

BACHELOR THESIS

Nursing Degree- Leioa Campus

Health promotion program

Reducing test anxiety levels among students of 1st grade of Compulsory Secondary Education



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ABSTRACT

Introduction: Test anxiety affects students of different ages from all over the world, yet there is little awareness of this complex issue at both educational and social level. With an increasing prevalence, it is one of the most important academic-related problem affecting students' everyday life, leading to low scholastic performance and educational failure, as well as short and long-term consequences on mental health.

Objective: To reduce test anxiety levels by implementing a health promotion program among students of 1st grade of Compulsory Secondary Education aged between 12 and 13 years in the public institution IES Txurdinaga Behekoa.

Methodology: 45 students belonging to 1st grade of Compulsory Secondary Education from IES Txurdinaga Behekoa will participate. Another group of students from a school of similar characteristics will be used as the control group. Regarding theoretical framework, Social Cognitive Theory will be used.

Development: This is a 12 weeks' program, consisting of 16 sessions delivered in the school.

Evaluation: A quasi-experimental design will be followed. Through four questionnaires and semester's mean grade, students will be assessed three times. First measurement will take place two weeks before the implementation of the program, second being at the end and the last one being at a year after the end of the program.

Key words: test anxiety, academic performance, student, adolescent, mental health.

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1. INTRODUCTION:

According to The World Health Organization in 2015, anxiety disorders ranked in 6th place among all mental illnesses globally, 4th in highly developed countries, as a cause of so-called years lived with disability among adolescents and adults aged between 15 and 39 years (1). In the same year, mental disorders prevalence in the European region was of 110 million cases. The most common ones were depression (44.3 million) and anxiety (37.3 million) (2).

Anxiety is a basic and absolutely necessary emotion for the human survival. However, if maintained for long periods, it can result into detrimental for the well-being. It is considered a disease, requiring a treatment, when it does not allow the person to lead a normal life by appearing in the absence of threat, or in an unreasonable relation to it. Anxiety disorders usually outbreak at an early age. They are one of the most frequent psychological disorders experienced by school aged children. Maintained anxiety is a dangerous threat to the internal homeostasis since it can lead to somatic illnesses and risk of suffering mental illnesses such as depression or substance-related disorders (3).

Anxiety disorders are classified by the International Classification of Diseases (ICD-10) (4) into two types: a) phobic disorders and b) other anxiety orders. Phobic disorders are defined as *“a group of disorders in which anxiety is evoked only, or predominantly, in certain well-defined situations that are not currently dangerous. As a result, these situations are characteristically avoided or endured with dread.”* This group includes agoraphobia, social phobia, specific phobia and other unspecified phobias. Other anxiety disorders are defined as *“disorders in which manifestation of anxiety is the major symptom and is not restricted to any particular environmental situation.”* This group includes panic disorder, generalized anxiety disorder, mixed anxiety and depressive disorder, other mixed anxiety disorders and other specified or unspecified disorders.

Test anxiety (TA) is defined by Zeidner (5) as *“the set of cognitive, physiological, and behavioral responses that accompany concern about possible negative consequences or failure on exams.”* It is considered a subtype of social phobia since it is precipitated by the fear of negative evaluation. As all anxiety disorders, TA is also triggered due to an excessive conception of threat, in this case, evaluative threat. Affected students constantly worry about the result of the test and the possible judgment made by their teachers, class fellows or parents (6).

Academic pressure is a common stressor to all students. In the educational environment, taking exams is acknowledged as one of the most important contributor to academic related stress (ARS). It has been associated to the appearance of anxious states and lower quality of life (7). Consequently, TA is a well-known occurrence to students of different ages. Though anxiety levels vary from country to country, TA has been found to be a prevalent and relatively homogenous phenomenon around the globe. The prevalence has experienced an upward trend due to the introduction of more frequent testing at a younger age: 10% in the 1960s, 25 to 30% in the 1970s to 41% in the 1990s (8). One study estimates that between 10% and 40% of all students go through some level of TA (9), with 15 and 22% of them exhibiting high levels (10). This anxiety can surface as early as age seven, and women, minorities, and those with disabilities are more likely to face it (6).

According to the Program for International Student Assessment (PISA) 2015 report (11), TA is negatively associated with academic performance. Revising the data of countries belonging to The Organization for Economic Co-operation and Development (OECD), taking in account the performance in science related subjects, 63% of students with low performance and 46% of students with high performance claimed feeling test anxiety no matter how well prepared they felt for the exams.

