Journal of Child and Youth Development (JCYD)

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„Resilience from an ecological view“

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Structure

Editorial

We are pleased to announce the launch of the Journal of Child and Youth Development (JCYD), an international, online, open access, peer reviewed journal that will encompass all aspects of personal and social development in childhood and adolescence. While the focus will be on peer-review articles, the journal will consider additional contributions that are scientifically sound and within its scope.

The JCYD is a journal for the study of personal and social development in childhood and adolescence. Its perspectives are multi-disciplinary, coming from educational sciences, psychology, sociology, and youth care. The journal aims at a better understanding of contemporary socialization processes, focusing on the link between the individual and the society, presenting current and comparative studies using both qualitative and quantitative methodologies. The journal's co-editors are Prof. Dr. Beate Wischer und Prof. Dr. Wassilis Kassis of the University of Osnabrück in Germany.

A special concern of the JCYD is the aim to identify appropriate socialization practices and to promote the development, advancement and dissemination of knowledge about challenging issues. The JCYD publishes theoretically informed and original research from a multitude of perspectives and covering a broad band of aspects of children’s and adolescents’ life affecting wider society.

We wish to express our gratitude to the many colleagues who have agreed to serve as section editors in their areas of expertise. To a considerable extent, the quality of the journal will depend on their commitment. The journal's editorial office is based at the School of Educational Sciences at the University of Osnabrück/Germany.

The Journal of Child and Youth Development’s open access policy contributes, with other journals all over the world, in changing the way in which articles are published. Thus all articles become free and can be read by anyone at no cost (and not just those with access to a library with a subscription). Still, the authors hold copyright for their work and grant anyone the right to reproduce the article provided that it is correctly cited.

The JCYD’s first issue mainly focuses on "Resilience from an ecological view". The paper “Contextual Factors Related to School Engagement and Resilience: A Study of Canadian Youth with Complex Needs” by Michael Ungar and Linda Liebenberg (Resilience Research Centre, Dalhousie University, Canada) assesses risk, resilience and service use factors, including school engagement, among 13-21 year olds who were users of multiple services

such as child welfare, mental health, youth corrections, outreach services for homeless youth, and, when in school, special educational services available outside the classroom.

The second paper, "Evaluating resilience-based programs for schools using a systematic consultative review" by Angie Hart and Becky Heaver (Centre for Health Research, University of Brighton, UK), explains through a broad review how and why school-based resilience approaches for young people aged 12-18 do (or do not) work in particular contexts, while keeping in mind the parents and practitioners who engage with young people on a daily basis. The paper offers a critical overview of approaches and techniques that might best support those young people who need them the most.

The third paper "Preventing Depression, which Story Does the Evidence Tell?" by Sara Hjulstad Bækkerud, Odin Hjemdal, and Roger Hagen (Department of Psychology, Norwegian University of Science and Technology, Norway) analyses depression prevention programs. Even though evidence shows that some forms of psychological treatment for depression could be effective, there is still a large potential for improvement because a significant proportion of the patients in treatment studies do not convalesce and many patients that do experience relapses at follow up.

The forth paper "Young Children's Self-Regulated Learning: What Does it Look Like in the Classroom?" by Uta Wagener (University of Oldenburg, Germany) argues that self-regulated learning in the classroom is an inherently social, dynamic, and complex process and that it is crucial to discuss self-regulated learning with regard to concrete practices and with a focus on what children actually do and say in classrooms. With reference to the example presented, it is argued that self-regulated learning is always social, ubiquitous, not necessarily academically effective, and at times implicit.

We hope you will support our scholarly endeavors by submitting articles to the JCYD. We currently have a call for submissions (deadline July 31, 2013) to a special issue on "Children and Youth Suicide Prevention: Research, Policy, and Practice" and would welcome your contribution. The co-editors for this issue are: Jennifer White, EdD, Associate Professor, School of Child and Youth Care, University of Victoria, BC, Canada, and Wassilis Kassis, Full Professor, School of Educational Sciences, University of Osnabrück, Germany.

