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Evaluation of a minimal school intervention with *The Resilience Program* - a mentalization-based health education program.

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Abstract

In this study we have investigated the effects of a minimal school intervention with *The Resilience Program* - a mentalization-based health education program. Variations of a minimal delivery model has been applied in different organizational settings in 3 controlled trials: 1. A Public-School trial. 2. An Education Advisor Trial. 3. A Social Assistant Education Trial. Standard administrative (register) data were used as outcome variables (academic performance, staff sick leave, social benefit level). Results: No significant changes in outcome measures were found as a result of the intervention. Conclusion: We do not recommend further research into minimal delivery models of the program. Based on results from other studies future program implementation and research should be directed toward specific (vulnerable) target groups with delivery models that involve regular staff training.

Background

Targeted mental health education has long been an established approach to help people cope with mental health issues (Cushing and Steele, 2010, Montgomery et al., 2006; Hedman et al, 2011, Knouse et al., 2008; Donker et al., 2009; Baskin et al., 2010; Xia et al., 2011).

Resilience is defined as successful adaptation to adversity, including successful recovery from adverse life events and sustainability in relation to life challenges, individually and on group- and community-levels (Zautra et al., 2010). In that sense, all health education programs can be considered as resilience programs.

The concept of resilience is interesting because it basically can address the complexity people often face in their lives, for instance comorbidity, socioeconomic issues and life

event variability. Development of health education programs which can support the development of resilience on a generic level in individuals, groups and communities may thus be useful in a wide range of contexts. That may a part of the solution to the calls for cost-effective interventions which can tackle the burden and complexity of mental health problems in today's societies (Fonagy et al., 2005; Roth and Fonagy, 2006; O'Connell et al., 2009; Kazdin and Blase, 2011).

At the very core of resilience is our capacity for thoughtfulness and careful thinking which is often needed in complex situations. That includes the skills of thinking about one's own thoughts and feelings and the thoughts and feelings of other people as well as their connections with behavior. This is called *mentalizing* and is central in mutual understanding of relationships, self-control, motivation, and flexible understanding of what is going on in the world around (Fonagy et al., 2002; Fonagy and Bateman, 2011; Liotti and Gilbert, 2011).

Mentalization based treatment programs have proved valuable in the treatment of adults with borderline personality disorder (Bateman and Fonagy, 2013), as well as in work with adolescents who self-harm (Rossouw and Fonagy, 2012). Trials have also indicated that a mentalization-based approach can be effective in reducing bullying in schools, when applied at a whole-system level (Fonagy et al., 2009).

The Resilience Program has been designed on the hypothesis that simple mental health education about mentalizing may help people to cope with challenges in life on individual, group and organizational levels. The Resilience Program is intended to be used by professionals as well as a self-directed program for citizens – for vulnerable children, adolescents and families, as well as large scale mental health promotion offered for instance in schools, educational institutions and the workplace. The program is license free and it can be used in any organizational context with low or high intensity. The program can be combined with any other intervention and methods regularly used by an organization.

Research from the clinical realm indicate that flexible modular application of treatment procedures can increase clinical effectiveness (Weisz et al, 2012). Whether this also holds for preventive programs is unknown. However, to follow this line of research and to maximize feasibility, the Resilience Program is designed as a short and flexible modular program.

The program is based on established cognitive science and social learning research, especially about mentalizing including findings from neuroscience. Evidence from these domains is transformed into compact knowledge and inspiration modules expressed in easy to understand everyday language and metaphors which include stories and short games. It can be found in Danish, English and Greenlandic versions here: www.robusthed.dk and http://myresilience.org/. Short presentations of core modules from the program is also

presented in Bak et al (2015). On the program website subsite 'about us' background review articles and research protocols can be found.

Preliminary results indicate that the Resilience Program[1] may have a positive impact on Theory of Mind development in school aged children (Valle et al, 2016), conflict prevention and reduction of staff sick leave (Bak et al, 2015). Hitherto experiences also indicate good program feasibility and compliance (Lundgaard Bak, 2012; Bak et al, 2015). Experiences and case stories illustrating the practical use of the program in various target groups is described in a book (Lundgaard Bak (ed.), 2018 in press).

