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Does Art Expression Help Mood Regulation?

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Abstract

Artistic creation can be used to give meaning to experiences or to express emotions thus providing some kind of relief and way to regulate emotions. In the context of using art as mood regulation and emotion expression, it is important to emphasize emotion regulation strategies such as distraction (shifting attention to artistic activities) and venting (expression of negative emotions). The aim of this study was to determine the effect of different art tasks on mood. Participants in this study (N=64) were distributed into four groups. All of them were exposed to negative mood induction, by watching the video clip. After that, positive and negative mood levels were measured. Subsequently, the first group produced artwork on what they experienced while watching the video (venting), the second group produced artwork on what makes them happy (positive distraction), the third group drew a stopwatch (neutral distraction) and the fourth group solved a labyrinth task (control). Participants' mood levels were measured again. Results have shown statistically significant mood improvement in the positive affect within the positive distraction group as opposed to the expressive and non-art i.e. control group. Significant mood improvement in the negative affect was detected within the neutral distraction group in comparison to the control group. Qualitative analysis of art works produced in positive distraction and venting group has shown content differences. All participants in the positive distraction group depicted concrete content, while there was an equal amount of abstract and concrete content types in the venting group artworks. Artworks in the venting groups were evaluated as more mature in developmental level, while artworks produced in positive distraction group were estimated as those with higher line quality and that participants took more effort and paper space for their realization. The results of this research confirm that art expression, in this case visual, affects the emotional state of the individual, which opens the possibility of its use in clinical, but also everyday purposes.

Keywords: art expression, mood, emotion regulation, distraction, expression

Introduction

For many years, characteristics of art and its influence on mankind are surprising and still remain somewhat obscure. Whether it is by color, shape, stone, verse or sound, it evokes different responses. From the basic bodily reactions such as heartbeat acceleration and deceleration or blood pressure change to deep emotional experiences. Experiencing art is complex and specific and it includes primary anthropological sensitivity for colors and shapes. This includes elementary aspects of the work, such as position and line character, psychological influence of color, contrast etc., but basic emotions such as fear, joy, anger and sadness as well (Pivac, 2013).

Since art expression includes touch, smell and other senses within the artistic experience, it represents a natural and sensory way of expression (Malchiodi, 2003). Drawing and other artistic endeavors activate the expression of sensory memories in a way that cannot be achieved by methods such as verbal interviews. Malchiodi (2001) suggests that emotional experiences, especially traumas, are encoded in our limbic system as a sensory reality so they should be worked through. Since those experiences can be expressed through art using a diversity of materials, it can be used as a powerful intervention for people that are dealing with different emotional difficulties. The most frequently used tasks are drawing sessions, where a person can draw an event that provoked a strong emotional response. These and similar techniques of art expression (e.g. clay modelling) have shown great success in reviving sensory memories and verbalizing unconscious or difficult emotional experiences while reducing their long-term effects (Steele, 1997).

Like in any field it is important to define key dependent variables, which in this case are emotions, affect and mood. Emotions are short and conscious experiences defined by an intense mental activity with a high degree of pleasure or discomfort (Cabanac, 2002; Reeve, 2010), while mood is described as less specific, less intensive with longer duration and often with no apparent cause (Scherer, 2000). Beck (2003) states that mood is part of a larger category represented by affect, and accordingly, the terminology of affect in this research is related to mood.

According to Larsen and Prizmic (2004), people on a daily basis, in a variety of ways, try to influence their mood or affective states, whether they want to maintain or change them, most often increasing the positive mood or lowering the negative. Gross (1999) proposed a process model of emotion regulation which presents two elementary ways of regulation where the first is antecedent-focused (regulation before the emotional response) and the second is response-focused (regulation after the emotional response). Antecedent-focused regulation includes situation selection, situation modification, attention redirection and cognitive change while the response-focused regulation includes reaction modulation such as changing behavioral responses and subjective perception (Gross, 1999; Gračanin, 2005).

