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PROJECT TITLE

"Participatory Construction and Feasibility of a Multicomponent Intervention to Improve the Well-Being of Basic Education Children after the COVID-19 Pandemic"
(CONSTRUCCIÓN PARTICIPATIVA Y FACTIBILIDAD DE UNA INTERVENCIÓN MULTICOMPONENTE PARA MEJORAR EL BIENESTAR DE NIÑOS DE EDUCACIÓN BÁSICA DESPUÉS DE LA PANDEMIA)

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SUMMARY

Child mental health (CMH) is essential to developing mental, physical, and social health in adulthood. Preventing and intervening early in problems during this stage is a valuable strategy for public health [1–4]. Unfortunately, Chile has a high prevalence of MH problems in childhood and adolescence, especially between ages 4 and 11 [5].

The school system is an important place to investigate emotional and behavioral problems in children and adolescents. However, the system has not always had a coordinated, functional intersectional network to respond to the required demand. This project aims to improve the mental health of children and the school community through a multicomponent intervention. This program is based on a biopsychosocial mental health perspective that goes beyond the mere absence of disease, prioritizing protective resources, especially those related to social support and networks that are necessary for human well-being. The intervention includes two key components: 1) Participatory design and implementation of an online CMH literacy program for teachers of Public Educational Establishments (PS) with basic education. The program will be designed and implemented through a participatory process of intersectional agents, with special emphasis on the needs expressed by teachers of the educational establishments where it will be implemented. 2) Reactivation and coordination of the CMH network of Valparaíso, including relevant actors of the community, the health system, and education in 2 sectors (neighborhoods) of Valparaíso. This will be done by adapting the "ECO Barrio Solidario" program [6,7], which was a model of good practices in health in 2019, to the new socio-sanitary context, in coordination with the COMNSE 2.0 organized by the Municipal Health Corporation of Valparaíso. [8].

A two-year project is proposed, to be developed in four EEPs in Valparaíso. During the first 12 months, we will work on the construction of the literacy intervention with key actors of each establishment defining objectives, methodology and scope of the program, and then build the online platform with videotaped educational capsules. The network of children's MH or "ECO-Barrio Network" will be articulated with the local agents of the network (Local Public Education Service, National Service for Minors, Valparaíso-San Antonio Health Service, Municipality of Valparaíso and Primary Health Care other sectors involved). In the following 12 months, the literacy intervention will be applied in 4 of the 8 schools recruited, so that the other 4 schools will remain as a control. Finally, the intervention will be applied in the four schools that did not previously participate in the program. The results will be evaluated with indicators of acceptability, feasibility and effect in terms of achieving a better knowledge of the faculty about CMH, a pertinent and timely investigation of mental health studies at the school level and reduction of waiting times for care in the health and child protection system.

The results of this study will allow us to obtain the necessary information to design a larger study to evaluate the effectiveness and external validity of this multicomponent intervention.

1. RELEVANCE OF THE TOPIC AND CHARACTERIZATION OF THE PROBLEM

1.1. RELEVANCE OF THE TOPIC

Children's mental health is the basis of comprehensive health as an adult, which is why prevention and early intervention is relevant and has proven to be a valuable strategy in Public Health [1–4]. According to the latest WHO Burden of Disease report of 2017, it is estimated that in Chile, Mental Health (MH) problems are one of the main causes of years of healthy life lost[9]. In the child population, psychiatric disorders also produce a burden of disease in children between 1 and 9 years (30.3%) and adolescents between 10 and 19 years (38.3%) (MINSAL, 2007)[10]. The epidemiological study in MH child and adolescent of Vicente, De la Barra et al (2012), investigated a total prevalence of 22.5 % of mental disorders, higher in children between 4 and 11 years (27.8%) than in adolescents between 12 and 18 years (16.5%). The most frequent disorder up to the age of 11 was Attention Deficit Disorder (ADHD), which can seriously hinder schooling (adaptation, performance and well-being at this vital stage). In addition, they found an association between prevalence of affective disorders with history of sexual abuse, family psychopathology, and living with only one parent, while poverty and school dropout were related to higher prevalence of substance use disorders. The importance of preventing and treating mental health illnesses in children and adolescents (CA) has been incorporated by the Ministry of Health [11] through the National Mental Health Plans in recent decades[12].

A worsening of the MH of children and adolescents in Chile is estimated in the last two years due to factors associated with the social crisis and the SARS-CoV-2 pandemic[13]. On the one hand, the social crisis began in October 2019 and manifested itself through collective action with massive participation of the population, in response to decades of growing socioeconomic inequality and weakening of the social safety net[14]. The social crisis led to violent repression by the security forces, which was particularly brutal in the poorest neighborhoods of the country[15]. The modest evidence on the emotional effects of community violence on children suggests that social unrest must have increased clinically significant mental health problems in the child population [16,17]. The study of the “Defensoría de la Niñez” (DDN)[18], in its qualitative component with 73 children, between 4 and 17 years old, investigates the effects of the state of exception and after the social crisis, showing that symptoms of post-traumatic stress were present, especially in children from territories exposed to high levels of violence. During the period studied, 803 cases of violations of children’s rights were known, where 51% of children and adolescents were in marches or demonstrations in contrast to 27% who were in everyday situations.

On the other hand, Chile is among the countries with the highest mortality in the world from COVID-19 19. While children have been spared much of the direct health impacts of the pandemic, they have seen their emotional and educational development disrupted, along with their social lives drastically reduced due to forced or voluntary confinement[19], social isolation, interruption of schooling, overload of caregivers at home and risk of child abuse, which entails effects not yet sufficiently dimensioned in the mental health of children. Both international organizations and local leaders have warned of the possibility of a so-called "fourth wave" in relation to the pandemic, that is, an increase in mental illnesses in the population as a result of isolation, confinement, fear of contagion, over-exposure to worrying or morbid news, and uncertainty or economic problems, adaptation to teleworking and childcare without a support network, among 20 others.

Several researchers in the country have evaluated the impacts of the pandemic on the mental health of the child and adolescent population. The study "Let's Take Care of Our Children", for example, conducted 6149 online surveys of parents throughout Chile with children between 0 and 11 years old

during the year 2020, and investigated an increase in sleep problems (43% of the sample) and behavioral and emotional symptoms (61% were more emotionally reactive, 43% more disobedient, and 41% with increased appetite)[21]. In the study conducted by Larraguibel, Halpen and Montt (2020)22, which includes an online survey of 4,772 parents of children between 4 and 11 years of age belonging to public educational establishments, 20.6% of parents reported emergency mental health symptoms in children who were asymptomatic prior to the pandemic; the most frequent symptoms were "irritability or bad temper", "failure to obey" and "changes in appetite."[18] In young people, the study by Carvacho, Morán et al., which applied the same survey on mental health in 2016 and 2020 in equivalent samples of university students between 18 and 25 years of age in the Valparaíso region, observed that in 2020 both the group of men and women presented a significant increase in depressive symptoms[23].

Although there is no evidence on the differential impact of the pandemic among children of different socioeconomic backgrounds, it is likely that the mental health effects are even worse in sectors affected by poverty and social precariousness[24], either by direct effect or mediated by the greater impact of the pandemic on their parents and communities. The study of Olhaberry et al. [25], who interviewed 1205 families with children from 0 to 5 years old, showed that parents of low Socioeconomic Level (SES) increased their levels of sadness in relation to the pre-pandemic period, while those of high NSE perceived greater support from their partners and did not change their levels of sadness. While the researchers did not evaluate effects on children in the families studied, these data suggest an increased risk of emotional problems in children of low SES.

The pandemic has severely affected children's connection to community agencies that normally provide emotional support (e.g., teachers and grandparents and another extended family) and to the health system, whose ability to respond to health problems unrelated to COVID-19 has been dramatically reduced (https://www.uchile.cl/noticias/166368/pandemia-e-infancia-como-ha-afectado-el-desarrollo-de-ninos-y-ninas). Given the above, it is likely that much of this mental health problem has not been detected or if it has been, it has not been adequately treated, further widening the gap in attention to mental health needs.

1.2. PROBLEM STATEMENT

In consideration of the high prevalence of mental health problems of children and adolescents in Chile and the increase already observed and even more expected in the context of the COVID-19 pandemic, it is imperative to address one of the many barriers that have been reported as maintaining the gap between the need for care and the health system's response [5,26–28].

The literature reports several barriers such as: difficulty in recognizing or identifying their children's MH problems by parents [29,30], parental beliefs about mental health services [31], perception of availability of care services, waiting lists and satisfaction with previous experiences[32] , among others. In adolescents, less help-seeking is reported compared to a greater perception of difficulty of access to specialized centers[33] and greater requests when parents appear sensitive to the problems of their children[34]. However, there are international figures that report only 17% of consultations from parents[35] without data in Chile in this regard. In turn, international and national evidence shows that the highest percentage of requests for mental health help derive from school teachers between 36% and 21.9%, with the main problems being school-disruptive and emotional (50% and 17% respectively)[35]. In Chile, it has been reported that only 41.6% of children and adolescents with psychiatric disorder associated with social disability consulted in some type of service in the last year[5], as well as, a large proportion did not receive specialized care.

Given that the school environment, with its different actors, is the primary source of referral to MH of children, it has been a privileged instance for the investigation of emotional and behavioral problems. However, the school community does not always have the knowledge to differentiate which problems can be addressed at the primary level and which require attention by trained specialists[36], nor does it have a coordinated and functional intersectoral network to respond to the required demand. Precisely, I respect one of the ways in which the problem of referral of children and adolescents to evaluation and treatment in CMH has been addressed.

