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Research Article

Training Teachers to Become Mental Health Promoters: Impact on Their Well-Being

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Teachers are identified like a risk group for developing mental health problems. This fact seems worrying because it is known that young people spend a lot of time in school and apparently the teachers` mental health problems can affect the students` mental health and well-being. This study aimed at analysing the impact of training teachers to become mental health promoters, in their own mental health and well-being. Participated 276 teachers who work in schools in Portuguese mainland and participated in the ES'COOL training. Two evaluation moments were carried out, the initial evaluation – one week before the beginning of the training, and the final evaluation – one week after the end of the training. Results show that in addition to the skills worked during the training, the

teachers' well-being and mental health also improved at the end of the training. The variable that evidenced to be the most important for the teachers' well-being promotion was that they started the training with more positive affect and more life satisfied.

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Introduction

Teachers are reported to be at increased risk of mental health disorders compared to other occupations, which can lead to sustained physical and mental health problems^{[1][2]}. Teachers have an essential role in the adolescent's development. According to Hattie^[3], among the factors that help students' learning is proximity and trust with teachers. If teachers do not create a close relationship with their students, they will likely not be going to be able to develop their own relationships and interactions with their peers, creating also a negative feeling for the school environment and broader community.

Ekornes^[4,] conducted a study to verify which factors at the individual and organizational levels relate to differences upon teachers' reported negative emotions, perceived responsibility, and competence in student mental health promotion. The author reported that teacher stress emerges chiefly from a mismatch between feeling responsible for and being able to help students with mental health problems. Finally, the findings reveal significantly higher levels of perceived responsibility and negative emotions amongst female teachers^[4].

The impact that teachers 'mental health problems can have on students is a subject that has relevance among professionals, since it can influence the whole process of learning and also the students' well-being. According to Harding et al.^[5] a positive teacherstudent relationship is also likely to be important for teacher well-being and a better teacher-student relationship is associated with better student wellbeing and with lower student psychological distress. The results of this study suggest that improving teacher well-being may lead to better student wellbeing via more supportive relationships^[5].

Tomé et al.^[6] found that the relationship with teachers was the variable with the greatest effect on school satisfaction among Portuguese adolescents. On the other hand, satisfaction with school appears positively associated with life satisfaction and happiness, and negatively with social alienation, unhealthy psychological symptoms and concerns. Thus the correlation becomes more obvious – adolescents who are more satisfied with school are more satisfied with life in general and happier in their own skin

So apparently, effective support for teachers' mental health is particularly important given the potential impact of poor teacher mental health on pupil wellbeing, attainment and teacher-pupil pupil relationships^[7]. One of the education main goals is that students have skills to communicate, deal with their emotions and solve their problems. Teachers are essential professionals in responding to young people with possible mental health difficulties and who have social, emotional or behavioral problems in the classroom. Health and education policies increasingly position teachers as vital agents in connecting mental health services with affected youth^{[8][9][10]}

Whole school community has an essential role in young and teacher mental health promotion. The implement school-based intervention programs in the mental health area, with a long-term follow-up, effective monitoring of the quality of its implementation, in line with an adequate training of the intervention team in in which the whole school community participates, appears to be effective in teachers and student's mental health preventions^[11]. Tomé et al.^[9] found that teachers' skills and knowledge in the mental health are important for the prevention of young people's mental health and that teacher training in this area also increased their subjective well-being.

Socio-emotional skills and well-being of the teachers themselves are crucial for the skills development in young people. Teachers who have more socio-emotional skills will have a more significant impact on the development of skills of your students^[10].

This study aimed at analysing the impact of teacher training in their mental health and well-being.

Method

Participants

The sample was constituted by 276 teachers who worked in schools in mainland Portugal and who participated in the ES'COOL training. Of the 276 teachers, 11.6% are males and 88.4% females, with an average age of 47.9 (SD = 7.2; Min -27; Max- 68) and an average of 21.4 years (SD = 8; Min- 0; Max- 41) of service.

Of the teachers who did the ES´COOL training, 72.8% were graduates, 19.9% had a Master's Degree, 2.5% a Ph.D. and 1.4% a Bachelor Degree (see Table 1).

