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This is the final peer-reviewed author's accepted manuscript (postprint) of the following publication:

Published Version:

Ruini, C., Albieri, E., Ottolini, F., Vescovelli, F. (2022). Once upon a time: A school positive narrative intervention for promoting well-being and creativity in elementary school children. *PSYCHOLOGY OF AESTHETICS, CREATIVITY, AND THE ARTS*, 16(2), 259-271 [10.1037/aca0000362].

Availability:

This version is available at: <https://hdl.handle.net/11585/801828> since: 2024-06-27

Published:

DOI: <http://doi.org/10.1037/aca0000362>

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(Article begins on next page)

Once upon a Time: A School Positive Narrative Intervention for promoting well-being and creativity in elementary school children.

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Recent research proclaimed the importance of incorporating programs for promoting well-being and creativity in schools. However, psychological or existential well-being received only limited attention and only few interventions aimed at its promotion in childhood. This research aimed to compare the efficacy of an intervention based on storytelling and narrative techniques vs a control condition.

A total of 165 students (78 girls, 87 boys; $M_{age}= 9.3$ years; $SD= 0.5$) were randomized to a School Positive Narrative Intervention or to a controlled condition. Children were assessed before, after intervention and at 3 month follow-up with self-reports of well-being, anxiety, depression and somatization. A storytelling task was implemented and specific creativity storytelling scores were calculated for the stories produced by children during the intervention.

At post intervention, children assigned to the narrative intervention reported increased levels of well-being and decreased depression, anxiety and somatization, compared to controls. These improvements were maintained at 3-month follow-up. Higher scores on creativity emerged in stories focused on fear, sadness and happiness. This intervention consisted of only 4 sessions, but it was able to yield many benefits in well-being and in distress.

The use of narrative strategies help children to identify their personal resources, to express creativity and to assimilate the concept of existential well-being that could be difficult to process because of its abstractness and multidimensional nature.

Keywords well-being; childhood; narrative strategies; resilience; school; storytelling

Introduction

Recent trends in school psychology aim to integrate positive psychology interventions into educational practices to improve schoolchildren's subjective well-being (SWB) and mental health (Seligman, Ernst, Gillham, Reivich, & Linkins, 2009; Albiéri & Visani, 2014; Keyes, Dhingra, & Simoes, 2010; Pluskota, 2014; Richards & Huppert, 2011; Ruini et al., 2009). Schools represent ideal settings for promoting learning, human development, creativity and flourishing (Seligman and Csikszentmihalyi, 2000). Higher subjective well-being among schoolchildren correlated to better relationships with parents, teachers, and peers and to a better academic engagement (Shek, 2004; Datu & King, 2018; Gilman & Huebner, 2006; Proctor, Linley, & Maltby, 2009; van der Kaap-Deeder, Vansteenkiste, Soenens, & Mabbe, 2017)). In light of the social contagion of well-being in the classroom context (King & Datu, 2017), it might be beneficial to incorporate education programs for promoting creativity and well-being in the school curriculum (Pluskota, 2014).

For example, Shoshani et al. (2014) applied a school program based on positive psychology (the Maytiv positive psychology school program) in a large school district in Israel. The program yielded significant improvements in distress, anxiety and depression, demonstrating the potential benefits of evidence-based positive-psychology interventions for promoting schoolchildren's mental health. When compared to a controlled condition, the Maytiv program improved positive emotions, peer relations, emotional and cognitive engagement in school and academic performances (Shoshani et al. 2016). Other school interventions relied on the theoretical framework of the broaden-and-build theory of positive emotions (Noble & McGrath, 2005, 2008; Brunwasser et al., 2009).

Together with promoting positive emotions, various authors have also emphasized the importance of personal resources such as personal growth, life purpose, self-acceptance and meaning making across the lifespan and in the ego development (Theobald, 2016; Veronese and Castiglioni, 2015; Ryff; 2014; Bauer & McAdams, 2010). These dimensions conceptualized as eudaimonic well-being play a crucial role in building a positive sense of identity in youth (Burrow,

& Hill 2011). Recently, Ryff (Ryff, 2016, 2018) emphasized the crucial role of education in the domains of literature, arts and humanistic studies for facilitating self-knowledge and self-realization that are central ingredients of eudaimonic well-being.

However, only few interventions for promoting eudaimonic well-being were applied in schools. One of these interventions (School Well-Being Therapy -WBT) (Ruini et al., 2006; Tomba et al., 2010) relied on Ryff's model of eudaimonic well-being (Ryff, 2014), which encompasses six domains of positive functioning: environmental mastery, autonomy, purpose in life, positive relations, self-acceptance and personal growth. School WBT was implemented in middle school and in high school students (Fava and Ruini, 2003; Ruini et al., 2009). This school intervention consisted of 4 sessions performed in the class, and involved psycho-education on the Ryff's model of eudaimonic well-being and cognitive-behavioral techniques (Ruini et al., 2006; 2009). This school program reduced anxiety and somatic symptoms and increased well-being in children. This initial protocol was adapted for the clinical settings, with the purpose of treating children with emotional and behavioral disorders (Albieri, Visani, Offidani, Ottolini, & Ruini, 2009; Ruini, Albieri, & Vescovelli, 2015; Vescovelli, Albieri, & Ruini, 2017). It improved children's eudaimonic well-being and reduced their somatic symptoms (Albieri et al., 2009; Ruini et al., 2015). Thus, various authors underlined the need to promote well-being in young populations and suggested to make education for well-being an integral part of the school curriculum (Baraldi, 2008; Glenn et al., 2013; Verma and Verma, 1994; Veronese and Castiglioni, 2015; Ruini et al., 2009; Proctor et al., 2011; Pluskova 2014; Shoshani et al., 2014; Shoshani et al., 2016).