The Resilience Program has typically been introduced to target groups in short lectures and courses in day care centres, schools and educational institutions with a focus on the collaboration between parents, teachers, educators and others who deal with children every day. This is in line with decades of research on whole school approaches in health promotion exemplified by the WHO Health Promotion Schools project involving more than 40 countries (WHO 2006, Wynn et al 2006) and recommendations from a series of NICE reports (Adi et al 2007a, Adi et al 2007b, Shucksmith et al 2007, NICE 2008, 2009).

Longitudinal social network analyses over 20-30 years has documented that health behavior and wellbeing spreads dynamically in large social networks (Christakis & Fowler 2007 & 2008, Fowler & Christakis 2008). This also indicates that it is a reasonable strategy to 'seed' relevant knowledge simultaneously into 'the whole network' around a group of children and young people.

Social field models of delivery also seem to be the best way to maximize program adherence of web-based interventions (Mohr et al 2011, Neil et al 2009).

The Resilience Program is intended to be a *brief* intervention in which parents and professionals in schools and educational institutions are offered the same background knowledge and practical knowledge of how mentalization-based resilience training of children and adolescents can be integrated in daily life. The purpose is to support the development of common understanding, knowledge and concepts about child development and provide opportunities to train coping situations with the child both at home and daycare /school.

The program is designed to fit into ordinary curricular and extracurricular activities such as parent meetings on group and/or individual level. A typical course has been:

1. 1-3 hours introduction to the Resilience Program to the professionals on a school (leaders, teachers, psychologists etc.) by a municipality consultant with a formal Resilience Program training (5 days education run by program developers). Afterwards the teachers introduce the program to parents on ordinary parent meeting (½-1 hour). Alternatively, the introduction is given by the consultant to professionals and parents on the whole school or age cohort groups at the same time.
   The purpose of the introduction is to give a short overview of the relevance and core

[1] Formerly called "The Thoughts in Mind Program".

ideas of the program and to raise the engagement and curiosity to go on and explore the Resilience Program website and enhance program fidelity.

2. Teachers and parents select and use Resilience Program knowledge and tools appropriate for specific kids (individually/groups) - integrated in daily activities as a general activity or with a focus on specific problem solving. If they wish to run a more formal general Resilience Program course for the students, they may use the course proposals on the website ('Knowledge Vitamins'). Process intensity is defined by local needs.

This is the *minimal delivery model* we investigate in this study. We have also investigated this delivery model in 2 related settings:

- A trial in Social Assistant Educational Institutions.

- A trial including Educational advisors. All Danish municipalities have Education Advisors who work in schools and educational institutions to support vulnerable students aged 15-25, helping them to choose a proper youth education and not to drop out of the education system.

The current study thus includes 3 trials:

Trial 1: The Public-School trial (In Demark public schools has grades 0-10).
Trial 2: The Social Assistant Education trial.
Trial 3: The Education Advisor trial.

Besides we have investigated an internet-based minimal intervention delivery model for the Resilience Program in a population of children and young people in care and in a population of young adults with ADHD. Results from this minimal internet intervention study is presented in a parallel publication (Lundgaard, 2017).

In both of the two current studies, we have exploited the potential of using administrative (register) data as outcome variables - as recommended by the Coalition for Evidence Based Policy (2012).

Materials and Methods

The trials were approved by relevant Danish authorities.

Trial 1: The Public-School trial

Recruitment of schools

The recruitment of schools in the Public-School trial was conducted in 2013 at a time when there was a major conflict between the trade union for teachers and the Danish school authorities around salary and work conditions. There were a 2 weeks lockout - never seen before in Danish school history. The conflict was terminated by the Danish Parliament by a legislative reform which revolutionized the working conditions for the leaders and the staff in the Danish school system. This historic situation affected the recruitment of schools to our trial in a comprehensive way.

School were recruited to the trial in the following way:

28 schools with a total of 4669 students were randomly sampled from the Public-School Register in the National Department for Education. This group of schools constitute *the control group*. The schools in the control group were not contacted.