	Ν	%	М	SD	Range.
Sample					
First cycle teacher	36	13			
Teachers (5 th to 12 th grade)	173	62.7			
Kindergarten teachers	17	6.2			
Special education teachers	35	12.7			
Psychologists and other specialists	15	5.4			
Gender					
Male	32	11.6			
Female	244	88.4			
Age	276	-	47.9	7.2	27-68
Educational Level					
Bachelor Degree	4	1.4			
Graduate	201	72.8			
Master	55	19.9			
PhD	7	2.5			
Other	9	3.3			
Professional Situation					
Permanent	192	69.6			
Temporary	55	19.9			
Other	29	10.5			
Years of Service	275	-	21.45	8	0-41
Years of service in the current school	276	-	8.3	8.7	0-35

Table 1. Demographic characteristics of the participants

Eighty-six projects were developed by teachers, with the supervision of the trainers of the project ES'COOL. Of the 86 projects, 26 were related to well-being, 17 with mental health, 9 with behaviors and indiscipline, 8 with the prevention of risk behaviors, 8 related to promoting positive relationships, 7 with personal and social skills, 8 projects related to school skills, 2 with the promotion of the relationship between family and school and 1 related to racial discrimination.

About 17.4% of the teachers reported that they had already had mental health training.

Measures and variables

The Questionnaire "ES'COOL – SURVEY MENTAL HEALTH IN SCHOOL CONTEXT (Teacher Version)" consists of demographic issues, the "Scale of Mental Health Knowledge and Attitudes in a School Context – ES`COOL" which was adapted from the "Self-Perception Scale of Risk Behaviors"^[12] and from questions adapted from the Health Behavior in School-Aged Children Questionnaire – HBSC / OMS^[13]. Scales were also used to evaluate: life satisfaction, professional satisfaction, problems solving, leadership ability, social environment and interpersonal relations in school and skills and knowledge in mental health.

The "Scale of Mental Health Knowledge and Attitudes in a School Context – ES'COOL" is a questionnaire consisting of 29 items, whose answers are given according to a 5-point Likert intensity scale. The subject should indicate the degree of agreement or disagreement, in which 1 = "Strongly disagree", 3 = "I do not disagree or agree" and 5 = "Strongly agree". The analysis of the "Scale of Mental Health Knowledge and Attitudes in a School Context – ES 'COOL" was carried out taking into account the Behaviour Change Wheel Model (BCW)^[8].

Life satisfaction, professional satisfaction, problems solving, leadership ability, social environment and interpersonal relations in school and skills and knowledge in mental health was measured with the scale of Cantril (1965), graphically represented as a ladder, where step "10" corresponds to "best possible" and step "0" represents "the worst possible".

Happiness was assessed using the self-report Subjective Happiness Scale (SHS^[14,1]). The happiness scale is a 4-item subjective happiness scale that measures overall happiness. It is derived from a 7point Likert scale ranging from 1 to 7, in which 1= not a very happy person and 7 = a very happy person. A composite score for global subjective happiness is obtained by averaging the responses to all the four items on the subjective happiness scale. The possible score range is from 1 to 7, higher scores reflecting greater happiness.

The affective dimension was measured via the Positive and Negative Affect Schedule - PANAS^[15]. The PANAS is a questionnaire consisting of 20 items, whose answers are given according to a 5-point Likert intensity scale in which, through a series of feelings or emotions, the subject should indicate the degree of agreement or disagreement (1 = "Very slightly or not at all", 3 = "Moderately" and 5 = "Extremely"). The items are divided into two sub-scales, representing two mood states or two affective dimensions: Positive Affects (PA) and Negative Affects (NA). While PA reflect feelings of enthusiasm, activity, and alertness, i.e. a state of energy, complete concentration and pleasure in the tasks performed (10 items - Example: "Interested"), NA represents a general dimension of aversive feelings (10 items - Example: "Afflicted"). Low values in Positive Affects mean sadness and lethargy, and low values in Negative Affects mean calm and serenity $\frac{151}{2}$.

Procedures

The main goal of "ES´COOL" is to promote adolescents' mental health through capacity building of school teachers and school staff. The program aims at the development of personal and social skills and includes the prevention of anxiety and depression symptoms, the promotion of resiliency, and selfregulation in adolescents. The ES'COOL training was implemented with teachers from primary and secondary schools (from 1st to 12th grade), kindergarten and special education teachers covering schools from all the regions of Portugal. There have been training groups all over Portugal, namely in the North, Center, Lisbon, and Algarve regions.