However, excluding these preliminary studies, the existing literature gave only limited attention to eudaimonic or existential well-being (as opposed to happiness and hedonic well-being) in early stage of development (Ruini, Vescovelli, Carpi, & Masoni, 2017). In fact, previous literature applied an adult centered model of well-being to children (Fattore et al., 2007), and neglected its existential dimensions. Eudaimonic well-being was regarded as not easily understandable by younger children, because of its abstractness and multidimensional nature

(Fattore et al., 2007; Gillett-Swan and Sargeant, 2015). Recent perspectives disconfirmed these approaches (Bauer, & McAdams, 2010; Burrow, & Hill, 2011; Glenn et al., 2013; Svahn, 2017; Veronese and Castiglioni, 2015). For instance, Gillett-Swan (2017) found that children aged 8-12 years possessed an ability to discuss complex issues like well-being in sophisticated, coherent and thoughtful ways. Similarly, Ruini et al. (2017) highlighted that elementary schoolchildren reported instances of eudaimonic well-being in their daily activities. Children's positive emotions resulted to be mainly triggered by relationships with peers and with family members. Almost 20% of children in this qualitative study highlighted the importance of situations connected with goals achievement and self-esteem, such as good performances in sport and school, or the development of new skills (i.e, learning to swim, or ski, or handcraft activities etc.). These findings confirmed previous investigations on the important role of life purpose for positive adjustment in adolescence and for the construction of a stable sense of identity (Burrow, & Hill, 2011). Similarly, Tavernier & Willoughby (2012) found that teenagers were able to process significant life experiences (i.e., turning points) and to attribute them a source of meaning. This process of meaning making was associated with adolescents' well-being. Thus, the sense of personal fulfillment, self-esteem and goal achievement emerged as highly significant for children and adolescents. Importantly, Ruini et al. (2017) used narrative techniques based on reading and discussing traditional fairytales for helping children to understand the concepts of personal growth, environmental mastery, purpose in life and self-acceptance.

Other psychosocial interventions for increasing well-being and resilience rely on the use of narrative techniques (Ansell, 2016; Hohti and Karlsson, 2014; Theobald, 2016). For instance a recent investigation described the use of fairy tale's characters (i.e., Cinderella, Snow White, Dick Whittington) to help South African children dealing with their condition of orphanhood because of their parents' AIDS (Ansell, 2016). Similarly, Ruini et al. (2014) applied a protocol of narrative therapy based on storytelling and fairy tales in anxious patients (Ruini & Ottolini, 2014) and adjustment disorders, in older adults living in nursing homes (Cesetti et al., 2017) and in a child

suffering from an eating disorder (Vescovelli et al., 2017). In such vulnerable populations (distressed patients, older adults and children) the application of traditional therapeutic techniques may be particularly difficult (Cesetti et al., 2017), and narrative strategies may provide more flexible tools to help participants managing their emotions.

It seems that fairytales could be used to illustrate and symbolize concepts that are now scientifically investigated by research on positive psychology, such as creativity, resilience, self-realization, problem solving, and personal growth (Verma and Verma, 1994; Vallerand, 2012; Weiss, Westerhof, & Bohlmeijer, 2016). Fairytales and narratives may serve as an action metaphor for helping individuals to better deal with their mixed emotions and developmental challenges, showing and teaching them more useful and positive coping strategies for conflict resolution (Ansell, 2016; Hill, 1992; Hohti and Karlsson, 2014).

Furthermore, fairy tales may play an important psycho-educational role, providing ad hoc frameworks to interpret reality, and to build coherent and sequential connections between events within the narrative plot (Ansell, 2016; Shapiro, & Hudson, 1991). For these reasons, folk and fairytales are often part of school didactic curricula in primary schools. In Western countries, teachers usually read and discuss fairytales' narrative structure, using the concept of 'functions' developed in fairy tale structuralist analysis by Propp (Propp, 1968). It consists of 3 main phases: initial stressful event, test and tasks, final reward. In each fairy tale, the protagonist had to face some problems and obstacles before achieving the "happy ending", when he/she finally experienced some positive emotions.

Considering that many schoolteachers are already familiar with these narrative contents, we used fairytales as tools to promote eudaimonic well-being and creativity in children in a new psychoeducational school program (School-Positive Narrative Intervention; S-PNI). In this new educational program fairy tales were read and discussed in a group context with the guidance of a clinical psychologist, who addressed the main fairytale's themes associated with eudaimonic well-being. Children were then asked to create a new fairy tale connected to an emotion content (fear,

anger, sadness, and happiness). The aim of this research is to test the effect of S-PNI compared to a control condition, where fairytales were read and discussed with teachers according to the usual teaching curriculum. We hypothesized that students assigned to the experimental condition would report increased well-being and better mental and physical health profiles when compared to those assigned to the control condition. We also expected a different pattern of creativity according to the different emotions addressed during the intervention (in the experimental condition only).

Material and Methods

Participants and procedures

After promoting and explaining the school program to teachers and head masters of various elementary schools in Northern Italy, nine classes attending the fourth and fifth year of elementary school of three different schools volunteered to participate to the project, and decided to include it in their teaching curriculum. Since this intervention was performed in an ecological setting, and implied a voluntarily participation, semi-randomized procedure was used: only classes whose teachers accepted to include the clinical psychologists and the psychoeducational activities on fairy tales in their lessons were assigned to the experimental condition. The other classes, as control condition, underwent the established curricula on fairytales with their teachers only. In these classes, another clinical psychologist performed the assessment (see section below).

Inclusion and exclusion criteria. Students were included into the study if: a) they provided a written informed consent to participate to the intervention (experimental condition) and to the assessment (control condition); b) their parents provided a written informed consent for their participation; c) were devoid of learning disabilities or visual impairments, as reported by their teachers. The presence of any learning disability or visual impairment represented a primary exclusion criterion.

165 Italian students (78 girls, 87 boys; $M_{age} = 9.3$ years; $SD = 0.5$) were enrolled. The classes (not the single students) were assigned to: a) positive narrative intervention- S-PNI (5 classes); b) control condition (4 classes) (see School Intervention Flowchart, Fig. 1). Both school-based interventions consisted of 4, two-hour sessions, which were held once a week in the class, where role-playing and group discussions were performed.

Written informed consent was obtained after the procedures were explained to teachers, students and to their parents. No student declined to participate. The Ethical Committee of the Institute XXX in Sassuolo (Modena-Italy); the Ethical Committee of the Institute XXX in Cattolica (Rimini-Italy), and the Ethical Committee of the Institute XXX in San Polo d'Enza (Reggio Emilia, Italy) approved this study

Intervention and Protocol Description: “School— Positive Narrative Intervention”

This school-based intervention consisted of four 2-hour sessions held in class. Two additional sessions were dedicated to teachers' training and supervision for those teachers involved in the experimental condition only. The teachers' training focused on the emotional content of the fairytales and on the connection between emotions, cognitions and behaviors (one session). The second session focused on eudaimonic well-being dimensions and on their importance for children's psychological development, with a particular emphasis on purpose in life and environmental mastery. The intervention was performed by two clinical psychologists, who were not involved in the assessment and trained in narrative interventions and in positive psychology. They followed a manualized protocol, developed by one author (XX), who supervised teachers before and after each session. Each session followed the same schema, but focused on one of four different emotions (fear, anger, sadness, happiness) and four different fairy tales were used (see Table 1 for the full protocol).

