School-based Prevention of Mental Disorders

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Mental disorders present a great risk for the development of children and adolescents. At the same time, the institution of school is experienced by almost all persons within these age-groups and therefore presents itself as a suitable location for prevention. Through the utilisation of evidence-based measures, i.e. those which have been scientifically tested for their effectiveness, schools can make a positive contribution "within the network of education and medicine" (congress motto) to the positive development of children with illnesses or those in danger of developing psychological disorders.

The current understanding of mental disorders in children and adolescents
The foundations of current research are based on the Transactional Model of Development (Beelmann 2000) which postulates three central dimensions:
- biological characteristics,
- social environmental factors and
- psychological factors.

These dimensions interact with one another and mutually influence each other. These active factors can have a positive influence on development, but can also increase the risk of a problematic development process (risk factors). Although research findings postulate model development processes (development paths), it is also recognised that each development is individual. Research into resilience (Werner, 1997; Opp & Fingerle, 2007) has also identified protective factors which can lessen the effects of risk factors (Laucht, Esser& Schmidt, 1999). The correlations can be summarised in the following diagram (Scheithauer, Niebank & Petermann, 2000, 67).

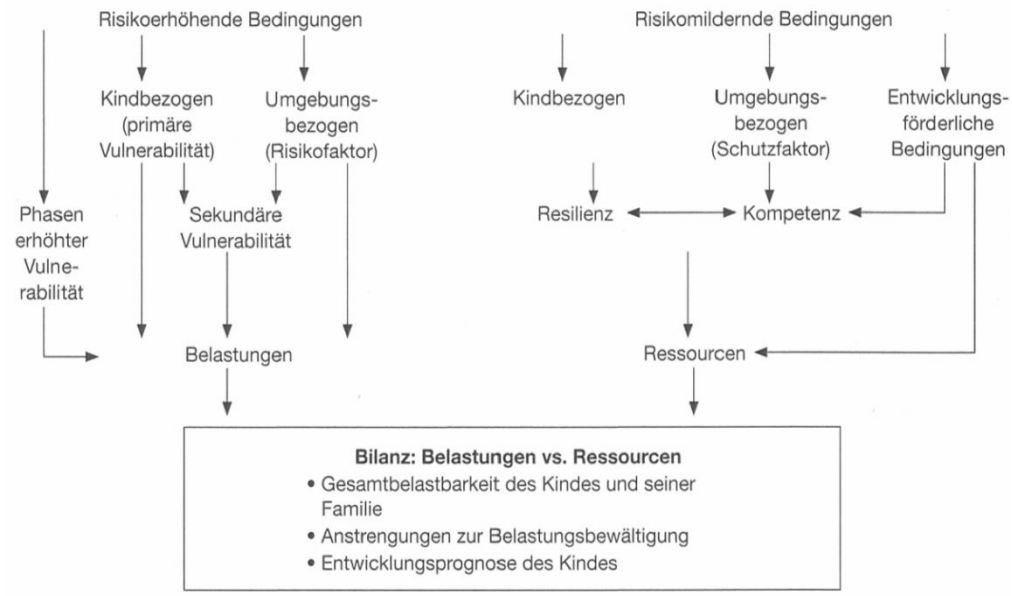
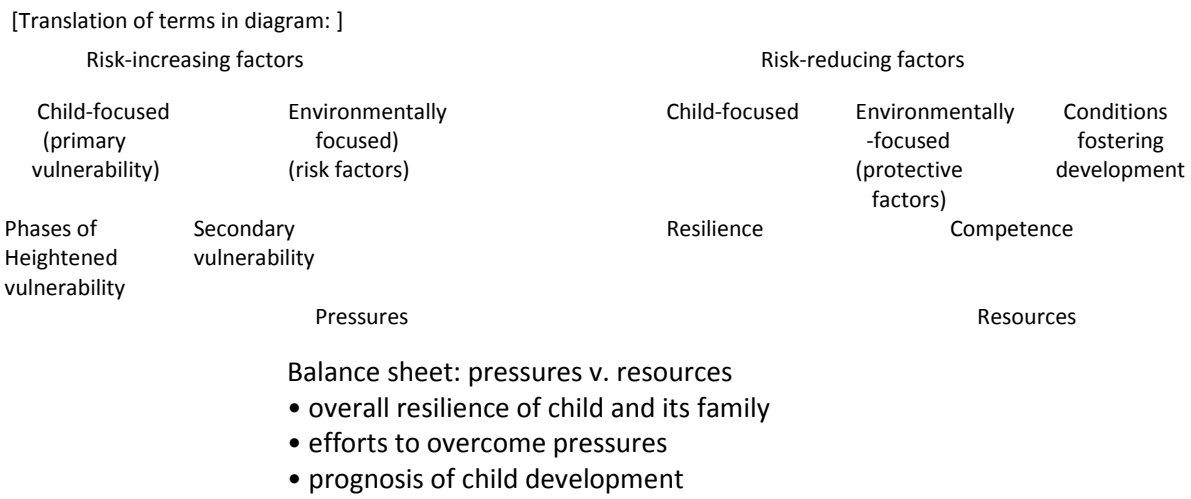


