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Mental health promotion in school context – Validation of the ES'COOL scale for teachers

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Introduction

In general, a large proportion of young people report themselves as healthy, happy and satisfied with their circumstances. However, it was estimated that about 20%of youths experience significant stress at times, which raised concerns about the long-term impact of this distress on future adjustment. However, there is evidence that only a small proportion of young people with disorders receive treatment, and that their personal distress is steadily linked to negative outcomes at school and to overall maladjustment [1].

It is necessary to prevent these problems among young people and the school reveals itself as the ideal place to carry out this work. In schools, youths make contact with different professionals on a daily basis. These daily contacts give the trained school staff a chance to interact with children, at which point they can make assessments, counsel, intervene, consult with other trained professionals, and make referrals and follow-up with the youth as needed [2].

There are many reasons why effective mental health interventions for children and adolescents should be developed. 1) Specific mental disorders occur at specific stages of a child and adolescent's development, screening programs and interventions for such disorders can be targeted to the stage at which they are most likely to appear; 2) there is a high degree of continuity between child and adolescent disorders into adulthood, early intervention could prevent or reduce the likelihood of long-term impairment; 3) effective interventions can reduce the burden of mental health disorders on the individual and the family; 4) the majority of children and adolescents who do not receive treatment may experience significant negative outcomes [3].

The promotion of emotional health and well-being is a core feature of the WHO's Health Promoting Schools initiative. There is good evidence that mental health promotion programmes in schools, especially those adopting a whole school approach, lead to positive mental health, social and educational outcomes [4]. The school-based programs can reach a large number of

children and adolescents from different family backgrounds. Furthermore, the school context represents a natural and an interactive scenario comprising both direct (e.g., family, peers, class, school) and more distal (e.g., cultural, political) settings [5].

In Portugal, mental health used to be until very recently, an extremely deprived area of intervention in school-based health promotion interventions. After a recent national economic recession, with severe impact on young people well-being, a new approach to health promotion in Portuguese Schools highlighted the importance of having schools embrace mental health as a major focus, together with sexual and reproductive health, substance use, nutrition, active leisure and interpersonal violence. However, except when focusing at very specific social risk contexts, mental health promotion seems to remain the health promotion "taboo". This fact has pervasive effects on children and adolescent's wellbeing, once internalizing and externalizing problems in childhood and adolescence are particularly common and particularly relevant, exactly due to their impact on psychosocial development [6].

Research shows that when student's mental health needs are properly addressed, the likelihood of school success increases. High quality, effective school mental health promotion has been linked to increases in academic achievement and competence; decreases in incidence of problem behaviours; improvements in the relationships that surround each child; and substantive, positive changes in school and classroom climates [7]. Carvalho, Matos & Social Adventure Project Team [6] found in their study that girls reported more emotional symptoms, and boys reported more substances' use. Emotional symptoms and substances' use increased with age, in contrast school commitment and perception of safe neighbourhood decreased with age [6].

Three decades of research show that prevention programs for adolescents can build resilience, improve academic performance, facilitate healthy choices and, in turn, minimize risks for violence, substance abuse, and risky sexual behaviour. Prevention programs can achieve positive outcomes whether delivered during or after school [8]. The majority of youth prevention programming has been designed for schools. However, time for training teachers or implementing ''bulky'' programs is limited, reflecting a decade of increasing demands on teachers in order to raise standardized test scores and defining priorities that emphasize basic and academic skills and minimize social-emotional goals.

Reports indicate that well-designed school-based programs that are well-implemented can have positive impacts on students' mental health (Askell-Williams &Cefai, 2014). For example, a review by Wells, Barlow, and Stewart-Brown (2003) identified evidenceof effectiveness for programs that adopted a whole-school approach, were implemented continuously for more than a year, and were aimed at the promotion of mental health as opposed to the prevention of mental illness [9]. Still, Durlak, Weissberg, Dymnicki, Taylor, and Schellinger's (2011) conducted a meta-analysis of 213 social and emotional learning programs (a component of mental health promotion programs) in schools which illustrated that, compared to controls, participants demonstrated significantly improved, social and emotional skills (22% improvement), attitudes (9% improvement), positive social behaviour (9% improvement), conduct problems (9% improvement), emotional distress (9% improvement), and academic attainment (11% improvement) [10].

One essential aspect of integrating mental health understanding into the classroom is ensuring the classroom teachers have an appropriate knowledge base from which to generally identify and support children with mental health concerns. Without a solid understanding of both typical and atypical child development, new or inexperienced teachers may lack the ability to identify children who may be at-risk for mental health issues or to provide necessary classroom-based intervention at even a basic level. As such, the importance of incorporating mental health awareness into teacher preparation programs is paramount. Beginning with the incorporation of mental health understanding in teacher training programs and moving into prevention and intervention programs in schools, teachers may become more aware and responsive to the social-emotional needs of their students [11].