At the beginning of each session, one clinical psychologist read a fairy tale from the oral tradition to emphasize its emotional content. Secondly, participants were involved into a group discussion with the aim of recognizing, naming and analyzing the emotion involved in the tale, as well as its narrative plot. After that, participants were asked to voluntarily share one or more specific events that elicited the specific emotion involved in the fairy tale, and to discuss them with the schoolmates, guided by the second clinical psychologist. Finally, in a small group format, children were invited to create a new fairy tale, which should have addressed the emotions previously discussed. The psychologists assisted this work by describing the basic, simplified narrative structure of fairy tale as proposed by Propp (1968). They showed some visual aids, which graphically represented the three different phases of the fairy tales (Shapiro & Hudson, 1991): initial stressful event, tests and tasks, and final reward. Each fairytale's protagonist had to deal with some problems and obstacles before achieving the "happy ending." The achievement of the "happy ending" (i.e., the pursuit and/or restoration of happiness) was particularly emphasized by the two psychologists. They helped children to identify and to develop specific psychosocial skills to reach these "happy endings". In some cases, they consisted in overcoming sadness or anger by promoting optimism, or a more flexible interpersonal attitude. Other times the narrative plots were developed on the maintenance of happiness and a cheerful attitude despite the presence of obstacles or enemies to struggles with. For further details, see Table 1.

Creativity was assessed by calculating a storytelling creativity score for each fairytale produced by children during each session (see storytelling task paragraph in the assessment and measure section).

Control condition

Participants not assigned to the experimental group were involved in usual teaching activities focused on traditional fairytales. Various fairy tales were read, discussed and analyzed in small groups, with schoolteachers as facilitators (no clinical psychologist was involved). Specific

artistic and creative activities (painting, singing or hearing music) were organized and supervised by an art therapist and by the schoolteachers in association with fairytales reading. In the control condition, the following fairy tales were selected: Hansel and Gretel (Grimm's brothers), Tom Thumb (Charles Perrault), The Sleeping Beauty (Grimm's brothers), Little Red Riding Hood (Grimm's brothers). Every fairy tales was analyzed according to its narrative plot: initial situation, central part, and conclusion. Emotion contents of the fairy tales were not discussed. Furthermore, in this controlled condition, students were not asked to write any fairy tale.

Assessment and Measures

Two clinical psychologists, who were not involved in the intervention and were blind to condition assignment, assessed participants before and after intervention. Only for children in the experimental condition, an additional storytelling task score was computed and a three-month follow-up was conducted to verify the effect of the S-PNI over time. PWB was considered the primary outcome of this study. The following questionnaires in their Italian validated versions were administered to all participants:

Revised Children's Manifest Anxiety Scale (RCMAS). The RCMAS (Reynolds & Richmond, 1997) is a self-rating, 37 item questionnaire with dichotomous questions (yes/no) for assessing anxiety in children (age range = 8–19 years). The 37 items are divided into four scales: Physiological Anxiety (10 items), Worry/Over-sensitivity (11 items), Social Concerns/Concentration (7 items) and the Lie Scale (9 items). A Total Anxiety score can be computed using the 28 anxiety items. The remaining items comprise the Lie Scale, which is a validity scale (to detect social desirability) that has not been considered in this study. Higher scores indicate greater levels of the anxiety construct measured by each scale. RCMAS is one of the most used tools to assess anxiety in childhood and has good psychometric properties: high internal consistency, good test-retest reliability ($\alpha = 0.87$) and predictive validity. In the present study, Cronbach's alpha for the total scale was 0.75.

Cognitive Triad Inventory for Children (CTI-C). CTI (Kaslow, Stark, Printz, Livingston, & Ling Tsai, 1992) is a 36 item, self-report questionnaire for the assessment of children and adolescents' depression, according to Beck's cognitive triad model. Children may answer on a 3-point scale (yes/maybe/no). Items are divided into three subscales (respectively about Self, World and Future, in line with adults' cognitive triad), each one consists of 12 items and a Total scale, obtained by adding up the previous three, is calculated. The questionnaire has a strong concurrent and internal validity (Cronbach's alpha = 0.92). In the present study, Cronbach's alpha for the total scale was 0.50.

Children's Somatization Inventory-Child Report Form (CSI). CSI (Walker, Garber, & Greene, 1991) is a questionnaire for assessing the presence of somatic symptoms in children. It is widely used in preadolescence and adolescence and can be completed by children from 7 years of age. CSI assessed the perceived severity about 35 somatic symptoms, which are measured through a 5-point scale (0 = never to 4 = always), referring to the last 2 weeks (this time period was chosen to reduce the impact of small diseases of short duration). The total score is calculated by adding the scores of each item/symptom and ranges from 0 to 140 (high levels of somatization). Both self-rated and observed-rated versions are available. In this study was used the self-rated one. The tool has good psychometric properties (alpha = 0.90), positively correlated with measures of anxiety and depression (Garber et al. 1991). It may be used for screening or follow-up evaluations, both in educational and clinical context. In the present study, Cronbach's alpha was 0.89.

Ryff's Psychological Well-Being Scales (PWB). PWB – brief form (Ryff & Keyes, 1995) is an 18-item inventory that covers 6 areas of psychological well-being according to the eudaimonic perspective, postulated in Ryff's model (autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, self-acceptance). Children answer on a 6 point Likert scale (1 = This is not my case; 6 = I Totally agree). Each scale score may range from 0 to 18. A total PWB score has been also calculated by adding together the 6 dimensions' scores. In this study, an adapted version of this questionnaire was used, where items were selected according to their

relevance for a younger population and rephrased in order to become easier to understand. PWB was previously validated in an Italian population (Ruini, Ottolini, Rafanelli, Ryff, & Fava, 2003). The psychometric properties are good, with high inter-item correlations and a good test-retest reliability. PWB was used in a variety of studies with young samples, both in clinical and school settings (Ruini et al., 2006; Tomba et al., 2010; Vescovelli, Albieri, & Ruini, 2014). In the present study, Cronbach's alpha for the total scale was 0.62.