Fig. 1: Understanding of development



This explanatory model proves to be particularly useful for explaining developments at risk and is also helpful for defining prevention and intervention measures (Beelmann & Rabe, 2007). Research findings on resilience have inspired researchers to apply themselves to a new orientation in their development of application-oriented assistance methods which are now being incorporated in practice through educational aids in both schools and extracurricular environments (Greenberg et al., 2003). For this reason, scientifically-based prevention programmes utilise the detailed findings of more recent research on the basis of the risk-resilience model for the construction and implementation of specific assistance measures. Currently, research is especially focused on the encouragement of social-cognitive information processing (Crick & Dodge, 1994; Lemerise & Arsenio, 2000).

Prevention – a chance for schools

What role can the school play in this process? In our modern industrial societies, the institution school represents a vital social location for development. Bio-psycho-social problem constellations are particularly precipitated through the strongly normative context of school. Pupils at risk frequently encounter in this situation a social institution which ignores their problems, partially contributes to the exacerbation of these problems (lack of monitoring) and as a rule provides no resources or competences for the solution of these problems (lack of diagnostic competences, no effective prevention measures and delegation of problem situations). On the other hand, Emmy Werner (1997) refers to the opportunities of school and the im-portant role of teaching staff in her list of protective factors on the basis of decades of resilience research. Under what conditions are schools in Germany working? The prevalence of observed psychological disorders which according to the most recent studies stands at a level of 14.7 % (Hölling et al., 2007) displays a close correlation with the various school types. According to the findings of Remschmidt and Walter (1990), the highest levels of stress can be found in primary school, secondary special schools. My own current investigation of 514 pupils in year five at secondary modern schools in Cologne reaches the conclusion that 25 % of female pupils and a staggering 51 % of male pupils of these schools can be considered as displaying psychological abnormalities as evaluated by the teaching staff on the basis of the internationally standardised measuring instrument 'Strengths and Difficulties Question-naire”'(SDQ; Goodman, 1997) (Hennemann et al., 2010). Prevalence in the various types of special schools is also at a high level (Hillenbrand, 2009a), particularly in schools for children with learning difficulties with a focus on emotional and social development (Schmid et al., 2007).

In view of this current situation, all school forms must undertake great efforts to utilise effective options for action as intensively as possible, particularly as the further development of the control groups in the various studies all displayed a common trait: if no preventative or interventional measures were undertaken, the degree of disruption would either remain stable or even increase significantly (Wilson, Lipzey & Derzon, 2003). This means that a lack of any action displays the negation of ethical responsibility! But what measures are really effective? Whereas research on prevention in schools leads a somewhat shadowy existence in Germany, investigation into the topics 'school-based prevention/ intervention' has become a popular field in English-speaking countries. Extensive meta-analyses (DuPaul & Eckert, 1997, Wilson, Gottfredson & Najaka, 2001; Wilson, Lipsey & Derzon, 2003) come to largely unanimous conclusions in their description of promising school-based measures. Although preventive measures in schools generally only achieve moderate scales of effect, they can make a considerable contribution to the promotion of development of pupils and improve the general situation in a school. Successful interventions on the part of the school – particularly in the case of externalising disorders include:

- behaviour and classroom management programmes
- counselling and/or case management,
- cognitive-behavioural programmes and
- academic learning programmes.