24 Schools with a total of 4253 students were recruited to *the trial group* in the following way:

A. 30 schools were randomly sampled from the Public-School Register in the National Department for Education. A mail with invitation to participate in the trial was send to the school leader and he/she was called by phone. 3 schools (10 %) accepted directly to participate in the study. Leaders from 17 schools (47 %) expressed an interest in participation but chose not to participate because they had to prioritize the implementation of the school reform.

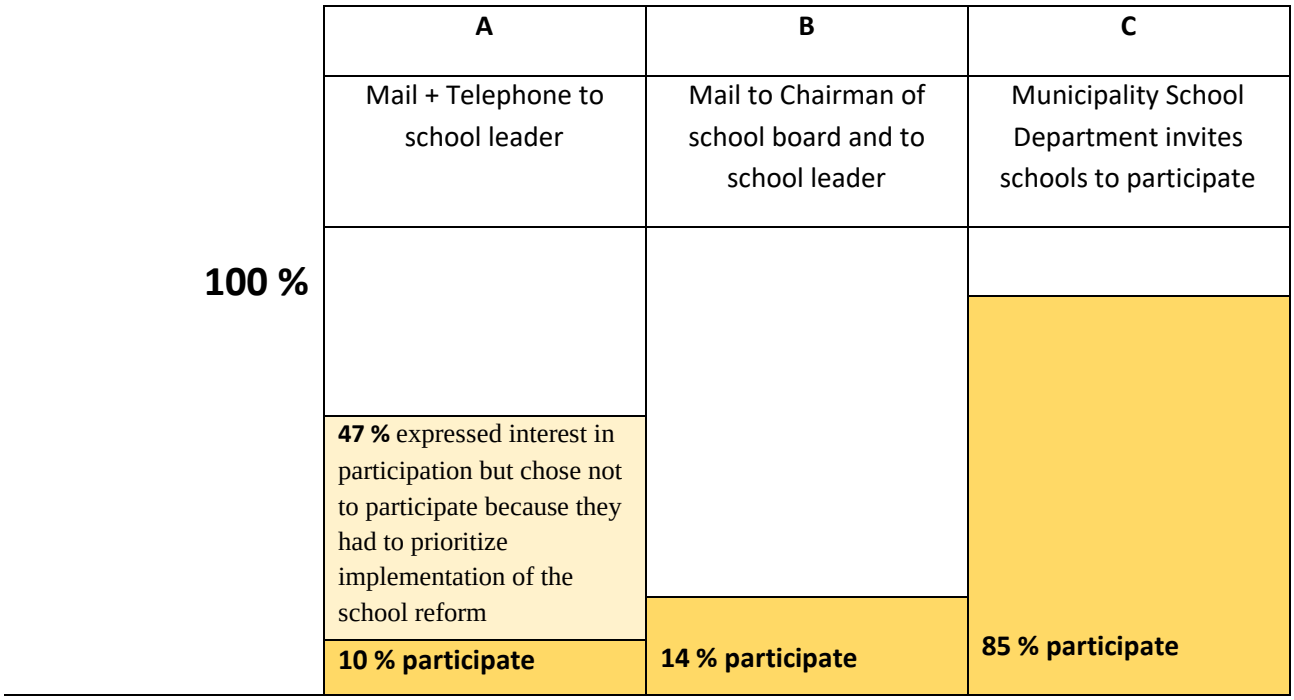
B. 30 schools were randomly sampled from the Public-School Register in the National Department for Education. A mail was send to the school leader and to the chairman of the school board (who is always a parent representative). 4 schools (14 %) participated in the trial group.

C. In two different municipalities, the administrative school department was contacted. In one of the municipalities - a small community in a rural area – the administrative department invited all 6 schools in the municipality to participate - and all 6 did. In the other municipality - the third largest city in Denmark – the school department invited 7 school from a socially deprived area to participate. 5 of the schools participated. This amounts to 85 % participation rate from the municipality subgroup.

D. 6 schools have by themselves asked to participate. School leaders from the 6 schools had heard about the project from colleagues.

Recruitment rates from subgroups A-C are shown in figure 1.