Ensuring that teachers, administrators, and other school based staff are aware of mental health issues and have some basic understanding of how to identify suspected mental health concerns is a key first step. Teachers are often the first individuals in a child's life to flag areas of concern. However, many teachers may not know what symptoms or warning signs to look for in these children or where to refer them if they have concerns. Teachers should have basic training or background in understanding, identifying, and referring children with suspected mental health difficulties so that these children may be formally assessed and appropriate treatment or supports put in place [12]. There is a significant reliance on teachers and school staff to have the training and/or expertise to (a) identify children with possible mental health issues, (b) know what to do when they suspect emotional disabilities in these children (e.g., make appropriate referral to school counsellors or psychologists), and (c) take action to support these students within the school environment [12].

A major challenge to developing a measure that assesses knowledge of factors promoting mental health is that individuals' conceptions of what is needed to obtain and maintain mental health are highly individualized [13].

However, there is a paucity of evaluations of the tools to measure mental health knowledge. For example, many mental health knowledge evaluation tools used in mental health literacy studies are varied in content, purpose, and quality, which may lead to non-comparable study results and increase risk of biased conclusions. Although sometimes the content of a mental health knowledge tool may be specifically designed to be somewhat different from another depending on the local community in which it is deployed, tools used must be of acceptable quality as the use of tools with poor quality may result in non-evidenced and unreliable results when evaluating the effectiveness of mental health interventions or investigating mental health literacy levels in order to develop appropriate interventions in the community [14]. The assessment of mental health literacy is a key aspect in the design and implementation of mental health education and awareness programmes, specifically in school settings, given the high prevalence of mental disorders in adolescents and young people and the need for interventions adjusted to specific settings and target groups [15].

In Portugal there are few intervention programs aimed at promoting the mental health of young people through teacher training. There are no tools to assess the impact of training on young people or teachers validated for this specific purpose. Thus, this study aims to validate the "Scale of Mental Health Knowledge and Attitudes in a School Context– ES´COOL" [16,17]

for teachers, used in the intervention program ESCOOL, aimed at promoting the mental health of adolescents through teacher training.

ES´COOL Project

The ES'COOL Project arises from the gap in the promotion of mental health in a school context, especially in the training of teachers. The main goal of ES´COOL is to promote adolescents' mental health through capacity building of school teachers and school staff. The program aims the development of personal and social skills, and includes the prevention of anxiety and depression symptoms and the promotion of resiliency, and self-regulation in adolescents. Teachers training will allow early-detection of problems that affect adolescents' mental health and early intervention, improving care effectiveness.

Through the ES´COOL training, it is intended to reduce the existing gap in mental health promotion in the school context, giving the teachers of skills that make them able to transform schools in environments promoters of well-being and consequently reduce the problems of mental health among children and adolescents.

It is intended that with the skills obtained during the 40 hours of training and exchange of experiences between participants, the school environment improve, with the development of mental health promoting projects, greater participation of adolescents and parents in the activities proposed by the school, increase communication between students and teachers and the involvement of the educational community in the developed projects [16,17].

Methods

Participants

The sample was constituted by the teachers who completed the initial evaluation of the ESCOOL training, consisting ofteachers of which12.3% are males and 87.7% females with an average age of 47 (SD = 7.3; Min -27; Max- 65) and an average of 20.2 years (SD = 8.2; Min- 0; Max- 41) of service.

Of the teachers who did the ES´COOL initial evaluation, 70.9% were graduates, 22% had a master's degree, 2.2% a PhD and 1.9% a bachelor degree.

About 17.9% of teacher's report that they already have mental health training while 82.1% say they do not (Table 1).

Materials

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 Behaviours" (Cruz, 2016) and from questions adapted from the Health Behaviour in School Aged Children Questionnaire - HBSC / OMS (2015). 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 ES'COOL-"Scale of Mental Health Knowledge and Attitudes in a School Context" is a questionnaire consisting of 29 items (Table 2) , whose answers are given according to a 5-point Likert intensity scale in which, 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). The BCW model was developed based on theoretical and evidenced-based instruments that allow the design and selection of interventions and policies, in agreement with 1) the analysis of behaviour nature; 2) the mechanisms for behaviour change; 3) the interventions and policies needed to change those mechanisms. In addition, this model grew from the need to identify effective interventions. This system is the COM-B system. The COM-B system suggests that for behavioural change to happen, at least three components are needed:

1. Capacity, i.e., physical and psychologic skills for behaviour change, mainly knowledge and competence;

2. Motivation, i.e., the intention to act, which includes emotional and impulsive processes, as well as a reflexive process of decision making;

3. Opportunity, i.e., that no external factors interfere with the behaviour action. In this system, there is a dual interaction between the three factors and the behaviour and a specific intervention can change one or more components of the system itself. The BCW model reinforces the context (corresponding to the component Opportunity) as a key factor for the design and implementation of effective interventions. Therefore, behaviour can only be understood in relationship with the context and both are the starting point for planning interventions [18]. The ES'COOL training tries to reinforce among the teachers the three components described in the model, to reinforce the behavioural changes and maintain the result of the formation over time.