Regarding the Spanish data, these statistics rise even higher than the average of OECD, being 73% for students with low performance and 56% for the ones with high performance who feel test anxiety. Furthermore, students go through nervousness even if they have the test well prepared (67%), they feel tense while preparing the test (48%) and they feel nervous when they don't know how to resolve an exercise (56%) (11). When comparing sexes, anxiety seems to be more common in girls than boys (12).

CONSEQUENCES

Short term:

Test anxiety leads to lower academic achievement by producing high levels of stress and anxiety which creates attention and concentration deficit, difficulties for memorization and resolving problems, shortage in studying skills and lower productivity (13). Physiologically, students with high test anxiety levels, experience symptoms such as sweating, muscle tension, palpitations, rapid heartbeat, trembling, dizziness, unexplained headache or stomachache and nausea. Cognitively, it is characterized by specific *“negative thoughts, self-criticism, or concerns about the effects of failure”* (5). Moreover, TA goes along with self-comparison and social worry thoughts since these students are afraid that they will be judged negatively by their fellow classmates, teachers and parents. Behaviorally, TA could lead them to avoidance conducts such as procrastination, which can have very serious outcomes for the students' academic success such as lower grades, lengthier study periods and premature study drop-out (14).

Long term:

Test anxiety has been linked to school burnout. Burnout is defined as *“feeling exhausted because of study demands, having a cynical and detached attitude toward one's study, and feeling incompetent as a student”* (15). Students undergoing school burnout *“display a lack of interest in class activities, recurrent absences, chronic tardiness, and irresponsible behavior”* (16). Furthermore, they feel less confident and not valued by the teachers. As a result, this is reflected with negative behavior which contributes to worsening of overall classroom atmosphere (15).

Since TA leads to suffering, many students have low self-esteem, repeat grades or quit school (12). As time goes by, low self-efficacy and avoidance arises which can artificially weaken student's academic achievement (17). In early grades, students with high TA are found to be as sociable as their peers with low TA. However, in college this relationship becomes inverted, with high TA students being less sociable, having a lower sense of well-being, less self-acceptance, less

self-control, less acquirement of responsibility and lower intellectual efficiency than low TA students (18).

Since taking exams is difficult for these students, they will have a hard time with further education and will be limited in career and job opportunities by having lower professional qualifications and lower labor productivity, affecting their socio-economic status and quality of life (19). Furthermore, affected students are at risk of developing further anxiety disorders, depression and suicide (7).

Among other factors, test anxiety is a major contributor to academic-related stress (ARS). Students with ARS report having a poor sleep, and use harmful ways to cope with this problem; such as taking pills, smoking or using alcohol. ARS is also related to poor physical health. Stressed students, during examination periods, are unlikely to be physically active. In consequence, it might make them more prone to the evolvement of diseases such as metabolic syndrome, obesity, reduced insulin sensitivity due to unhealthy lifestyle and stress system dysregulation. It can also lead to use of drugs and alcohol among young people. Furthermore, ARS is strongly related to lack of motivation and academic withdrawal. This has negative outcomes for the student's future since it has been proven that people with lower education levels report having poorer mental health and more illnesses than those with higher education levels (7).

RISK AND PROTECTIVE FACTORS:

One of the prominent and unmodifiable risk factor is belonging to female sex. Females are more prone to having higher TA levels than males. It is speculated that this relationship is due to the fact that females are normally encouraged to express their emotions while males are taught to suppress them. Moreover, females are socially required to be more responsible and involved in the tasks (20).

Highly evaluative classrooms where competition among peers is accentuated increments students' anxiety levels (11). Low self-esteem, low self-efficacy, lack of motivation, poor study skills, high self-imposed perfectionism and repeating a course are also determinants of higher levels of TA (21-23). Social pressure that students who attend high performance standard school feel leads to increased anxiety levels. Other factors that trigger TA and affects student's performance are the importance given to the exam, the atmosphere that surrounds exams, examiner's personality and physical conditions, such as the presence of visual or auditory distractions (11,18).

Coping strategies, supportive learning experiences, good social network have been linked to lower levels of anxiety (3). Social identification has been related to the enhancement of mental health. Students who feel they belong to a group tend to experience lower levels of TA (19).

SETTING:

Test anxiety levels have been seen to be related to age. TA can start to develop as early as in elementary school, as students increase in grade level, anxiety becomes greater since the exposure to examination increments (18). A Spanish

study (20) performed among the population of Compulsory Secondary Education (CSE) showed how levels of TA increased with each grade level. From 1st grade of CSE, where TA levels were present and significantly high, to 4th grade where TA levels became the highest. Students with lower grades had elevated TA levels in comparison to those with higher grades. Low achievers are more susceptible to course repetition which will trigger or further worsen test anxiety, as negative results have an ansiogenic effect with these students having social and parental pressure to succeed. However, if they fail again, anxiety levels decrease because most students no longer feel they can succeed, leading them to an academic failure.