The first assessment of the study was conducted one week before the start of the training, while the second one was carried out two weeks after the ES´COOL training. Data collection was performed through an online survey, using the Limesurvey platform.

Thereby, it aimed at verifying the real impact of the training among the participants, namely the level of their knowledge about mental health and their skills to develop the promotion of well-being and healthy lifestyles projects in their schools.

The training program consists of 40 hours, distributed for 20 hours theoretical, formal, in person, and 20 "non-face-to-face" hours, practical sessions. The theoretical part addressed several topics, such as: promoting skills, promoting mental health, selfregulation, resilience, active listening, leadership, and entrepreneurship. In the practical part, the participants developed and implemented projects with the technical supervision and evaluation from the ES'COOL technicians. The distance learning modules were carried out through the New Communication Technologies, mainly via Skype with sessions between the trainees and trainers. Another method used to conduct the supervision of the work and projects was the use of a forum created on the project site, where all teachers involved in the ES'COOL project can share experiences, doubts, solutions, projects or ideas among themselves and with the supervisors.

The training was planned as follows:

Module 1 – Mental Health in School; Module 2 – Project Methodology; Module 3 – Project Design; Module 4 – Project Presentation; Module 5 – Techniques and Strategies for Project Development; Module 6 – Project Implementation in Schools. Informed consent was obtained from all individual participants included in the study, and ES'COOL followed all the rules for research outlined in the Declaration of Helsinki (WMA, 2008) and was approved by the Ethics Committee of the Medical Center of Lisbon. Confidentiality was ensured and data access restricted to the research team members.

Data analysis

Data was analysed through the statistics program SPSS 24. Descriptive analysis followed by bivariate analysis were carried out, and finally multiple linear regression models were used.

Results

For the subscales of mental health knowledge and attitudes, the following values of internal consistency were found: Emotional Capability α =.80, Problem Solving Capability α =.69, Motivation α =.72 and Opportunity α =.70. For the subscales of the PANAS questionnaire, it was found that: Positive Affects α =.89 and Negative Affects α =.84. For the Alienation subscales, it was found that: Demotivation α =.69, Instability α =.51 and Isolation α =.76. For the happiness scale, the internal consistency values found were α =.75, for the self-efficacy α =.78 and for the future expectations α =.77 (see Table 2).

	Factor	Items	Ν	М	SD	Cronbach
	Emotional Capability	5	268	18,5	2,8	.80
Montal Haalth Knowladza and Attitudaa	Problem Solving Capability	5	268	21,1	2,2	.69
Mental Health Knowledge and Attitudes	Motivation	4	268	17,6	1,9	.72
	Opportunit	4	268	14,1	2,3	.70
PANAS	Positive Affects	10	275	35,7	5,5	.89
FANAS	Negative Affect	10	275	16,1	5,2	.84
	Demotivation	5	182	11,4	2,4	.69
Alienation	Instability	3	182	8,7	1,6	.51
	Isolation	2	182	4,3	1,6	.76
	Happiness	4	274	20,9	3,6	.75
	Self-efficacy	4	182	15,3	2,1	.78
	Future expectations	9	182	33,7	4,8	.77

Table 2. Internal consistency of the scales

Regarding the results observed in the T-Student test, it was found that after training there was an increase in most of the variables analyzed: Mental Health Knowledge and Attitudes Scale: emotional capability (M = 19.6, SD = 2.8), problem solving capability (M = 21.7, SD = 2.3), motivation (M = 18, SD = 1.9), opportunity (M = 15.2, SD = 2.3); PANAS scale: positive affects (M = 37.4, SD = 5.2); happiness (M = 21.7, SD = 2.7, SD = 2.3)

3.6), professional satisfaction (M = 6.7, SD = 1.6), social environment and interpersonal relations in school (M = 7.7, SD = 1.3), self-efficacy (M = 15.8, SD = 1.9), mental health literacy (M = 7.3, SD = 1.4), problem management (M = 7.7, SD = 1.3), leadership ability (M = 7.3, SD = 1.4) and life satisfaction (M = 7.5, SD = 1.3). In the demotivation subscale (i.e., alienation scale) values decreased after training (M = 10.5, SD = 2.2).