In Valparaíso, an important part of the team of this project developed the “Eco Barrio Solidario" Program between the years 2015 – 2019, based on the principles of the community approach of the National Mental Health Plan in our country. The objective was to strengthen intersectoral links (Health, National Service for Minors, Education and Community Organizations) to promote environments that facilitate the well-being and MH of children in the Baron Territory, Placeres and Quebrada Verde. The results were as follows: Regarding the problematization and through a participatory process, it was concluded a dismantling of the intersectoral network that intervenes in the process of development of the mental health of the child and youth population of Valparaíso in general and of each territory corresponding to the CESFAM Baron, Quebrada Verde and Placers. Specifically, the representatives of the education sector alluded to the difficulty in referral and access, the representatives of the Primary Health Care (PHC) to the need for an ecological approach, SENAME to the presence of different languages and logics, lack of space for communication with health and the Child and Adolescent Unit of the Psychiatric Hospital of El Salvador to the need for comprehensive treatments and support in early screening. Regarding referrals, through the ECO form, significantly higher figures are reported to PHC than to specialized care service, in this case Child and Adolescent Outpatient Unit, Salvador Hospital considering the years 2016, 2017 and 2018[6]. In turn, in 2020, the Joint Health-Education Commission (COMSE)[8] of Valparaíso reinforces the need for a rearticulation of intersectionality to face the socio-health crisis in educational communities, collecting expectations of constant and contextualized training to the territory, greater resolutivity and community participation,

collecting elements of the aforementioned ECO Barrio Solidario program for children, which had good valuation from its participants. [8]

Therefore, at the end of the COVID-19 pandemic we will face an increase in mental health problems in children, for which it is essential to improve the ability to identify them through their teachers and parents, as well as the articulation of a community network and local services to meet these needs, Both aspects being the components of the intervention that seeks to develop and evaluate in this proposal.

1.3 ANALYSIS OF THE STATE OF THE ART

The concept of Mental Health Literacy (MHL). introduced in 1997[37], was defined as the set of "knowledge and beliefs about mental disorders that help their recognition, management or prevention". Consist in set of elements that includes aspects such as: a) ability to recognize the development of mental disorders and thus facilitate the search for early help; (b) knowledge and beliefs about risk factors, the causes of these disorders and how to prevent them; c) knowledge of effective treatments and self-help strategies and available professional help; (d) attitudes that facilitate recognition and appropriate help-seeking; and (e) knowledge and skills to provide initial mental health help to others. It is, therefore, a question of training the general population on mental health[38]. Kutcher et al. [39] in 2013, proposed a modification to the concept of MHL by identifying four components: a) The ability to understand how to optimize and maintain good mental health, b) Understanding mental disorders and their treatment. c) maintaining appropriate attitudes towards those living with mental disorders and developing actions to reduce stigma. This last description can be considered more complete, since it emphasizes the importance of fighting the stigma that mental health diseases produce. [40]. There is considerable agreement that one of the best places to carry out MHL strategies would be in educational establishments. This is due to the fact that young people spend much of their time in the school, have these places incorporated as centers to acquire knowledge, in addition to the fact that there is greater ease of being able to execute MHL programs through the incorporation of these topics into the curriculum and / or through recreational activities[36], being a strategy that can also be developed by low- and middle-income countries[41] Although it has been considered that this process can begin in adolescence, since this stage coincides with the onset of mental disorders [36], in our country, there is a large number of children under 11 years of age with mental health disorders, therefore, it would be justified to start interventions in primary school[42]. There are several systematic reviews of the literature that have aimed to search for and describe the different mental health literacy programs in schools 43–45. In these, it is highlighted that most of the MHL programs in schools are aimed at high school students(92.3%), with only 7% of them destined to primary education 46 and that, although prevention measures are considered cost-effective, most of these take place in developed countries[46].

Among the programs described in the reviews, those with a higher level of evidence and that are mainly aimed at health promotion in primary school students, are:

1) "The Mental Health and High School Curriculum Guide": Aims to increase awareness of mental disorders and their treatments, as well as increase understanding of how to obtain and maintain mental health, reduce stigma and improve the effectiveness of help-seeking[47]. The Guide is applied by regular classroom teachers who have been trained in its application, in regular classroom

teaching, and has been designed to be integrated into a health promotion course that is already part of the existing curriculum in the Canadian education system. Implementation takes about 10 to 12 hours of class. Teachers participate in a 1-day training session to familiarize themselves with The Guide and improve their own MHL before implementing it in their[48] classrooms. It has been seen that the application of "The Guide" in Canada, managed to increase the knowledge of students and staff, reduce stigma and increase the search for help by students[49]. Reduced stigma, more adaptive coping, better lifestyle choices and less perceived stress were also found for students who received "La Guía" in Nicaragua [50]. For example, when assessing mental health knowledge with an instrument designed specifically for this intervention, it varied significantly from an initial score of 15.45 points (SD: 3.97; range 0-28 points) to 19.5 points (SD: 3.39) post-test and 19.11 points (SD: 4.04) at two-month follow-up ($p<0.001$). Regarding the attitude towards mental health diseases, this was evaluated with an instrument that scored between 8 and 56, where a higher score indicates a better attitude, and demonstrated a variation of 42.56 (SD: 6.08) points before the intervention to 46.42 (SD: 5.67) points at the end of this ($p<0.001$)[51] . We consider that the application of this program in our country would be hindered since, although its results are statistically significant, they are clinically unattractive (modest difference between baseline and post-test evaluation) and, on the other hand, Chile does not have a defined subject within which this strategy could be incorporated, which would lead to increase the existing curriculum or displace other topics considered relevant by the Current regulations. Another aspect to consider is the one that has been preferably applied to adolescents, with an experience in progress with children of 9 years 52.

2) "The Incredible Years - Teacher Classroom Management Training" (IY-TCM): Its objectives are: a) Improve teachers' management skills and improve teacher-student relations b) Help teachers develop effective individual and group behavior plans to enable proactive (rather than reactive) management c) Encourage teachers to adopt and promote social and emotional regulation skills and, d) Encourage teachers to strengthen positive relationships between teachers and parents. It uses a variety of methods to impart the formation of these four principles and is mainly based on the theory of cognitive social learning[53]. For its implementation, it requires six full-day sessions with teachers, separated by a month between each one. A good summary of the evidence around this program is found in the report of the randomized clinical trial STARS[53], where it is reported that in previous studies, for example in that of Murphy et al. [43] teachers and 1192 students were evaluated, demonstrating a high degree of teacher satisfaction with the intervention, and a statistically significant effect on the "Positive Climate in the classroom", improving it from 5.46 before the intervention to 5.77 post-intervention ($b = 0.37$, $p = 0.02$, $d = 0.45$). This result did not show that it was maintained at one-year follow-up and no significant changes were observed in the results that assessed pupils' behavior at a targeted level. In an experience outside the United States, IY-TCM was applied to 1037 primary school students in the United Kingdom, comparing them with 1038 in the control group. The study found that IY-TCM improved childhood mental health, according to the teacher-reported SDQ-TD score, by 1.0 point [95% confidence interval (CI) 0.1 to 1.9; $P = 0.03$] at 9-month follow-up. However, there was little evidence of an effect on follow-ups at 18 months ($P = 0.85$) and 30 months ($P = 0.23$). Interaction tests indicated that IY-TCM led to greater reductions in teacher-reported SDQ-TD score at 9 months (interaction $p<0.001$) for children who were classified as having mental health problems at baseline (mean difference -2.6, 95% CI = –4.6 to –0.6) than for children who were not (mean difference –0.4, CI95%= –1.2 to 0.4)[53]. We believe that the strengths of this program are given by being aimed at elementary school students, as well as the

ease of its implementation. However, its limitations include the inconsistency of results in the different randomized clinical trials (RCTs). In addition, it is an intervention that primarily addresses behavioral alterations, and in the population under 11 years of age, anxiety disorders are a group that has a high prevalence[42].

3) "Promoting Alternative Thinking Strategies" (PATHS): This program is aimed at reducing violent behaviors as a main objective. The PATHS curriculum focuses on five major domains of functioning, including self-control, emotional understanding, positive self-esteem, relationships, and interpersonal problem-solving skills. An additional goal is the reduction of aggression and other behavioral problems. Lesson activities include role-playing and storytelling[54]. In a study involving the randomization of students from 14 schools (7 PATHS/7Control) from 3rd to 5th grade, it showed that, in terms of the results that were rated by teachers, PATHS showed a slowdown in behavior problems (b = -.111, t = -3.022, p = .023) and a tendency for a slowdown in aggression (b = -.137, t = -1.797, p = .122) For outcomes that were rated by students, there were no significant intervention effects associated with self-reported aggression, delinquency, or victimization in school. However, there were significant effects associated with each of the social information processing variables, i.e., there was a linear trend toward the importance of students' normative beliefs about aggression (b = -.464, t = -1.779, p = .126). In addition, significant linear effects were found for aggressive social problem solving (b = -.023, t = -2.606, p = .040), hostile attribution bias (b = -.041, t = -2. 811, p = .031) and aggressive interpersonal negotiation strategies (b = -.038, t = -2.767, p = .033)[55]. On the other hand, Humphrey et al, could not replicate these results, concluding that for the outcomes evaluated, Effect sizes were small in all cases. suggesting that social and emotional learning interventions such as PATHS may not be as effective when implemented outside their home country and evaluated in independent trials[54]. It is this irregularity, as well as the low effect size of this intervention, which can be counted among its main limitations.

4) In relation to this last program, it is important to highlight the strategy **"Social and Emotional Learning" (SEL),** given that its findings have been applied in a large number of different interventions and, therefore, has a large amount of evidence that justifies its use, demonstrating significant effects consistently, especially when the intervention was less Day by teachers. Durlak meta analyzed 213 studies that used SEL as the axis of intervention in schools, reporting significant results at the level of: Social-emotional skills: g=0.57 CI 95% (0.48-0.67); attitudes: g=0.24 CI 95% (0. 0-16-30); positive social behaviors: g=0.24 CI 95% (0.16-0.32); behavioral problems: g=0.22 95% CI (0.16-0.29); emotional distress: g=0.24 95% CI (0.14-0.35) and academic performance: g=0.27 95% CI (0.15-0.39). These interventions, when mediated by teachers, show a slightly better performance in the areas of: socio-emotional skills: g=0.62 95% CI (0.41-0.82); positive social behaviors: g=0.26 95% CI (0.15-0.38); emotional distress: g=0.25 95% CI (0.08-0.43) and academic performance: g=0.34 95% CI (0.16-0.52) 56. Lawson et al. [57] identified the core components of the various SEL-based interventions: a) social skills, b) identification of one's own feelings, c) identification of the feelings of others, d) behavioral coping and relaxation skills. This information facilitates the construction of local literacy strategies, optimizing the process by focusing on these aspects.

