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Art-of-living training: developing an intervention for adolescents with depression or anxiety

Abstract

Objective: The present paper describes two studies that aim at the transfer of the art-of-living into the clinical-therapeutic context. Study 1 aimed at the identification of those art-of-living components that show differences for adolescents who are suffering from anxiety or depression. In Study 2, a need-oriented and a predefined art-of-living training were developed, implemented and evaluated. **Design:** Study 1 is based on a pre-experimental comparative design. Study 2 is an intervention study based on a randomized two factors multivariate 3x3 design with repeated measures. **Main Outcome measures:** The main outcome measures are art-of-living, life satisfaction, depression and anxiety. **Results:** Study 1 could show significant differences of the art-of-living subscales in the comparison of a clinical and a nonclinical sample. A specific pattern was identified for the clinical sample. The results of Study 2 show that the developed trainings improved the art-of-living ($F(2,37) = 4.24$, $p = .02$, $\eta^2 = .67$) as well as the satisfaction with life ($F(2,37) = 8.19$, $p < .001$, $\eta^2 = .92$). Furthermore, a reduction of depression could be achieved ($F(2,37) = 6.45$, $p < .001$, $\eta^2 = .82$). **Conclusion:** In summary, the training successfully enhanced art-of-living and reduced depression. Limitations and benefits are discussed.

Keywords: art-of-living, intervention, depression, anxiety, adolescents

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Jessica Lang, Madeleine Georg, Lisa Groetsch and Bernhard Schmitz
Department of Psychology, Darmstadt University of Technology, Germany

Correspondence: Jessica Lang, Department of Psychology, Darmstadt University of Technology, Alexanderstr. 10, 64283 Darm-stadt, Germany, Tel +49 615-116-75693, Fax +49 615-116-4196, Email lang@psychologie.tu-darmstadt.de

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Introduction

Health reports of German health insurance funds record the steady increase of mental illness.[1,2] This trend is showing up especially in younger age groups.[3] The question is what reduces the high prevalence rates, stress and the ever-earlier age of ailment, especially for young people. Existing psychotherapeutic treatment approaches are considered as 'talking about troubles is curative'.[4] According to Blickhan.[5] the mere concentration on negative symptoms is not necessary for satisfaction or well-being. Thus, psychotherapy has to go away from the mere reduction of existing symptoms to the support of well-being, mental performance and life satisfaction. However, the importance of well-being in the context of mental disorders is shown by studies demonstrating that increased well-being reduces the risk of developing mental illnesses and has a symptom-reducing effect.[6,7] Various studies could show that the absence of mental illness does not correspond to mental health and vice versa.[6-10] This implies that well-being and a life that is perceived as happy and fulfilled are not merely mentally healthy people. Components of mental health can be specifically strengthened even if there is mental illness. Therefore, the embedding of contents of positive psychology into psychotherapy is to be addressed. the construct of the art-of-living can be attributed to positive psychology.[11] The art-of-living has been discussed as a construct of philosophy since antiquity.[12] Art-of-Living can be defined as a conscious, reflected and active way of life.[12,13] Schmitz.[12] developed a questionnaire measuring the art-of-living based on seventeen components, in order to make the construct of the art-of-living more concrete and measurable in psychological research. The focus is not only on the concept, but also on identifying the potential for future life-shaping and providing concrete strategies for achieving life-satisfaction.[11] In order to increase art-of-living, trainings were developed based on the components postulated by Schmitz.[11] Art-of-Living strategies were used for intervention studies in school context.[14] as well as for professionals.[15] However, art-of-living trainings have not been conducted in a clinical-therapeutic context yet. Research approaches from the field of positive psychology have already provided promising, evidence-based results for the application of positive interventions in the clinical field. A well-established and promising approach that has been established for a number of years has been the use of so-called 'positive psychology interventions' (PPI), which are described by Sin & Lyubomirsky.[16] as 'treatment methods or intentional activities that aim to cultivate positive feelings, behaviors or cognitions'. For example, there are exercises on the subject of gratitude.[17] optimism.[17] counting kindnesses.[18] personal strengths.[19] goals.[20] writing about positive experiences.[21] and writing about possible selves.[22] However, PPI can also be the option for a wide range of malfunctions in the clinical sector.[16] The use of PPIs is described by Bolier et al.[23] as a complementary strategy in the treatment of mental illness. Research on PPIs for the treatment of depression has increased significantly in recent years. The results of the analyses of Sin & Lyubomirsky.[16] and Bolier et al.[23] could show that PPIs are effective to increase subjective and psychological well-being and reduce depressive symptoms.[22] but the effects of PPI in the clinical context is not limited to depressive disorders. Fava et al.[24] showed also positive results for the use of PPI in the area of anxiety disorders. PPI can have a strengthening of inherent components of mental health (such as well-being or life satisfaction). Research in the field of art-of-living could show positive correlations between the construct of art-of-living and life satisfaction, resilience, coherence and well-being.[11] Results of previously performed art-of-living trainings in non-clinical populations led to an increase in the values of art-of-living and well-being.[15] The strategies used for this are based on the PPI. Art-of-Living extends previous approaches to the application of positive interventions in the clinical field. The importance to transfer the art-of-living into the clinical therapeutic context goes beyond the expected positive effect on existing symptoms. People who get treatment because of a mental illness get the opportunity to learn art-of-living strategies within training. In addition to their respective psychotherapeutic treatment, they will learn to engage in the design of their own life, needs, values and goals, while learning that they are meaningful and fulfilling - regardless of their illness. The present paper describes two studies which aim at the transfer of the concept of art-of-living into the clinical-therapeutic context. Therefore, an art-of-living training was developed, implemented and

