The SDQ is composed of 25 attributes, some positive and others negative divided between 5 sub-scales focused on emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems and pro-social behaviour. SDQ scores can be used as continuous variables, it is sometimes convenient to categorise scores. We have used the Newer 4-band categorisation that divided scores in these bandings: Close to average, Slightly raised, High and Very high.

3.2 PARENTS AD HOC QUESTIONNAIRE

The final questionnaire was administered by two educators face to face to six parents that were present during the final meeting. The duration of the exit meetings depended on the parents' narrative. During the final meeting, parents were invited to describe their children and how they see their children after the program. During the meeting, they were invited to fill out an ad hoc questionnaire. Most interviews lasted between 20 and 30 minutes..

In particular, the questionnaire was composed of closed and open questions aimed at investigating the capacity of emotional literacy and the use of emotion management strategies presented in the program also in other contexts.

item 1: Have you noticed improvements in the expressive capacity of emotions with respect to relevant events experienced at school or at home?

item 2: Did your child talk about the strategies presented for managing emotions?
item 3: Did your child use one of the strategies presented in the laboratory? Which?
item 4: Did your child use the diary spontaneously?
item 5: Have you noticed a decrease in your child's problematic behaviors? Which?

4. Intervention

The intervention included 12 total meetings: 10 meetings with children, an introductory meeting with children and parents and a final meeting with parents for restitution. Each meeting lasted 90 and took place at XXXXXX . The aim of the intervention was to educate in the recognition and management of emotions through the use of strategies. The intervention included an introductory phase of emotional literacy. An element of innovation compared to the programs already present in the literature was the introduction of a game.

The game involved the use of specific cards (strategy cards) inserted in a box called Emobox. The child had to identify and use the right card according to the proposed scenery.

The introduction to the use of the cards included a first phase in which children have to know the strategies, a second phase of personalization of one's own way of using the single strategies (and consequently the personalization of the card as well) and a third phase in which every child was asked to choose a strategy among those present in the box in response to certain social scenarios proposed by the educators in order to activate the relative theory of mind. This phase has provided role playing.

The innovative part of the programme consisted in a game that involved the use of specific cards (strategy cards) inserted in a box called Emobox. The child had to identify and use the right card according to the proposed scenery.

1° phase (knowledge of strategies)
2° phase (Personalization of strategies)
3 phase (Choose of strategy according to scenario)

In a first phase children knew the strategies, a second phase of personalization of one's own way of using the single strategies (and consequently the personalization of the card as well) and a third phase in which every child was asked to choose a strategy among those present in the box in response to certain social scenarios proposed by the educators in order to activate the relative theory of mind. This phase has provided role playing.

5. Analysis of results

Considering the average scores of the group of parents in each area of the SDQ (Graph 1), interesting improvements can be seen in some areas surveyed by the questionnaire. Below are visually reported the results of the mean of the group of six parents (see discussion) pre and post intervention in the five areas of the SDQ and on the total impact score. The analysis of the scores was done both through the normative data reported in the original version and on the Italian version of the scale (Marzocchi, Di Pietro, 2002). Both analyses lead to the same results. We chose to report data from the English classification because the division into 4 ranges allowed us a more detailed analysis with reference to the level of "severity of symptoms". We chose to use this classification not for diagnostic purposes but for research purposes and to verify the effectiveness of the intervention through more detailed threshold values.
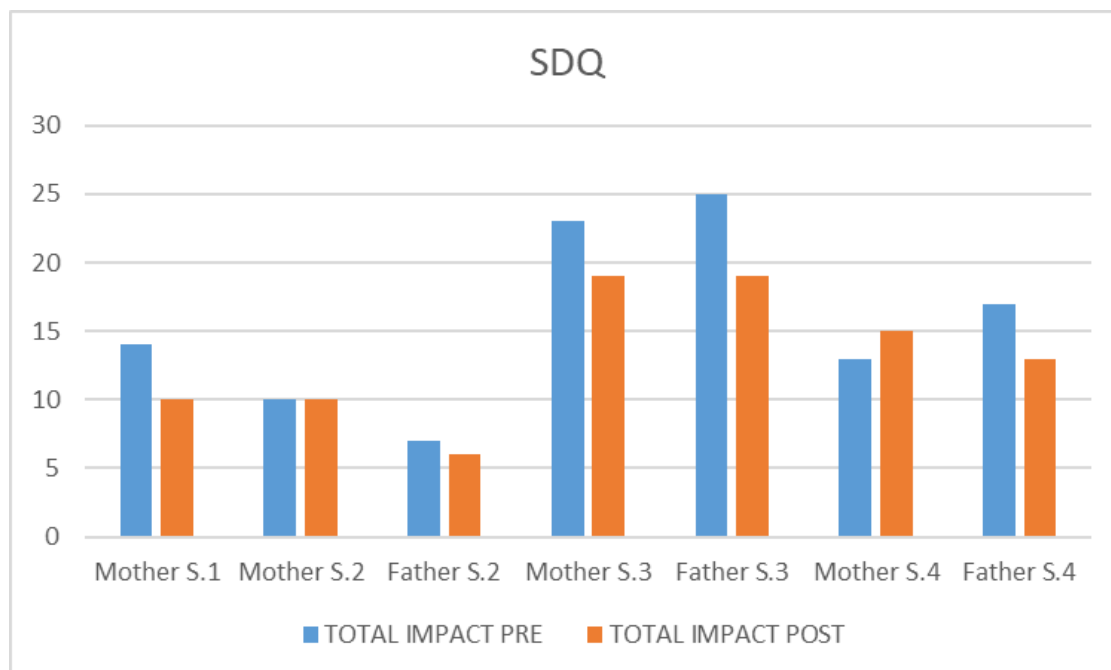
Graph. 1 (Results of the mean of the group of six parents (see discussion) pre and post intervention in the areas of the SDQ and on the total impact)