5) The **"Life Skills" ("Habilidades para la Vida" HPV)** program, developed and implemented in Chile, stands out worldwide as one of the strategies that has a very extensive and sustained application over time[43], with positive evidence in improving all the items evaluated with the TOCA-R instrument, comparing the scores obtained pre and post intervention: attention span and concentration: 18.11 points (SD: 4.13) versus 15.39 (SD: 5.17); common achievements: 16.24 (SD: 4.49) versus 13.88

(SD: 5.37); acceptance of authority: 28.45 (SD: 9.18) versus 21.94 (SD: 10.06); activity level (hyperactivity): 12.78 (SD: 4.33) versus 9.50 (SD: 4.43), social contact: 19.80 (SD: 5.79) versus 15.82 (SD: 6.47) and emotional maturity: 23.52 (SD: 5.21) versus 20.73 (SD: 6.06). It has also been shown to achieve significant differences in reducing psychosocial dysfunction, decreasing the Pediatric Symptoms Checklist (PSC) score from 46.79 (SD: 25.25) before the intervention to 40.95 (SD: 27.57) post-intervention[58]. Guzman et al. demonstrated that the efficacy of this program varies according to adherence to it, reporting that 41.6% of participants who attended 6 sessions or less remained in the risk category measured by TOCA-R in the second evaluation, versus 36.1% of those who attended 7 or more sessions (OR=0.84), for PSC the probability of staying at risk was 31.0% versus 22.2% (OR: 0.73); for the risk of repeating the course in the PRIMER group the risk was 12.5% versus 7.9% of those who had better adherence (OR: 0.68). It was also effective in measuring low school attendance (defined as attendance less than 85%), with 25.8% versus 16.6% respectively (OR: 0.66)[59]. However, although there is qualitative evidence on the contribution of the promotional approach to mental health of HPV within the school community [60], it is an intervention mainly aimed at early detection and intervention in a limited risk group. Among the main shortcomings of HPV, detected by the executors of the program, the need to intervene in parents and teachers and to strengthen auxiliary actions such as articulation inside and outside the school stand out. [61]

In conclusion, the concept of MHL has been useful for the development of interventions that allow increasing the level of MHL. While there are few MHL-based programs in schools, they show some evidence of its effect, but this is not consistent. One of the problems may be the lack of participation in its construction by its recipients (teachers and parents), which reduces its adequacy and affects its effectiveness. In our country there is the HPV program, which despite showing effectiveness in the group of children where it is applied, its scope of action is focused and has had difficulties to integrate within the establishments. Therefore, we believe it is necessary to develop an intervention that is built in a participatory way with its recipients and based on their experiences and contexts of application, which at the same time connects with local mental health services that will provide the necessary support to meet the needs of these children, in a sustained way over time.

2. SOLUTION AND RESEARCH

2.1. PROPOSED SOLUTION AND APPLICABILITY SCENARIOS

This proposal seeks to build "school communities" based on Public Schools (PS), aimed at promoting MH in children and their families and detecting early MH problems in students, providing them with initial support and subsequent coordinated referral to treatment.

To achieve this, it is proposed to construct a participatory multicomponent intervention aimed at promoting the MH of children attending basic education in. The components of this grant are: 1) a Child Mental Health (CMH) Literacy program for PS teachers, which will be built in a participatory manner with them and other key actors; and, 2) the articulation of the local network of care in child and adolescent mental health, including several levels of complexity (community, primary care and specialized care) and, which occupies the strategy ECO-BARRIO SOLIDARIO with adaptations according to the new socio-sanitary context. Given the nature of a pilot project that, in the first instance, seeks to evaluate the feasibility of this intervention, its implementation is proposed in two neighborhoods of Valparaíso, with a random selection of 8 PS with primary education in each of

these neighborhoods, after the implementation of the program, the initial effectiveness of the literacy component in CMH will be evaluated with the teachers.

The process of participatory construction of the Literacy program in CMH will be developed during the first 12 months of the project, for which we will work with representatives of the academic body of these EEPs (teachers, parateachers, directors and others), parents, students, directors of the Local Education Service (SLEP) of Valparaíso and representatives of the ECO-Barrio network.

Through working groups and individual interviews with key actors, a survey of objectives, methodology and contents of the CMH Literacy program will be made. Due to the health situation derived from the COVID-19 Pandemic and the current development of Information and Communication Technologies (ICTs), an asynchronous and asynchronous online program is proposed, based on recorded video educational capsules and discussion groups with CMH specialists respectively. There will be an evaluation at the beginning and at the end of the course, to measure acquired knowledge and level of satisfaction in terms of methodology and content, among others, in addition to evaluating the application process in a qualitative way. The course will be free and certified by the Faculty of Medicine of the University of Valparaíso. The certification will be automatic for those who complete all the requirements on the online platform, which will be accessible from computers or mobile phones. The total duration of the course should be between 3 to 4 months.

Parallel to the construction of the CMH Literacy program for teachers, the "ECO BARRIO SOLIDARIO" strategy will be implemented in one of the neighborhood with modifications according to the new health and contextual scenario, which will be called "ECO-Barrio Network". The strategy of the ECO-Barrio Network is feasible to replicate given that in Primary Health Care (PHC) there are the Joint Commissions of Health-Education (COMSE), which aim to link CESFAM with the Educational Establishments that converge in a territory, to develop strategies for prevention, participation and health promotion in educational communities. Particularly in Valparaíso, since 2020 and in the face of the socio-health crisis due to COVID-19, it is developing a COMSE 2.0 strategy[8], whose objectives are: 1) to re-activate the COMSE meetings with the participation of Mental Health Managers of each school, psychosocial duo of the PHC health team and in charge of participation and promotion of CESFAM. 2) Develop a socio-educational process for COMSE participants to improve the referral and follow-up of cases from the educational community to PHC, in addition to the development of prevention and promotion strategies in MH and 3) Develop a containment, prevention and promotion device in MH for the educational communities of the educational establishments of the polygon associated with each CESFAM. These new objectives of COMSE 2.0 are aligned with the ECO-Barrio Network strategy and with this project. The contribution of the ECO-Barrio Network strategy will be to systematically convene potential participants of the COMSE, including all relevant participants in the CMH of that neighborhood (Health from primary care with the CESFAM and CECOF that correspond plus specialized care with the Outpatient Unit of Child and Adolescent Psychiatry of the Psychiatric Hospital of Salvador (HDS), SENAME in its different programs and others such as Life Skills (HPV). In addition, from the articulation with the Secondary level of Mental Health and the link with the chair of Child Psychiatry of the University of Valparaíso, the ECO-neighborhood Network will be able to organize and provide training, generate the case monitoring system on an online platform and evaluate the implementation process in the two selected neighborhoods which will serve as an input for a potential replication to other territories of Valparaíso.

This project promotes and strengthens the co-construction of responses and articulated strategies for children, making visible the community role as the central axis of action. This multimodal intervention can help to address the serious increase in CMH problems derived from the COVID-19 pandemic and the social crisis, but it is also considered a useful model to function in a stable way throughout Chile, since it considers interventions to increase the knowledge and resolutivity of the faculty in CMH, a component not addressed in other instances of research or management known in our country.

The relevance and feasibility of scaling up to the rest of the country is ensured with the participatory process of local key actors, in addition to the participation of SLEP, Health and I. Municipality of Valparaíso. This proposal is aligned with the community approach contemplated in the National Plan for MH and Psychiatry 2017-2025 and seeks to respond to the increase in MH problems in the child adolescent population and reduce social inequalities that remain in our country despite macroeconomic growth.

2.2. RESEARCH QUESTION

Is it feasible and effective a multi-component intervention, built in a participatory manner and with a territorial perspective, to improve the level of mental health of children in public educational establishments, identifying and treating those who need it?

2.3. RESEARCH HYPOTHESES OR ASSUMPTIONS

1. Teachers who participate in a Child Mental Health Literacy program are able to significantly improve their knowledge regarding the identification of these problems and the delivery of first aids.
2. The establishments that participate in this training program significantly improve the detection rate of children with mental health problems.
3. The relevance of the diagnosis made by teachers when referring children with mental health problems to the corresponding CESFAM is greater than 80%.
4. The health-education networks where an intervention is carried out to articulate the referral of girls and girls with mental health problems, reduce the waiting time that goes between the referral and the first health care.

2.4. OBJECTIVES

2.4.1. GENERAL OBJECTIVE

Evaluate the effectiveness and feasibility of a multicomponent intervention, built in a participatory manner and with a territorial approach, to improve the level of mental health of children in public educational establishments, identifying and treating those in need in a timely manner.

2.4.2. SPECIFIC OBJECTIVES

1. Build in a participatory way the contents of a literacy program in Child Mental Health (CMH) with teachers of Public Educational Establishments (PS) and key actors, from the commune of Valparaíso.
2. Implement the strategy of articulation in a network of CMH (ECO-Neighborhood Network) between schools, Primary and Secondary Health Care, Municipality, collaborating agencies of SENAME and other relevant programs in 2 territories of the commune of Valparaíso.
3. To evaluate whether the Child Mental Health Literacy program, aimed at teachers in public educational establishments, manages to significantly improve their knowledge in this regard.
4. To assess whether teachers participating in the CMH Literacy program significantly improve the detection rate of these problems among their pupils.
5. To evaluate whether the relevance of the research for referral from educational establishments to the corresponding CESFAM is greater than 80%.
6. To evaluate whether the health-education articulation strategy (ECO-Barrio Network) significantly improves waiting times between referral and the first care received by a child with a possible mental health problem.
7. Evaluate indicators of feasibility of the multicomponent intervention, which are useful for a future escalation (interest of teachers to participate, retention in the intervention, degree of satisfaction of all participants, facilitators and perceived barriers).