			ial 76)	Fin (N=2			
	Emotional Capability	М	DP	М	SD	t	р
		18.6	2.7	19.6	2.8	-7.183	.000
			Initial (N=276)		al 76)		
	Problem Solving Capability	М	DP	М	SD	t	р
		21.2	2.3	21.7	2.3	-4.549	.000
Mental Health Knowledge and Attitudes	Motivation	Init (N=2		Fin (N=2			
		М	DP	М	SD	t	р
		17.5	1.9	18	1.9	-4.656	.00
		Init (N=2		Fin (N=2			
	Opportunity	М	DP	М	SD	t	р
		14.4	2.3	15.2	2.3	-5.595	.00
	Positive Affect		nitial Final =275) (N=275				
		М	DP	М	SD	t	р
PANAS		35.7	5.4	37.4	5.2	-5.862	.00
FAINAS	Negative Affect	Init (N=2		Final (N=275)			
		М	DP	М	SD	t	р
		16.1	5.2	15.9	4.9	.817	.41
		Init (N=1		Final (N=182)			
	Demotivation	М	DP	М	SD	t	р
		11.4	2.4	10.5	2.2	4.733	.00
		Init (N=1		Fin (N=1			
Alienation	Instability	М	DP	Μ	SD	t	р
		8.7	1.6	8.8	1.7	558	.578
		Init (N=1		Fin (N=1			
	Isolation	М	DP	Μ	SD	t	р
		4.3	1.6	4.4	1.6	269	.788
		Init (N=2		Fin (N=2			
	Happiness	М	DP	М	SD	t	р
		20.9	3.6	21.7	3,6	-4.689	.00

		Init (N=2		Fin (N=2			
	Professional Satisfaction	М	DP	М	SD	t	р
		6.6	1.8	6.7	1.6	-3.971	.000
	Social Environment and Interpersonal	Init (N=2		Fin (N=2			
	relations in school	М	DP	М	SD	t	р
		7.1	1.5	7.7	1,3	-6.808	.000
		Init (N=1		Fin (N=1			
	Future expectations	М	DP	М	SD	t	р
		33.7	4.8	34.2	4.7	-1.402	.163
	Self-efficacy	Initial Final (N=182) (N=182)					
		М	DP	М	SD	t	р
		15.3	2.1	15.8	1.9	-3.957	.000
		Initial Final (N=274) (N=274)					
	Mental Health Literacy	М	DP	М	SD	t	р
		5.2	1.7	7.3	1.4	-18.485	.000
		Init (N=2					
	Problem management	М	DP	М	SD	t	р
		7	1.4	7.7	1.3	-8.742	.000
	Leadership ability	Init (N=2					
		М	DP	М	SD	t	р
		6.5	1.5	7.3	1.4	-9.954	.000
		Init (N=2		Fin (N=2			
	Life Satisfaction	М	DP	М	SD	t	р
		7.2	1.4	7.5	1.3	-4.302	.000

 Table 3. Pre and post evaluations comparisons using t-Student (paired samples)

To understand the predictive effect of the variables used in this study on teachers' well-being and mental health, multiple linear regression analyses were conducted. In each of the models statistically significant variables were included in the T-test analysis with a significance level greater than $p \le .05$.

In each model, the initial variable corresponding to the same final variable was controlled, so that its weight did not influence the values found in the model.

The regression equation for the model of the Happiness (final) explained 31% of the variance

(R^2 =.310). In this model, the explanation of the Happiness (final) was obtained through the problem-solving capability (initial) (β =.267, p=.004), positive affects (initial) (β =.175, p=.018) and life satisfaction (initial) (β =.283, p=.001).

The model of the life satisfaction (final) explained 22% of the variance (R^2 =.217). In this model, the explanation of the life satisfaction (final) was obtained through the professional satisfaction (initial) (β =.282, *p*=.001) and problem management (initial) (β =.192, *p*=.039).

The model of the positive affects (final) explained 8% of the variance (R^2 =.083). In this model, the explanation of the positive affects (final) was obtained

through the mental health literacy (initial) (β =.-218, *p*=.017).