An analysis realized by the Basque education department (24) states that Basque Country registered a drop out from school of 6,9% after CSE in 2018. The probability of repeating a course was significantly higher in CSE. During the course year of 2016-2017, 20% of this population was declared to be repeating a course, with the repetition tendency being the highest in 1st grade (7,3%). These students, coming from primary education, experience an educational shift, with more subjects per course and higher autonomy, which puts them at a greater risk for the development of TA (20). Out of these 1st grade repeaters, 58% belonged to a low socioeconomic group, while 6,2% were from a high socioeconomic population. There is a clear relationship between the socioeconomic status and the probability of repeating a course, with it being higher for students with lower status (24). Furthermore, in a few years at the age of 16, these students will be able to decide between pursuing higher studies or dropping out from school. The risk of dropping out is higher for students with anxiety disorders in comparison to their non-anxious peers (25).

There is a significant relationship between students' TA and their parents' educational level, with students presenting lower levels of TA when their parents possess higher studies. This is due to a higher implication and ability to help their children in studies which is lower in the case of parents with low educational levels. All students are susceptible to TA development but the ones with less resources remain at a greater risk (22). Test anxiety levels are positively related to students' socioeconomic level (26). According to PISA 2015 report (27), 2 out of every 3 Spanish students, assist to a public school. Low and medium-low socioeconomic level prevails among these public attenders. A 26,8% of these students are disadvantaged. Only 1 out of every 10 students belongs to the richest 20%. When comparing these statistics to concerted and private schools, only 11% and 2% of the students belong to disadvantaged group respectively. This socioeconomic difference affect students' grades, with students from private and concerted schools having better grades than public schools'.

Therefore, this health promotion program (HPP) will be implemented as a pilot study in the 1st grade of CSE among students of age 12-13 years. The selected school will be the public school of IES Txurdinaga Behekoa located in the district of Otxarkoaga-Txurdinaga. It receives students from both sub-districts. According to the 2018/2019 annual socioeconomic report (28), Otxarkoaga is one of the least favored area when measuring family income. Besides affecting students' grades, socioeconomic status is a crucial factor for school dropout. A Norwegian study (29) performed among young adults revealed that those who had dropout from school presented a higher burden of mental disorders in comparison to students assisting to college. They declared having an internalizing mental health disorder, less access to resources and social support as important factors in their dropout from school and employment.

JUSTIFICATION:

Given the importance and detrimental effects of TA upon students' health, it is important to implement a HPP in a school setting, since this is where the targeted population is encountered. Universal prevention programs, delivered in educational environment, have proven to be effective in the reduction of internalizing disorders (25).

Programs which combine interventions to improve stress/anxiety management, studying and test taking skills have shown to be the most effective. (6-7,9) Therefore, this HPP will be based on The Cognitive Behavioural Therapy and mindfulness, with a skill focused approach.

Previous evidence:

The Cognitive and Behavioural Therapy has been demonstrated to be effective for the treatment of anxiety disorders. It is based on bringing awareness about the physiological symptoms and use exercises to overcome them; to identify thoughts that increase or maintain anxiety and replace them with more positive and realistic thoughts (25). Relaxation exercises such as diaphragmatic breathing have found to be effective in the reduction of TA anxiety (6). Furthermore, systematic desensitization, which consists in the use of relaxation techniques while being exposed to the feared stimuli, is a therapy that has also shown to be effective. Teaching studying and test taking skills result in an improved task performance which in turn decrease TA levels (9).

Conducted research further suggests mindfulness to be effective for the prevention and lowering high TA levels (30). Mindfulness targets mechanisms such as "*attention regulation, emotional regulation, behavioral flexibility, decreased rumination, and exposure*" through which it drives the individual to shift from a subjective to an objective perspective regarding one's internal and external experiences (31).

Students undergoing mindfulness present lower levels of negative thinking, worry and stress. It improves self-awareness, making the person aware of the present emotions, thoughts and sensations leading to an increased self-regulation, which consists in effectively modulating one's physiological arousal, emotions, and attention (30). Since test anxiety impairs attentional control with negative concerns, before or during exams, mindfulness regulates this control, leading students to an improved performance (31). This therapy improves one's self-esteem, which is understandable given the core idea of mindfulness, a non-judgmental acceptance of the moment, by helping to lower perfectionism, harsh criticism and judgmental thoughts about the self. The physiological benefits include lowered blood pressure and slowed heart rate (30).

