

Mindfulness in preschool children – outline of the study

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ABSTRACT

Practicing mindfulness with preschool and school-aged children affects their general well-being, diminishes mood swings, and improves their ability to focus which all contribute to effective learning. We present a research design for a study that is going to be carried out in the forthcoming months in selected kindergartens. The methodology is partially exploratory and partially following the methodology of the authors of Toy wrap Toy wait test.

We will try to establish whether preschool children become more focused on events around them and on their inner feelings while practicing mindfulness. We will test their ability to replace the dominant with subdominant reaction, which is one of the main components of self-regulation. On the basis of teachers' written answers, and questionnaires: a) Toy wrap Toy wait test and b) Children's Behavior Questionnaire, we will try to establish whether there is any difference between the children who practice mindfulness and those who do not, regarding their self-regulation.

Keywords

mindfulness, preschool children, kindergarten, Toy wrap Toy wait test, Children's Behavior Questionnaire

1. INTRODUCTION

Mindfulness has been known for thousands of years as a part of a meditative practice that, due to its specific way of focusing attention, allows it to focus on the present moment, thus calming the mind and reducing tension [1]. It can be used as a technique for psychotherapeutic purposes as it integrates content from cognitive, behavioral, experiential, and psychodynamic theories [2]. Practicing mindfulness in children affects their overall well-being and behavior, improves mood swings, helps with learning disabilities, fear of failure, and enhances executive function [3, 4].

1.1. Self-regulation

Self-regulation is a critical component of a child's readiness for school since it facilitates a child's acceptance by peers, social and academic success, higher self-confidence, professional achievements and better health [5]. Self-regulation is defined as the process by which people incorporate behavior change into their everyday lives, and it involves: self-monitoring, goal setting, reflective thinking, decision making, planning, plan enactment, self-evaluation and management of emotions arising as a result of behavior change. [6]. Self-regulation in childhood can be defined as a construct that represents the development of children's abilities to follow the everyday norms and practices that are embraced by their parents [7]. Self-regulation has been found to predict positive life outcomes, including good physical health (e.g., healthy body weight), higher levels of education and income, and better

psychological well-being (e.g., lower risk for depression and substance abuse) [8]. Majority of the studies we had access to, focused on understanding children's maturation of executive functions—working memory (e.g. remembering a set of directions to complete a learning task), focused attention, and behavior inhibition (e.g. waiting for a turn to speak instead of talking out in class) and how these are linked to their development of emotional and/or behavior control during the preschool and early school years [9, 10].

To our knowledge, research on mindfulness in schools regarding the influence of mindfulness on self-regulation, is still in its infancy. Studies of mindfulness impact on behavior, academic performance, and physical health in children can best be described as 'promising' and 'worth trying'. There are data that show mindfulness training in pre-adolescence could support self-regulation development [11]. This is why we have decided to do the exploratory study where we are going to evaluate self-regulation in pre-school children who practice mindfulness compared to the control group.

1.2. Test Toy wrap Toy wait

Level of self-regulation represents the option to substitute your dominant response over subdominant one; to be able to avoid acting irrational and instead acting rational. A test named Toy wrap Toy wait [5, 11] establishes and compares the level of self-regulation in the intervention and control group.

The test named Toy wrap Toy wait is carried out in a way that the teacher tells the child that s/he has a surprise for him or her but first s/he has to wrap it. S/he sits the child down so that s/he is turned away from her/him by the angle of ninety degrees. The teacher starts to wrap the gift so that the crunching of the paper can be heard. After one minute the teacher shows the wrapped gift to the child and that is when the second part of the test begins. Researchers marks the latency of "peeping": seconds that pass before the child peeps and looks at the object the teacher is wrapping. When the teacher puts the wrapped gift in front of the child, s/he tells him/her to wait before s/he touches the gift and meanwhile s/he pretends that s/he has another task to do; s/he is tidying the paper from the previous task. Researchers marks the latency of touching the gift: how many seconds pass before the child touches the gift [12]. In this test the "peeping" and touching the gift represents the dominant versus subdominant response. In our case the dominant response is to "peep" straight away and the subdominant response is not to "peep" at all. The same reasoning is applied to touching the gift. Dominant response is to touch the gift straight away and the subdominant response is not touching it at all. Longer latency means better subdominant reaction and better self-regulation. The test does not need to be recorded. The teachers

are able to carry out the test and researchers can measure the latency of “peeping” and touching.

1.3. Children’s Behavior Questionnaire

Children’s Behavior Questionnaire is used for children aged from three to seven years. The questionnaire can be filled out by the parents. The questionnaire is a shorter version of the longer Children’s Behavior Questionnaire [13] and its use was approved by the author. In the questionnaire three different subscales are used: liveliness (example: “is slow and unhurried in deciding what to do next”), negative emotion (“gets quite frustrated when prevented from doing something s/he wants to do”) and effortful control (“notices it when parents are wearing new clothing”). Parents mark their child’s behavior in the five-level Likert’s scale, from extremely untrue to extremely true of their child.