These findings suggest that children and adolescents with an increased risk of emotional and behavioural disorders can benefit most from good classroom management (Helmke 2009, Hennemann & Hillenbrand, 2010) through individually tailored therapeutic measures, cognitive-behavioural support programmes and academic learning support. Quality criteria for effective prevention can be identified on the basis of a variety of meta-analyses for the implementation of effective prevention measures (Petermann 2003).

- Early support: prevention work should already begin at nursery school or at the pre-school or primary stage.
- Longer periods of support: prevention measures are only really effective over a minimum period of 3 months.
- Direct encouragement of children: not only parents or educators but also the children themselves should be involved in the measures.
- Intensive measures: an increase in intensity (greater frequency of measures and more intensive exercises) leads to greater success.
- Active parents: the continuous and committed assistance of parents is extremely helpful.
- Multi-modal support: special provisions for the various levels of child development, i.e. behaviour, emotions and language, leads to greater success.
- Utilisation of social resources: support facilities available within the social environment should be identified and used.

In the meantime, several German-language prevention programmes have been developed which target the prevention of emotional and behavioural disorders. All these programmes have up until now been conceived as universally preventative, multimodal intervention measures. The following table provides a summary of these scientifically based prevention programmes and their essential structural characteristics (Hillenbrand 2009b, 144f).

Intervention	Level & Target Group	Objectives & Content
Faustlos (Cierpka & Schick 2001)	nursery school/ school years 1---3 (51 sessions) 2---3 sessions per week (20---30 mins.)	empathy control of impulses handling of emotions such as anger and rage problem-solving skills
Verhaltenstraining für Schulanfänger (Gerken et al. 2002)	school years 1 or 2 26 sessions (of 45mins.) Klassenebene meanwhile also evaluations in induced prevention	motor calmness/ relaxation improvement of auditory & visual attention self---perception and perception by others extension of social skills appropriate problem---solving skills
Sozialtraining in der Schule (Petermann et al. 1999)	school years 3 – 6 9 sessions (of 90 mins.)	differentiated social perception reasonable self---assertion cooperative behavior empathy
Lebenskompetenztraining (Aßhauer & Hanewinkel 2000)	School years 1 & 2 Continuation available for higher classes 20 sessions of 90 mins	encouragement of self---esteem, body consciousness encouragement of social skills (coping with communication, stress and anxiety, problem solving) Handling of negative emotions
„Lubo aus dem All!“ – Vorschule (Hillenbrand, Hennemann & Heckler-Schell 2009a)	Group level nursery school 34 sessions of 40 – 60 mins.	encouragement of emotional knowledge, emotional regulation, social---cognitive processing of information. emphasis on educational structure
„Lubo aus dem All!“ – Schuleingangsphase (Hillenbrand, Hennemann & Hens 2009b)	school years 1 and 2 30 sessions of 40 – 50 mins.	encouragement of emotional knowledge, emotional regulation, social---cognitive processing of information. emphasis on educational structure
KlasseKinderSpiel/ Good Behavior Game (Barrish et al. 1969, Hillenbrand & Pütz 2008)	year level: nursery school up to 1st year of secondary school all pupils game within lesson context with competitive character once a day (also possible more or less frequently) duration of intervention as required, recommended for 6 months excellent evaluation results	reduction of lesson disruption (“fouls”) creation of peaceful classroom atmosphere more learning time also very effective for the prevention of aggression, drug abuse and criminal acts and additionally as intervention
Olweus- Schulprogramm (Olweus 2002)	school levels: questionnaire, educational training day, school conference, school yard planning, etc. class levels: rules against violence, role plays, cooperative learning personal level: talking to victims/ offenders, help from not-involved pupils length varies	reduction of direct violence (i.e. physical and verbal violence) improvement of peer relationships create conditions which facilitate that victim and offender can deal w. each other in and outside of school

A few comments could aid orientation. The Faustlos programme has been widely distributed and is available for nursery school and school reception classes. It is relatively cost-intensive and methodically not highly variable. Evaluations have up until now only been able to establish effects in anxious children, whereas no effects have been established for externalised problems. Behaviour training for pupils in reception class, social training at school and life-skills training are easily obtainable and have proved to be effective according to a few smaller-scale evaluations. The Olweus programme and the Good Behaviour Game/ Klasse Kinder-Spiel differ from the above-mentioned programmes. The Good Behaviour Game presents a simple method which is extremely effective for the reduction of disruptive situations and long-term protection against problems ranging from aggression to drug consumption due to its group-structured enhancement of pro-social behaviour patterns during lessons (group contingency procedure) (Kellam et al., 1998; Hillenbrand & Pütz 2008). These effects were established in a number of international studies (Tingstrom et al., 2006). The Olweus-Schulprogramm, also frequently receiving positive evaluation, targets changes throughout the entire school and works on a variety of levels: with teaching staff, with parents and with victims and culprits (Olweus 2002). Both of these measures have been successful in multiple evaluations and are considered to be highly effective, particularly in the case of externalised disorders.