Mindfulness has been linked to a higher academic self-efficacy (32). Self-efficacy, as described by Albert Bandura, is the belief of an individual in his/her ability to achieve a desired outcome by performing a specific behavior (33). Students who have a higher academic self-efficacy perform better on tests and as a consequence present lower levels of TA (21).

The primary objective of this HPP is the reduction of TA levels among students. However, this type of program has proven to be also beneficial for other types of anxiety disorders. Research shows most anxiety disorders share core features such as hyperarousal and anxiety related uneasiness. Since adolescence is a period where students experience drastic changes both physically and mentally, it is of great benefit to introduce interventions at this point targeting these key features in order to lead them to testing success, by developing self-efficacy through positive self-perceptions, which in turn will prevent academic related depression, educational failure and school dropout (34).

2. HYPOTHESIS & OBJECTIVE:

2.1 Hypothesis:

The implementation of a school-based health promotion program in students of 1st grade of CSE will reduce test anxiety prevalence by 60%.

2.2 Objective:

To reduce test anxiety levels by implementing a health promotion program among students of 1st grade of Compulsory Secondary Education aged between 12 and 13 years in the public institution IES Txurdinaga Behekoa.

3. METHODOLOGY:

DESIGN:

Selection and beneficiaries:

Regarding selection criteria, all students will be included in this program. The direct beneficiaries are students who at the end will present lower levels of TA and improved health. Meanwhile the indirect beneficiaries could possibly be teachers thanks to the improvement of class environment and students' academic performance since their poor results might provoke frustration among these. Lastly, parents could also be benefited by presenting lower levels of stress if their children are healthier.

Participants:

45 students belonging to two groups of 1st grade of CSE aged between 12 and 13 years admitted in IES Txurdinaga Behekoa school.

Permissions/Recruitment:

IES Txurdinaga Behekoa school will be approached during the summer of 2020. The purpose of this HPP will be put forward and a meet up will be set with the board of the school and the representatives of parents to further discuss the

details. For recruitment of students, parents will be approached through the school meeting, held annually at the beginning of the course. Details of this project will be enclosed and doubts will be cleared. Parents will be recalled about the importance of assistance to all sessions, it being beneficial for both students and the evaluation process.

Ethical issues:

To ensure that this HPP fulfill ethical requirements, this HPP will be submitted to the Ethical Research Committee of Basque Country (Comité Ético de Investigación Clínica de Euskadi, CEIC-E), which is the institution responsible for ensuring the no violation of ethical criteria in research projects concerning humans' health.

Theoretical Framework:

This HPP is based upon the Social Cognitive Theory by Albert Bandura. Being a firm advocator for health promotion and disease prevention rather than disease treatment, this theory sets some specific determinants needed for effective health practices: knowledge of health risks and benefits of different lifestyles habits, perceived self-efficacy that one can exercise to achieve a desired outcome, outcome expectations about the potential costs and benefits for the implemented health practices, goals people set for themselves and the perceived facilitators and impediments they have to deal with (33).

Knowledge of health is the first required condition for a person to consider change. However, this alone can do little since people need to believe they can achieve a target they have established by performing a certain behavior in the face of difficulties. This is where self-efficacy beliefs come into action. Low self-efficacy holders set lower goals for themselves and give up easily while high self-efficacy holders have the ability to set higher goals, view impediments as surmountable and persevere in times of difficulties. This belief impacts health behavior directly and indirectly by having an impact on goals, outcome expectations and perceived facilitators and impediments (33).

The change in health habits does not come only by will rather it requires motivational and self-regulatory skills. That is why this HPP will provide knowledge about test anxiety making students, parents and teachers see the potential risks of test anxiety and the benefits of tackling them. Following that, students will be taught effective coping strategies through different activities to increase their perceived self-efficacy.

RESOURCES:

Human resources:

The team will be interdisciplinary: a mental health nurse and a psychologist will be in charge of this project. All the sessions will be delivered by both members so they can provide a more personalized attention to participants and identify and address specific needs that might arise during the programme development.

Material Resources:

Materials: Worksheets, photocopies, writing material, CDs and food.

Location and duration: activities will be carried out in the school building. School's library, gym, sports track and classes will be used. All sessions will be delivered in the tutoring period (50 minutes) once a week, except for the 1st and 2nd session which will last 90 minutes; and the systematic desensitization therapy, (session 11th to 15th) which will be delivered in a full week.