3. METHODOLOGY, ETHICS AND PLANNING

3.1. METHODOLOGY AND PROCEDURES

Research design. This project corresponds to an evaluation of the preliminary effectiveness and feasibility of a multi-component pilot intervention. The program will be evaluated through a cluster randomized controlled trial (RCT)
The project activities are organized around two clearly defined stages: one of participatory construction, and another of evaluation of the effectiveness and feasibility of the pilot intervention. They are explained in detail below.

Effectiveness is studied through a mixed design (subtype DEXPLIS, explanatory design sequence) [62], which begins with a quantitative study of quasi-experimental type (comparing equivalent intervention and control facilities) and is followed by a qualitative study to analyze the implementation process and results of the pilot to intervention(including its barriers and facilitators).

The reliability is studied through indicators of participation of teachers in the intervention (initial interest and retention over time), by the satisfaction of teachers and those who participate in the articulation of local health-education networks, and with the analysis of barriers and facilitators at all levels.

Universe and sample. The universe to which the results of this study could be extended are public educational establishments. For this study, two neighborhoods of the commune of Valparaíso were selected. Therefore, the selection of the territories is not random, but the selection of the 2 establishments in each territory is. The inclusion criteria are that they are public schools and have 1st to 8th levels of primary education. The list of establishments that exist in that sector and that meet the inclusion criteria will be taken and will be selected using some random method, 2 schools of each neighborhood (4 in total) will be initially assigned to the intervention and 2 will serve as a control (four in total). As previously described, in a second moment the intervention will be carried out in the establishments that served as control for ethical reasons.
To calculate the necessary sample size, the following parameters were considered: a prevalence of mental disorders of 27.8% and an identification rate of 30% of these cases (9 cases per 100 children, per year). This indicator (which corresponds to scenario 2 and specific objective 4) was taken as one of the most important achievements and reflects the impact of the intervention as a whole. To accept the fulfillment of our hypothesis, it will be necessary to double the identification rate to 60% of cases (18 cases per 100 children, per year). In this way, it is a comparison of proportions, where: $p1 = 0.3$, $p2 = 0.6$, a confidence level of 95% for a unilateral test and a power level of 90%, 56 children are needed in each group. However, it is expected to work with a much larger sample: if it is considered that in each establishment there are 30 children per grade and only one course per level (from 1st to 8th grade). This would lead us to a potential sample of 240 children per establishment, which implies 480 in intervention facilities and 480 in control facilities.

Development of fieldwork. The development of the fieldwork has three fundamental stages: 1) Implementation of the ECO-Neighborhood Network strategy in the 1 selected neighborhood, (months 1

to 18), 2) the participatory construction of the components of the intervention (months 12 months); and 3) pilot-level evaluation of this intervention (months 12-24).

1. The first stage (months 1 to 18) The component of the intervention aimed at articulating educational establishments with mental health devices (CESFAM teams and secondary level in Health), within specific territories, whose purpose is to expedite the care of these children, will be implemented. It is the so-called ECO-Barrio Network, for whose implementation a working committee will be formed for each sector where the study is implemented, with representatives of all these institutions, in addition to the I. Municipality of Valparaíso. This committee will begin by analyzing the barriers that hinder the referral of children with mental health problems, and then establish a specific work plan in each sector (with objectives, activities, goals and deadlines). The activities of this plan will be implemented in parallel to the intervention with the teachers, in the second part (months 7 to 18, so that the times are concordant). In addition, follow-up meetings of referrals will be held with 1 representative of each CESFAM with ECO BARRIO coordinator and the 4 schools intervened, in a modality that includes virtuous meetings with bimonthly frequency. Finally, this stage of work will include at least one weekly meeting of the FONIS team with advisors and coordinators of RED ECO and Literacy Program.
2. The second stage (months 1 to 12) consists of the participatory construction of the contents of a training program on children's mental health, aimed at teachers of public educational establishments, which will use e-learning (with asynchronous and synchronous activities) and whose contents will be based on their experience with respect to of the problems they distinguish, the way they identify them, the obstacles they have in handling them, and the opportunities for support they can provide (including the relationship with their parents). To collect the experience of the teachers, a working group will be created in each establishment participating in the project, which will collect the experience of the teachers on this subject. In addition, in-depth individual interviews will be conducted. Then, one or two teachers from each group (from each establishment) will be invited to participate in a team with psychologists and psychiatrists from the project, to design the course together. The contents and methods of the course will be made by the research team, under the supervision of the team that includes teachers, technical advisors and audiovisual equipment.
3. The third part (months 12 to 24) consists of carrying out a pilot test taking 4 educational establishments located in two different territories of the commune of Valparaíso, in which the intervention will be carried out, and its results will be compared with 4 other equivalent educational establishments, from those same territories, which serve as control. Pre- and post-intervention assessments will be carried out, using a children's mental health knowledge survey, while referrals from facilities to the corresponding CESFAM will be recorded. Results will be compared between intervention and control results. Information is also collected to assess the participation of teachers in the intervention (feasibility analysis).

   At the end of the intervention in the establishments that were the object of it, the quantitative indicators and results that were collected will be synthesized, and a qualitative analysis will be carried out (DEXPLIS design), based on discussion groups that involve the interested parties (teachers, mental health professionals and managers of both sectors). in which the results and achievements will be analyzed, barriers and facilitators of the process will be established, all of which will allow to complete the evaluation in a participatory way and to improve the components of the intervention, based on the empirical experience carried out.

After the end of the intervention, the intervention will also be carried out in its two components (teachers and health-education network) in the 4 establishments that served as control. In this way, an ethical requirement of not depriving the rest of the participants of a beneficial intervention is met. (Months 18 to 24)

Indicators, instruments and analysis procedures. For the detailed description of this point, the effectiveness analysis and the feasibility analysis of the pilot intervention are separated.

1) Evaluation of the effectiveness of the intervention. The effectiveness evaluation is based on comparing the following indicators between intervention and control establishments.
   a) Level of knowledge of the teachers, using an *ad hoc* questionnaire, which is built in the phase prior to the intervention and validated by this team (which incorporates teachers). The conceptual framework of literacy in child and adolescent mental health will be used. This questionnaire will include all the aspects that are part of the training program aimed at teachers and will allow them to obtain scores for their different modules or dimensions. A test and semantic adaptation will be carried out with teachers from establishments in other sectors of the commune, which do not participate in the project, prior to its use within the project. It is expected that in the initial assessment (baseline), the results will be similar in the teachers of the intervention and control establishments. At the end of the intervention it is expected that scores have improved significantly in intervention facilities and have not changed in control facilities.
   b) Rates of referral of mental health problems in children. In each project establishment (intervention and control) a centralized register will be kept of the children indicated by their teachers who require mental health care during the intervention. This will also allow for centralized coordination for referral to the relevant CESFAM. In this way the detection rate can be calculated.
   c) Waiting time between referral from the educational establishment to professional care at the corresponding CESFAM. This indicator is obtained from the centralized register in each educational establishment, which includes the date on which it coordinated with CESFAM for its attention, and the registration of the first attention in the latter. The time elapsed between the two is the waiting time that will be used as an indicator.
   d) Rate of accuracy for referral of children with suspected psychiatric disorders from the school to health care. Each "case" referral will apply the Strength and Difficulties Questionnaire (SDQ). 25 items (scale 0-2).

2) Evaluation of the feasibility of the intervention. Feasibility assessment uses a combination of quantitative (indicator) and qualitative methods, which are described below.
   a) Level of interest of teachers in the intervention: It is estimated through the percentage of teachers who agree to start the training course, out of the total number of teachers who were invited (which would be the totality of each educational establishment).
      (1) $\frac{Teachers\ who\ accept}{Total\ Teachers}$
   b) Level of retention of teachers in the intervention. It is estimated through the proportion of teachers who complete the course of all those who started it. The retention rate for each phase will be described.
      i) $\frac{Teachers\ who\ completes\ the\ course}{Teachers\ who\ initiate\ the\ course}$ => description for each phase

c) Level of satisfaction of teachers with the intervention. An ad hoc survey will be used, with Likert questions for each module or component of the training course, and differentiated for each phase if necessary. The survey will also include open questions, which allow the opinions of the participants to be collected, all with a view to improving them in subsequent versions.
i)
d) Level of satisfaction of the different participants in the intervention of articulation of the health-education network. It will proceed in a similar way to the previous one, using an ad hoc survey (with Likert type questions) and open questions, to collect opinions that seek subsequent improvements.
e) Barrier analysis and facilitators. This analysis is qualitative and is obtained as part of the DESPLIX design. It is obtained from discussion groups involving all stakeholders (teachers, health and mental health professionals, and health and education managers), in which the results and achievements will be analyzed (based on information from all previous indicators, effectiveness and feasibility), identifying barriers and facilitators of the process.

3.2. ANALYSIS OF ETHICAL IMPLICATIONS

This project has been formulated in response to both the international guidelines of the Council for International Organizations of Medical Sciences (CIOMS), an entity founded by UNESCO and WHO, whose great contribution has been the definition of guidelines for the application of ethical principles in several key areas of Health, and we have been particularly concerned to consider Chilean legislation and institutional frameworks.

All participation shall be preceded by the submission of information on: objectives, participation, procedures, benefits and foreseeable risks of the study. All participation will be formalized through the voluntary signing of an informed consent document by the participant. Throughout the study, the criteria of research integrity will be taken into account (Singapore Declaration).

A process of recruitment and selection of participants will be carried out through dissemination in educational establishments and through the ECO Network. In order to respect the autonomy of the subjects, participation will be completely voluntary and none of the instances of participation will include the registration or consultation of personal data.