In the article by Tomé, Matos, Camacho & Gomes (2018), an exploratory factor analysis was performed and the ES'COOL-"Scale of Mental Health Knowledge and Attitudes in a School Context" was reduced to 26 items and three subscales [16], meeting the BCW model [18]. This article aims to validate this instrument, through the accomplishment of a confirmatory factorial analysis.

Procedures

The ES'COOL training was implemented with teachers from primary and secondary schools (from 1st to 12th grade), kindergarten teachers and special education teachers covering schools from all the regions of Portugal. We had 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 formation, while the second one was carried until two weeks after the ES´COOL training. Data collection was performedthrough an online survey, using the Lime survey platform.

This way, we intend to verify the real impact of the training among the participants, namely the level of their knowledge about mental health and their ability to develop promoting well-being and healthy lifestyles projects in their schools.

The training program consists of 40 hours, distributed for 20hours 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, self-regulation, 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, especially 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 between themselves and with the supervisors.

The training plan of the formation was the following:

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 School

Informed consent was obtained from all individual participants included in the study, and ES'COOLfollowed 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.

Results

Data was analysed with the statistics program SPSS 24. Descriptive analysis followed by bivariate analysis was carried out.

With the aims to validate a tool to evaluate attitudes and mental health knowledge, and the impact of the ESCOOL training a Confirmatory Factor Analysis (CFA) was conducted with the EQS 6.2 for windows. Multiple fit indexes were used to evaluate goodness of fit of models tested in the study: chi-square statistics ($\chi2$),

Comparative Fit Index (CFI), Non-Normed Fit Index (NNFI), Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Squared Residual (SRMR).

In a previous study [16], an exploratory factor analysis was performed and the "ES'COOL - Scale of Mental Health Knowledge and Attitudes in a School Context" was reduced to 26 items and three subscales [16]. In the confirmatory factor analysis, there were not three but four factors on the same scale: Emotional Capability and Problem Solving Capability, Motivation and Opportunity. The Capability factor was split into two factors: Emotional Capability and Problem Solving Capabilityin order to increase the model fit.

The internal consistency of each of the four subscales was also good: Emotional Capabilities α = 0.80, Problem Solving Capabilityα = 0.69, Motivation α = 0.72 and Opportunity α = 0.70 (Table 3). The goodness of-fit estimates reported correspond to the robust solution (except for SRMR). In addition, the Satorra-Bentler Chi-square and fit indexes that control non-normality results were used. Alternative fit indexes such as the Comparative Fit Index (CFI), Non-Normed Fitindex (NNFI), Root Mean Square Error of Approximation (RMSEA), Standardized Root Mean Squared Residual (SRMR) are presented. The procedures used to determine factorial invariance included: verification of configure invariance, in which the equivalence of the specified structure of factor loading is tested (unconstrained model); Simulation studies show that the difference in CFI between the model with and without restrictions is among the most adequate measures to assume factorial invariance [19].

Table 4 (step 1) shows that the adjustment index of the CFA was acceptable and the model shows a good adequacy. However, the analysis of the results obtained in the Langrange Multiplier test (LM test), a test that assesses the need to add new parameters to the model, showed that the introduction of some connections between factors would decrease significantly the value of the qui-square. A decision was made to add them and to re-evaluate the model (Table 4, step 2). After the introduction of these parameters, the results show better levels of the model's adequacy. Finally, the results obtained in the Wald test, which show the non-significant model parameters, were analyzed. These showed the existence of some non-significant relations, which were eliminated. The results obtained after the elimination of these parameters are shown in Table 4, step 3, and Figure 1.

The internal consistency is shown in Table 3, and the explained variance, as well as the residual, for the confirmatory factor analysis model is presented in Table 5. As shown, these values are also appropriate and range from R2 = 0.23 e R2 = 0.57.

In order to analyse the differences between the factors found and some variables was used the Correlation and ANOVA test. Regarding the results observed in the correlations among the factors it can observed that there is a strong positive and significant correlation, between Emotional Capability and Problem Solving Capability (r=.75*); Moderate positive correlation can also be observed between Motivation and between Emotional Capability (r=.57*) andbetween Motivation and Problem Solving Capabilitya strong positive correlation can be observed (r=.85*). thus, all factors are strongly associated and when one of them increases the remaining also increases. The association of factors suggests that the promotion of each of the skills worked will increase several other skills for wellbeing. It can be observed moderate positive correlations between Opportunity and Emotional Capability (r=.39*), and Problem Solving Capability (r=.33*) and a weak positive correlation between Opportunity and Motivation (r=.27*) (Table 6).