Financial and economic justification:

The cost of hiring the required staff, consisting of a mental health nurse and a psychologist working part-time during five months will be around 15000 €. Funding needed for materials used in activities will be around 500 €. There will be no costs of locations because the ones required for activities (library, theatre hall, gym and classroom) belong to the school, so it will be both money and time-saving.

Total cost of project: 15 500 €

4. DEVELOPMENT:

This HPP will consist of 16 sessions. The development of this project will be designed in the following way: an introductory meeting with teachers, parents and students; 1st session will tackle knowledge about test anxiety; 2nd session will target improvement of study and test-taking skills; 3rd session will be used for teaching relaxation strategies; 4th session onwards mindfulness will be introduced up until 10th session; from 11th to 15th sessions systematic desensitization therapy will be implemented. Session 16th being the last one, will be used to summarize the content of the program. Activities proposed in this program will target risk factors such as study skills, relaxation strategies, self-awareness, self-esteem, self-regulation and self-efficacy.

Mindfulness activities used in this HPP are drawn out from the Manual for Educators (35) developed by a team of psychologists from the Australian Organization Smiling Mind. In every single session, after the activity is over, students will be encouraged to share their feelings, thoughts and experience felt throughout the exercise. They will also be given an activity for home which they will practice throughout the week, until the next session. An audio recording with a daily mindfulness guide will be provided, which consists in a breathing guide to encourage students to maintain their focus in the present moment and avoid wandering through past and future. From the session 9th onwards, they will be given a different recording shifting to body-scans. To keep students' home practice in check, they will be handed out self-report sheets to fill after every home activity (Appendix 1).

Introduction:

At the meeting held at the beginning of the course, the team will gather with the teachers and parents to introduce themselves. This meeting will be informational. The chronogram of activities will be laid out. Doubts will be cleared. Consent documents will be delivered to parents who will have the chance to sign them at the place or send them in the following days in case anyone needs time to make a decision. The Importance of assisting to all the sessions will be specially mentioned to parents, as this being beneficial for both students and the evaluation process.

A separate meeting will be held exclusively with students. The staff will be introduced. They will be explained the aim of this project. Any doubts will be resolved. Activities chronogram will be detailed. An emphasis will be made upon the vital importance of assistance to all sessions.

Staff: Nurse and psychologist

Location: School library

Duration: 50 mins per meeting

1st session: What is test anxiety?

To provide knowledge about TA, this first session will be divided into three sub-sessions: 1A for teachers, 1B for parents and 1C for students.

1A- Teachers: A power point presentation will be used to talk about the basics of test anxiety. They will be explained the school, classroom and examination factors that affect students and lead them to develop TA; how test anxiety affects students' academic performance and how serious can be its consequences for mental health. Teachers will be briefly delivered information about how they can help improve students' performance by establishing clearly the exam syllabus, by developing tests with clear instructions and avoiding confusing questions; by doing tests practices so students become familiar with the test format since this format varies from teacher to teacher and by promoting collaborative learning and making students work on group projects.

They will be informed about the beneficial effects of deep diaphragmatic breathing right before an exam. The technique will be shown to them so that if they consider the suggestion, they can implement it in the classroom.

Staff: Mental health nurse and psychologist

Location: School library

Duration: 90 mins

1B- Parents: The same informational session will be provided, through a power point, to parents with the further specification of parental factors that affect students' mental health and academic performance, the causes and risk factors, consequences and what can parents do to prevent or reduce the problem.

Staff: Mental health nurse and psychologist

Location: School library

Duration: 90 mins

1C- Students: Unlike teachers and parents, students will be delivered this session through a game. The concept of test anxiety will be firstly explained. However, to explain how TA affects them, role-playing will be used. It is an entertaining way to engage students rather than passively delivering information. They will be divided into different groups and every single group will be given a risk factor/consequence to act out. At the end of the session, all the information will be briefly summarized.

Staff: Mental health nurse and psychologist

Location: School's theatre hall

Duration: 90 mins

2nd session: Improving skills.

Among other strategies, improving students' studying and test-taking skills have proven to lower feelings of anxiety. Therefore, in this session, students will be guided through different advice and techniques. Subjects like good vs. bad study habits, note-taking, solving questions effectively in the exam, memorization strategies, use of graphic organizers, time management, organization development and strategies for the examination day will be tackled. Students will be encouraged to develop a realistic study timetable that they can follow. To ensure students remember the provided information, material will be handed in order to create posters with the given information, which will be hung in their classroom for daily reminder.

Staff: Mental health nurse and psychologist

Location: School's library

Duration: 90 mins

3rd session: relaxation strategy.