In the context of using art in improving mood and expressing emotions, it is important to emphasize the process of redirecting attention because artistic expression is what attention can be redirected to. At the core of this process is the ability to redirect attention to the desired aspect of the situation so that it is possible to change the emotional response even after the situation has been selected and modified (Gross, 1999). Distraction regulation strategy has proved to be useful in dealing with very intense emotional stimuli (Sheppes, Scheibe, Suri & Gross, 2011) and in lowering negative affect in depressive patients (Nolen-Hoeksema, Wisco & Lyubomirsky, 2008). Focus as a type of attention redirection can also be used in the context of artistic expression, e.g. making artwork (Gross, 1999).

Venting (emotion expression) is another strategy that is crucial for artistic expression. This is the strategy on which the idea that art can help with emotional pain or discomfort is based (Dalebroux, Goldstein & Winner, 2008). Researchers Lischetzke and Eid (2003) suggest that venting strategies such as artistic expression can help in improving mood by lowering negative affect after a period of time. However, it

should be noted that this strategy may not work well for short-term mood improvement since the person venting is dealing with those negative emotions throughout the whole process.

Distraction and venting have been tested in various art and mood related research experiments (Dalebroux et al., 2008; Pennebaker & Beall, 1986; Balkie & Wilhelm, 2005; Chan & Horneffer, 2006). De Petrillo and Winner (2005) tested the effects of artistic expression on short-term mood improvement. Those participants who drew expressively had a significant mood valence improvement. In a similar research by Dalebroux et al. (2008), subjects used venting and distraction to deal with negatively induced mood, while the control group searched for symbols. Those who were in the venting group produced work typically expressing sadness by drawing storms, withered plants etc., while those who were using positive distraction drew sun and flowers, as typical examples of expressing happiness. However, results did not show a short-term mood improvement. The tasks did not lower or intensify negative affect, but effect was detected in mood valence. The authors suggested that, in short term, artistic expression is most effective in lowering negative affect when positive artwork content is created (positive distraction strategy). Creating positive content allows a person to escape to a more pleasant imaginary situation (Dalebroux et al., 2008). Cognitive strategies such as reinterpretation or situation re-evaluation in terms of a positive situation outlook, lead to positive outcomes (Gross, 1999), while negative outcomes can often be related to rumination - focused attention on the symptoms of one's distress (Dalebroux et al., 2008). Lischetzke and Eid (2003) propose that as long as we are competent in emotion regulation, attention redirection can perhaps be the most successful strategy, while ruminating (focusing on emotions) can prolong negative mood effect.

As previously implied, the effect of visual artistic expression on emotional state is more than apparent. Using findings in psychology of emotional experience and combining emotion regulation strategies with artistic expression, the research has shown a wide range of results. A common link to most research findings is that artistic expression can regulate emotional state under certain conditions. It can be effective as a distraction in short-term mood improvement, but has long-term beneficial effects as a part of a psychotherapy process.

Finally, shifting the attention towards a product of the artistic expression can give us better insight into person's emotional status. Nevertheless, this can be challenging since interpretations of such products are burdened with subjectivism. When it comes to products of visual expression several scales for their estimation have been constructed. One of the most commonly used is *The Formal Elements Art Therapy Scale* (FEATS, Gantt and Tabone, 1998). Analysing technique (Taylor, 2004), motive depiction (Dalebroux et. al., 2008; Malchiodi, 2003) or color prominence (Gladding, 1997) of artworks in general, and when used as a therapy method, can be used in an attempt to explain mechanisms by which creating visual art may serve as mood modulator.

Guided by previous methodological designs and their shortcomings, this study will try to differentiate effects of expression task (focusing on perceived emotions through artistic expression), positive distraction (focusing on generally positive emotions through artistic expression), neutral distraction (drawing default cases) and the control task (solving labyrinths, the only task that does not include visual expression) to mood change. The use of these tasks enables the differentiation of the effects that different functions of visual expression (in terms of (non) emotional orientation) have on the mood. Furthermore, in this study qualitative approach is also used for the purpose of exploring the relationship between artistic aspects of works (such as abstractness / content concreteness, line quality, maturity...) and the mood they represent.