Regarding the results observed in the ANOVA Test, it can be observed, when comparing the genders, and taking into account the 4 factors of the scale (Emotional Capability; Problem Solving Capability; Motivation; Opportunity), the female are the ones with the highest values in Emotional Capability (M = 18.7, SD = 2.6), and Problem Solving Capability(M = 21.3, SD = 2.1). It was also observed that teachers whose refer that they will put into practice the knowledge and strategies of the ES' COOL training are the ones with the highest scores in Emotional Capability (M = 18.9, SD = 2.6), Problem Solving Capability(M = 21.6, SD = 2.1) and Motivation (M = 18.0, SD = 1.7) when compared to teachers who say they will not put knowledge into practice acquired in training.

When teachers with the highest professional satisfaction indexes and those with the worst professional satisfaction are compared, the teachers with the highest professional satisfaction indexes are those with the highest values in the subscales Emotional Capability (M = 19.1, SD = 2.9), Problem Solving Capability (M = 21.9, SD = 2.1) and Motivation (M = 18.1, SD = 1.7). These results suggest that teachers who start training with greater motivation and interest are also the ones that develop the most competences along the same.The results need to be

confirmed with the continuity of the training and with the pre and post evaluation (Table 7).

Discussion

Poor mental health in childhood and adolescence is associated with health and social problems such as school failure, delinquency and substance misuse, and increases the risk of poverty and other adverse outcomes in adulthood. Interventions that promote positive mental health should equip young people with the necessary life skills, supports and resources to fulfil their potential and overcome adversity [4].

In Portugal mental health it is a poorer area of intervention in school-based health promotion interventions [6]. Portugal still needs to deal with several difficulties in the mental health area. Those that deserve special reference are: reduced participation of users and their families; scarce scientific production in the psychiatric and mental health sector; limited response to the needs of vulnerable groups; the lack of promotion/ prevention programs (Caldas, 2009).

The ES'COOL Project arises because of the gap in the promotion of mental health in a school context, especially in the training of teachers. The main goal of "ES´COOL" is to promote adolescents' mental health through capacity building of school teachers and school staff. The program aims the development of personal and social skills and includes the prevention of anxiety and depression symptoms and the promotion of resiliency, and self-regulation in adolescents. Teachers training will allow early-detection of problems that affect adolescents' mental health and early intervention, improving care effectiveness. One essential aspect of integrating mental health understanding into the classroom is ensuring the classroom teachers have an appropriate knowledge base from which to generally identify and support children with mental health concerns [11]. However, there is a paucity of evaluations of the tools to measure mental health knowledge. In Portugal there are few intervention programs aimed at promoting the mental health of young people through teacher training. There are no tools to assess the impact of training on young people or teachers validated for this specific purpose.

This study aims was validate the ES'COOL - "Scale of Mental Health Knowledge and Attitudes in a School Context" [16,17] for teachers, used in the intervention program ESCOOL. In Tomé and collaborators (2018), was conducted an exploratory factor analysis of the ES'COOL -"Scale of Mental Health Knowledge and Attitudes in a School Context", used to evaluate the impact of training and also the teachers' knowledge and attitudes towards mental health. Three factors were found: Capability, Motivation and Opportunity. In this study, was performed a confirmatory factor analysis, in order to validate that scale. The results indicated the need to divide the Capability subscale in two different subscales: Emotional Capability and Problem Solving Capability. The model with the four subscales analyzed revealed a good fit, allowing its use in future works.

In addition to the objectives described above, the ESCOOL training is intended to change behaviour in order to allow the promotion of mental health in a school context. Thus, for the construction of "Scale of Mental Health Knowledge and Attitudes in a School Context – ES´COOL" is based on the Behaviour Change Wheel Model (BCW). The BCW model was developed based on theoretical and evidenced-based instruments that allow the design and selection of interventions and policies,

in agreement with 1) the analysis of behaviour nature; 2) the mechanisms for behaviour change; 3) the interventions and policies needed to change those mechanisms.

Throughout the training, it was found that the greatest problem for teachers was the lack knowledge of young people mental health, which creates an obstacle in early interventions and behaviour change. For Climie&Altomare [11], one essential aspect of integrating mental health understanding into the classroom is ensuring the classroom teachers have an appropriate knowledge base from which to generally identify and support children with mental health concerns. Without a solid understanding of both typical and atypical child development, new or inexperienced teachers may lack the ability to identify children who may be at-risk for mental health issues or to provide necessary classroom-based intervention at even a basic level.