Through this session students will learn how to relax when they get nervous, stress or anxious with a simple and effective technique: deep diaphragmatic breathing. They will be told to practice this technique normally during the day, when they are studying and just before the exam.

Staff: Mental health nurse and psychologist

Location: School's gym

Duration: 50 mins

4th session: Exploring the breath

In this session, students will be introduced to the basic concept of mindfulness: paying attention to the moment in a non-judgmental way. Sitting on the floor, they will be guided through deep breathing. They will be told the importance of staying in the moment, however, if the mind wanders, gently bring back the attention to the breath. This will be practiced during the session with the guidance and support of the project team.

Take home activity: checking out the breath various times throughout the day while doing different activities.

Staff: Mental health nurse and psychologist

Location: School's gym

Duration: 50 mins

5th session: Exploring sounds

This session will start with deep diaphragmatic breathing, which will last around five minutes. Lying down, students will be told to concentrate on the sounds surrounding them, first on the sounds that are the furthest away, and later on those the closest. At the end they will be told to concentrate on all the sounds. To end the session, students will be told to take a few deep breaths. This session encourages students to expand their attention span by concentrating on the different sounds surrounding them.

Take home activity: listening to a song they love and notice five things they have never paid attention to. They will also be told to listen to a song they don't like and notice five things about it, paying attention and notice if they can find something they enjoy about it.

Staff: Mental health nurse and psychologist

Location: School's gym

Duration: 50 mins

6th session: Exploring tastes

In this session, students will be told how to be mindful when eating. A piece of food (fruit, chocolate, nuts, ...etc.) will be used. Sitting down, the session will start with the practice of deep breathing for a few minutes. All five senses will be used to examine the piece of food: touch, taste, smell, sight and hearing.

Take home activity: once a day, before starting to eat, focus on the food on the table, examine the color, texture, smell before starting to eat. While eating, chew it slowly and notice the different sensations in the mouth and write them down.

Staff: Mental health nurse and psychologist

Location: School's gym

Duration: 50 mins

7th session: Exploring the body

Lying on the floor, starting with deep breaths for a few minutes, this session targets the many sensations felt in different parts of the body. Students will be instructed to imagine a warm and relaxing bubble traveling through various parts of the body, from head to toes. This is called body-scanning, which increases self-awareness of the body and reduces stress.

Take home activity: students will be advised to practice quick body-scans a few times per day, and especially if they are studying or doing homework.

Staff: Mental health nurse and psychologist

Location: School's gym

Duration: 50 mins

8th session: Exploring movement

This session is about discovering that meditation is not all about sitting or lying down. Making use of the outdoor track the school have, students with their eyes closed will be instructed to draw attention to the different feelings in their body while they stand, lift the leg and walk a few steps.

Take away activity: students will focus on their bodily sensations while they walk or run, to help them stay present in the moment and avoid mind-wandering.

Staff: Mental health nurse and psychologist
Location: School's outdoor sports track
Duration: 50 mins

9th session: Exploring emotions

This session will consist into making the participants focus their attention to their emotions, letting them see emotions in the same way as the breath or sensations and separating self from them.

Take away activity: students will be told to maintain their attention to different parts of body where they might feel the emotions (head, chest, neck, abdomen, ...etc.)

Staff: Mental health nurse and psychologist
Location: School's gym
Duration: 50 mins

10th session: Exploring thoughts

This session identifies mind-wandering, noticing how often the mind strays away from the present moment. Starting with deep breathing, they will be asked to observe their thoughts and let them flow away, rather than getting tied to them.

Take away activity: thoughts are equalized to clouds in the sky, some stay for a small time and other for a longer period but the sky eventually gets cleared. In the same way, thoughts rather than being conditioning, are considered to be temporarily, something that comes and leaves.

Staff: Mental health nurse and psychologist
Location: School's gym
Duration: 50 mins

11th, 12th, 13th, 14th and 15th session: systematic desensitization

Systematic desensitization is a behavioural therapy based on a gradual exposure to a feared stimulus while applying relaxation strategies. The first step consists in identifying the anxiety triggering stimuli, this was accomplished in the first session; the second step is to learn a coping mechanism, such as a relaxation strategy, this has been targeted in previous sessions; the third and last step is to confront the anxiety triggering element with the adopted coping mechanisms.

A brief introduction will be given about this therapy and the last step will be targeted by following The test anxiety hierarchy (Appendix 2) which consists in a various steps hierarchy, starting with the least anxiety triggering situation to the most. This therapy will be practiced for 5 days consecutively.

Staff: Mental health nurse and psychologist
Location: School's gym
Duration: 90 mins/session

16th session: Final goodbye.