Figure 1: Recruitment rates in trial subgroups A-C



Trial 1 delivery model:
The Resilience Program minimal delivery model described in the background section was implemented in the trial group schools with three levels of intensity:

- Level 1 intensity: 1 hour introduction to the staff.
- Level 2 intensity: 2 hour introduction to the staff.
- Level 3 intensity: 2 hour introduction to the staff plus 1,5 hour open lecture for parents.

The intervention was delivered in 2014, primarily in the last semester.

Trial 2: The Social Assistant Education trial.

Recruitment of Social Assistant Education institutions

In Denmark, there are 16 Social Assistant Education institutions. Representing different parts of the country, 4 institutions were invited to participate and there were introductory meetings with leaders from all 4 institutions. 2 of the institutions participated fully afterwards in Resilience Program introduction and staff training. These 2 institutions

constitute the trial group. The 12 institutions who were not contacted constitute the control group.

Trial 2 delivery model:
The Resilience Program minimal delivery model described above was implemented in the trial group institutions except that parents were not involved.

The intervention was delivered in 2014, primarily in the last semester.

Trial 3: The Educational Advisor trial.

There are 53 Education Advisory Institutions in Denmark covering all 98 municipalities. 6 institutions representing different parts of the country were invited to participate in the trial group. 5 institutions covering a total of 12 municipalities accepted the invitation and participated fully in staff training. The other 48 Education Advisory Institutions representing all other municipalities constitute the control group.

Trial 3 delivery model:
Educational Advisors in participating institutions were given a 3 days Resilience Program training. They could use the program in their individual counseling of vulnerable students and they could introduce the program in groups of students and for staff in schools and educational institutions in their target area.

The intervention was delivered in 2014, primarily in the last semester.

Outcome variables

Trial 1: The Public-School trial.

- National tests in Danish reading, an academic performance score recorded by the Danish school authorities since 2009.
- Staff sickness leave, recorded in the so-called DREAM database by the Danish social authorities.
- We use parent education levels as a co-variate indicator for the socioeconomic background level in different school population areas.

Trial 2: The Social Assistant Education trial.

- Student Drop-out

Trial 3: The Educational Advisor trial.

- Social benefit, registered for all citizens in the DREAM database. Many initiatives has been initiated by the authorities to keep young people on education and/or employment so they do not end up on social benefit. For that reason this is a relevant outcome measure.

Statistical analyses

The program Stata SE/14 was used for all analyses.

Trial 1: The Public-School trial.

One- and two-way ANOVA were used to detect if there were any differences in parent education level (socioeconomic background level) between trial school and control schools.

Linear regression was used without and with correction for parental education level in the school area to analyze if the were any significant changes in the average national test results in Danish reading from before to after intervention between trial and control group schools Analyses were run for each intervention intensity level and for the pooled dataset.

T-test was used to analyze the average change in staff sickness leave in trial schools and in control schools.

Trial 2: The Social Assistant Education trial.
For technical reasons data was not available.

Trial 3: The Educational Advisor trial.
As trial 1.

Results

Trial 1: The Public-School trial.

No significant differences were found in parent education level between school areas in the trial group and school areas in the control group.

Results for changes in the Danish reading national test from before to after intervention for each intervention level is shown in figure 2. There are no statistically significant changes in average scores as a result of the intervention. Correction for parent education level does not change these results, nor does pooling of the data set.

Figure 2: Results for changes in the average Danish reading national test scores from before to after intervention for each intervention level

	Change of score from before to after intervention	p-value	95% CI
Control Group	0 (ref.)		
- Intervention level 1(6 schools)	-1,36	0,47	-5,11;2,39
- Intervention level 2 (8 schools)	-0,11	0,96	-4,31;4,10
- Intervention level 3 (10 schools)	-0,51	0,77	-3,96;2,94

The result of the analysis of staff sickness leave in public schools is shown in figure 3. No statistically significant changes in average scores can be detected as a result of the intervention.

Figure 3: Change in average staff sickness leave in trial schools and in control schools.

	Intervention	Control	P-value for difference
Change in the average number of sickness leave weeks per person from 2013-2015	+4,18	+2,51	0,47

The analysis only includes persons who received sickness social benefit in 2013 and 2015.