Material and method

Participants

Participants in this study were sixty-four students from the University of Zadar that were assigned into four groups (sixteen in each group; half of them were man and half women). Their age ranged from 18 to 29 years and the analysis showed no significant difference in age between participants in all four groups ($F(3,60)=0.47, p=.72$).

Instruments

A seven minute-long video clip was used to induce negative mood. The clip was a part of an HBO documentary film from 1996 called *Letting Go: A Hospice Journey* and it showed an eight-year-old boy Michael Merseal Jr. dying from a brain disease in his hospital bed.

As a measure of mood, *The Positive and Negative Affect Schedule (PANAS, Watson, Clark & Tellegen, 1988)* was used. PANAS measures positive and negative affect where participants have to estimate to what extent twenty adjectives describe their current emotional state on a scale of 1 (*Very slightly or not at all*) to 5 (*Extremely*). The scale consists of ten adjectives for each affect type such as *interested* or *excited* for positive affect and *nervous* or *ashamed* for negative affect. Scoring is done by summing up the ten adjective estimates for the positive affect (PA), and the other ten for the negative affect (NA). A larger sum of estimates on the scale of a certain affect signifies higher levels of a particular affect, and vice versa, a smaller sum of estimates on the scale of a particular affect indicates lower levels of a specific affect. PANAS, used frequently in affect research studies, showed good psychometric properties such as high reliability (PA $\alpha=.73-.89$, NA $\alpha=.71-.85$; Crawford & Henry, 2004) and good construct validity (Crawford & Henry, 2004; Schimmack, 2003). In this research PANAS was applied two times. For the first use (before drawing or solving the labyrinths) Cronbach α for PA was .77 and for NA was .83. For the second use (after drawing or solving labyrinths) reliability was also high. Cronbach α for PA was .80 and for NA was .86.

Participants were also supplied with A3-size drawing paper, graphite pencils, erasers, colored pencils, pastels, acrylic paints, brushes, colored papers for collage, scissors and paper glue.

Depending on the group, participants were assigned with art or non-art tasks. The first three groups worked on art tasks. The venting strategy group had to artistically express experienced negative emotions induced by the video, the positive distraction strategy group had to draw what makes them happy, while the neutral distraction strategy group had to draw a neutral object (stopwatch). The fourth (control) group of participants had to solve twelve labyrinths on paper that were generated on www.mazegenerator.net. We chose solving labyrinths to represent control situation for few reasons. The control task certainly should not include artistic expression (of any kind, not just visual). Furthermore, during the performance of this task, the subjects were not allowed to be emotionally engaged. It would be best if the respondents were not doing anything, i.e. they were relaxed, but then it would be impossible to control the flow of their thoughts (which could include an emotional component). Considering these reasons, the choice fell on labyrinth tasks. It was decided to use simple labyrinths to eliminate possible frustrations that could occur if they were solving complex examples, which could undermine the participant's mood. The time for task completion in all four groups was not limited.

To assess the elements of the produced artwork in venting and positive distraction group *The Assessment Scale of Artwork Elements (ASAE)* was constructed. The scale consists of eight subscales based on *The Formal Elements Art Therapy Scale (FEATS, Gantt & Tabone, 1998)*. The original FEATS scale consists of fourteen subscales. Since it is applicable to works of art, not just artworks within art therapy, the authors

of the original scale propose its modification with regard to researchers' needs. For the purposes of this research, six subscales were selected from the original FEATS scale:

- a) *Prominence of color* – use of color in the artwork
- b) *Implied energy* – degree of effort involved in the making of the artwork
- c) *Line quality* – overall line quality and control the artist exercised
- d) *Developmental level* – maturity of the artwork and the way motifs were depicted
- e) *Details of object and environment* – artwork complexity based on the task
- f) *Space* – how much paper space is used while producing the artwork

Modelled by research findings on artwork content and emotion expression in art therapy domain (Malchiodi, 2003; De Zan, 2013), two more subscales were added:

- g) *Abstract/Concrete* – whether the content has more abstract or concrete elements
- h) *Emotion expression* – estimate of how well the emotion was expressed based on the task

Each subscale had one item. In the case of the *Abstract/Concrete* subscale the evaluator had to decide whether the artwork content was more abstract (A) or concrete (C) and for *Prominence of colour* had to write what colour was predominantly used in the presented artwork.