This last session will be used as a space to revise the content and ideas of the program, discuss what students liked, disliked and suggestions. Students will be encouraged to set a challenge for the future based on what they learnt in this program. A small lunch will be offered to reward students' effort for assistance and practice of activities.

Staff: Mental health nurse and psychologist
 Location: Classroom
 Duration: 50 mins

CRONOGRAM

	Sep	Jan	Feb	Mar	Apr
Recruitment					
Introduction					
Session 1: What is test anxiety?					
Session 2: Improving skills					
Session 3: Relaxation strategy					
Session 4: Exploring the breath					
Session 5: Exploring sounds					
Session 6: Exploring tastes					
Session 7: Exploring the body					
Session 8: Exploring movement					
Session 9: Exploring emotions					
Session 10: Exploring thoughts					
Session 11-15: Systematic desensitization					
Session 16: Final goodbye					

5. EVALUATION & FOLLOW UP:

Process Evaluation:

To assess the implementation of this HPP, a questionnaire will be filled at the end of every session by the present staff. The questionnaire includes information about: the completion of the objective, time assigned being proper for the activity, the level of feasibility of the activity, acceptability of the activity and suggestions for improvement. (Appendix 3)

Impact Evaluation:

The aim of this program was “to reduce test anxiety levels by implementing a health promotion program among students of 1st grade.” To achieve this objective, a number of questionnaires will be handed out to students.

Following a quasi-experimental design, results will be compared to a control group selected from a school of similar characteristics. The first measurement will be performed after the end of 1st term of school, in December, two weeks before the implementation of this HPP, which will be implemented after Christmas Holidays. The second measurement will be performed at the end of the program. Lastly,

students will be followed in the long term, therefore the third and last measurement will be performed 1 year after the end of the program.

The following methods of assessment will be used:

1. The Test Anxiety Assessment Questionnaire (CAEX) validated in Spain by Torrano-Martínez R et al, 2012.
2. Academic Self-Efficacy Scale (ACAES) validated in Chile by Galleguillos-Herrera P and Olmedo-Moreno E, 2019. (Appendix 4)
3. Rosenberg Self-esteem Scale (RSES) validated in Spain by Vázquez Morejón A et al, 2004. (Appendix 5)
4. The Cognitive Emotion Regulation Questionnaire (CERQ-S) validated in Spain by Chamizo-Nieto MT et al, 2020.
5. Students' grades of 1st term and last term will be used to check progress

Indicators:

1. By the end of the program, test anxiety levels will be reduced among 60% of the participants.
2. By the end of the program 60% of the participants will have increased their academic self-efficacy
3. By the end of the program 70% of the participants will have increased their self-esteem

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7. APPENDIX

Appendix 1: Self-report

AUTORREGISTRO

- Nombre:
- Fecha:
- Hora:
- Duración:
- Actividad realizada:
- Lugar de realización:
- Breve comentario sobre la actividad:

Appendix 2: Test Anxiety Exposure Hierarchy

Kennedy DV, Doepke KJ. Multicomponent Treatment of a Test Anxious College Student. *Educ Treat Child.* 1999;22(2):203–217.

- You are preparing for the test that will be administered in one week.
- You are in class working on skills for the test. It is a week before the test.
- You are discussing the importance of the test. It is now Friday morning.
- It is Monday morning before the test. You are studying and planning your schedule for tomorrow.
- It is the night before the test. You are thinking about the test you will take in the morning.
- It is the day of the test. You are eating breakfast. How are you feeling?
- It is Tuesday morning, and you are walking into your classroom.
- You are sitting in a classroom, waiting for the test to begin, and they hand you your test.
- You start the test and read the first question. You do not know the answer immediately.
- You are taking the test and read a few more questions that are confusing.
- You realize that people are finishing the test, and you know that you need more time.
- You are taking the test and it is time for lunch.
- You turn in the test.

Appendix 3: Questionnaire for staff

Cuestionario para el personal

Fecha:

Nº de sesión:

Personal:

Lugar de realización:

- ¿Consideras que el tiempo utilizado en la sesión ha sido el adecuado?

- ¿Ha habido interés y participación en la sesión por parte de los participantes?

- ¿Se ha cumplido el objetivo planteado en la sesión?

- ¿Te has sentido cómodo impartiendo la sesión?

- ¿Qué harías para mejorar la sesión?