Storytelling task (only for the experimental group). The stories and fairytales created by children during the 4 sessions were scored using a consensus scoring system as defined by Hennessey and Amabile (1988). We followed the modified procedure suggested by Alexander (1994) and Mottweiler & Taylor (2014), which provides children the beginning of the story and ask them to finish it (see table 1, step 4). Two clinical psychologists, familiar with the areas of creativity and positive interventions, rated the stories on 5-point Likert-type scales (1 lowest, 5 highest) for Creativity, Imagination, Novelty, and Likability, the four variables that Hennessey and Amabile found to load highly on a Creativity factor for storytelling. Raters were not given specific criteria for rating the stories or anchor points for the rating scale, but were given brief definitions of the four variables and asked to rate the stories. Imagination was the amount of extra information included in the story beyond that provided in the pictures. Novelty was the unusualness or originality of the imaginative elements. Creativity was scored by examining the imaginative elements for both novelty and usefulness. Likability was rated on readability and the use of storytelling elements such as "once upon a time" or "all of a sudden." Interrater reliability was calculated using all 50 stories produced by the experimental group scored independently by two raters, not involved in the intervention. Interrater reliability was computed with a 2-way mixed model intraclass coefficient for consistency (ICCs) between the two independent raters. The average scores for the intraclass coefficients were .77 for Imagination, .73 for Novelty, .75 for Creativity, and .66 for Likability. These ICCs indicate moderate to good agreement between the two raters. In addition, reliability of the four scores was examined. Cronbach's alpha was .92, and deletion of individual variables would

have decreased the alpha coefficient. Given the good correlations among the four storytelling variables, a single overall storytelling creativity score was computed by averaging the four scores for use in additional analyses.

Statistical Analyses

The efficacy of the two interventions was compared using MANOVA repeated measure design. The “group allocation” (S-PNI vs control) represented the “between subject factors” while the “pre” “post ” assessment times represented the “within subject factor”. PWB, CTI, CSI and R-CMAS scale scores were the dependent variables. F values are reported in the result section and in the Tables 3 and 4. The efficacy of the two interventions was tested by examining the interaction effect between “group allocation” and “time”.

In the experimental group only, pre-post and 3 month follow-up assessments were performed. Differences according to time were evaluated with an ANOVA repeated measure, using contrast analysis between baseline score – post intervention and follow-up scores. The F values of these analyses are reported in Table 5.

The storytelling task was evaluated with an Univariate Analysis of Variance with the storytelling creativity score as dependent variable and emotional content of each session (fear, anger, sadness and happiness, see Table 1) as fixed factor (4 levels). A post-hoc Bonferonni test was performed.

The partial eta-squared (η^2_p), as a measure of effect size, was also calculated considering a value of .1 as a large effect, a value of .04 as a medium effect and a value of .01 as a small effect (Huberty, 2002). The significance level was set at $p < .05$. Analyses were conducted with the Statistical Package for the Social Sciences (SPSS), version 23.

Figure 1 (Intervention flowchart)

Results

Baseline comparison and socio-demographic characteristics

95 students attending five 4th grade classes were assigned to the S-PNI intervention group. Forty-eight (50.5%) were males and 47 (49.5 %) females. Their mean age was 9.16 years (SD =0.37). Seventy students attending four 4th and 5th grade classes were assigned to the control condition. Thirty-nine (55.7%) were males and 31 (44.3 %) females. Their mean age was 9.34 years (SD =0.63). At baseline the two experimental groups did not differ in any variables, but the Autonomy subscale of the PWB, where participants assigned to the S-PNI had a higher score ($F_{1, 156} = 15.761; p < 0.001$)

Study adherence

Two students assigned to the S-PNI were excluded from the protocol because they presented a learning disability and were not able to complete the assessment. Five students in the S-PNI group did not participate to the second assessment. At follow-up S-PNI group consisted of 88 students. (See Fig. 1).

Comparison between S-PNI and controlled condition

MANOVA repeated measures, considering time*group allocation interaction effect, showed significant differences for PWB (Wilks' Lambda = 0.863, $F_{6, 143} = 3.790$ $p = 0.002$, eta square = 0.137) in all subscales but Personal Growth (Table 2).

MANOVA repeated measures, considering time*group allocation interaction effect, showed significant differences for RCMAS (Wilks's Lambda = 0.801, $F_{4, 144} = 8.926$, $p < 0.001$, eta square = 0.199); CTI (Wilks's Lambda = 0.917, $F_{3, 151} = 4.577$ $p = 0.004$, eta square = 0.083) and CSI (See Table 3).

Effect of SPNI over time

The trajectory of improvements in the experimental condition was evaluated with a repeated measure procedure (baseline, post intervention and follow-up). Contrast analysis showed that S-PNI intervention improved PWB dimensions, but they did not reach the statistical significance (See table 4). Conversely, significant improvements in RCMAS (Wilks's Lambda = 0.738, $F_{8, 70} = 3.114$, $p = 0.005$, eta square = 0.262); in CTI (Wilks's Lambda = 0.818, $F_{6, 77} = 2.852$, $p = 0.015$, eta square = 0.182) and in CSI (Wilks' Lambda = 0.725; $F_{2,76} = 14.446$; $p < 0.001$ eta square = 0.275) emerged between baseline scores, post intervention and follow-up (see Table 4).

Storytelling task: Univariate Analysis of Variance revealed a significant main effect $F_{1,49} = 4.712$, $p = 0.006$, eta square = 0.235) when considering the emotional content addressed in each intervention session. In particular, the highest creativity scores emerged in stories focused on fear. At Bonferroni post-hoc test the storytelling creativity score in tales focused on the emotion of fear was significantly higher when compared to storytelling creativity scores for tales focused on anger and happiness (see Table 1).