For all other subscales estimations are done on 5 point scale. A higher value indicates a higher expression of certain properties. For *Space* each value on 5 point scale has a precise description (1 - less than 25%; 2 - between 25% and 49%; 3 - between 50 % and 74 %; 4 - between 75% and 99%; 5 - 100%).

For others only the extremes are described: *Implied energy* (1 - artwork was produced with the least amount of effort, 5 - artwork was produced with a great amount of effort), *Line quality* (1 - lines are broken, damaged, rough and hasty, 5 - lines are fluid, strong, continuous and controlled), *Developmental level* (1 - very infantile and immature, 5 - very mature and sophisticated), *Details of object and environment* (1 - the artwork is very simple with minimal details, 5 - the artwork is very complicated with a large number of details), *Emotion expression* (1 - the artwork does not seem to convey any expressed emotions and/or task completion, 5 - emotions are fully expressed based on the task that was given).

Procedure

The research was conducted in June, September and October 2017 in the laboratory for experimental psychology of the Department of Psychology at the University of Zadar. The participants were randomly assigned into four groups (venting, positive distraction, neutral distraction and control group). The first part of the procedure, inducing negative mood by watching the video, was the same for all participants. They were informed about the nature of the video prior to watching and had the liberty to withdraw at any given moment if the content of the video affected them too much. None of the participants has given up on participating in the research. The Ethics Committee of the Department of Psychology at the University of Zadar has approved the conducting of this research. After watching the video clip, PANAS was administered to measure mood levels. This was followed by performing one of the tasks, depending in which group they belonged to. At the end, respondents filled the PANAS scale for the second time.

In second part of study 58 evaluators, fifty-eight psychology students from the Department of psychology at the University of Zadar qualitatively evaluated artworks produced in venting and positive distraction group using ASAE.

Results

Mood changes as a function of art

The first step in the data analysis was to check whether the participants were balanced in mood levels before task intervention. Two one way ANOVAs were used, one for positive affect ($F(3,60)=0.55, p=.647$), and the other one for negative affect ($F(3,60)=0.45, p=.715$). Since participants were randomly assigned to different groups we expected no differences which these analysis confirmed.

As the dependent variable we used mood change which was operationalized as improvement in mood, to emphasize the same direction (decrease in negative and an increase in positive affect). Improvement in positive affect is calculated as 'the mood level after the intervention task' minus 'the mood level before the intervention task'. Conversely, improvement in negative affect is calculated with the opposite sign. This means lower mood later implies greater improvement. Descriptive statistics of these two dependent variables are shown in Table 1.

Table 1 Descriptive statistics for differences in positive affect (PA) and negative affect (NA) for every group

Group	Mood change	<i>M</i>	<i>SD</i>	Max D	Skewness	Kurtosis
Venting	diff PA	5.25	5.59	0.118	0.029 (0.564)	-0.815 (1.091)
	diff NA	8.13	7.33	0.239	1.440 (0.564)	2.119 (1.091)
Positive distraction	diff PA	11.44	5.49	0.166	0.241 (0.564)	0.650 (1.091)
	diff NA	9.13	5.89	0.138	0.555 (0.564)	1.172 (1.091)
Neutral distraction	diff PA	8.06	6.44	0.146	0.283 (0.564)	0.033 (1.091)
	diff NA	11.06	4.55	0.112	-0.032 (0.564)	0.011 (1.091)
Control	diff PA	4.31	6.13	0.149	1.628 (0.564)	3.794 (1.091)
	diff NA	5.25	4.28	0.138	0.321 (0,564)	-0.444 (1.091)

Note. diffPA – difference between positive affect before and after intervention
 diffNA – difference between negative affect before and after intervention
 - in brackets are given standard errors of skewness and kurtosis

The values of the above parameters suggest that the assumptions for using parametric tests have been satisfied (Kline, 2011).