Trial 2: The Social Assistant Education trial.
For technical reasons data was not available.

Trial 3: The Educational Advisor trial.

Figure 4 show the results of the Educational Advisor trial. There are no significant changes in the number of young people receiving social benefit between municipalities in the trial group and the control group.

Figure 4: Average number of young people on social benefit in trial municipalities compared to control municipalities.

	Intervention (mean)	**Control (mean)**	**Diff**	**P-value for difference**

				between groups
2013	515.75	603.13	- 87.37	0.72
2014	473.25	553.81	- 80.57	0.71
2015	512.08	561.74	- 49.66	0.82
2016	530.41	565.99	- 35.57	0.86

Discussion

In this study, we have investigated the impact of a mentalization-based mental health education program – The Resilience Program - with minimal delivery models in 3 different settings: Public Schools, Social Assistant Education Institutions – and Education Advisors.

From a public health perspective there are good reasons why minimal delivery models for health education programs seems attractive (effectiveness, mass distribution, health economics). Thus, when new types of programs are developed – as The Resilience Program - minimal delivery models should be part of the investigation and evidence base for the program.

In the 3 trials of this study no significant changes in outcome measures were found as a result of the minimal intervention. In principal there may be several reasons for this result:

- The Resilience program may be ineffective.
- The program may be effective but only measured by other outcomes and follow-up periods than chosen in this study – or in other target groups.
- The program may be effective but only when delivered in higher doses than the minimal delivery model used in this study.
- The quality of the learning environment in Danish schools and educational institutions may be so high that marginal improvements with any program may be hard to obtain.
- Contamination of the control groups with knowledge from the Resilience Program cannot be completely ruled out because the program is freely accessible on the internet and Denmark is a small country so institution leaders and staff members can easily communicate across the country about what is interesting for them.

It may definitely be argued that other and equally interesting outcome measures could have been applied in this study, for instance psychological assessment of development of mentalizing capacity, mental and social wellbeing, conflict prevention and management etc., but it has been an integrated part of the design of this study to use administrative (register) data which are collected by the authorities anyway and to avoid separate data collection.

From a societal point of view the outcome measures chosen are at least relevant for decision makers.

The result from the parallel minimal intervention study indicate a possible long-term learning effect in children and young people taken in to care while no effects in a target group of young people with ADHD could be detected (Lundgaard 2017). A focus in future implementation and research on specific vulnerable target groups may thus be indicated while in other vulnerable target groups the intervention may be ineffective. Much more research is needed to test this hypothesis. Two international Resilience Program intervention studies which currently apply for funding, focus on vulnerable target groups.

Results from earlier studies ((Valle et al, 2016; Lundgaard Bak, 2012; Bak et al, 2015) and reports from experienced users (Lundgaard Bak (ed), 2018 in press) indicate that more intense training of staff is needed in order to exploit the full potential of the program and produce measurable effects. When feasible we now recommend three days regular staff training plus supervision. Future research evaluating program effects should also focus on projects with this level of program training.

A UK school study evaluating the implementation of the Resilience Program has ranked program implementation as 4.00 on a Likert scale of 1-6 (Borlase et al, 2017, submitted for publication). The same study confirm that implementation of the Resilience Program is subject to the same conditions as implementation of all programs, for instance leadership commitment. In a prison implementation study 79 of 100 employees actively used knowledge and tools from the Resilience Program 6 months after training (Lundgaard Bak, 2016). In the current study more than half of the schools contacted would have liked to participate in the project if they had not been involved in a serious conflict at the time. From an implementation point of view, it is also interesting that contacts to schools via the municipality administration resulted in a very high participation rate. Based on these results and feedback from experienced users (Lundgaard Bak, 2018 in press) and a constant demand for new training courses and introduction lectures we still consider the face value of the program and the program feasibility to be high. This year the Danish Parliament has chosen the program as one of two programs to be implemented in Danish foster care institutions. Our conclusion is that this justifies continued research by independent r3search groups to evaluate eventual program effects in specific (vulnerable) target groups with delivery models that involve regular staff training. Based on the results presented in the current studies we do not recommend further research into minimal delivery model implementation of the program.