The model of the self-efficacy (final) explained 23% of the variance (R^2 =.228). In this model, the explanation of the self-efficacy (final) was obtained through the life satisfaction (initial) (β =.244, p=.008) and positive affects (initial) (β =.327, p=.000).

Finally, the model of the demotivation (final) explained 30% of the variance (R^2 =.300). In this model, the explanation of the demotivation (final) was obtained through the self-efficacy (initial) (β =-.215, p=.006), mental health literacy (initial) (β =.213, p=.009) and positive affects (initial) (β =-.335, p=.000).

	Variable included	b	t	р	R ² a	F(mode fit)*
	Emotional Capability (Initial)	110	-1.244	.118		
	Problem Solving Capability (Initial)	.267	2.890	.004		
	Motivation (Initial)	047	593	.554		
	Opportunity (Initial)	007	105	.917		
	Demotivation (Initial)	029	409	.683		
Happiness (Final)*	Positive Affect (Initial)	.175	2.381	.018		
(*Model controlled by the	Mental Health Literacy (Initial)	096	-1.218	.225	.310	7.261
Happiness -Initial)	Life Satisfaction (Initial)	.283	3.477	.001		
	Professional Satisfaction (Initial)	.049	.614	.540		
	Social Environment and Interpersonal relations in school (Initial)	050	651	.516		
	Problem management (Initial)	.147	1.678	.095		
	Leadership ability (Initial)	.027	.342	.733		
	Self-efficacy (Initial)	.080	1.008	.315		
	Variable included	b	t	р	R ² a	F(mod fit)*
_	Emotional Capability (Initial)	153	-1.625	.106		
	Problem Solving Capability (Initial)	.051	.503	.615		
	Motivation (Initial)	.050	.596	.552		
	Opportunity (Initial)	026	369	.698		
	Demotivation (Initial)	049	647	.519		
Life Satisfaction (Final)* * Model controlled by Life	Positive Affects (Initial)	.021	.264	.792		
Satisfaction (Initial)	Mental Health Literacy (Initial)	.013	.161	.873	.217	4.865
	Happiness (Initial)	.167	1.915	.057		
	Professional Satisfaction (Initial)	.282	3.512	.001		
	Social Environment and Interpersonal relations in school (Initial)	034	417	.677		
	Problem management (Initial)	.192	2.076	.039		
	Leadership ability (Initial)	078	905	.367		
	Self-efficacy (Initial)	.097	1.155	.250		
Positive Affect (Final)* * Model controlled by Positive	Variable included	b	t	р	R ² _a	F(mod fit)*
Affect (Initial)	Emotional Capability (Initial)	027	260	.796	.083	2.262
	Problem Solving Capability (Initial)	010	091	.928		
	Motivation (Initial)	.047	.511	.610		
	Opportunity (Initial)	.045	.570	.569		

	Variable included	b	t	р	R ² a	F(mode fit)*
	Demotivation (Initial)	043	520	.604		
	Life satisfaction (Initial)	056	568	.571		
	Mental Health Literacy (Initial)	218	-2.405	.017		
	Happiness (Initial)	.100	1.028	.305		
	Professional Satisfaction (Initial)	.113	1.235	.219		
	Social Environment and Interpersonal relations in school (Initial)	.006	.072	.943		
	Problem management (Initial)	.096	.923	.357		
	Leadership ability (Initial)	.142	1.560	.121		
	Self-efficacy (Initial)	.130	1.411	.160		
	Variable included	b	t	р	R ² a	F(mod fit)*
-	Emotional Capability (Initial)	.068	.726	.469		
	Problem Solving Capability (Initial)	.175	1.728	.086		
	Motivation (Initial)	127	-1.495	.137		
	Opportunity (Initial)	.067	.916	.361		
	Demotivation (Initial)	045	596	.552	.228	
Self-efficacy (Final)*	Life satisfaction (Initial)	.244	2.692	.008		
* Model controlled by Self- efficacy (Initial)	Mental Health Literacy (Initial)	008	093	.926		5.10
	Happiness (Initial)	025	267	.790		
	Professional Satisfaction (Initial)	108	-1.284	.201		
	Social Environment and Interpersonal relations in school (Initial)	094	-1.140	.256		
	Problem management (Initial)	.066	.693	.926		
	Leadership ability (Initial)	.031	.366	.715		
	Positive Affects (Initial)	.327	4.029	.000		
Demotivation (Final)* * Model controlled by	Variable included	b	t	р	R ² a	F(moo fit)*
Demotivation (Initial)	Emotional Capability (Initial)	026	300	.765	.300	6.97
	Problem Solving Capability (Initial)	081	840	.402		
	Motivation (Initial)	.068	.819	.414		
	Opportunity (Initial)	.041	.590	.556		
	Self-efficacy (Initial)	215	-2.784	.006		
	Life satisfaction (Initial)	.068	.770	.442		
	Mental Health Literacy (Initial)	.213	2.638	.009		
	Happiness (Initial)	010	109	.913		
	Professional Satisfaction (Initial)	048	589	.557		