Discussion

The main aim of this study was to test the efficacy of a school intervention based on a narrative approach for the promotion of children's creativity, well-being and positive emotions and to compare it to a control condition. This school-based intervention was effective in promoting well-being, in particular autonomy, environmental mastery, positive relations, purpose in life and self-acceptance, when compared to the control condition (Table 3). Furthermore, it decreased depressive, anxious and somatic symptoms, when compared to the control condition (Table 4). Importantly, it must be acknowledged that the two interventions were very similar in terms of length (4 sessions) and contents (fairy tales). The psychoeducational ingredient represented the main difference between the two conditions. This positive psychological ingredient consisted of the application of narrative strategies addressed at promoting positive emotions, eudaimonic well-being

dimensions (e.g., environmental mastery, autonomy, etc.) and creativity in elementary schoolchildren (Bauer & McAdams, 2010; Pluskota, 2014).

The advantages of using fairy tales and story telling in this intervention are numerous. First of all, participants know fairy tales' contents and structures well, since they are part of their cultural and academic background. Secondly, traditional fairy tales involve human characters, instead of animals or objects, who express various mental states and may have to face several problems. These narrative characteristics are in line with children preference (Barnes, & Bloom, 2014; Hohti and Karlsson, 2014; Ansell, 2016), since storytelling activities were found to stimulate children playfulness and creativity (Hoffmann & Russ, 2016; Fehr & Russ, 2016; Mottweiler & Taylor, 2014). Moreover, during the class intervention, children's personal memories and emotions were elicited in a more detached way through the reading and discussion of fairytales' contents. Schoolchildren were encouraged to manage negative emotions (fear, angry and sadness) with the aim of pursuing a final positive resolution (the "happy ending"). During these activities, participants had to analyze their obstacles to happiness and had to discover new ways for restoring positive feelings at the end of each session. Furthermore, schoolchildren reported that they enjoyed the possibility of choosing their own characters, the task's contents, and the successful conclusion of each narrative. Similarly, Ronfard, & Harris, (2014) documented that schoolchildren were able to build a dynamic representation of the protagonist's movements, his/her mental states, and his/her goal-directed thoughts. These narrative elements might have served as useful tools to explore and express children emotions and to develop more flexible problem-solving and personal skills (Baraldi, 2008; Verma and Verma, 1994; Hill, 1992; Ruini et al., 2017).

This narrative intervention included an active participation of children (the creation of a new fairytale based on their personal experiences), with the twofold aims of stimulating playfulness and creativity, and of finding new logical and causal connections between events (Glenn et al., 2013; Proyer, Wellenzohn, Gander, & Ruch, 2015; Ruini et al., 2015; Ruini et al., 2017; Shapiro & Hudson, 2011). Importantly, at the storytelling task, we observed a significant effect on the

storytelling creativity scores when considering the specific emotion that children were required to address (i.e., fear, anger, sadness and happiness). In particular, the fairytales created during the session focused on fear (the initial one) obtained the highest creativity scores, followed by those concerned with sadness and happiness, respectively (see table 1). This effect might be connected with the novelty of the activity (for the initial session focused on fear), or with children's familiarity with those specific emotions. Thus, the fairytales related to anger scored the lowest in terms of creativity, probably because of children's difficulties in recognizing and regulating this specific emotion (Rydell, Berlin & Bohlin, 2003).

These findings are in line with previous research documenting the important role of fairy tales in psychological interventions for children (Treadwell et al., 2011). For example Hohti and Karlsson (2014) used the Storycrafting method to facilitate children disclosure and interactions with peers. In their approach they asked children to invent a story starting with "once upon a time..", but they do not provide clues or structures to the children's narratives. Similarly, but with pre-school children, Mottweiler & Taylor, (2014) developed an intervention where they provided participants the beginning of a story and then evaluated children's creativity skills in inventing their own conclusions. In our investigation, we similarly asked children to build a narrative with the same starting point ("Once upon a time..") but we provided them only with Propp's structure (1968) in order to organize their narratives. In this way, fairy tales were effective in stimulating children's creativity (Mottweiler & Taylor, 2014) and in helping them to identify and use their personal resources and to assimilate the concept of eudaimonic well-being, which could be difficult to process because of its abstractness and multidimensional nature (Estola et al., 2014; Fattore et al., 2007; Gillett-Swan, 2017; Gillett-Swan and Sargeant, 2015).

The improvement of well-being yielded by our school intervention is in line with preliminary applications of positive narrative interventions performed with younger, adult and older populations (Albieri et al., 2009; Cesetti et al., 2017; Ruini et al., 2015) and that were delivered in group/school format (Ruini et al., 2017) or in individual settings (Vescovelli et al., 2017). Although

the S-PNI was focused on promoting well-being, it yielded significant improvements in symptomatology as well. These findings confirm previous literature showing complex correlations between well-being and symptom (Rafanelli & Ruini, 2011; Rafanelli et al., 2000; Ruini, Ottolini, Rafanelli, Tossani, et al., 2003). As a result, improvements in well-being may induce a decrease in distress and vice versa. A similar trend of results was recently found by Burckhardt et al. (2016) who applied a school program (Strong Minds) that combined positive psychology and acceptance and commitment therapy (ACT) for the promotion of mental health in high school students. They found that students reported increased well-being and reduction in depression, anxiety and stress after intervention. Authors concluded that these improvements might be due to the teaching of emotion regulation techniques during the school program. Even though our school program was addressed to younger children, we obtained similar results in terms of well-being, distress and emotion regulation. Importantly, these improvements were maintained over time. In fact, it emerged that well-being scores were found to be stable at the three month follow-up. Conversely, distress symptoms resulted to be further improved at the follow-up. These improvements pertained to all of the symptoms that were investigated (anxious, depressive and somatic) (see Table 5) and could indicate the development of a better emotion regulation in the experimental group.

The maintenance of PWB scores at the follow-up may be related to the fact that PWB tends to be stable over the course of time (Ryff, 2014). Accordingly, longer interventions (more than 4 sessions) with longer follow-ups could have allowed detecting further PWB improvements. Alternatively, the maintenance of PWB scores could depend on the sensitivity of the questionnaire we used (PWB). In fact, we used an adapted version of Ryff's PWB scales that was modified and applied in young populations (Vescovelli et al., 2014). Fattore et al. (2007) criticized this adult-centered evaluation of children's well-being and suggested to use specific measures tailored to children's perspectives. However, to the best of our knowledge, few assessment tools for measuring eudaimonic well-being within children populations do exist (Brandel et al., 2017).