References

Adi Y., Killoran A., Janmohamed K., Stewart-Brown S. (2007a) Systematic review of the effectiveness of interventions to promote mental wellbeing in children in primary education: Report 1: Universal Approaches Non-violence related outcomes. *National Institute for Clinical Excellence*.

Adi Y., McMillan A.S., Kiloran A., Stewart-Brown S. (2007b). Systematic review of the effectiveness of interventions to promote mental wellbeing in primary schools Report 3: Universal Approaches with focus on prevention of violence and bullying. *National Institute for Clinical Excellence*.

Bak PL, Midgley N, Zhu JL, Wistoft K and Obel C (2015) The Resilience Program: preliminary evaluation of a mentalization-based education program. *Front. Psychol.* 6:753. doi: 10.3389/fpsyg.2015.00753

Baskin, T. W., Slaten, C. D., Sorenson, C., Glover-Russell, J., and Merson, D. N. (2010). Does youth psychotherapy improve academically related outcomes? A meta-analysis. *J. Couns. Psychol.* 57, 290–296. doi: 10.1037/a0019652

Bateman, A., and Fonagy, P. (2013). Mentalization-based treatment. *Psychoanal. Inq.* 33, 595–613. doi: 10.1080/07351690.2013.835170.

Borlase, N.; Antrobus, L.; Allen G.; Solomon M.; Lundgaard Bak, P.; Kennedy E. (2017). Improving mental health and resilience in schools: Challenges associated with the UK implementation of the Danish "Robust-ED" Resilience Programme, *submitted for publication*.

Christakis N.A., Fowler J.H. (2007). The Spread of Obesity in a Large Social Network over 32 years. *New England Journal of Medicine* 357(4), 370-9.

Christakis N.A., Fowler J.H. (2008). The Collective Dynamics of Smoking in a Large Social Network. *New England Journal of Medicine* 358(21), 2249-58.

Coalition for Evidence Based Policy (2012): Rigorous Program Evaluations on a Budget: How Low-Cost Randomized Controlled Trials Are Possible in Many Areas of Social Policy. https://eric.ed.gov/?id=ED541837

Donker, T., Griffiths, K. M., Cuijpers, P., and Christensen, H. (2009). Psychoeducation for depression, anxiety and psychological distress: a meta- analysis. *BMC Med.* 7:79. doi: 10.1186/1741-7015-7-79

Fonagy, P., and Bateman, A. (2011). The widening scope of mentalizing: a discussion. *Psychol. Psychother.* 84, 98–110. doi: 10.1111/j.2044- 8341.2010.02005.x

Fonagy, P., Gergely, G., Jurist, E., and Target, M. (2002). *Affect Regulation, Mentalization and the Development of the Self*. New York: Other Press.

Fonagy, P., Target, M., Cottrell, D., Phillips, J., Kurtz, Z., Kurtz, A., et al. (2005). *What Works for Whom? A Critical Review of Treatments for Children and Adolescents*, 2nd Edn. New York, NY: Guilford Press.

Fonagy, P., Twemlow, S. W., Vernberg, E. M., Nelson, J. M., Dill, E. J., Little, T. D., et al. (2009). A cluster randomized controlled trial of child-focused psychiatric consultation and a school systems-focused intervention to reduce aggression. *J. Child Psychol. Psychiatry* 50, 607–616. doi: 10.1111/j.1469-7610.2008.02025. x.

Fowler J.H., Christakis N.A. (2008). Dynamic spread of happiness in a large social network: Longitudinal analysis over 20 years in the Framingham Heart Study. *British Medical Journal* 337, a2338.

Hedman, E., Furmark, T., Carlbring, P., Ljótsson, B., Rück, C., Lindefors, N., et al. (2011). A 5-year follow-up of internet cognitive behavior therapy for social anxiety disorder. *J. Med. Internet Res.* 2: e39. doi: 10.2196/jmir.1776.