Applying the student t test, if we consider the entire sample of seven parents, the difference in the Total Impact Score before and after the treatment is not statistically significant. However, considering six parents in the analysis (see discussion), $t(5) = 3.4805$, P value equals 0.0176, by conventional criteria, this difference is considered to be statistically significant.

Analysis of the scores relating to total difficulties indicates that six parents note an overall improvement. In four cases this improvement can be considered significant attesting to a change in the band categories. The following diagram (Graph 2) shows in detail the ranges in which the pre (1°) and post (2°) scores for each parent fall.

Parent completed SDQ Total difficulties	Close to average 0-13	Slightly raised 14-16	High 17-19	Very high 20-24	
Mother S.1	2°	1°			↑
Mother S.2	2° - 1°				
Father S.2	2° - 1°				
Mother S.3			2°	1°	↑
Father S.3			2°	1°	↑
Father S.4	2°		1°		↑

Graph. 2 (Ranges in which the pre and post scores fall)

Analyzing single data of each student we can see that children had improvements in the area of emotion and conduct (Graphs 3 and 4).
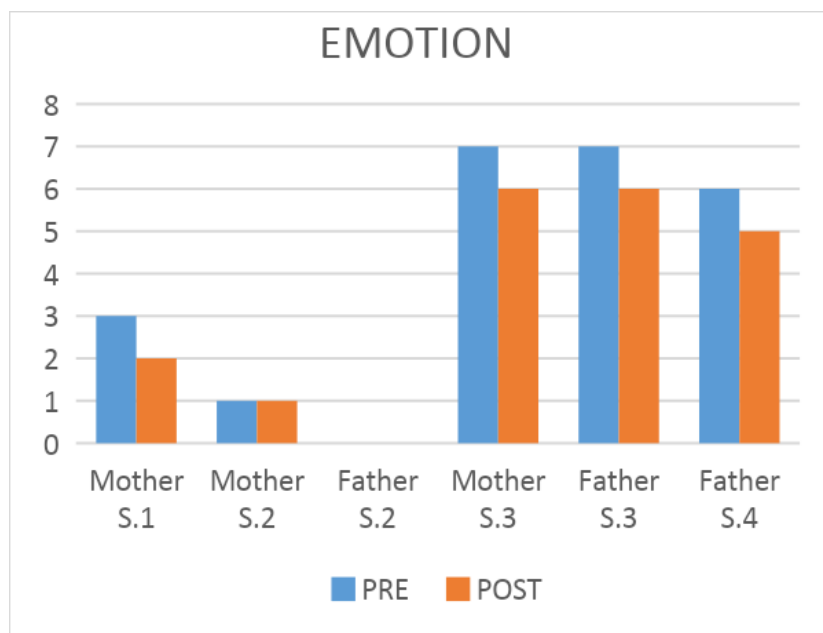
Graph 3 (Individual Score in the Subscale Emotion of the SDQ)
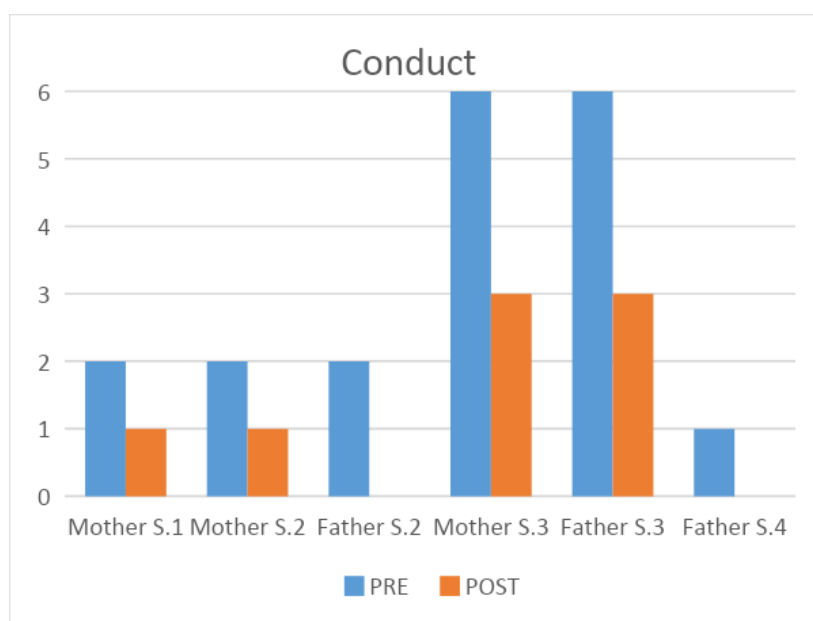
Graph 4 (Individual Score in the Subscale Conduct of the SDQ)