This study has some limitations due to its preliminary nature. First, the number of sessions (4 only) that was limited because of a pre-existing school academic schedule. Secondly, the sample characteristics must be mentioned. Only students whose teachers were willing to have the clinical psychologists in their classroom were assigned to the experimental condition. Thus, a self-selected sample of schoolchildren and teachers received the school program. However, at baseline, the two groups (S-PNI and controls) did not present any significant difference, except for PWB autonomy. Moreover, our sample was very homogeneous by cultural and sociodemographic characteristics. Schoolchildren presented no particular physical or mental problems (students with learning disabilities were excluded) and no ethnic minorities were involved. These issues limit the generalizability of findings. Another concern regards the lack of measures of fidelity of implementation (i.e., recording school sessions), which were not feasible because of the ecological nature of the study. Finally, the assessment of well-being and distress included only self-rating scales. Semi-structured interviews or other qualitative tools could have allowed to detect more changes, especially within children's well-being domains (Estola et al., 2014; Gillett-Swan, 2017). Observer-rated measures were used only for assessing creativity. However, the two raters assessed the final fairytales, which were created by small groups of children. Therefore, creativity was not assessed individually.

Despite the above-mentioned limitations, the study has important educational and preventive implications in terms of global policy related to childhood. The efficacy of this school intervention on children's well-being, creativity and distress suggests that narrative interventions performed in class could represent useful strategies considering the high prevalence of distress (Ginsburg et al., 2006) and low well-being among children (Keyes, 2006).

The importance of promoting children's well-being and positive psychological resources as environmental mastery, problem solving, and sense of autonomy at early stage of development might have long term beneficial effects (Carter et al., 2016; Proctor et al., 2009; Proctor et al., 2011 ; van der Kaap-Deeder, et al., 2017). For instance, the presence of well-being among children was

associated with midlife well-being, lower risk of future emotional problems, more future work satisfaction, and more engagement in social activities and relationships (Bach & Guse, 2015; Bauer & Mc Adams, 2010; Keyes et al., 2010; Keyes, 2006; Richards & Huppert, 2011). Accordingly, children well-being and a positive development may predict adult well-being, and not merely the absence of mental disorders (Bach & Guse, 2015; Keyes et al., 2010; Keyes, 2006; Richards & Huppert, 2011).

In addition, the present school intervention used a methodology shared by other school psychoeducation interventions, where the involvement of schoolteachers was crucial (Noble & McGrath, 2008; Shoshani & Steinmetz, 2014, 2016). Schoolteachers may act as important facilitators for promoting students' well-being (Hohti and Karlsson, 2014; van der Kaap-Deeder et al., 2017). Furthermore, schoolteachers already possess a specific academic training on fairy tales' narrative contents. Thus, teachers would only require an additional training on positive education or on specific dimensions of eudaimonic well-being in order to be able to apply this intervention on a larger scale (White & Waters, 2015; Shoshani et al., 2014; 2016). Thus, our school positive narrative intervention has a potential for further dissemination in schools. Considering the long-term benefits of creativity and of well-being for mental and physical health (Ryff, 2014, 2018), and considering the paucity of interventions for their promotion in younger populations (Brandel et al., 2017; Ruini et al., 2009; Gillet-Swans, 2017), this school positive narrative intervention may have important preventive social implications. It consisted of 4 sessions only, but it was able to yield improvements both in well-being, creativity and in distress, when compared to the control condition. Importantly, these improvements persisted after three months.

Future research with larger, more heterogeneous samples of schoolchildren and longer follow-up are necessary to confirm the efficacy of this school positive narrative intervention in improving well-being, fostering creativity and decreasing children's psychological distress.

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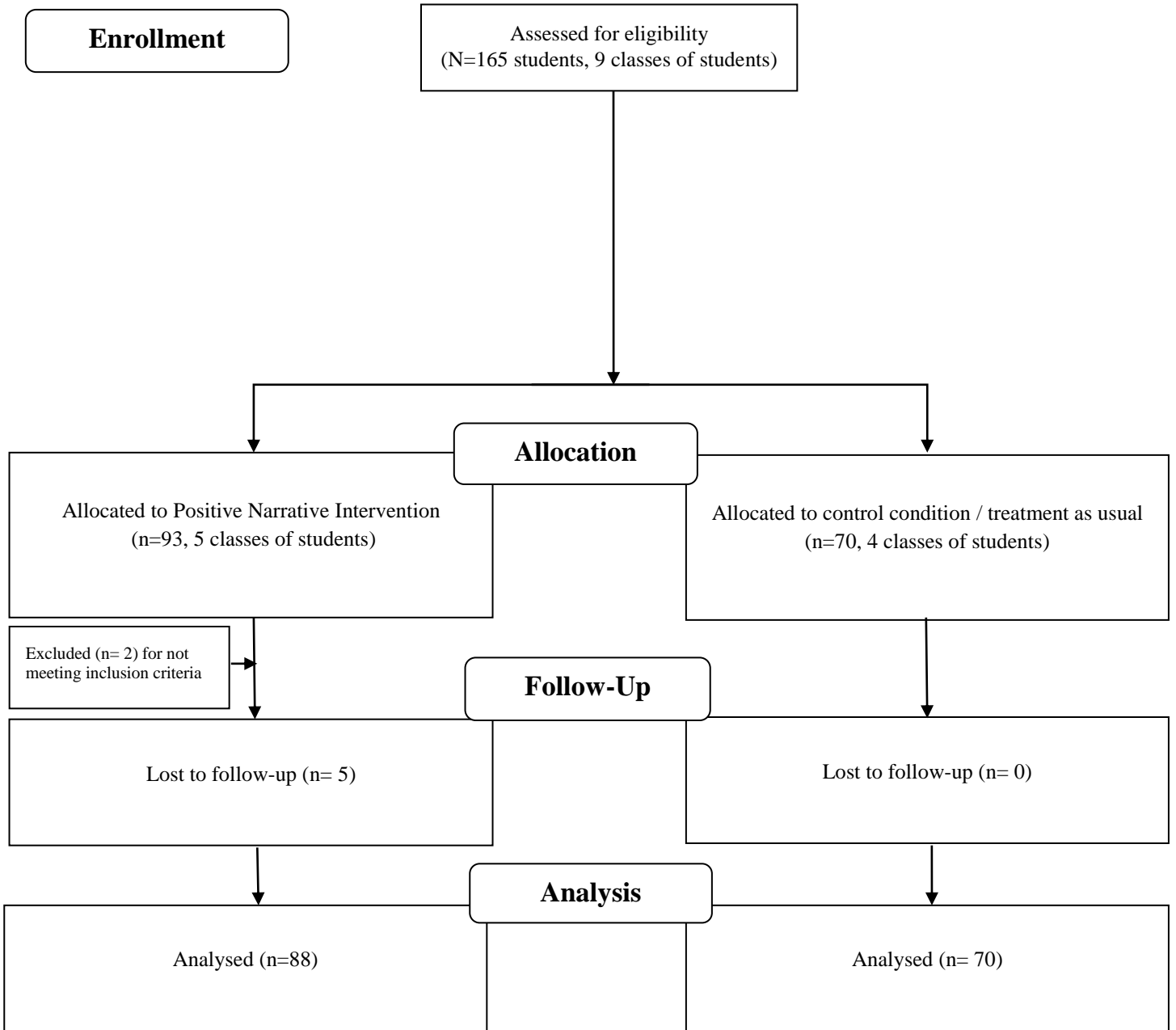