The ESCOOL training works with teachers and other education professionals to develop their knowledge and strategies, needed to enable early referral of problem situations and development projects that promote mental health in schools [16,17]. The results indicate that female professionals reveal greater Emotional Capability and Problem Solving Capability than male professional. However, it seems important to work as well on their motivations and their opportunities in order to develop effective projects that deliver positive results, making schools environment promoters of mental health and well- being. The opportunity subscale, which indicates the external factors that may influence the change in behaviour, was the subscale that was not significant in any analysis presented. The difficulty in recognizing signs of unwell and mental health problems can influence and block the active work of education professionals in the promotion of mental health in a school context. It is clear that those who seek training with intent to put it into practice are more motivated and reveal greater skills, but they also reveal some difficulties in seizing the existing opportunities to promote the well-being of their students, without the necessary knowledge. Also a professional satisfaction of the education professionals seems to influence a motivation and competences in the area of mental health. A good working environment is essential for professionals to feel good and motivated to promote the well-being of young people.

Developing a collaborative work among the school community, families, teachers and all education professionals seems to be the best indicator for the promotion of mental health among young people and among education professionals, preventing various mental health problems. Contemporary social-ecological perspectives conceive that protective factors for developing positive mental health, (and avoiding mental health difficulties), reside in each person's psychological world, family contexts (e.g., effective parenting), and environments (e.g., communities and schools) (Askell-Williams &Cefai, 2014).

Transforming the ES'COOL -"Scale of Mental Health Knowledge and Attitudes in a School Context" according to the BCW model [18], and verifying the existence of the four factors referred to as essential for behavioural change is a strength of the ESCOOL could make a difference in existing mental health promotion programs in the school context and the results obtained in the training show an trend towards change in the teachers whose have been covered by the training. It is also important to check whether teacher training has an impact on the mental health of young people, since this is the aim of the project. Changing teachers' behaviours, by promoting their knowledge, skills, motivations and attitudes, are expected to have a positive

impact on the well-being and mental health of young people.

The results suggest the need to continue to work the knowledge and attitudes of teachers and other education professionals, developing skills in the area of mental health in school context. The development of projects that involve the entire school community is essential for behaviour change. It is vital that mental health becomes a priority and that it integrates strategies for the promotion of young people's health, as mental health and well-being is an integral and essential part of healthy young people.
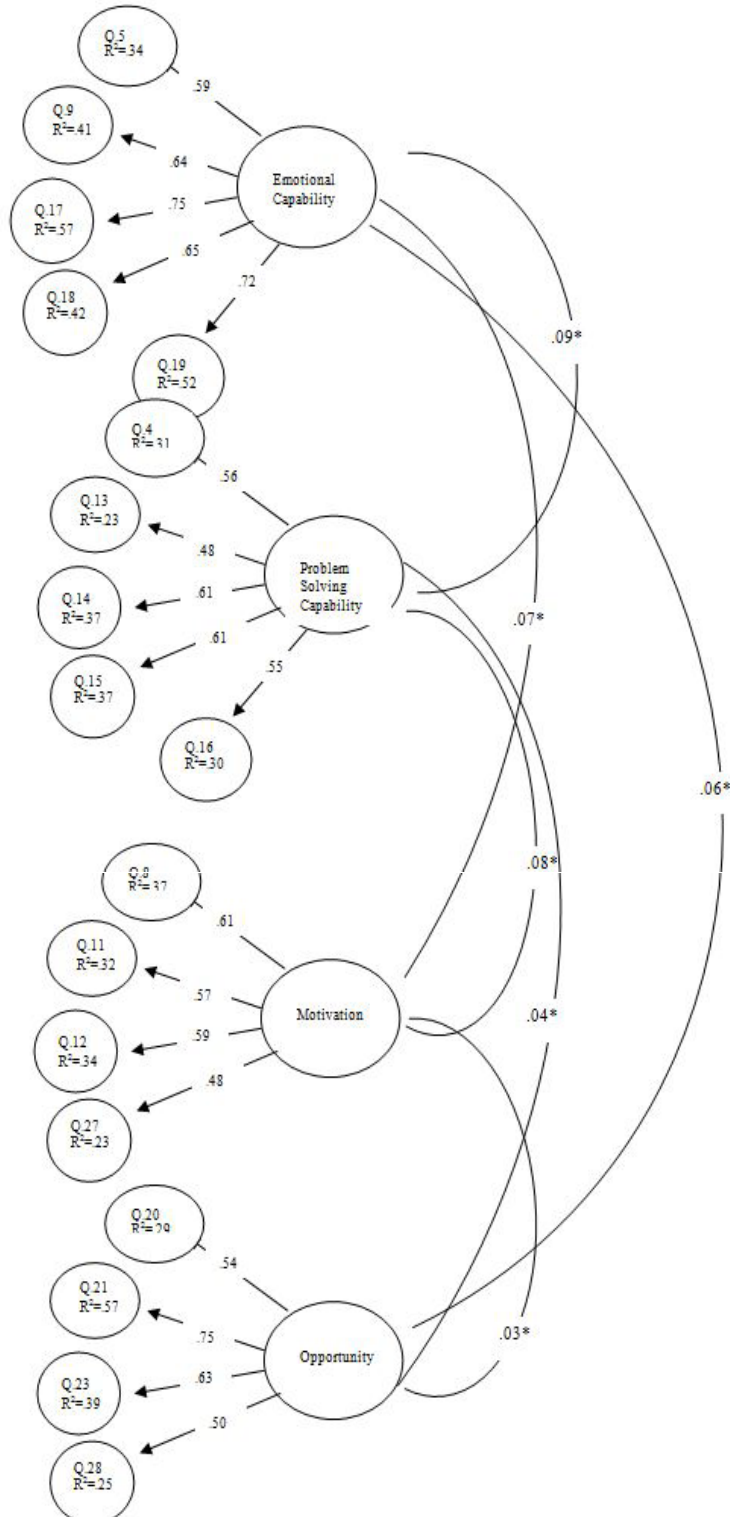
Figures