To check whether intervention of any kind i.e. no matter of type of task, led to mood levels change t-tests for one sample were used (Table 2). Results showed that there was a significant change in the mood in all four groups so the next question is related to magnitude of that differences.

Table 2 Results of t-tests of mood change in the four groups

Group	Mood change	<i>t</i>	<i>df</i>	<i>p</i>
Venting	diff PA	3.76	15	.002
	diff NA	4.43	15	.000
Positive distraction	diff PA	8.33	15	.000
	diff NA	6.20	15	.000

Neutral distraction	diff PA	5.00	15	.000
	diff NA	9.72	15	.000
Control	diff PA	2.81	15	.013
	diff NA	4.90	15	.000

Note. diffPA – difference between positive affect before and after intervention;
diffNA – difference between negative affect before and after intervention

Therefore, two one-way ANOVAs were conducted on mood differences, one for positive ($F(3,60)=4.68, p=.005$) and the other one for negative mood ($F(3,60)=2.95, p=.040$), taking into account the group of participants. The analysis confirmed the group i.e. the tasks effects on mood change, positive and negative. When it comes to enhancement in positive affect, greater improvement has occurred in the positive distraction group in relation to the venting and control group (Table 3, Figure 1). For negative affect significant mood improvement was detected in the neutral distraction group compared to control group (Table 3, Figure 1).

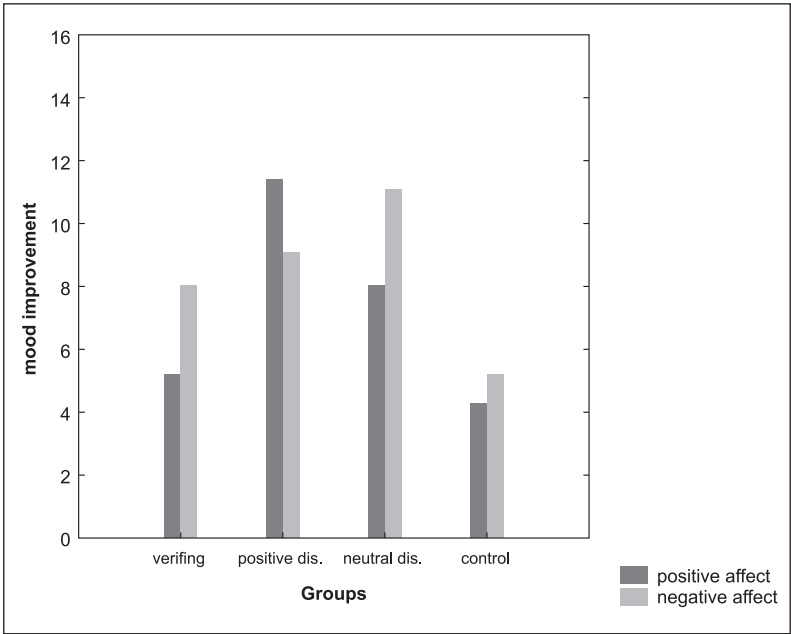


Figure 1 Mood change values in different groups

Table 3 Fisher LSD test of mood change in positive and negative affect

Group	Positive affect				Negative affect			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Venting (1)		.004	.185	.656		.618	.146	.155
Positive distraction (2)	.004		.112	.001	.618		.335	.057
Neutral distraction (3)	.185	.112		.079	.146	.335		.005
Control (4)	.656	.001	.079		.155	.057	.005	

Content analysis of the produced artwork

In the second part of the research a qualitative-quantitative analysis was conducted. There were fifty eight evaluators, psychology students from the Department of psychology at the University of Zadar. Thirty two visual products were rated, 16 from venting and 16 from positive distraction group. Products were rated on *The Assessment Scale of Artwork Elements*.