Wassilis Kassis and Beate Wischer

The Editors-in-Chief, Journal of Child and Youth Development

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Contextual Factors Related to School Engagement and Resilience: A Study of Canadian Youth with Complex Needs

Michael Ungar[1], Linda Liebenberg[1]

1 Resilience Research Centre, Dalhousie University, Canada

Abstract: A study was conducted to assess risk, resilience and service use factors, including school engagement, among 497 13-21 year olds who were users of multiple services such as child welfare, mental health, youth corrections, outreach services for homeless youth, and, when in school, special educational services available outside the classroom. As hypothesized, factors associated with individual, relational and community aspects of resilience like cultural adherence and fair treatment in one's community were more strongly related to school engagement than individual or relational (family) factors. However, higher rates of service use among youth with complex needs did not result in higher levels of school engagement as was expected. A discussion is included of the role service providers play encouraging youth to engage at school as well as the possibility that service providers who coerce youth to attend school may inadvertently cause young people to resist school attendance and disengage.

Keywords: *service use, resilience, school engagement, delinquency, systemic factors, culture*

Studies of school engagement among youth have investigated individual, family and school level factors that influence how students behave (e.g., levels of truancy, academic performance), think (e.g., cognitions relating to school participation, motivation) and feel (e.g., sense of belonging, self-esteem at school) (Fredricks, Blumenfeld, & Paris, 2004; Jimerson, Campos, & Greif, 2003). The construct of school engagement, however, is controversial. Fredericks et al. (2004) suggest it should be viewed as a meta-construct that accounts for the complexity of student-school interactions. Studies focused only on one or two dimensions of school engagement may overlook the interaction between factors. Furthermore, owing to the relative newness of the concept, the range of factors that might impact engagement has not been fully explored, with more attention having been paid to

individual and school level variables than contextual factors that impact children beyond the classroom.

Nevertheless, large-scale studies have shown that a lack of school engagement is a problem across all student populations, regardless of their backgrounds, with nearly 11% of 8th graders and over 16% of 10th graders reporting truancy (a behavioural indicator of level of engagement) in the past month in one national US sample (Henry, 2007) and significant numbers of students reporting declining levels of emotional engagement with increasing age (Rumberger & Thomas, 2000). It is worth noting, however, that research that has investigated factors contributing to school engagement has tended to sample populations of children from within schools, expecting to capture in a classroom setting the reasons for young people's disengagement. The inherent limitations of sampling students at school to study factors that contribute to school disengagement was, in part, the motivation for the present study. In our discussion we address this issue with reference to our findings.

Data on school engagement was collected as part of the Pathways to Resilience (PTR) study that surveyed 13-21 year olds who were users of multiple services such as child welfare, mental health, youth corrections, outreach services for homeless youth, and, when in school, special educational services available outside the classroom (e.g., school counseling, speech language pathology, or an individualized education plan) (see www.resilienceresearch.org; Ungar, Liebenberg, Armstrong, Dudding, & van de Vijver, 2012). One quarter of the sample was not attending school regularly when sampled. Though all these services have as part of their mandate to encourage children to engage at school and complete high school, there are no studies that examine the association between the number and quality of services used by young people who face significant levels of risk and the likelihood of them attending and valuing school. Among the goals of the PTR study more broadly was to investigate how contextual factors influence young people with complex needs and the factors that predict prosocial behaviours like school engagement. Specifically, we investigated individual level risk (e.g., risk for depression and delinquency) and individual level resilience factors (e.g., problem-solving ability and persistence), relational risk (e.g., association with delinquent peers) and relational resilience factors (e.g., attachment to caregivers), and contextual risk (e.g., neighbourhood safety, experiences of marginalization) and contextual resilience factors (e.g., school engagement and volunteerism).

By studying contextual factors related to school engagement among a population of young people who use multiple services and show evidence of complex psychosocial needs, we could investigate two hypotheses: (1) Contextual protective factors will account for more variance in the prediction of school engagement among at-risk youth than individual protective factors; and (2) higher rates of service use among youth with complex needs will result in higher levels of school engagement. We reasoned that we could provide evidence that shows school disengagement is not the result of a flaw in the population (a cultural deficit) or individual challenge alone, but is instead greatly influenced by the structural and social resources available to young people. In the case of service providers, we reasoned that in contexts where families themselves may not emphasize educational goals or have the resources to support children to succeed at school, the service providers who interact with at-risk youth in their communities (and function as important contextual resources to many troubled youth in Canada) would be able to provide these supports.