3.2.1. RISK-BENEFIT ANALYSIS

We believe there are no potential risks in this study, physical, emotional, or otherwise. On the other hand, the results would allow for an intervention to improve CMH in children with PS, with its initial evidence on effectiveness and feasibility indicators, for its possible scaling up to the national level. Therefore, it is considered a study that has a favorable risk/benefit balance.

3.2.2. SAFEGUARDING CONFIDENTIALITY

For the purpose of the analysis and maintenance of databases, during the research process any information related to names, places or other data that could subsequently lead to the identification of the participants will be modified from the written and virtual records.

The lists of names and telephone numbers of the participants in the three stages will be maintained by the principal investigator in physical locations separate from the transcripts and audio and video recordings. While the transcripts and audio and video recordings will be stored in a computer with a key, which will be in a locked place and accessible only to researchers and therapists involved in the processes. The protocol for the data backup chain will be explicitly established, which, together with the informed consents, will be stored in a safe place, to which only the researchers in charge of the project will have access. The criteria of the Singapore Declaration on Integrality in Research will be taken into account. The project will take into account the criteria and recommendations of CONICYT and the Institutional Ethics Committee of the University of Valparaíso.

All transcripts of committee meetings and focus groups will be made by researchers, who will also participate in the data analysis process.

3.2.3. INFORMED CONSENT/ASSENT

In the design of this study, the free, informed and consented participation of all research participants is contemplated . Each of these criteria is described below.

a) Free participation: All participants will be informed of the objectives of the study and will have the freedom to agree to participate or not in the study, they will also be free to terminate their participation in the study at any time, without this generating any consequences.

b) Informed participation: All participation will be preceded by the provision of information on objectives, type of participation, possible benefits and foreseeable risks of the study. Participants will also be informed about the characteristics of confidentiality and preservation of anonymity. They will also be informed about the methods of custody of the registered information, the uses that will be given to it and the treatment of said information for the purposes of publication of results.

c) Consented participation: After having been informed about the research process, the participation of each person will be formalized through informed consent to participate, and to generate audiovisual material as a graphic record.

CONSENTS: During the first stage a committee will be constituted with the representatives of all the institutions, during the second stage the collection of the experience of the teachers and the invitation to the participatory construction of the mental health training program will be carried out, and finally in the final stage discussion groups will be made for the qualitative analysis DEXPLIS. Participants participating in any of the three stages must sign a prior informed consent. The consents will be applied online, since that will be the modality of participation, and thus the CEC-UV will be requested to approve the project.

In the event that any of the stages requires a graphic record of any activity, the express authorization of the participants will be requested.

ASSENTS: This project does not provide for the application of assets when there is no participation of underage subjects.

3.2.4. INSTITUTIONAL AUTHORIZATIONS REQUIRED

In case of being awarded, the project will be evaluated by the Institutional Ethical-Scientific Committee of the University of Valparaíso CEC-UV, which is accredited (see payroll).

3.3. WORK PLAN

Specific Objective	*Activity*	Months																							
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1-Build in a participatory way the contents of a Literacy program in CMH	1-Presentation of the Ethics Committee Project	x																							
	2- Random selection of the 4 PS		x																						
	3-Contact and invitation to working meetings of key informants of the territories and PS		x	x																					
	4- Establish work teams in each selected PS			x																					
	6- Participatory design of the literacy program			X	X	X	X																		
2. Implement the ECO-Barrio network strategy	1- Contact with key agents of the CMH network	x																							
	2-Form a committee in each sector with the representatives of the institutions of the intersectoral ecosystem in CMH	x																							
	3- Develop a participatory work plan with objectives, goals, activities, deadlines and managers.		x	x	x																				
	4-Bimonthly work and follow-up meetings.			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x						
3.Assess whether the literacy program significantly improves knowledge in CMH	1- Recruitment of teachers to participate in the literacy intervention.			x	x	x	x																		
	2- Development of knowledge instrument in CMH			x																					
	3-Test of application of the instrument in PS of non-intervened sectors.				x																				
	4-Semantic adaptation of the instrument.					x																			
	5-Implementation of online literacy course (G1 and G2)							X	X	X	X	X	X	X	X	X	X	X	X						
	6 Evaluation of teachers intervened with instrument (pre and post intervention)							X					x						X						
4- Evaluate if the detection rate of CMH problems is significantly improved	1-Random selection of 2 PS similar to those selected in a neighborhood where the intervention has not been implemented				x																				
	2- Determine the detection rate in schools that received the literacy program compared to control schools												X						X						
5.Evaluate whether the relevance of referral to	1- Determine how many of the referred children enter Mental Health treatment (regardless of the device or level of complexity)						x	x	x	x	x	x	x	x	x	x	x	x	x						

PHC is greater than 80%.																									
6. Evaluate whether the ECO-Neighborhood Network strategy significantly improves waiting times for health care.	1- Meetings with each territorial committee of MH children on a bimonthly basis to execute and follow up on the proposed work plan					x	x	x	x	x	x	x	x	x	x	x	x	x							
	2-Weekly meeting of the FONIS team with advisors and coordinators of the ECO-Barrio Network and the Literacy Program					x	x	x	x	x	x	x	x	x	x	x	x	x							
	3-Registration and monitoring of all derived cases and level of attention from schools to APS (2 with ECO BARRIO network and control territory)					x	x	x	x	x	x	x	x	x	x	x	x	x							
	4. Evaluate waiting time based on referral form. To compare the date of referral registered at school and the first care received at CESFAM.					x	x	x	x	x	x	x	x	x	x	x	x	x							
7. Evaluate feasibility indicators that are useful for a future scaling of the intervention	1. Build a program satisfaction survey.						x																		
	2. Determine the number of teachers who register in relation to the total number of guests (recruitment rate) per group					x	x					x	x												
	3- Application of satisfaction survey to teachers and Red-Eco Barrio											x						X							
	5-Focus Group to analyze results and achievements, identifying barriers and facilitators of the process.											x						X							
	6-Analysis of final descriptive, analytical and qualitative results and preparation of report																		x	x	x	x	x	x	

4. RESULTS, IMPLEMENTATION AND DISSEMINATION

4.1. IMPLEMENTATION OF EXPECTED PRODUCT(S)

4.1.1. EXPECTED RESULTS AND/OR OUTPUTS

Result/Product Name	Enter a brief description of the result/product
1) Child and Youth Mental Health Literacy Program for teachers on an e-learning platform	Free literacy program in Child and Adolescent Mental Health based on videotaped educational capsules, feasible to be modified according to contextual and local needs.
2). Technical recommendations to implement a territorial Child and Adolescent Mental Health Network	Implementation Manual of "Red-Eco Barrio" with description of the methodology used, facilitators, obstacles and indicators obtained
3) 2 scientific publications in indexed journals (WOS or SCOPUS).	2 scientific publications will be made: the first with a description of the multicomponent intervention and its participatory construction, and the second with the results of effectiveness and feasibility.
4) Presentations at scientific congresses in the field of child mental health	There will be 2 presentations at scientific congresses, as posters or free communication, related to specific products: the child mental health literacy program for teachers and the articulation of the local network (Eco Barrio program)

4.1.2. IMPLEMENTATION OF THE EXPECTED PRODUCT(S)

The direct beneficiaries will be PS teachers from the commune of Valparaíso who receive basic education students and who voluntarily agree to participate in the child mental health literacy program. To this end, an e-learning platform will be developed with audiovisual resources for training in CMH, asynchronously, in addition to contemplating some synchronous meetings to resolve doubts with the participants of the training.

Additionally, training activities and facilitation of intersectoral coordination will be programmed for health, education, SENAME and other relevant actors, in order to support the process of identifying students who require mental health care in an opportune and pertinent manner, through the eco-neighborhood network that will be implemented in 2 sectors of Valparaíso. those that will be carried out online, given the current global health context, and taking advantage of the familiarity that has been given with these means that facilitate the meetings and reduce the expenditure of resources for their participants.

In relation to the e-learning platform, the project will remain as an input for CORMUVAL and the ECO-Barrio Network, so that they can continue using it in their activities.

Finally, the development of a critical nucleus and associativity of the University of Valparaíso with specialized groups is expected, which promotes more research in this area and constitutes updated and complementary information to what is currently available, in addition to contributing to the technological development of science solutions applied to public health in the area of child mental health. These expert groups have been described throughout the project.

4.2. DISSEMINATION ACTIVITIES

During the years of execution of the Project, it is expected that members of the team of researchers will attend national and international congresses specialized in child psychiatry that will allow the presentation of the partial and final results of the present research project on literacy in mental health. The first year is planned to participate in the congress of the Chilean society of psychiatry and child neurology, as well as the second year, a period in which the congress or international congress of the American Society of Child Psychiatry will also be attended.

In turn, the results of this research will provide evidence that will be published in scientific journals. It is planned to publish at least two collaborative articles in indexed journals (WOS or SCOPUS).

Additionally, during the first and second year of project execution, it is planned to hold two online dissemination seminars for the city of Valparaíso. The aim of these seminars will be to present the preliminary results of the study to the local community (mental health professionals, public school teachers, educational community, Sename professionals, primary health professionals).

At the end of the second year, a closing event is planned. A training activity will be carried out aimed at professionals, academics and students of health and social sciences careers with the aim of presenting and training in the relevance of the implementation of a digital literacy strategy in mental health for key actors of the intersectoral ecology of children in school, in order to positively influence their mental health and thereby in the generation of well-treated environments and communities that contribute to their integral development . In addition, to relieve the work in intersectoral mental health networks, in order to develop an articulation device that we have called "ECO-Neighborhood Network", which serves as a support for the implementation of the knowledge acquired by teachers, one of its purposes being to impact on the early and pertinent investigation of mental health disorders that require to be attended in mental health programs of both the primary health network and the secondary.