For six ASAE subscales, those which do not include nominal data, interrater agreements are calculated (Table 4).

Table 4 *Interrater reliability on ASAE subscales for produced artwork in venting and positive distraction group*

Subscale	Group	
	Venting	Positive distraction
Implied energy	.552	.546
Space	.809	.806
Line quality	.499	.451
Emotion expression	.307	.349
Developmental level	.406	.411
Complexity	.374	.391

There is a wide range in the degree of agreement, from poor (*Emotion expression and Complexity*) to excellent (*Space*). This is probably the consequence of the way each subscale is defined. *Space*, except the unambiguous definition (how much paper space is used while producing the artwork), has clearly defined description values on a scale from 1 to 5 (1 - less than 25%; 2 - between 25% and 49%; 3 - between 50% and 74%; 4 - between 75% and 99%; 5 - 100%). For scales that do not have so high reliability, this is not the case. It is quite possible that different evaluators imply different things when they are told to make estimates of how well the emotion was expressed.

For two subscales, *Abstract/Concrete* and *Prominence of colour*, which required nominal data, the authors made scoring on basis of the estimation of the majority of evaluators.

There is a significant difference between the frequencies of abstract and concrete content in two art task groups ($\chi^2=10,67$; $df=1$; $p=.0011$). All participants in the positive distraction group depicted concrete content, while there was an equal amount of both content types in the venting group artworks.

Dominant color frequencies are listed in Table 5.

Table 5 *Dominant colour frequency in the venting and positive distraction group*

Colour	Group	
	Venting	Positive distraction
Black	5	0
Red	4	1
Blue	2	3
Green	2	1

Yellow	1	3
Purple	0	1
Brown	0	2
Orange	0	1

Regarding color prominence, as seen in Table 5, the highest frequency of black was observed in the venting group, on five artworks, while no black was detected in the positive distraction group. Red was observed on four artworks in the venting group and on one in the positive distraction group while blue and green were equally prominent in the venting group. In the positive distraction group, yellow and blue were also observed on three artworks, and brown on two artworks. Purple, green and orange on one artwork each were observed, as well.

Furthermore, the differences in the results on the remaining subscales were also sought (Table 6) to explore the relationship between artistic aspects of the works and the mood they represent.

Since interrater reliability coefficients for two subscales (*Emotion expression* and *Complexity*) indicate unacceptable agreement among raters (<.40) they were excluded from this analysis. Subscale scores were averaged across estimations for artworks from two groups (16 in each group) to create one score for each subscale.

Table 6 *t*-test values obtained on ASAE subscale results – comparison of raters' (N=58) average scores

Subscale	venting		Positive distraction		<i>df</i>	<i>t</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Implied energy	3.10	0.45	3.30	0.53	57	-3.66	.000
Space	3.15	0.36	3.81	0.37	57	-20.32	.000
Line quality	2.97	0.47	3.12	0.56	57	-3.23	.002
Developmental level	3.07	0.52	2.91	0.66	57	3.09	.003

Raters evaluated that more effort, more paper space and higher line quality was within the artworks of the positive distraction group. Artworks in the venting groups were evaluated as more mature at the developmental level.

Discussion

Results obtained in this study contribute in many different ways to the idea of a relationship between emotional regulation and artistic expression, especially in terms of positive and negative affect. As mentioned before, participants were assigned to four groups. The first group expressed negative emotions in their artwork, the second one expressed positive emotions, the third group drew a stopwatch while the fourth group solved labyrinths. Participants who artistically expressed what happiness means to them (positive distraction group) experienced higher mood improvement in the positive affect than participants artistically expressing emotions experienced while watching the clip i.e. negative emotions. The results are consistent with previous research such as shown in Dalebroux et al. (2008) with his group of participants that expressed positive emotions in an artistic way. Similarly, Drake, Coleman and Winner (2011) discovered that using art expression as positive distraction is more effective in mood regulation than expressive writing.