evaluated for adolescents aged 12-18 years who are suffering from anxiety disorder and/ or a depressive disorder. Study 1 aimed at the identification of those art-of-living components that show differences in their values for adolescents with the before mentioned mental disorders. In Study 2, an art-of-living training (needs- oriented and predefined) was developed, implemented and evaluated.

Study 1

The aim of Study 1 was to detect those art-of-living components that show low scores for adolescents with anxiety and depression to identify a specific pattern of needs for this clinical disorder compared to a nonclinical sample.

Method

Participants

Adolescents were contacted via psychiatric clinics. Appropriate informed consent was obtained from patients, parents and clinics. A sample of n = 30 adolescents, 15 girls (50 %) and 15 boys (50 %), was analyzed and compared to a nonclinical sample (n = 100). The age of the participants ranged from 12 to 18 *(M* = 15, *SD* = 1.5). At the time of the study 94% admitted that they get creative therapeutic treatments, like dance-, music-, art- or occupational therapy. 43% Received depth psychological therapy, 29% behavioral therapy, 31% indicated that the psychotherapeutic treatment at the time of the survey has already gone through at least one other form of psychotherapy.

Measures

A version for children and adolescence of the art-of-living questionnaire by Schmitz.[11] was developed.[14] The questionnaire comprises 17 components of the art-of-living and includes 33 items measured with a 4-point-Likert scale ranging from 0 (*Disagree strongly*) to 4 (*Agree strongly*) which was visualized by emoticons. Significant positive correlations with other well-being measures, i.e. the Satisfaction with Life Scale.[25], PANAS.[26], Self-Efficacy.[27] Self-Efficacy-Optimism-Pessimism.[28] and Students' Life Satisfaction.[29] have been documented.[14] The components of the questionnaire are: *balance* (e.g. *"I can express my feelings, but also can keep them to myself"*), *coping* (e.g. *"I can cope with problems"*), *serenity* (e.g. *"I stay calm even if something is bothering me"*), *savoring* (e.g. *"I explore beautiful things and know how to enjoy them"*), *shaping of living conditions* (e.g. *"I set up my room, so that I like it"*), *physical care* (e.g. *"I pay attention to my body"*), *integration of different areas of life* (e.g. *"A balance between personal and professional tasks is important to me"*), *openness* (e.g. *"I like to try out something new"*), *optimization* (e.g. *"I reach my goals"*), *positive attitude towards life* (e.g. *"I assume that everything evolves for the better"*), *reflection* (e.g. *"I often think about what went well and what did not"*), *self-actualization* (e.g. *"I want to live my options"*), *self-knowledge* (e.g. *"I know what I am good at"*), *self-determined way of life* (e.g. *"I pursue my own goals"*), *self-efficacy* (e.g. *"I am convinced I can solve problems"*), *meaning (*e.g. *"There is a meaning in my life"*) and *social contacts* (e.g. *"I enjoy spending time with my friends"*). An overall score is calculated by averaging the 17 scores of the components. Higher scores of the components representing higher levels of art-of-living. The internal consistency was 837.