Figure 1. Intervention Flowchart Diagram

Table 1. Protocol description “School-Positive Narrative Intervention”

	Session 1	Session 2	Session 3	Session 4		
Emotion	Fear	Anger	Sadness	Happiness		
Fairy tale	“The Prince who feared nothing”, from the Grimm Brothers	“He who first gets angry”, from Italian folklore	“The wild swans”, from H. C. Andersen	“The unsmiling princess”, from A. N. Afanas’ev (Russian folklore)		
Step 1	Reading of the fairy tale	Reading of the fairy tale	Reading of the fairy tale	Reading of the fairy tale		
Step 2	Discussion of the fairy tale’s narrative plot	Discussion of the fairy tale’s narrative plot	Discussion of the fairy tale’s narrative plot	Discussion of the fairy tale’s narrative plot		
Step 3	Group discussion on memories and situations associated with fear	Group discussion on memories and situations associated with anger	Group discussion on memories and situations associated with sadness	Group discussion on memories and situations associated with happiness		
Step 4	Creation of a new group fairy tale with a focus on overcoming fearful situations	Creation of a new group fairy tale with a focus on overcoming situations that trigger anger	Creation of a new group fairy tale with a focus on overcoming sad situations	Creation of a new group fairy tale with a focus on promoting daily situations associated with happiness		
Storytelling creativity score	M (SD)	M (SD)	M (SD)	M (SD)	F	η^2
	2.6 (0.8)	1.8** (0.5)	2.3 (0.8)	1.9* (0.6)	4.712	.235

Bonferroni post hoc *p < 0.05, **p < 0.01

Table 3. Differences pre-post interventions between the two groups in PWB

	Pre-intervention		Post-intervention		F	Effect size
	S-PNI (<i>n</i> =93)	CC (<i>n</i> =70)	S-PNI (<i>n</i> =88)	CC (<i>n</i> =70)		
	M (SD)	M (SD)	M (SD)	M (SD)		
PWB Autonomy	13.75 (3.38)	11.73 (3.22)	14.09 (3.06)	10.80 (3.62)	5.089*	0.033
PWB Environmental Mastery	13.90 (2.91)	14.00 (2.59)	13.73 (2.97)	12.94 (3.23)	4.161*	0.027
PWB Personal Growth	12.90 (3.26)	12.44 (3.08)	12.66 (2.92)	11.67 (2.99)	1.203	0.008
PWB Positive Relations	13.49 (3.71)	13.46 (3.59)	13.78 (3.68)	12.57 (3.91)	4.915*	0.032
PWB Purpose in Life	15.20 (3.35)	15.14 (2.62)	15.61 (3.03)	14.49 (2.57)	5.880*	0.038
PWB Self-Acceptance	13.29 (3.29)	12.69 (3.00)	13.85 (3.57)	11.09 (3.34)	17.595**	0.106
PWB Total	82.53 (13.81)	79.46 (11.11)	83.71 (13.53)	73.56 (13.14)	19.576**	0.117

Note: * $p < 0.05$ ** $p < 0.01$; PNI = Positive Narrative Intervention; CC= Controlled condition; PWB= Psychological well-being scales.

Table 4. Differences pre-post interventions between the two groups in RCMAS, CTI and CSI

	Pre-intervention		Post-intervention		F	Effect size
	S-PNI (n=93)	CC (n=70)	S-PNI (n=88)	CC (n=70)		
	M (SD)	M (SD)	M (SD)	M (SD)		
RCMAS Physiological Anxiety	4.44 (2.12)	3.81 (2.00)	3.84 (2.21)	4.70 (2.08)	26.931**	0.155
RCMAS Worry	4.73 (2.68)	5.16 (2.72)	4.20 (2.70)	5.80 (2.84)	12.303**	0.077
RCMAS Concentration	2.19 (1.83)	1.93 (1.81)	1.73 (2.00)	2.23 (1.91)	16.036**	0.098
RCMAS Lie	3.29 (2.47)	4.10 (2.61)	2.86 (2.28)	3.67 (2.58)	0.000	0.966
RCMAS Total Anxiety	11.30 (5.55)	10.90 (5.42)	9.65 (5.89)	12.73 (5.94)	33.896**	0.185
CTI-C Self	5.74 (4.59)	5.54 (4.32)	5.14 (4.09)	6.51 (4.36)	11.885**	0.072
CTI-C World	5.75 (3.95)	6.31 (3.03)	6.06 (3.90)	7.09 (3.57)	0.966	0.006
CTI-C Future	6.08 (3.80)	6.69 (2.89)	6.07 (4.28)	7.49 (3.01)	3.412	0.022
CTI-C Total	17.58 (10.72)	18.54 (8.23)	17.27 (10.60)	21.09 (9.17)	8.410**	0.052
CSI	18.91 (15.10)	21.10 (15.12)	14.01 (14.0)	23.69 (15.69)	24.148**	0.141

Note: *p< 0.05 **p< 0.01; PNI = Positive Narrative Intervention; CC= Controlled condition; RCMAS=Revised Children's Manifest Anxiety Scale; CTI-C=Cognitive Triad Inventory for children; CSI=Children's Somatization Inventory.