5. MANAGEMENT AND ASSOCIATIVITY CAPACITY

5.1. MANAGEABILITY

NAME	INSTITUTION	PROFESSION	POSITION IN THE PROJECT	Critical Functions and Capabilities that will contribute to the project	% monthly dedication (calculated based on 180 hrs. monthly)	$/HH
RESEARCH TEAM						
Eva Madrid	University of Valparaíso (UV)	Doctor	Director	Participation in the Management and Advisory Committee of the intervention	25%	300.000
Fanny Leyton	UV and Hospital Psiquiátrico del Salvador (HDS)	Psychiatrist	Alternate Director	Participation in the Management and Advisory Committee of the intervention and coordination of the field work	48%	300.000
Marcelo Briceño	UV and HDS	Child Psychiatrist	Researcher	Clinical Advisor of the field work of the intervention. Part of the management committee	11%	137.000
Karla Alvarez	UV and Universidad de Chile (UCH)	Child Psychologist	Investigator	Clinical Advisor of the Literacy program. Part of the management committee	11%	137.000
Carolina Godoy Peña	UV	Social Worker	Investigator	Fieldwork ECO-Barrio Network Coordinator. Part of the management committee	30%	273.000
TECHNICAL SUPPORT STAFF						
To be defined	UV	Teacher or Educational Psychologist	Support Professional	Fieldwork in Construction and Implementation of Literacy Program	50%	600.600
Sebastian Alarcon	UV and UCH	Computer Engineer and Professor	Support Professional	Construction, design and technical support to on-line platform	13%	163.800
Jorge Caro	UV and UCH	Computer Engineer	Support Professional	Construction, design and technical support to on-line platform	13%	163.800
Alex Ariel Benavides Soto,		programmer	Technician	Construction, design and technical support to on-line platform	13%	163.800

To be defined		Audiovisual technician	Technician	Recording and editing educational capsules	13%	163.800
ADMINISTRATIVE STAFF						

Percentage of monthly dedication in other projects				
POSITION IN THE PROJECT	**NAME**	**2021**	**2022**	**2023**
Director	Eva Madrid	20% Dedication	20%	10%
Alternate Director	Fanny Leyton	11%	11%	0
Researcher	Marcelo Briceño	0	0	0
Researcher	Karla Alvarez	0	0	0
Researcher	Carolina Godoy	0	0	0

5.2. CURRICULAR BACKGROUND OF THE RESEARCH TEAM

-Eva Madrid Aris, Medical University of Chile (UCH), Doctorate in Medicine at University of Granada. Postdoc at Harvard School of Public Health, with training in psychiatric epidemiology. Full Professor at the UV School of Medicine Director of the Cochrane UV Associated Center and Interdisciplinary Center for Health Studies CIESAL, member of the UV Ethical-Scientific Committee and Sustainable Health Care group of the Cochrane Collaboration. He has numerous publications and projects especially in the area of Evidence-Based Health and Mental Health.

-Fanny Leyton Alvarez, Psychiatrist UCH, Master in Psychotherapy and PhD candidate in Psychotherapy P. Universidad Católica (PUC). Diploma in Community Psychiatry and Management of Public Mental Health Services at the UCH. Professor of Child and Adolescent Psychiatry at the UV. Psychiatrist of the Child and Juvenile Unit of the Psychiatric Hospital of El Salvador in Valparaíso (HDS). Principal investigator in project FONIS SA11I2252 "Evaluation of Clinical and Social Factors of Patients with Depression Resistant to Treatment in the Health Service Viña del Mar - Quillota year 2012." Member of the Millennium Institute for Research in Depression and Personality.

-Marcelo Briceño Araya, Child and Adolescent Psychiatrist from Universidad de Valparaíso, Master in Clinical Epidemiology At Universidad de la Frontera. Professional experience in primary and secondary care, head of the intensive care hospitalization unit in child and adolescent psychiatry of the HDS. Member of the group that created the community psychiatry program "Eco Barrio Solidario".

-Karla Álvarez Kozubová, PUC Psychologist, PhD candidate in Social Psychology at Charles University of Prague and in PUC Psychotherapy. Assistant Professor of the Department of Psychiatry and Mental Health UCH. Psychologist of the Child and Adolescent Psychiatry Unit at the University Psychiatric Clinic of the UCH since 1999. Founder of the line of attention and prevention in child abuse, of the Center of Violence of the I. Municipality of Santiago (1996). Research in SENAME residences (2014) on the quality of family interactions and intervention strategies for video-feedback, mental health and adolescent well-being.

- Carolina Godoy Peña, Social Worker (TS) UV. Master and Diploma in Family Intervention in Social Work, PUCV. Diploma in Planning and Management Control at Instituto Les Hayes. He was in the Child and Youth Unit of the HDS, when he created and coordinated the community mental health program for children, "ECO Barrio solidario para la infancia", implemented from 2015 to 2019.

- Sharon A. Hoover Ph.D. , Doctor in Psychology, director of the National Center for School Mental Health. National and international authority in the study, evaluation and implementation of mental health programs in schools. Participate in Clinical Advisory Committee

- Hector Parada Valderrama, Child Psychiatrist at JLG RCIA Institute in Maryland. Professor at Georgetown University and visiting professor at UV. Clinical Advisory Committee

- Marcela Horvitz Lennon, Psychiatrist, Master of Public Health. "Senior Physician Scientist" at RAND Corporation (Boston Massachusetts) and Associate Professor in the Department of Psychiatry at Harvard University. She has some NIH projects and federal governments in the US and is an evaluator of NIH projects. Participate in Management Committee and formulation of results

5.3. PARTICIPATION OF RESEARCHERS IN TRAINING

In this work will participate two thesis students individualized below:

1. First-year resident of child and adolescent psychiatry at the University of Valparaíso. Participate in the process of collecting information for the construction of evaluation instruments, as well as in the process of validating this. It will be supervised by the researcher Fanny Leyton for her thesis work associated with her specialty
2. Resident of child and adolescent psychiatry of second year of the University of Valparaíso. You will participate in the process of collecting information for the construction of the mental health literacy strategy, as well as in the discussion group process. For this, you will receive directed classes within the subject of Research Methodology of your current study program. It will be supervised by the researcher Fanny Leyton for her thesis work associated with her specialty

5.4. ASSOCIATIVITY

The University of Valparaíso is the main beneficiary institution of this research project, and the associated institution is the Salvador de Valparaíso Psychiatric Hospital, which for more than 50 years has constituted its main clinical field in Psychiatry and Mental Health. This will allow a strong commitment and teaching-care associativity, through the incorporation of thesis students and residents of Child Psychiatry. Additionally, the incorporation of the

This will allow the collaboration between different Academic Units, which will allow the contribution of undergraduate and postgraduate students of Medicine, the professionals of the Mental Health teams of the CESFAM, as promised by the Director of the Municipal Corporation of Education in his letter of commitment.

On the other hand, this project has the commitment of the Executive Director of the Local Public Education Service of Valparaíso, who will facilitate the participation of those teachers of the teaching staff of the public schools of Valparaiso who wish to participate (respecting the autonomy of the teachers). In addition, this service undertook to hold periodic assemblies with key actors in its community and the research team, to provide feedback on the relevance of the activities implemented in the school and community environment.

On the other hand, from the academic point of view, the researchers involved have a permanent collaboration relationship with teams from the University of Chile, McMaster University, University of Maryland, Autonomous University of Barcelona and Harvard Medical School. This will contribute to associativity in terms of information sharing, dissemination activities and generation of manuscripts of the knowledge generated.

TECHNICAL SPECIFICATION FORM FOR PROJECTS TO DEVELOP, USE OR ADAPT MEASURING INSTRUMENTS

1. TYPE OF INSTRUMENTS TO BE USED

The project contemplates the use of:	
	Instrument(s) previously used and validated in Chile, commonly used and in the general population.
	Instrument(s) previously used, which will be adapted or validated in Chile or focused on new target populations.
X	New instrument to be created by the project.

In the case of using existing instruments:		
Includes Copyrights *(If your answer is positive, indicate unit value in Chilean pesos)*	**YES**	**NO**
	$	X

2. INSTRUMENTS TO BE USED, QUANTITATIVE METHODOLOGY

TABLE GENERAL TECHNICAL INFORMATION ON QUANTITATIVE INSTRUMENTS	
NEW INSTRUMENTS TO BE CREATED BY THE PROJECT *Point out level of progress and stages in development.*	
Definition of constructs	**General construct: Mental health literacy**: defined as the set of "knowledge and beliefs about mental disorders that help their recognition, management or prevention"[37] **Specific constructs:** The constructs used will be based on the operationalization of mental health literacy proposed by Kutcher, in which 4 dimensions are identified [39]: 1. The ability to understand how to optimize and maintain good mental health. 2. Understanding mental disorders and their treatment. 3. Appropriate attitudes towards those living with mental disorders and decrease stigma. 4. Improving the ability to seek help from appropriate mental health care services
Operationalization of constructs	The construct of the first dimension corresponds to general information about factors promoting and protective mental health, as well as the main risk factors. The construct of the second dimension corresponds to the recognition of the main symptomatic manifestations of the syndromic groups that teachers consider most relevant from their own experience. The construct of the third dimension corresponds to the myths and beliefs in relation to children's mental health disorders and about the children who suffer from it, about their parents, as well as about their treatment. The construct of the fourth dimension corresponds to the general knowledge of the health network in Chile, where and when to seek help.
Item Formulation	For the evaluation of constructs 1, 2 and 4, following the model of Kutcher et al. [36], the items will be created for the specific evaluation of the knowledge delivered. As these will be defined during the first stage of the project, the formulation of items will be developed in parallel to this process. Alternative or multiple choice responses will be used for knowledge assessment (constructs 1, 2 and 4). For the evaluation of stigma (construct 3), an adaptation of the **Spanish Stigma Scale for Health Care Providers(WHO-HC),** which is validated in Chile, will be used. This consists of 15 items (score range 15-75), Likert type, with a score of 1 to 5. [63]
Validity of constructs and dimensions you would measure	In a first phase **of content validity** (apparent or façade), three groups of experts will be formed (professors, experts by experience and clinicians),