Since venting is a type of art expression task that represents a strategy of coping with emotional distress, the results are also consistent with negative emotion expression strategies being non-effective in case of short-term mood improvement. Cognitive strategies such as reinterpretation/reappraisal are more beneficial if we see a distressing event in a more positive light (Gross & Thompson, 2006; Gross, 2002), at least short-term. Our attention is then shifted to more positive outcomes which leads to mitigating negative mood effects (Lischetzke & Eid, 2003).

The problem with venting and short-term mood improvement is timing. Although supported by clinical findings in the context of improving quality of life and emotional well-being, venting places negative emotions in the foreground which gives little space for sudden mood improvement, but is shown to influence positive outcomes in the long term (Bushman, 2002). This suggests that venting artistically would be least effective in lowering negative affect in short-term experiments like this one. However, no differences were detected in negative affect levels between the positive distraction, neutral distraction or venting group. What is then an appropriate technique to improve mood in the context of negative affect? People process positive and negative emotions differently while the latter demand a more immediate response. Negative emotions, such as fear, encouraged greater attention and caution of the individual in the ruthless environment of our early ancestors while positive emotions signaled safety and optimum state to be achieved (Hasselton & Ketelaar, 2005). Perhaps it takes more time and intensity to deal with such emotions, and their effect cannot be eliminated in a short time, either by visual expression or some other kind of distraction.

Solving labyrinths represents the only non-artistic task used in this research so it is interesting to compare mood differences evoked by this task and other, artistic tasks. For positive affect this task led to smaller mood improvement when compared to positive distraction task, while there was no difference when compared to neutral distraction and venting. Superiority of positive distraction have already been explained. Improvement in negative affect was better after neutral distraction task, while control task of labyrinth solving was equally efficient as negative and positive distraction. Neutral distraction task has one crucial similarity with labyrinth solving. While performing them, the participants are not focused on emotions. So the “only” difference between neutral distraction and control task is related to activity that is performed; drawing vs. passing through labyrinth. Nevertheless, drawing was more efficient in distracting from negative emotions than labyrinth solving. We put the word “only” in question marks because it is of course possible that there are some other differences, beside activity that is performed (for example in workload), which are not controlled. Some future research may give us a better insight in these relations.

The qualitative analysis showed that the artworks from two groups in which the subjects were focused on emotions, positive distraction and venting, differed in terms of abstractness. All participants in the positive distraction group depicted concrete content, while there was an equal amount of both content types in the venting groups’ artworks. Explanation for displaying abstractions in expressive group can be found in instruction and nature of the task. Participants had to focus on what they experienced during watching a video clip. As the culmination of the video clip is the boy’s death, they were most often focused on that. Participants generally took the perspective of the boy or the parents and created content related to death and sorrow in general, which is hard to express in concrete content. When it comes to the positive distraction group, the artworks were a representation of happiness. Perception of happiness is subjective and different for each individual, but mostly directed towards a goal whether it is family, success, health etc. (Tadić, 2009). One of the participants depicted happiness as *going to a larger city where he would have more opportunities* (Figure 2). All of these are concrete aspects of life so concrete artwork content is not surprising.