Figure 1: ES'COOL - Scale of Mental Health Knowledge and Attitudes in a School Context

Tables

Table 1: Demographic characteristics of the participants

	N	%	M	SD	Range.
Sample					
Teachers (1st to 12th grade)	209	77.8			
Kindergarten teachers	14	5.2			
Special education teachers	34	12.7			
Psychologists and other specialists	11	4.1			
Gender					
Male	33	12.3			
Female	235	87.7			
Age	257	95.9	47	7.3	27-65
Educational Level					
Bachelor Degree	5	1.9			
Graduate	190	70.9			
Master	59	22			
PhD	6	2.2			
Other	8	3			
Professional Situation					
Permanent	172	64.2			
Temporary	74	27.6			
Other	22	8.2			
Years of Service	268	100	20.2	8.2	0-41
Years of service in the current school	268	100	8.1	8.5	0-35
Mental Health Training	268	100	8.1	8.5	0-35
Yes	48	17.9			
No	220	82.1			
"Consider ESCOOL training important for your work"					
Neither a lot nor a little important	3	1.1			
Important enough	86	32.1			
Very Important	179	66.8			
"Have skills to identify and refer young people with mental illness"					
None	19	7.1			
Few	91	34			
Some	110	41			
Enough	42	15.7			
Many	6	2.2			
"Put into practice knowledge and strategies of ESCOOL training"(1-unlikely -5-very likely)	268	100	3.9	.8	2-5
Professional Satisfaction (10- better satisfaction-0- worse satisfaction)	266	99.3	6.4	1.9	0-10

Table 2: ES'COOL - Scale of Mental Health Knowledge and Attitudes in a School Context (results of the exploratory factorial analysis (EFA) and the confirmatory factorial analysis (CFA) carried out)

	Items			
	Initial items after EFA			Items after CFA
Capability	Q.5. I can recognize when my students feel sad, angry, nervous or are going through some troublesome situation.	Emotional Capability		Q.5. I can recognize when my students feel sad, angry, nervous or are going through some troublesome situation.
	Q.9. I know most of my students' problems.			Q.9. I know most of my students' problems.
	Q.17. I can identify if a student has a problem that influences mental health.			Q.17.I can identify if a student has a problem that influences mental health.
	Q.18. I can identify if a student has profoundly altered their behaviour			Q.18. I can identify if a student has profoundly altered their behaviour.
	Q.19. I can identify if a student needs referral to a specialized mental health service.			Q.19. I can identify if a student needs referral to a specialized mental health service.
	Q.4. When I come across a student who is going through a problem situation, or with a sad or angry student, or with a nervous student, I try to help him.	Problem Solving Capability		Q.4.When I come across a student who is going through a problem situation, or with a sad or angry student, or with a nervous student, I try to help him.
	Q.13. I interpret attitudes of aggression or apathy as a symptom that something is not right with the student.			Q.13. I interpret attitudes of aggression or apathy as a symptom that something is not right with the student.
	Q.14. Whenever necessary I dedicate some extra time to talk to my students			Q.14.Whenever necessary I dedicate some extra time to talk to my students
	Q.15. Students are looking to talk about themselves			Q.15 Students are looking to talk about themselves
	Q.16. When a student asks me to talk about a particular problem, I try to give him an answer.			Q.16. When a student asks me to talk about a particular problem, I try to give him an answer.
Motivation	Q.8. I worry about the well-being of my students.			Q.8. I worry about the well-being of my students.
	Q. 11. I am concerned that students feel happy or have behaviours of apathy within the classroom.			Q. 11. I am concerned that students feel happy or have behaviours of apathy within the classroom.
	Q.12. I am concerned that students feel happy or have behaviours of apathy outside the classroom.			Q.12. I am concerned that students feel happy or have behaviours of apathy outside the classroom.
	Q.27. I consider a good school environment to promote mental health and well-being among young people.			Q.27. I consider a good school environment to promote mental health and well-being among young people.
	Q.1.The good relationship of the teacher with the students is one of the factors promoting well-being and mental health.			-----
	Q.2. It is the role of the teacher to promote the well-being and mental health of young people in and out of the classroom.			-----
	Q.25. I relate an active participation of students in school activities to a good indicator of mental health.			-----
	Q. 26. I consider my students' success at school an indicator of mental health.			-----
	Q.10.The attitude of the teacher influences the students' liking for the school.			-----
Opportunity	Q.20. I believe that a student who isolates himself is more likely to develop mental health problems.			Q.20. I believe that a student who isolates himself is more likely to develop mental health problems.