And intervention?

Externalised disorders frequently dominate public discussion, but only very few successfully evaluated approaches exist. Publicly discussed methods such as boot camps, confrontational procedures and juvenile detention display highly problematic effects according to scientific studies. Juvenile detention results in a relapse rate of ca. 75 %. Boot camps also cannot significantly reduce this relapse rate and additionally entail a high level of financing. In the USA, several cases of youth fatalities have occurred at boot camps. Confrontational procedures, in as far as these have been evaluated, also do not display more favourable results than any other form of intervention (Hillenbrand 2009a).

In view of the risk burden and the theoretical model illustrated (transactional development model), it is easily understood that intervention procedures promising success must take into account the multiple dimensions of pressure from a variety of different fields. Multisystemic Therapy is an internationally well-established and optimally evaluated procedure operating in the various systems of adolescents' actual lives, also including the school environment. Multisystemic Therapy is an elaborate but long-term effective process achieving reductions in social costs which has undergone a number of successful evaluatations according to scientific criteria (Heekerens, 2006). In German-speaking countries however, it has only been utilised up until now in child and adolescent psychiatric services in Thurgau in Switzerland.

Multi-system therapy was specially developed for juvenile delinquents (Vierbuchen, Albers & Hillenbrand, 2010) and follows an extremely clear strategy which provides a high intensity of support. It operates within a wide variety of compartments of adolescents' lives: alongside work in the family, also with friends (peers), with the school and local authorities. The concrete content of Multisystemic Therapy consists of the intensive supervision of the adolescent and his family. A therapist who can have a wide range of qualifications undertakes responsibility for between one and five young persons and their families. This therapy interlinks the different aspects of life systems, also involving school and peers and other reference persons alongside primary activities with the family. The therapist is simultaneously integrated in a small working group of therapists involved with Multisystemic Therapy which meets weekly for supervision meetings. A therapeutic session is held daily with the adolescent and the family in which the family works towards specific targets each day under the supervision of the therapist who interviews participants to identify the problem and then searches equally for strengths and resources within the family with the aid of diagnostic procedures. The work with the parents is aimed at strengthening parental educational competence. Social training is also utilised and performed with the adolescent and his family. Here the dimension of parental monitoring plays a central role: the therapists provide strength and support for the parents to enable them to utilise improved and more frequent controls.

A central characteristic of Multisystemic Therapy is the constant accessibility of support: the responsible therapist or one of his colleagues who is also well-informed about the process is available 24 hours a day and seven days a week. The therapeutic institution is also located locally to guarantee swift help and immediate contact.
This course of therapy lasts four to five months: an unbelievably short period of intervention. It is however the high intensity of this measure which according to well-founded scientific research leads to an extremely high degree of effectiveness d = 3.88) which demonstrates the greatest efficaciousness of all measures for this target group. The procedure entails average costs amounting to ca. 5,700 US $ per client (status 1999). Due to the effectiveness of this measure which halves the relapse rate to only 38 % (!) which means that this measure pays itself off after a period of only two years (Vierbuchen et al., 2010).
Multisystemic Therapy is now available as a service and is viewed as one of the few effective procedures for the target group of highly disturbed delinquent adolescents. In German-speaking countries however, this method is (still) largely unknown.

Conclusion Psychological disorders in children and adolescents require effective measures of prevention and intervention within the cooperative network between medicine and education. Here schools have opportunities of which they are frequently unaware and therefore do not utilise. Qualified training for teaching staff is a necessary step, particularly in view of demands for inclusion and more communality within the educational system to ensure improvements in development and working conditions. This could make school for children and adolescents subjected to risks in their developmental environment into a living space full of opportunities.

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