2. METHODS

We will observe whether preschool children are capable of substituting their dominant reaction with the subdominant and whether they can react differently in their home environment by practicing mindfulness. In this study a dominant response will represent the response which is immediate, non-thinkable or irrational. On the other hand, subdominant response is a rational response, response that demands people to think first, before they act or respond. Our hypothesis is that with practicing mindfulness children will exhibit more subdominant responses than the control group measured by the test Toy wrap Toy wait and Children’s Behavior Questionnaire.

The study is going to take place in two kindergartens in Municipality of Radovljica, Slovenia who have agreed to participate in the study. One group will contain 24 five to six-year-old preschool children in Kindergarten in Radovljica and the other one will contain same number, same age group preschool children in Kindergarten Lesce. Parents’ approvals were collected prior to commencing the study.

The exercises of mindfulness practice will be carried out after lunch when children have time to rest. One department will practice mindfulness five times per week from five to fifteen minutes, eight weeks in a row while the control group will spend their time resting.

Teachers from individual kindergarten department will participate in the research. They will practice with children an eight-week mindfulness program. During the research they will be supported by the e-learning project of mindfulness: Shift Mindful, dare to be human. Mindfulness program for children will contain structured mindfulness practice based on different sources: mindfulness fairy tales, mindfulness activity games, mindfulness tasks, such as focus on their breathing, focus on gratitude or different feelings; experience love, anger, sadness, happiness etc. Teachers in the control group will follow the regular curriculum and will read a story to children when they rest or let them play quietly.

The research will be composed of three parts. The first part of the research will present a test named Toy wrap Toy wait [5] which will establish and compare the level of self-regulation in the intervention and control group. The second part of the research will present the shorter version of Children’s Behavior Questionnaire [13] for children aged from three to seven years which will be filled out by the parents. Parents will get the Questionnaire in hand and they will fill it out before and at the end of the research. With the Questionnaire we will get the report on children’s behavior at

home, with special focus on concerning subscales; liveliness, negative emotion and effortful control. Our intention is to verify possible changes happening in behavior of children in their home environment while practicing mindfulness. The third part of the research will present the teachers’ answers who will carry out the exercises of mindfulness. We will ask them three questions concerning the mindfulness practice with children. We will be interested on their opinion on mindfulness in general, what do they think about practicing mindfulness with preschool children and whether they noticed any change in children. The questionnaire will contain written questions and answers send via email.

Table 1: Tests used in the experiment

Test	Time	Short description
Toy wrap Toy wait	5 minutes	Wrapping the gift by the teacher in front of the child and measuring the time when peeping and touching from the child starts
Children’s Behavior Questionnaire	15 minutes	Parents have to mark their child’s behavior in the five-level Likert’s scale, from extremely untrue to extremely true of their child
Questionnaire for the teacher	10 minutes	Written answers about experience in practicing mindfulness and its effect on children

3. DISCUSSION

3.1. Ethical concerns

The practice of mindfulness and meditation is a conscious exercise that builds attention control and inhibitory skills [10]. Recent pilot research on practicing mindfulness has shown a positive effect on the general well-being, behavior, improving mood swings, and help with learning problems, fear of failure and strengthening executive functions [14-16]. Teaching children mindfulness is expected to enhance their regulatory competences and give them a new experience. The technique is itself non-invasive, voluntary, and can be seen as part of child play. The tests used are playful so children are not stressed by doing them. Since we already introduced the research to the teachers in the kindergarten where the research will take place, they already expressed their interest since they lack the techniques which could help them concentrate and focus themselves.

3.2. Limitations

One has to be aware that incorporating more integrative therapies or techniques in preschool and school programs could be motivated by some economic / consumer interest. However, mindfulness is a technique which requires little financial input. Another problem is that the structure of teaching mindfulness can vary substantially from teacher to teacher, which is why we have decided to offer the teachers a uniform course on mindfulness. Another major drawback to our study is the lack of time. Practicing mindfulness techniques takes more time to exert any larger and/or measurable effects. Practicing mindfulness is most valuable when an individual can internalize or in-personalize the practice in her or his daily routine which can be done by practicing mindfulness on daily basis, for a longer time period. The sample in our study could be too small, since it will be composed of two groups of preschool children, whose parents will agree to participate in the two selected

kindergartens in the Municipality of Radovljica. In our study we will not include children's personality and socio-economical and emotional (family) background, which are all important components in accepting mindfulness practice in daily routine.

4. CONCLUSIONS

To introduce practicing mindfulness into kindergartens and primary schools as a part of the curriculum or as a part of a learning program could bring some positive effects on children which are crucial for each individual who starts the path of public and private educational establishment. One of the positive effects could be a higher level of self-regulation. Hopefully with our study we will be able to show some effect on preschool children who will practice mindfulness with the help of their kindergarten teachers.

5. ACKNOWLEDGMENTS

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6. REFERENCES

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