Procedure

The participants were invited to fill out the questionnaire. A researcher was there to instruct them and to support them in the case of difficulties. It took about 30 minutes to fill out the questionnaire.

Results

Means and standard deviations for each art-of-living subscale are listed in ascending order in Table 1. The five subscales with the lowest scores are *savoring*, *coping*, *self-efficacy*, *meaning* and *self-knowledge* (Table 2). T-tests were calculated to evaluate whether the five lowest components can be seen as specific needs compared to the scores of the nonclinical sample. For the scales *savoring*, *coping*, *self-efficacy*, *meaning* and *self-knowledge* the t-tests show significant results (Table 3). In summary, the results of Study 1 could show significant differences in the order of the art-of-living subscales in the comparison of a clinical and a nonclinical sample. Therefore, the subscales *savoring*, *coping*, *self-efficacy*, *meaning* and *self-knowledge* can be seen as specific pattern of needs for adolescents with depression and anxiety.

Table 1 Means and standard deviations for the clinical sample

Subscales (n=30)	M (SD)
Savoring	2.43 (.66)
Coping	2.43 (.73)
Self-efficacy	2,59 (.86)
Meaning	2.73 (.86)
Self-knowledge	2.73 (.78)
Shaping of living conditions	2.75 (.61)
Serenity	2.77 (.50)
Reflection	2.77 (.63)
Self-determined way of life	2.79 (.62)
Balance	2.82 (.58)
Physical care	2.89 (.61)
Integration of different areas of life	2.94 (.76)
Self-actualization	2.95 (.74)
Positive attitude towards life	2.98 (.60)
Openness	3.02 (.71)
Optimization	3.14 (.76)
Social contacts	3.48 (.46)

Table 2 Means and standard deviations for the nonclinical sample

Subscales (n=100)	M (SD)
Serenity	3.41 (.94)
Integration of different areas of life	3.98 (.75)
Coping	4.07 (.75)
Physical care	4.33 (.85)
Openness	4.34 (.61)
Savoring	4.35 (.68)
Optimization	4.36 (.61)
Self-efficacy	4.46 (.63)
Self-determined way of life	4.55 (.68)
Balance	4.56 (.43)
Reflection	4.59 (.69)
Positive attitude towards life	4.71 (.62)
Shaping of living conditions	4.77 (.73)
Self-knowledge	4.80 (.61)
Social contacts	4.81 (.63)
Self-actualization	4.91 (.58)
Meaning	4.92 (.63)

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Table 3 Results of the t-tests for the selected components

	Clinical Sample	Nonclinical Sample			
Subscales	M (SD)	M (SD)	t-test	df	sig.
Savoring	2.43 (.66)	4.35 (.68)	-13.65	128	<.001***
Coping	2.43 (.73)	4.07 (.75)	-10.57	128	<.001***
Self-efficacy	2,59 (.86)	4.46 (.63)	-13.04	128	<.001***
Meaning	2.73 (.86)	4.92 (.63)	-15.27	128	<.001***
Self-knowledge	2.73 (.78)	4.80 (.61)	-15.24	128	<.001***

***p < .001

Study 2

The aim of Study 2 was to develop, implement and evaluate an art-of-living intervention for adolescents with anxiety or depression. The study is based on a randomized two factors multivariate 3x3 design with repeated measures. Based on the results of Study 1, the training consisted of two conditions, which should be compared to each other and a control group:

1. Need-oriented condition
2. Predefined condition
3. Waiting list control group.

Method

Participants

Psychiatric clinics were contacted and after their submission they announced the training to their patients. Participants had to be between 12 and 18 years being diagnosed with anxiety, depression and/or emotional disorders. Appropriate informed consent was obtained from parents and patients. A sample of N = 65 adolescents was analyzed (need-oriented training: n = 20; predefined training: n = 20; control group: n = 25). 48 girls (73 %) and 18 boys (27 %) took part. The age of the participants ranged from 12 to 18 *(M* = 15, *SD* = 2.19). At the time of the study 82% admitted that they get creative therapeutic treatments like dance-, music-, art- or occupational therapy, 48% received depth psychological therapy, 23% behavioral therapy and 27% indicated that the psychotherapeutic treatment at the time of the survey has already gone through at least one other form of psychotherapy. Fifty euro amazon vouchers were raffled among the participants, who participated regularly in the training,

Instruments

Again the questionnaire measuring art-of-living for children and adolescents.[14] was used. The internal consistencies were.904 (pretest).942 (posttest) and.934 (follow-up). Additionally, the questionnaire measuring anxiety and depression (DISYPS ANZ) by Döpfner et al.[30] was used. It comprises the 17 criterias of ICD-10 and DSM-4 for diagnosing a separation anxiety disorder (F93.0) and generalized anxiety disorder in childhood (F93.8) as well as symptoms of social and specified phobias. The questionnaire includes 41 items. Also, the questionnaire measuring depression (DISYPS DES) was used which consists 29 items to measure symptoms of depression. Additionally, to the symptoms, one item measures subjective suffering and eight items measure self-confidence and savoring. The Satisfaction with Life Scale (SWLS).[31] was also used and the 5-point-Likert Scale was visualized with the same emoticons that are used for the art-of-living-questionnaire. Life satisfaction was calculated based on the sum of the means of the five items. The internal consistencies were.888 (pretest),.929 (posttest) and.943 (follow-up).

Procedure

Participants were randomly assigned to one of the three conditions. They were trained in groups of six adolescents. Each of the four training sessions took 90 minutes and the duration between the sessions was one week. Between the training sessions, participants got exercises to train components of art-of-living. The pretest took place at the beginning of session 1 and the posttest at the end of the last training session. Three weeks after the third training session participants filled out the follow-up questionnaire. The control group got a shortened training about 60 minutes after completing the follow-up questionnaire. Based on the results of Study 1 the need-oriented training included exercises to train savoring, coping, self-efficacy, meaning and *self-knowledge*. Based on theoretical suggestions, the predefined training consisted of exercises to train a *positive attitude towards life*, *serenity*, *openness*, *self-efficacy* and *self-knowledge*.

Results

An ANOVA was conducted to examine differences between the three groups on the art-of-living subscales and on the overall score in the pretest. Only for the subscale *optimizatio*n significant differences could be found $F(2,62) = 3.47$, $p = .04$, $\eta^2 = .52$. That means the groups were comparable from the beginning. Means and standard deviations for each measured by condition are listed in Table 4. To determine interaction effects of group and time two-factorial ANOVAs with repeated measures on the factor time (pre, post) were conducted for the overall art-of-living as well as for the single components. It could show significant interactions for the satisfaction with life and the overall art-of-living as well as for the subscales *meaning*, *self-knowledge*, *savoring*, *openness, integratio*n *of different areas of life* and *self-efficacy.* The results are listed in Table 5.