(Dimensions/Variables and Domain)	and the definitions of the constructs and the proposed items will be analyzed with them. In a second phase, a process of semantic validation will be carried out through the application of a pilot test of the test to a group of 10 people (teachers from other schools, different from where the project will be carried out), resulting in the linguistic and semantic adaptation of the test. In a third phase, the evaluation of the **psychometric properties** will be carried out, differentiated according to each dimension. For dimensions 1, 2 and 4, which evaluates the level of knowledge, the items will be studied in a specific way. In the case of dimension 3 on stigma, a routine analysis will be performed for the study of latent variables, with analysis of construct validity (using exploratory factor analysis), internal consistency (with Cronbach's alpha) and test-retest stability analysis in a subsample (of 50 people). For this, it is estimated to apply the test to a sample of 200 teachers, who work in PS different from where the project will be carried out.
References of uses of similar instruments in the case of creation	**Mental Health Knowledge and Attitudes Scale (MHKAS)** [39] **Spanish Stigma Scale for Health Care Providers (WHO-HC)** [63]
Setting scores and rankings	Scores will be based on items. It will be studied what are the scores for each domain when applied to the 200 teachers, according to the range of answers obtained will determine the typical scores.
Piloting in population equivalent to the target	It corresponds to the application to a sample of 200 teachers belonging to the Municipal Corporation of Valparaíso, out of a total of 1,984 teachers registered in 2019, except for those of the schools that are going to intervene.
Standardization (formulation/translation of manuals and conditions of use)	The standardization and publication of the creation and validation process will be carried out, as well as the results of the validation of this instrument.
Include supplemental information that you want to add in this box. Incorporate the most relevant bibliographic reference (no more than 3) on the construction of the instrument, validation and / or study of psychometric properties in the population relevant to the study.	

3. INSTRUMENTS TO BE USED, QUALITATIVE METHODOLOGY

TABLE GENERAL TECHNICAL INFORMATION ON QUALITATIVE INSTRUMENTS Evaluation Satisfaction with Literacy Intervention	
Level of application (individual/collective) and structure of questions (open, thematic, in-depth, etc.)	Individual (teachers)
Technique to which you will respond (interview, *focus* group, discussion group, etc.)	Survey
Standardization (Conditions of use as application requirements by specially qualified personnel or others)	Self-applied anonymous online surveys
Incorporate examples of the type of questions that the instrument will include related to the objective of the study (no more than 6)	The questions will be directed to evaluate the level of satisfaction of the teachers with the intervention. Likert questions will be used for each module or component of the training course and differentiated for each phase if necessary. It will also include open questions, which allow to collect the opinions of the participants oriented to its improvement in later versions.
Include supplemental information that you want to add in this box. Incorporate the most relevant bibliographic reference(no more than 3) on the construction of the instrument, validation and / or study of psychometric properties in the population relevant to the study.	

TABLE GENERAL TECHNICAL INFORMATION ON QUALITATIVE INSTRUMENTS Satisfaction Evaluation with ECO-Neighborhood Network component	
Level of application (individual/collective) and structure of questions (open, thematic, in-depth, etc.)	Individual (participants of the articulation of the Health Education Network)
Technique to which you will respond (interview, *focus* group, discussion group,etc.)	Survey
Standardization (Conditions of use as application requirements by specially qualified personnel or others)	Self-applied anonymous online surveys
Incorporate examples of the type of questions that the instrument will include related to the objective of the study (no more than 6)	The questions will be directed to assess the level of satisfaction with the intervention. Likert-type questions and open-ended questions will be used, which allow collecting the opinions of the participants aimed at improving them in later versions.

TABLE OF GENERAL TECHNICAL INFORMATION ON QUALITATIVE INSTRUMENTS. Implementation Process Evaluation	
Level of application (individual/collective) and structure of questions (open, thematic, in-depth, etc.)	Collective, open and thematic questions (based on results obtained from quantitative data collection)
Technique to respond to (interview, *focus* group, discussion group, etc.)	Discussion group that includes health professionals and teachers, as well as directors of health centers and schools.
Standardization (Conditions of use as application requirements by specially qualified personnel or others)	It requires to be carried out by personnel with training in qualitative research and with knowledge of the results obtained from the qualitative analysis
Incorporate examples of the type of questions that the instrument will include related to the objective of the study (no more than 6)	The questions will be designed: 1) based on the qualitative results obtained 2) Aimed at evaluating facilitators and facilitators of the process
DESPLIX, [62]	

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CONSENTIMIENTO INFORMADO PARA PROFESORES y EDUCADORES PARTICIPANTES DEL ESTUDIO

El propósito del presente documento es invitarlo a participar en el estudio titulado ”Construcción Participativa y Factibilidad de una Intervención Multicomponente para mejorar el Bienestar de Niños de Educación Básica después de la Pandemia COVID-19”, cuyo investigador principal es la Dra. Eva Madrid Aris, en conjunto con los co investigadores; Fanny Leyton Alvarez, Marcelo Briceño Araya, Karla Álvarez Kozubová, Carolina Godoy Peña, Sharon A. Hoover Ph.D, Hector Parada Valderrama, Marcela Horvitz Lennon, patrocinada por Universidad de Valparaíso, para el desarrollo del proyecto de investigación y desarrollo en salud – FONIS 2021.

Para que usted pueda tomar una decisión informada, le explicaremos cuáles serán los procedimientos involucrados en la ejecución de la investigación, así como en qué consistiría su colaboración:

1. Esta investigación se realizará en Establecimientos Educacionales Públicos (EEP) con enseñanza básica de 2 sectores de Valparaíso, Mena y Reina Isabel II, durante el año 2023.

2. Relevancia del estudio y beneficios:
La salud mental infantil, es el fundamento sobre el cual se construye la salud mental, física y social en la vida adulta, la prevención e intervención precoz de los problemas pesquisados en esta etapa evolutiva es fundamental. Chile tiene una elevada prevalencia de problemas de SM en la etapa de la niñez y adolescencia. El sistema escolar, es una instancia privilegiada para la pesquisa de los problemas emocionales y comportamentales de los niños, niñas y adolescentes (NNA), pero no siempre ha contado con una red intersectorial coordinada y funcional para dar respuesta a la demanda requerida. Por ello, este proyecto busca contribuir a la salud mental de los NNA y de la comunidad escolar a través de una intervención multicomponente. Este programa se sustenta en una perspectiva de salud mental biopsicosocial que va más allá de la mera ausencia de enfermedad, relevando los recursos protectores, principalmente los referidos al soporte social y de redes necesarias para el bienestar humano. Por lo anterior, la presente investigación e intervenciones del proyecto apuntan a mejorar e instalar competencias en los profesores de educación básica, para identificar tempranamente dificultades de salud mental, que puedan presentarse en los niños y niñas con quienes mantienen una relación cotidiana en función de la labor docente, contribuyendo a generar un acceso oportuno y pertinente a los programas de salud mental de la red de salud territorial de los colegios que participarán en el proyecto, gracias a la articulación de redes intersectoriales que se fomentarán.

3. Objetivo:
El equipo de investigadores, espera conocer las posibilidades reales de la aplicación y efectividad, de una intervención que contempla capacitar a profesores en el área de salud mental en modalidad híbrida, mediante una capacitación co-construida con los profesores participantes de la presente investigación, con el fin de potenciar sus capacidades de pesquisa y derivación al sistema público de salud Chileno, para potenciar el acceso a una intervención oportuna y pertinente, contando con el soporte de una red de instituciones, de diferentes sectores, entre ellas; educación, salud, servicio nacional de menores, justicia, barriales, entre otras.

4. Participación:
Su participación en la presente investigación es totalmente voluntaria y no recibirá pago alguno para que acepte participar. Si acepta participar, deberá asistir a un programa de alfabetización en salud mental infantil (SMI), que se llevará a cabo en formato híbrido (presencial y con la asistencia de una plataforma educativa en línea) y en caso de requerirse, de la aplicación de los siguientes cuestionarios: Al principio y al final de la capacitación se le solicitará contestar el cuestionario PHQ, el cuestionario de Burnout de Maslach y el Cuestionario para Educadores sobre Conocimiento en Salud Mental Infantil. Todos estos le tomarán alrededor de 20-30 minutos. Durante octubre se les pedirá completar el formulario SDQ, el cual toma 12 minutos por cada uno de sus alumnos. Al final de cada sesión se solicitará calificar brevemente (menos de 5 minutos) la calidad de la actividad.

5. Riesgos;
Explicitamos que no existen riesgos potenciales en este estudio, ni físicos, ni emocionales, ni de ningún tipo. Por otra parte, los resultados permitirían contar con una intervención para mejorar la SMI en niños y niñas de EEP, con su evidencia inicial sobre efectividad e indicadores de factibilidad, para su posible escalamiento hasta el nivel nacional. Por lo tanto, se considera un estudio que tiene un balance riesgo/beneficio favorable.

6. Costos y pagos
Si usted acepta participar en el proyecto de investigación, no recibirá dinero por concepto de pago de participación en el estudio. No obstante, el participante declara poseer los medios tecnológicos de acceso a internet para participar en las distintas actividades descritas en el presente consentimiento.

7. Derechos del participante:
Usted al participar en el presente estudio, tiene derecho a manifestar sus dudas al investigador en cualquier momento al correo eva.madrid@uv.cl, Además, puede retirarse del estudio en cualquier momento si lo considera necesario comunicándoselo a la Dra. Eva

Madrid, investigadora principal; cabe señalar, que su retiro no lo perjudicará en caso alguno.

8. Reserva de la identidad del participante
Para efecto del análisis y mantención de bases de datos, durante el proceso de investigación se modificará de los registros escritos y virtuales toda información relacionada con nombres, lugares u otros datos que posteriormente podría conducir a la identificación de los participantes, en su lugar se utilizará un código numérico.