	Q. 21. I believe that students who have parents with mental health problems are more likely to develop mental health problems.		Q. 21. I believe that students who have parents with mental health problems are more likely to develop mental health problems.
	Q. 23. I consider that students from problematic families are more likely to develop mental health problems.		Q. 23. I consider that students from problematic families are more likely to develop mental health problems.
	Q.28. I consider that students identified as having some mental health problem are more likely to have failed school.		Q.28. I consider that students identified as having some mental health problem are more likely to have failed school.
	Q.7. I believe that a student who is irresponsible in class is more likely to have a mental illness.		-----
	Q. 22. I consider that students from disadvantaged families are more likely to develop mental health problems.		-----
	Q.24. I consider mental illness a clinical condition, like other diseases.		-----

Table 3: ES'COOL - Scale of Mental Health Knowledge and Attitudes in a School Context - Internal consistency of the scales

Factors	Items	N	*M*	*SD*	Cronbach
Emotional Capability	5	268	18.5	2.8	.80
Problem Solving Capability	5	268	21.1	2.2	.69
Motivation	4	268	17.6	1.9	.72
Opportunity	4	268	14.1	2.3	.70

Table 4: ES'COOL - Scale of Mental Health Knowledge and Attitudes in a School Context - Adjustment indexes

	χ^2 (g.l.)	CFI	NNFI	RMSEA (90% I.C.)^2	SRMR
Step 1	464.76 (224)	.83	.81	.063 (.055-.071)	.082
Step 2	316.30 (146)	.86	.84	.066 (.056-.076)	.090
Step 3	222.73(127)	.92	.90	.053 (.041-.064)	.070

Table 5: ES'COOL - Scale of Mental Health Knowledge and Attitudes in a School Context - Explained Variance

Factor	Variable	R2	Disturbance
Emotional Capability	Q.5	.34	.81
	Q.9	.41	.76
	Q.17	.57	.65
	Q.18	.42	.76
	Q.19	.52	.69
Problem Solving Capability	Q.4	.31	.83
	Q.13	.23	.88
	Q.14	.37	.79
	Q.15	.37	.79
	Q.16	.30	.83
Motivation	Q.8	.37	.79
	Q.11	.32	.82
	Q.12	.34	.81

	Q.27	.23	.88
Opportunity	Q.20	.29	.84
	Q.21	.57	.65
	Q.23	.39	.78
	Q.28	.25	.87

Table 6: ES'COOL - Scale of Mental Health Knowledge and Attitudes in a School Context - Correlation among the scales (Fig 2 - 4 factors)

	Capability 1	Capability 2	Motivation	Opportunity
Emotional Capability	-	.75*	.57*	.39*
Problem Solving Capability	-	-	.85*	.33*
Motivation	-	-	-	.27*

*p<.001

Table 7: ES'COOL - Scale of Mental Health Knowledge and Attitudes in a School Context - Comparisons among mental health subscales by gender, expectations and satisfaction (ANOVA)