Table 4 Means and standard deviations for each measure by condition

	Needs-Oriented							Predefined							Control Group				
	pre			post		follow-up		pre		post		follow-up			pre		post		
Subscales	n	M	SD	M	SD	M	SD	n	M	SD	M	SD	M	SD	n	M	SD	M	SD
Meaning	20	2.65	1.05	2.88	1.15	2.92	1.22	20	2.33	0.83	2.73	0.88	2.79	0.92	25	2.56	0.92	2.36	0.9
Serenity	20	2.74	0.44	2.73	0.64	2.58	0.63	20	2.8	0.57	2.77	0.52	2.75	0.45	25	2.86	0.4	2.8	0.48
Social contacts	20	3.4	0.58	3.4	0.77	3.46	0.72	20	3.45	0.63	3.4	0.55	3.42	0.6	25	3.34	0.73	3.36	0.6
Self-knowledge	20	2.5	0.87	3.05	0.86	3.04	0.86	20	2.42	0.63	2.8	0.62	2.46	0.58	25	2.64	0.86	2.58	0.84
Reflection	20	3.02	0.77	3.2	0.71	3.04	0.69	20	2.58	0.63	3	0.67	2.71	0.72	25	3	0.75	2.88	0.77
Self-actualization	20	3	0.74	3.1	0.82	2.92	0.87	20	2.62	0.93	3	0.67	3	0.74	25	2.88	0.86	2.94	0.71
Savoring	20	2.38	0.84	2.7	0.92	3.12	0.68	20	2.33	0.59	2.9	0.87	2.71	0.66	25	2.56	0.88	2.5	0.83
Positive attitude towards life	20	2.98	0.6	3.17	0.77	3.17	0.75	20	2.85	0.56	3.05	0.54	2.92	0.7	25	2.96	0.61	2.92	0.73
Openness	20	2.7	0.94	2.29	1.08	3.12	0.98	20	2.67	0.83	3.15	0.67	3.08	0.63	25	2.98	0.73	2.84	0.7
Balance	20	3	0.67	3.08	0.78	3.12	0.53	20	2.75	0.66	3.02	0.44	3.08	0.51	25	3	0.8	3.02	0.7
Coping	20	2.5	0.73	2.77	0.64	3.04	0.62	20	2	0.69	2.62	0.81	2.38	0.71	25	2.52	0.8	2.66	0.81
Integration of different areas life	20	2.7	0.71	3	0.76	3.25	0.75	20	2.48	0.91	2.83	0.85	2.67	0.78	25	2.82	0.91	2.74	0.89
Optimization	20	2.6	0.94	2.4	0.94	2.67	0.65	20	3.25	0.85	2.9	0.79	3.08	0.9	25	2.84	0.85	3.04	0.79
Self-determined way of life	20	3.17	0.63	3.17	0.83	3.38	0.8	20	2.77	0.55	3.08	0.63	3.25	0.62	25	2.98	0.64	2.94	0.7
Self-efficacy	20	2.5	0.92	2.8	0.89	2.75	1.01	20	2.25	0.68	2.9	0.79	2.71	0.78	25	2.54	0.89	2.46	0.64
Shaping of living conditions	20	3	0.84	3.12	0.89	3.21	0.78	20	2.7	0.73	2.9	0.82	2.67	0.69	25	2.96	0.73	2.86	0.73
Physical care	20	3.4	0.6	3.35	0.71	3.08	0.67	20	2.92	0.82	3.02	0.7	2.92	0.82	25	3	0.84	3.06	0.91
Overall art-of-living	20	2.84	0.5	3.01	0.62	3.06	0.61	20	2.64	0.29	2.95	0.41	2.925	0.4	25	2.85	0.53	2.81	0.53
Satisfaction with Life	20	3.74	1.73	4.32	1.12	4.62	2.2	20	2.79	1.57	3.96	1.74	4.2	1.97	25	3.45	1.39	3.55	1.61
Overall depression	20	1.14	0.88	0.94	0.88	0.81	0.89	20	1.39	0.56	1.04	0.62	0.97	0.57	25	1.01	0.61	0.9	0.63
Overall anxiety	20	0.6	0.73	0.6	0.85	0.52	0.86	20	0.61	0.58	0.56	0.53	0.52	0.54	25	0.5	0.45	0.48	0.57