9. Confidencialidad de los datos
Las listas de información obtenida de los participantes serán mantenidas por la investigadora principal en lugares físicos separados de las transcripciones y de las grabaciones en audio y video. Mientras que las transcripciones y grabaciones en audio y video serán almacenadas en un computador con clave, que estará en un lugar bajo llave y de acceso únicamente para investigadores y terapeutas que participan de los procesos. Se establecerá de forma explícita el protocolo para la cadena de resguardo de datos, los que junto con los consentimientos informados, serán almacenados en un lugar seguro, al cual solo tendrán acceso los investigadores a cargo del proyecto. Se tendrán en cuenta los criterios de la Declaración de Singapur sobre la integridad en la investigación. El proyecto tendrá presentes los criterios y recomendaciones de CONICYT y del Comité de Ética Institucional de la Universidad de Valparaíso. La totalidad de las transcripciones de las reuniones de comités y grupos de discusión serán realizadas por los investigadores, quienes también participarán en el proceso de análisis de los datos.

10. Utilización y Publicación de los hallazgos
Los resultados del presente estudio serán difundidos por diferentes canales públicos, ya sea en formato de publicaciones (artículos científicos) o presentaciones (exposición en jornadas y congresos). Además, esperamos que la tecnología que evaluaremos a través de esta investigación sea transferida a los servicios públicos posteriormente

11. Evaluación Comité Bioética y contacto:
Esta investigación ha sido evaluada y aceptada por el Comité Institucional de Bioética de Investigación en Seres Humanos de la Universidad de Valparaíso. Si usted lo requiriera, puede contactar a alguno de sus integrantes con su presidente, Dr. Héctor Arancibia al mail institucional cec.uv@uv.cl.

12. En caso de aceptar participar, recibirá un ejemplar de este documento.
Si los resultados de los instrumentos que miden salud en sus estudiantes tienen un puntaje de sospecha de problemas de salud mental se le informará a usted en persona y

complementariamente se le entregará esta información al equipo biopsicosocial de su red de salud y de manera presencial al tutor del estudiante.

Nombre:	Nombre investigador:
RUT:	RUT investigador:
Fecha:	Fecha:
Firma:	Firma:

Valparaíso, Marzo de 2023

INFORMED CONSENT FOR TEACHERS AND EDUCATORS PARTICIPATING IN THE STUDY

The purpose of this document is to invite you to participate in the study entitled "Participatory Construction and Feasibility of a Multicomponent Intervention to improve the Well-being of Basic Education Children after the COVID-19 Pandemic", whose main investigator is Dr. Eva Madrid Aris , in conjunction with the co - investigators; Fanny Leyton Alvarez , Marcelo Briceño Araya, Karla Álvarez Kozubová , Carolina Godoy Peña, n, sponsored by the University of Valparaíso, for the development of the health research and development project – FONIS 2021.

So that you can make an informed decision, we will explain the procedures involved in carrying out the research, as well as what your collaboration would consist of:

1. This research will be carried out in Public Educational Establishments (EEP) with basic education in 2 sectors of Valparaíso, Mena and Reina Isabel II, during the year 2023.

2. Relevance of the study and benefits:
Child mental health is the foundation on which mental, physical and social health is built in adult life, prevention and early intervention of the problems investigated in this evolutionary stage is essential. Chile has a high prevalence of MS problems in childhood and adolescence. The school system is a privileged instance for the investigation of the emotional and behavioral problems of children and adolescents (NNA), but it has not always had a coordinated and functional intersectoral network to respond to the required demand. Therefore, this project seeks to contribute to the mental health of children and the school community through a multicomponent intervention. This program is based on a biopsychosocial mental health perspective that goes beyond the mere absence of disease, relieving protective resources, mainly those related to social support and networks necessary for human well-being. Therefore, the present research and interventions of the project aim to improve and install skills in basic education teachers, to early identify mental health difficulties that may occur in children with whom they maintain a daily relationship based on the teaching work, helping to generate timely and relevant access to the mental health programs of the territorial health network of the schools that will participate in the project, thanks to the articulation of intersectoral networks that will be promoted.

3. Objective:
The team of researchers hopes to know the real possibilities of the application and effectiveness, of an intervention that contemplates training teachers in the area of mental health in a hybrid modality, through a program co -constructed with the teachers participating in this research, in order to enhance their research capacities and referral to the public system of Chilean health, to promote access to a timely and relevant intervention, with the support of a network of institutions, from different sectors,

including; education, health, national service for minors, justice, neighborhoods among others.

4. Participation:
Your participation in this research is completely voluntary and you will not receive any payment for your agreement to participate. If you agree to participate, you must participate in a child mental health (SMI) literacy program, which will be carried out in a hybrid format (face-to-face and e-learning) and, if required, the application of the qualities and difficulties questionnaire (SDQ) that assesses emotional symptoms of the students you are in charge of, responding to an online questionnaire before and after the intervention on SMI and other mental health questionnaires, in addition, you may be asked for in-depth interviews to learn about your experience regarding the problems and facilitators that you identify in the implementation of the intervention.

5. Risks:
We make it clear that there are no potential risks in this study, neither physical, nor emotional, nor of any kind. On the other hand, the results would make it possible to have an intervention to improve SMI in EEP boys and girls, with its initial evidence on effectiveness and feasibility indicators, for its possible scaling up to the national level. Therefore, a study that has a favorable risk/benefit balance is considered.

6. Costs and payments:
If you agree to participate in the research project, you will not receive money as a payment for participation in the study. However, the participant declares to have the technological means of internet access to participate in the different activities described in this consent.

7. Rights of the participant:
By participating in this study, you have the right to express your doubts to the researcher at any time by email to eva.madrid@uv.cl . In addition, you can withdraw from the study at any time if you consider it necessary by communicating it to Dr. Eva Madrid, principal investigator; It should be noted that your withdrawal will not harm you in any way.

8. Confidentiality of the participant's identity
For the purpose of analysis and maintenance of databases, during the research process, all information related to names, places or other data that could later lead to the identification of the participants will be modified from the written and virtual records, instead it will be used a numeric code.

9. Confidentiality of data
The lists of information obtained from the participants will be maintained by the principal investigator in physical locations separate from the transcripts and the

audio and video recordings. While the transcriptions and audio and video recordings will be stored in a password-protected computer, which will be in a locked place and accessible only to researchers and therapists who participate in the processes. The protocol for the data protection chain will be explicitly established, which together with the informed consents will be stored in a safe place, to which only the researchers in charge of the project will have access. The criteria of the Singapore Declaration on Research Integrity will be taken into account. The project will take into account the criteria and recommendations of CONICYT and the Institutional Ethics Committee of the University of Valparaíso. All the transcripts of the committee meetings and focus groups will be made by the researchers, who will also participate in the data analysis process.

10. Use and Publication of the findings

The results of this study will be disseminated through different public channels, either in the form of publications (scientific articles) or presentations (exhibition in conferences and congresses). In addition, we hope that the technology that we will evaluate through this research will be transferred to public services later.

11. Evaluation of the Bioethics Committee and contact:

This research has been evaluated and accepted by the Institutional Committee of Bioethics of

Research in Human Beings from the University of Valparaíso. If you require it, you can contact any of its members with its administrative secretary, Ms. Patricia Arancibia Pardo, on the phone +56 32-2507909, or through the institutional email cec.uv@uv.cl .

12. If you agree to participate, you will receive a copy of this document.

If the results of the instruments that measure health have a score of suspicion of mental health, you will be informed via mail or phone call and if you wish, this information will be delivered to the biopsychosocial team of the health network

Name:	Researcher name: Eva Madrid Aris
RUT:	Investigator RUT: 6.890.922-8
Date:	Date:
Firm:	Firm:

Valparaiso, March 2023

CONSENTIMIENTO INFORMADO PARA APODERADOS DE ESTUDIANTES

Le estamos invitando a participar en la investigación "Construcción participativa y factibilidad de una intervención multicomponente para mejorar el bienestar de niños de educación básica después de la pandemia COVID-19", adjudicada dentro de los proyectos de intervención en salud FONIS SA21I0143 2021. El equipo de investigación está liderado por la Dra. Eva Madrid A., profesora titular de la Escuela de Medicina de la Universidad de Valparaíso, y los coinvestigadores son los doctores Fanny Leyton A., Marcelo Briceño A., Karla Álvarez K., Sharon Hoover, Hector Parada V. y Marcela Horvitz L., además de Carolina Godoy P. y Sebastián Alarcón Ch.

Para ayudarlo a tomar la decisión de participar o no en la presente investigación, a continuación le detallamos aspectos relevantes:

¿De qué se trata la investigación a la que se lo invita a participar?
Busca evaluar la aplicabilidad y efectividad de un programa de capacitación sobre la salud mental infantil dirigido a educadores de Establecimientos Educacionales Públicos (EEP) de Valparaíso. El objetivo de dicha capacitación es potenciar las capacidades de los educadores para reconocer los problemas de salud mental de sus estudiantes y realizar derivaciones oportunas y pertinentes a los programas de la red de salud territorial de los EEP. El mayor conocimiento sobre salud mental cobra aún mayor relevancia dado el aumento de problemas observados en los estudiantes después de un largo período de escolaridad en sus domicilios y confinamiento debida a la pandemia por COVID-19. La pesquisa temprana de problemas de salud mental infantil permite una intervención especializada oportuna, prevenir otros problemas de salud y favorecer el bienestar de los niños y niñas y sus familias.

¿Cuál es el propósito concreto de su participación en esta investigación?
Usted ha sido convocado a participar considerando que es padre, madre y/o apoderado de un/a estudiante. Su participación consiste en contestar un cuestionario sobre el estado de salud mental de su hijo/a (SDQ) , lo que le tomará máximo 15 minutos. e informar si recibe atención en salud mental. Los educadores contestarán el mismo cuestionario respecto de su hijo/a. Se le entregarán los resultados de los cuestionarios vía correo electrónico o llamada telefónica, en el caso de que su hijo/a presente, según el SDQ un puntaje de riesgo, se le entregarán los resultados en persona por un miembro del equipo investigador en dependencias del colegio.

¿Qué beneficios puede obtener de su participación?
Existen beneficios indirectos y directos derivados de su participación en este estudio.
Se espera que este proyecto reporte un beneficio para el progreso de las competencias en los profesores