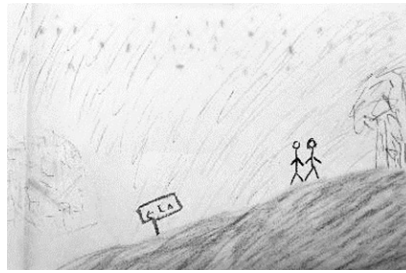


Figure 2 Concrete artwork content from the positive distraction group

Regarding colour use, black was most frequently used in the venting group ($f=5$). Black is generally a colour that culturally represents negative emotions, depression and sadness which aligns with the venting group task. Furthermore, blue was present in only two artworks from this group. Blue often represents sadness and melancholy in art therapy and in art in general, so the lack of it was surprising. However, the role of language should be mentioned. The English language has a specific idiom - feeling *blue* - which is used when someone is describing negative mood in terms of sadness. This could suggest that English speakers will use blue more frequently in depiction of sadness and depressive states as it was shown in the art therapy research on English speaking participants (Malchiodi, 2003). In the Croatian language, people are more inclined to use an idiom – *sve mi je crno* (literal translation: *everything is black*) when describing such emotion. This language specificity and how it effects mood perception is in accordance with Sapir-Whorf hypothesis of language which states that language affects thinking, emphasizing the important cultural aspect of language (Ciaccio & Bormann, 2013). In positive distraction group yellow was more prominent.

Level of implied energy, or the perception of the effort involved in the artwork, was perceived higher for works produced in the positive distraction group. It could be that the abstract content in the venting group was perceived less complex and hence easier to produce. This is compatible with the perception that abstract art is physically less demanding to produce, thus eliminating the importance of the inventiveness of the idea (Hackett, 2016).

More paper space was used in the positive distraction group which was also the result of the lack of abstract content in it. Perceived abstract content (lines and shapes) usually did not fill the whole paper, while the concrete content depicted elaborate scenes and stories which covered most of the space.

Gladding (1997) suggests that a lot can be learnt from aspects of how the lines on paper are drawn, such as some mood aspects. In regards to that, lines can vary in length, thickness and shape. Dotted and rough lines often symbolize anger and restlessness while fluid and continuous lines symbolize calmness and stability. Lower line quality found in venting group corresponds to the nature of the task and also the art therapy practice, where the negative and disturbing contents of someone's trauma reflect on the form of the lines they produce.

Higher developmental level in artworks was perceived in the venting group. This interesting finding may have been the result of the use of collage technique in the venting group considering the quality and creativity of both works. In addition, higher frequency of concrete content in the positive distraction group suggests that more participants drew concrete objects such as nature, people and animals what could be perceived more childish.

Given that there is still a lack of research on such topics, it is worth to highlight some shortcomings and recommendations for future research to improve their quality and encourage new researchers in this area. Primarily, the problem is certainly sample size. The participants were assigned into four groups, sixteen in each. It is suggested to use a larger sample in future research. Trends in mood changes are noticeable in the data obtained, but lower statistical power probably contributed to their insignificance. By increasing the sample size, this problem would be alleviated, and the statistical power increased, eventually confirming

or eliminating possible doubts. Furthermore, as time for task solving was unlimited, the participants spent a different period of time working. Considering that there were several people who artistically expressed up to thirty minutes, a reference to future research would suggest a precise measure of work time to test the intensity of mood changes based on the time spent working.

Finally, the artwork evaluation process should also include experienced art therapists and a more accurate scale of assessment that would cover all aspects that are not covered by this arbitrary scale. This applies in particular to the description of the values on 5 point scale. In an arbitrarily constructed scale in this research, only the extremes of the estimation value is described (except in the case of *Space* subscale which was defined by percentages) because the original scale is used in a clinical environment as a type of a projective test so the descriptions are adapting to the tests like FSA (*Face Stimulus Assessment*) (Gantt, 2015). For future research on a non-clinical sample, more detailed descriptions are proposed.

Conclusions

Several general conclusions can be drawn which can be the basis for future research and contribute to a better understanding of visual expression as a mood regulation method. The results suggest that visual expression is an effective way to improve mood instantaneously, especially as a distraction task, while the effectiveness of a venting task is questionable.

In addition to the importance of the process of visual expression itself, attention must also be paid to the product. Produced artwork content can provide a great deal of information about ways to deal with emotions, regardless of their valence. Colors, lines, and shapes may point to certain stereotypical aspects of the artistic process that could be generalized but retaining the individual's effort to present their unique inner state. All of this opens up new issues and problems that may be an incentive for further research.

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