Table 5. Differences pre-post-follow-up within the experimental sample (School-Positive Narrative Intervention)

	Pre (M/SD) (N=93)	Post (M/SD) (N=88)	FU (M/SD) (N=88)	F ^a (post)	F ^a (FU)
PWB Autonomy	13.77 (0.38)	14.08 (0.35)	14.02 (0.33)	0.537	0.415
PWB Environmental Mastery	13.88 (0.32)	13.69 (0.32)	13.77 (0.32)	0.358	0.066
PWB Personal Growth	12.89 (0.37)	12.63 (0.32)	13.38 (0.31)	0.493	1.637
PWB Positive Relations	13.47 (0.42)	13.74 (0.41)	14.02 (0.36)	0.361	2.042
PWB Purpose in Life	15.17 (0.37)	15.58 (0.33)	15.74 (0.31)	1.382	2.443
PWB Self-Acceptance	13.28 (0.37)	13.82 (0.40)	13.92 (0.40)	1.722	2.825
PWB Total	82.44 (1.55)	83.54 (1.48)	84.84 (1.40)	0.699	3.327
RCMAS Physiological Anxiety	4.44 (0.24)	3.86 (0.25)	3.57 (0.25)	6.006*	11.670**
RCMAS Worry	4.74 (0.304)	4.21 (0.31)	3.98 (0.33)	3.361	7.671**
RCMAS Concentration	2.19 (0.21)	1.74 (0.23)	1.63 (0.20)	8.858**	11.156**
RCMAS Lie	3.29 (0.28)	2.87 (0.26)	2.85 (0.28)	2.722	3.123
RCMAS Total Anxiety	11.37(0.63)	9.80 (0.67)	9.18 (0.66)	9.123**	16.594**
CTI-C Self	5.81 (0.50)	5.18 (0.44)	4.77 (0.50)	3.233	6.921*
CTI-C World	5.76 (0.43)	6.07 (0.42)	5.14 (0.42)	0.680	2.029
CTI-C Future	6.08 (0.41)	6.11 (0.45)	4.96 (0.44)	0.005	7.236**
CTI-C Total	17.66 (1.16)	17.36 (1.12)	14.88 (1.13)	0.151	8.941**
CSI	18.91 (1.71)	14.01 (1.58)	12.01 (1.37)	16.997**	28.264**

Note: ^a F values for within subject contrast analysis between baseline scores -post intervention-and follow-up scores; *p< 0.05 **p< 0.01;

PWB= Psychological well-being scales; RCMAS=Revised Children's Manifest Anxiety Scale; CTI-C=Cognitive Triad Inventory for children; CSI=Children's Somatization Inventory.

Table 2 Correlation matrix in the total sample Scores before intervention are reported above the diagonal and scores after intervention are reported below the diagonal

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1.RCMAS Lie	-	-,265**	-,148	-,210**	-,221**	-,266**	-,0145	-,0113	-,217**	-,191*	-,0009	0,078	,161*	0,063	,228**	0,092	,170*
2.RCMAS Physiological Anxiety	-,0155	-	,488**	,508**	,785**	,446**	,466**	0,152	,433**	,374**	-,0154	-,0154	-,285**	-,371**	-,227**	-,191*	-,370**
3.RCMAS Worry	-,163*	,620**	-	,612**	,878**	,545**	,566**	,362**	,593**	,478**	-,383**	-,224**	-,387**	-,512**	-,247**	-,333**	-,540**
4.RCMAS Concentration	-,0099	,556**	,616**	-	,820**	,629**	,536**	,340**	,611**	,433**	-,343**	-,365**	-,326**	-,477**	-,335**	-,371**	-,571**
5.RCMAS Total Anxiety	-,166*	,840**	,902**	,821**	-	,637**	,631**	,349**	,651**	,516**	-,368**	-,301**	-,412**	-,569**	-,318**	-,354**	-,603**
6.CTI-C Self	-,168*	,431**	,468**	,602**	,575**	-	,579**	,548**	,870**	,450**	-,355**	-,441**	-,323**	-,418**	-,475**	-,407**	-,605**
7.CTI-C World	-,196*	,440**	,492**	,636**	,601**	,631**	-	,565**	,838**	,477**	-,283**	-,382**	-,233**	-,475**	-,373**	-,399**	-,544**
8.CTI-C Future	-,0070	,322**	,394**	,368**	,425**	,593**	,552**	-	,817**	,300**	-,158*	-,315**	-,265**	-,333**	-,401**	-,431**	-,481**
9.CTI-C Total	-,171*	,467**	,529**	,629**	,627**	,880**	,847**	,832**	-	,491**	-,328**	-,462**	-,332**	-,490**	-,507**	-,489**	-,657**
10.CSI	-,0060	,544**	,501**	,367**	,556**	,384**	,432**	,243**	-,0060	-	-,285**	-,189*	-,323**	-,383**	-,299**	-,348**	-,469**
11.PWB Autonomy	0,068	-,476**	-,573**	-,524**	-,616**	-,425**	-,481**	-,369**	-,498**	-,412**	-	,250**	,163*	,376**	0,140	,290**	,581**
12.PWB Environmental Mastery	0,134	-,313**	-,328**	-,403**	-,401**	-,325**	-,456**	-,353**	-,440**	-,242**	,309**	-	,209**	,383**	,330**	,400**	,637**
13.PWB Personal Growth	,161*	-,266**	-,347**	-,276**	-,352**	-,316**	-,255**	-,259**	-,326**	-,292**	,325**	,245**	-	,332**	,320**	,352**	,600**

14. PWB Positive Relations	,165*	-,482**	-,564**	-,627**	-,647**	-,509**	-,647**	-,473**	-,634**	-,343**	,500**	,433**	,335**	-	,363**	,414**	,746**
15. PWB Purpose in Life	0,022	-,269**	-,222**	-,309**	-,304**	-,360**	-,462**	-,514**	-,517**	-,262**	,352**	,323**	,226**	,439**	-	,463**	,655**
16. PWB Self-Acceptance	-0,030	-,426**	-,425**	-,430**	-,497**	-,510**	-,534**	-,534**	-,615**	-,363**	,556**	,418**	,261**	,489**	,565**	-	,732**
17. PWB Total	0,121	-,542**	-,599**	-,623**	-,685**	-,589**	-,683**	-,596**	-,727**	-,460**	,744**	,638**	,552**	,777**	,676**	,797**	-

* Note: *p< 0.05 **p< 0.01; RCMAS=Revised Children's Manifest Anxiety Scale; CTI-C=Cognitive Triad Inventory for children; CSI=Children's Somatization Inventory.