Gender	Male			Female				
	N	M	SD	N	M	SD	F	p
Emotional Capability	33	16.9	3.4	235	**18.7**	2.6	12.483	**.000**
Problem Solving Capability	33	19.9	2.6	235	**21.3**	2.1	10.688	**.001**
Motivation	33	17.3	2.3	235	17.7	1.8	1.299	.255
Opportunity	33	14.3	2.4	235	14.1	2.3	.310	.578
Will use ESCOOL training	**Unlikely**			**Very likely**				
	N	M	SD	N	M	SD	F	p
Emotional Capability	70	17.2	2.7	198	**18.9**	2.6	21.653	**.000**
Problem Solving Capability	70	19.9	2.1	198	**21.6**	2.1	31.771	**.000**
Motivation	70	16.6	2.1	198	**18**	1.7	32.625	**.000**
Opportunity	70	13.8	2.3	198	14.2	2.3	2.026	.156
Professional Satisfaction	**worse satisfaction**			**better satisfaction**				
	N	M	SD	N	M	SD	F	*p*
Emotional Capability	180	18.2	2.7	86	**19.1**	2.9	7.116	**.008**
Problem Solving Capability	180	20.7	2.2	86	**21.9**	2.1	17.566	**.000**
Motivation	180	17.5	1.9	86	**18.1**	1.7	5.829	**.016**
Opportunity	180	14	2.2	86	14.3	2.2	1.118	.291

References

1. Allen KA, McKenzie VL. Adolescent mental health in an Australian context and future interventions. 2015; 44: 80-93.

2. Blackman KF, Powers JD, Edwards JD, Wegmann KM, Lechner E, Swick DC. Closing the Gap: Principal Perspectives on an Innovative School-Based Mental Health Intervention. 2016; 48: 245.

3. Cho SM, Shin YM. The promotion of mental health and the prevention of mental health problems in child and adolescent. Korean J Pediatr. 2013; 56: 459-464.

4. Barry MM, Clarke AM, Jenkins R, Patel V. A systematic review of the effectiveness of mental health promotion interventions for young people in low and middle income countries. BMC Public Health. 2013; 13: 835.

5. Bjorklund K, Liski A, Samposalo H, Lindblom J, Hella J, Huhtinen H, et al. "Together at school"--a school-based intervention program to promote socio-emotional skills and mental health in children: study protocol for a cluster randomized controlled trial. BMC Public Health. 2014; 14: 1042.

6. Carvalho M, Matos MG, Team SAP. Psychosocial determinants of mental health and risk behaviours in adolescents. Glob J Health Sci. 2014; 6: 22-35.

7. Baskaran M, Sekar U, Kokilavani N. Pilot Study of Mental Health Programme on Promoting Mental Health Characteristics among Adolescents in PSG Schools, Coimbatore. International Journal of Nursing Education. 2016; 8: 161-166.

8. Boustani MM, Frazier SL, Bechor M, Hedemann ER, Ogle RR, Becker KD, et al. Common Elements of Adolescent Prevention Programs: Minimizing Burden While Maximizing Reach. Administration and Policy in Mental Health and Mental Health Services Research. 2015; 42: 209-219.

9. Jane W, Jane B, Sarah SB. A systematic review of universal approaches to mental health promotion in schools. Health Education. 2003; 103: 197-220.

10. Durlak JA, Weissberg RP, Dymnicki AB, Taylor RD, Schellinger KB. The impact of enhancing students' social and emotional learning: a meta-analysis of school-based universal interventions. Child Dev. 2011; 82: 405-432.

11. Climie E, Altomare AA. Supporting Children with Mental Health Concerns in Classrooms. 2013; 1.

12. Climie EA. Canadian Children's Mental Health: Building Capacity in School-Based Intervention. 2015; 51: 122-125.

13. Bjornsen HN, Eilertsen MEB, Ringdal R, Espnes GA, Moksnes UK. Positive mental health literacy: development and validation of a measure among Norwegian adolescents. BMC Public Health. 2017; 17.

14. Yifeng W, McGrath PJ, Hayden J, Kutcher S. Measurement properties of tools measuring mental health knowledge: a systematic review. BMC Psychiatry. 2016; 16: 1.

15. Loureiro LM. Questionário de Avaliação da Literacia em Saúde Mental - QuALiSMental: estudo das propriedades psicométricas / Questionnaire for Assessment of Mental Health Literacy - QuALiSMental: study of psychometric properties / Cuestionario de Evaluación de la Alfabetización en la Salud Mental - QuALiSMental: estudio de las propiedades psicométricas. Revista de Enfermagem Referência. 2015; 79.

16. Tomé G, Matos MG, Camacho I, Gomes P. ES´COOL- Mental Health Promotion in School Psychology in the Schools, In press. 2018.

17. Tomé G, Matos MG, Gomes P, Camacho I, Gaspar T. Promoção da Saúde Mental nas Escolas – Projeto ES´COOL. Journal of Child and Adolescent Psychology. 2017; 8: 173-184.

18. Michie S, van Stralen MM, West R. The behaviour change wheel: A new method for characterising and designing behaviour change interventions. Implementation Science. 2011; 6: 42.

19. Cheung GW, Rensvold RB. Assessing Extreme and Acquiescence Response Sets in Cross-Cultural Research Using Structural Equations Modeling. Journal of Cross-Cultural Psychology. 2000; 31: 187-212.