Table 5 Results of the ANOVAs for pre-post-comparisons

Subscales	F	df	p
Meaning	6.26	Feb-62	< .00**
Savoring	5.75	Feb-62	< .00**
Openness	7.77	Feb-62	< .00***
Self-efficacy	5.58	Feb-62	< .00**
Overall art-of-living	6.75	Feb-62	< .00**
Satisfaction with life	5.28	Feb-62	< .00**

***p < .001, **p < .01

To examine whether the effects are lasting over a time of three weeks after the training an ANOVA for the two experimental groups was conducted. The results show significant interaction effects for the satisfaction with life ($F(2,37) = 8.19$, $p < .001$, $\eta^2 = .92$) and the overall art-of-living ($F(2,37) = 4.24$, $p = .02$, $\eta^2 = .67$) as well as for the subscales *meaning* ($F(2,44) = 3.46$, $p = .04$, $\eta^2 = .60$), *self-knowledge* ($F(2,37) = 4.44$, $p = .02$, $\eta^2 = .68$), *savoring* ($F(2,37) = 8.36$, $p < .001$, $\eta^2 = .94$), *openness* ($F(2,37) = 4.47$, $p = .02$, $\eta^2 = .69$) and s*elf-determined way of life* ($F(2,37) = 3.35$, $p = .04$, $\eta^2 = .59$). Additionally, a significant reduction of depression could be found ($F(2,37) = 6.45$, $p < .001$, $\eta^2 = .82$). In all of the mentioned significant interaction effects the values increase from posttest to follow-up-test. In summary, the results of Study 2 could show that the developed training conditions improved the art-of-living as well as some of the art-of-living components and the satisfaction with life. Furthermore, a reduction of the depression values could be achieved. The effects lasted or even enhanced in the follow up measure.

General Discussion

This paper first described the evaluation of a clinical sample of adolescents with depression and anxiety in relation to identify a specific pattern of needs for art-of-living components (Study 1). To improve art-of-living a need-oriented as well as a predefined training was developed and compared to a waiting list control group (Study 2). The results show that both interventions were effective in enhancing the overall score for art-of-living and for some of the components, as well as for the satisfaction with life. Another result was that depression could be reduced by the training. It could be shown that the mentioned effects lasted even in the follow-up measure. One limitation is the comparison of the experimental groups to a waiting list control group. Future studies should include other control conditions to further test the effectiveness of the training at increasing art-of-living. Art-of-living is a relatively new construct and there are not many studies yet.[14] Regarding the first intervention studies by Lang & Schmitz.[15] it became clear that art-of-living strategies can be trained by students of different ages and different cognitive abilities. They advocated testing various samples. Therefore, the present study shows that art-of-living is also promising for a clinical context. Future studies still have to test different samples - even in the clinical context (i.e. different disorders, different ages…). The authors also advocated to extend the training sessions and the period between the sessions and to analyze lasting effects. For this reason, the present paper developed a training based on four sessions over one month and a follow-up measurement was conducted after three weeks. This is a first step to develop an art-of-living training. Regarding Suldo et al.[32] who could show long-term effects, over a period of six months, future research is necessary even

it can be assumed that the results are stable over time. Future studies still have to optimize the training for further refinement. They could test different combinations of multiple components.[33] to optimize the training or also develop adaptive trainings for individual participants. Lyubomirsky et al.[34] admire that not every exercise is helping every person. Therefore, the strategies should be based on the individual needs. However, even a short training of four sessions resulted in the improvement of art-of-living and the reduction of depression. It is promising to implement it into clinical daily life easily without much effort. To avoid that patients will repeat a training session during their stay in the clinic, sessions should be developed in an adaptive way so that strategies and exercises for each component are prepared and every participant could choose what he wants to train in each session. In this sense, the individual exercises and strategies have to be evaluated regarding its effectiveness.[35-37]

Conclusion

In this paper, existing trainings to improve art-of-living were further refined and future applications have been proposed. Developing art-of-living interventions for a clinical context is economic and it seems to be promising for patients' health and well-being. There is a need for further research on this topic and further development of interventions improving art-of-living.

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None.

Conflicts of Interest

The authors declare that they have no conflict of interest.

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