Kazdin, A. E., and Blase, S. L. (2011). Rebooting psychotherapy research and practice to reduce the burden of mental illness. *Perspect. Psychol. Sci.* 6, 21–37. doi: 10.1177/1745691610393527

Knouse, L. E., Cooper-Vince, C., Sprich, S., and Safren, S. A. (2008). Recent developments in the psychosocial treatment of adult ADHD. *Expert Rev. Neurother.* 8, 1537–1548. doi: 10.1586/14737175.8.10.1537

Liotti, G., and Gilbert, P. (2011). Mentalizing, motivation, and social mentalities: theoretical considerations and implications for psychotherapy. *Psychol. Psychother.* 84, 9–25. doi: 10.1348/147608310X520094

Lundgaard Bak, P. (2012). "Mentalizing communities for children," in: *Mentalization Based Interventions with Children and Families,* eds N. Midgley and I. Vrouva (London: Routledge).

Lundgaard Bak, P. (2016). Evaluation of the implementation of the Resilience Program in a Danish prison. *State Prison Mid-Jutland Internal Report* (in Danish).

Lundgaard P (2017). Randomized controlled evaluation of a minimal intervention delivery model for *The Resilience Program* - a mentalization-based health education program. *Report www.thjinkinuk.copm/research*

Lundgaard Bak, P. (2018). Resilience; A practical guide to teamwork with children and adolescents. Routledge – in press.

Montgomery, P., Bjornstad, G., and Dennis, J. (2006). Media-based behavioural treatments for behavioural problems in children. *Cochrane Database Syst. Rev.* 2006:CD002206. doi: 10.1002/14651858.CD002206.pub3.

NICE (2008): Promoting children's social and emotional wellbeing in primary education. *National Institute for Clinical Excellence*.

NICE (2009): Promoting young people's social and emotional wellbeing in secondary education. *National Institute for Clinical Excellence*.

O'Connell, M. E., Boat, T., and Warner, K. E. (2009). *Preventing Mental, Emotional, and Behavioral Disorders among Young People: Progress and Possibilities*. Washington, DC: National Research Council and Institute of Medicine.

Roth, A., and Fonagy, P. (2006). *What Works for Whom,* 2nd Edn. New York: Guildford Press.

Rossouw, T., and Fonagy, P. (2012). Mentalization-based treatment for self-harm in adolescents: a randomized controlled trial. *J. Am. Acad. Child Adolesc. Psychiatry* 51, 1304–1317. doi: 10.1016/j.jaac.2012.09.018.

Shucksmith J., Summerbell C., Jones S., Whittaker V. (2007). Mental wellbeing of children in primary education (targeted/indicated activities). *National Institute for Clinical Excellence*.

Valle A, Massaro D, Castelli I, Sangiuliano Intra F, Lombardi E, Bracaglia E and Marchetti A (2016) Promoting Mentalizing in Pupils by Acting on Teachers: Preliminary Italian Evidence of the "Thought in Mind" Project. *Front. Psychol.* 7:1213. doi: 10.3389/fpsyg.2016.01213

Weisz JR, Chorpita BF, Palinkas LA, Schoenwald SK, Miranda J, Bearman SK, Daleiden EL, Ugueto AM, Ho A, Martin J, Gray J, Alleyne A, Langer DA, Southam-Gerow MA, Gibbons RD (2011): Testing Standard and Modular Designs for Psychotherapy Treating Depression, Anxiety, and Conduct Problems in Youth. A Randomized Effectiveness Trial. *Arch Gen Psychiatry* 69,274-82.

WHO (2006): What is the evidence on school health promotion in improving health or preventing disease and, specifically, what is the effectiveness of the health promoting schools approach? *WHO Europe*.

Wyn J., Cahill H., Holdsworth R., Rowling L., Carson S. (2000). Mind Matters, a whole-school approach promoting mental health and wellbeing. *Australian and New Zealand Journal of Psychiatry* 34, 594–601.

Xia, J., Merinder, L. B., and Belgamwar, M. R. (2011). Psychoeducation for schizophrenia. *Cochrane Database Syst. Rev.* 2011:CD002831. doi: 10.1002/14651858.CD002831.pub2

Zautra, A. J., Hall, J. S., and Murray, K. E. (2010). "Resilience, a new definition of health for people and communities," in *Handbook of Adult Resilience,* eds J. W. Reich, A. J. Zautra, J. S. Hall (New York: Guilford Press).