Appendix 4: Academic Self-Efficacy Scale

Galleguillos-Herrera P, Olmedo-Moreno E. Autoeficacia y motivación académica: Una medición para el logro de objetivos escolares. Eur J Investig Heal Psychol Educ [Internet]. 2019;9:119–35. Available from: www.ejihpe.es

INVENTARIO DE AUTOEFICACIA ACADÉMICA

El presente instrumento tiene por finalidad conocerla percepción que tienes como estudiante respecto a tus capacidades para realizar con éxito las actividades académicas, como por ejemplo: *Pruebas, Tareas, Ejercicios, Proyectos, Presentaciones* o cualquier otra actividad que establezca el colegio.

No hay preguntas buenas o malas. Por lo tanto, te pedimos responderlas todas.

Para responder este instrumento, deberás leer cada una de las afirmaciones anteponiendo un “YO PUEDO”. Por ejemplo, si la afirmación dice: “*Trabajar con cualquier compañero y lograr buenas notas*”, deberá leerse “*YO PUEDO trabajar con cualquier compañero y lograr buenas notas*”.

Posteriormente, deberás marcar con una “X” (encima del número) solo en aquel valor que más se acerca a turealidad, siguiendo esta escala:

Nunca puedo=1	Casi nunca puedo= 2	No sé qué responder=3	Casi siempre puedo=4	Siempre = 5
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PROMEDIO DE NOTAS (AÑO ANTERIOR)		CURSO ACTUAL	
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RECUERDA: Cuando lees cada afirmaciones deberás anteponer lo siguiente: YO PUEDO	Nunca puedo	Casi nunca puedo	No sé qué responder	Casi siempre puedo	Siempre puedo
1. Trabajar con cualquier compañero y lograr buenas notas	1	2	3	4	5
2. Trabajar en cualquier tarea y lograr buenas notas	1	2	3	4	5
3. Entender lo que enseña cualquier profesor	1	2	3	4	5
4. Realizar bien cualquier tarea que me den	1	2	3	4	5
5. Aportar buenas ideas para hacer mis tareas en todos los ramos	1	2	3	4	5
6. Esforzarme mucho más que mis compañeros para que me vaya bien en todos los ramos	1	2	3	4	5
7. Realizar cualquier tipo de tarea o trabajo que los profesores den, aunque sean difíciles	1	2	3	4	5
8. Organizar mi tiempo para cumplir con todo lo que los profesores piden	1	2	3	4	5
9. Sacarme buenas notas en las prueba que creo difíciles	1	2	3	4	5
10. Estudiar más horas cuando tengo pruebas difíciles	1	2	3	4	5
11. Esforzarme mucho más para resolver tareas difíciles	1	2	3	4	5
12. Repetir una tarea hasta lograr hacerlo bien	1	2	3	4	5
13. Entender bien la idea central que está explicando el profesor o lo que dice un libro	1	2	3	4	5

14. Cooperar muy bien en los trabajos que realizo en grupo.	1	2	3	4	5
15. Estudiar solo/a y rendir muy bien en cualquier actividad académica	1	2	3	4	5
16. Expresar mi opinión aunque no esté de acuerdo con lo que dice el profesor	1	2	3	4	5
17. Entender lo que explica un profesor aunque exista desorden en la sala.	1	2	3	4	5
18. Estudiar primero, y luego hacer otras cosas (jugar, ver tv)	1	2	3	4	5

Gracias por TU colaboración...

Appendix 5: Rosenberg Self-esteem Scale

Vázquez Morejón A, Jiménez García-Bóveda R, Vázquez-Morejón Jiménez R. Escala de autoestima de Rosenberg: Fiabilidad y validez en población clínica española. *Apunt Psicol.* 2004;22(2):247–56.

ESCALA DE AUTOESTIMA DE ROSEMBERG

Este test tiene por objeto evaluar el sentimiento de satisfacción que la persona tiene de si misma. Por favor, conteste las siguientes frases con la respuesta que considere más apropiada.

- A. Muy de acuerdo
- B. De acuerdo
- C. En desacuerdo
- D. Muy en desacuerdo

	A	B	C	D
1. Siento que soy una persona digna de aprecio, al menos en igual medida que los demás.				
2. Estoy convencido de que tengo cualidades buenas.				
3. Soy capaz de hacer las cosas tan bien como la mayoría de la gente.				
4. Tengo una actitud positiva hacia mi mismo/a.				
5. En general estoy satisfecho/a de mi mismo/a.				
6. Siento que no tengo mucho de lo que estar orgulloso/a.				
7. En general, me inclino a pensar que soy un fracasado/a.				
8. Me gustaría poder sentir más respeto por mi mismo.				
9. Hay veces que realmente pienso que soy un inútil.				
10. A veces creo que no soy buena persona.				