Variable included	b	t	р	R ² a	F(model fit)*
Social Environment and Interpersonal relations in school (Initial)	0036	.451	.653		
Problem management (Initial)	117	-1.247	.214		
Leadership ability (Initial)	164	-1.966	.051		
Positive Affects (Initial)	335	-4.321	.000		

Table 4. Linear Regression (Enter Method)

Discussion

Teachers are identified like a risk group for developing mental health problems^{[1][2]}. This fact seems worrying because it is known that young people spend a lot of time in school and apparently the teachers` mental health problems can affect the students` mental health and well-being^[5]. Effective support for teachers' mental health is particularly important given the potential impact of poor teacher mental health on pupil well-being, pupil attainment and teacher-pupil relationships^[7].

Considering this topic this study aimed at analysing the impact of teacher training, in the area of mental health promotion, on teachers' mental health and well-being.

The ESCOOL training goal is to promote adolescents' mental health through capacity building of school teachers and school staff. The program aims at the teachers' development of personal and social skills^[8]. The importance of teacher training was visible in the final results, not only in acquiring the training skills worked (Tomé et al., 2020a) but also in teachers' well-being and mental health promoting.

Results show that in addition to the skills worked during the training, the teachers' well-being and mental health also improved at the end of the training. The variable that evidenced to be the most important for the teachers' well-being promotion was that they started the training with more positive affect and more life satisfied. These variables revealed a greater influence on most of the other variables associated with well-being and mental health.

An interesting fact was that mental health literacy negatively influences some aspects of teachers' wellbeing, especially positive affect and motivation. This result should be further developed in future studies, however it can reveal that starting the training with the greater perception of knowledge in the area of the training itself, it can be a demotivating factor and negatively influence the final results. Perhaps it is necessary to explain more precisely the training objectives to teachers, avoiding this demotivation.

Regarding the influence of the skills worked during the training on the teacher's well-being and mental health, it was observed that the competence to resolve and deal with problems is the competence with the greatest influence in some aspects of well-being, revealing an area extremely important to work on teacher training.

Apparently, to promote teachers' well-being and mental health, the most important is not to work on the skills, but to keep them motivated and confident, especially as the teachers well-being also influences the adolescents well-being (Tomé et al., 2020a)^{[4,][5]}.

Therefore, dissatisfied and unmotivated teachers are at greater risk of developing mental health problems and influencing other problems in the school context^[1]. We are experiencing an unexpected situation with the COVID 19 pandemic, more than ever it is important to be aware of the impact on teachers mental health and the well-being in the school context. It is becoming increasingly important to develop work in schools where the whole community is involved, in addition to focusing the teachers training and young people not only on promoting skills but also on their own well-being and mental health^[9].

With the new challenges and the 21st century rapid development, teachers handle with a number of challenges, such as new requirements for socioemotional skills, rapid technological development and the increasing cultural and social diversity of young people. The development of their socio-emotional skills, their well-being and their mental health are essential to face the challenges posed by schools in the 21st century^[10].

The pandemic situation brought about by Covid 19, with its various situations of confinement and states of emergency, added new challenges to education systems. More than ever, teachers' resilience, problem solving skills and socio-emotional skills are needed. To respond to these challenges, a highly competent teaching workforce is needed, which currently faces many difficulties. Therefore, effective, sustainable and coordinated approaches are needed to train competent teachers.

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