Another step of analysis considered the results of the ad hoc questionnaire. Below are reported the results of the questionnaire and some extracts of the dialogues with parents during the final meeting.

All parents noticed improvements in the expressive capacity of emotions with respect to relevant events experienced at school or at home. Two children used the strategies presented in the laboratory; two children used the diary spontaneously; three children showed a decrease in problematic behaviours, in particular, they were more self-controlled, displayed more collaboration, respect of the rules, less emotional problems like anxiety or fits of crying and more social skills.

6.   Discussion

The Punto&Virgola program seems quite effective in improving the emotional and behavioural aspects of most of the children that participated. Nevertheless, not significant improvement were detected in the previous sample of investigation in the total impact score. In the second step of the analysis we want to consider only 6 parents for the final T Test. This is because one parent completed the questionnaire after the final meeting with the educators. During this session the educators and the parent had the opportunity to discuss together some behavioural and emotional characteristics of the child. According to the authors, after this meeting, the parent was abler to detect some aspects that weren't identified in the previous assessment. For this reason, according to the authors, the parent reported more problems during the second assessment with the SDQ (see Graph 1, Mother S.4). However, the same parent during the ad hoc questionnaire reported some global improvements in the child. For all these reasons, it was agreed to exclude from the evaluation of the programme the assessment with the SDQ of this parent.

Since one of the limitations of this study was the size of the sample and the lack of a control group, we believe that the results found in terms of improving skills of managing emotions and reducing behavioural problems cannot be extended to the entire population. We also take into account that one of the limits of this study is the lack of teachers' ratings to explore the generalisation of those skills in different contexts like school.

Despite the limitations set out above, we believe that having initiated a gradual path to the recognition of the emotions, of the control strategies of the same in playful mode through the use of strategy cards with a specific emobox, in a mindful environment may have activated in the children of the programme not only a greater awareness of one's own and others' emotions but also a reduction in problematic behaviors, as reported by most parents. This chain may have influenced the establishment of better group relationships as indicated by some parents during the final interview and as observed by the educators during the meetings.

Conclusions

The qualitative analysis of the results shows an overall improvement in emotional literacy, conduct problems, more ability to control their emotion and in some of them also the use of self-regulation strategies.

Carrying out a path on emotional management during the pandemic period is no easy feat. The risk of numerous absences, the work with the use of masks that do not facilitate visual recognition, the social distancing that does not allow physical contact and the development of meaningful social interactions are elements that we believe must be considered in the overall evaluation of the project. Some of them because of the pandemic had to follow some sessions in online form and we think that this aspect could have influenced the intervention.

In spite of this, our goal was to try, however, in this contextual situation, to start a path that would guide children in the acquisition of their inner world, that of others and at the same time the use of strategies useful for managing social situations.

Metacognitive reflection and training in anger or sadness management and control strategies may have developed processes of self-awareness of one's emotional functioning and strategies. In fact, the children were continuously trained in breathing management exercises and in choosing which emo-box strategies to use also in the management of conflicts within the group.

Finally, considering that the majority of traditional social skills interventions fail to generalize to natural settings and have an inappreciable impact on social functioning (Pinnelli, Sorrentino, 2014; Evans, Langberg, Williams, 2003; Gresham F., 1998) we considered the

results reported from one parent, that highlighted deep improvements of the child behaviour also at school, very promising and worthy of further development.

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