To explore the connections between context and positive behavioural outcomes such as school engagement, we based our study on recent advances to the theory of resilience, most notably descriptions of resilience as a social ecological construct (Ungar, 2011; Bottrell, 2009; Obrist, Pfeiffer & Henley, 2010). When defined ecologically, the construct of resilience directs attention to the processes whereby individuals who face significant challenges interact with their environments to optimize personal success [Ungar&Liebenberg, 2011]. More specifically:

> In the context of exposure to significant adversity, resilience is both the capacity of individuals to navigate their way to the psychological, social, cultural, and physical resources that sustain their wellbeing, and their capacity individually and collectively to negotiate for these resources to be provided and experienced in culturally meaningful ways. (Ungar, 2008, p.225)

Informed by this definition of resilience, we will review research on school engagement that has included examination of the ecological factors that protect children from disengaging from educational institutions.

Literature Review

Among both privileged and non-privileged populations, individual characteristics like self-esteem, locus of control and level of participation in school activities are predictive of higher school engagement (Finn & Rock, 1997). Research on school engagement that includes measures of distal social factors like class or ethnic identification challenges the assumption that school disengagement is primarily a product of individual deficits. Some, but not all, of the studies that include distal social factors demonstrate that more of the variance in scores on school engagement can be attributed to factors beyond the control of individuals or a population as a whole (Morrison, Brown, D'Incau, O'Farrell, & Furlong, 2006; Rumberger & Thomas, 2000) than those which are personal in nature such as motivation or the student's capacity to cope with stress (Martin & Marsh, 2008; Reschly, Huebner, Appleton & Antaramian, 2008). To make it more likely that students will engage in school, contextual aspects of education that can be changed include school climate (Christle, Jolivette, & Nelson, 2007), efforts by the school to collaborate with parents (and vice-versa), and the way students co-construct positive or negative identities as learners through contact with their teachers (Marx, 2008). Research by Ravet (2007), for example, shows that students in primary school (typically ages 4 to 11) in the United Kingdom perceive their behaviour very differently from their teachers. To cope with the structure and formality, children may develop coping strategies like "making bogus trips to the wastepaper basket" (p. 341), but teachers simply perceive these actions as indicative of children being easily distracted or disinterested in learning.

Most of this research, however, remains focused on factors that are specific to the school environment. There is a small body of research that examines more distal factors beyond the school that impact levels of school engagement. Research, both qualitative and quantitative, has shown that socio-cultural factors influence children's school engagement, with discrimination, family stress, and even neighbourhood incivility posing a risk to the behaviours, thoughts, and feelings of students while in school (Brown & Rodriguez, 2009; McKendrick, Scott, & Sinclair, 2007; Rodriguez & Conchas, 2009). Yet, despite a growing interest in the distal factors that influence school engagement, we still know very little about the contextual factors associated with resilience that influence school engagement.

Studies that have examined systemic factors associated with school engagement have tended to focus narrowly on a single set of risk and protective factors that are specific to the school environment. For example, in their study of relatedness, Furrer and Skinner (2003) showed that the relation between the teacher and the student predicted engagement and performance, but they did not examine other significant relationships. Studies that have done so, like one conducted by Cheung and Pomerantz (2012), have shown that students' relationships with their parents influenced their motivation to do well in school. As this last study demonstrates, there is a growing, albeit under-developed, direction for research on school engagement: the contextual factors that impact school engagement and are beyond the control of the school itself.

When contextual factors are studied, they tend to be at the relational level, with studies of school engagement including the family as the most amenable non-school factor for inclusion in research. Benner, Graham, and Mistry (2008) based their research on Bronfenbrenner's (1979) ecological model, examining different meso-systems that influence children's positive educational outcomes. An ethnically diverse urban sample of 1120 ninth graders was interviewed about their family and school characteristics, school engagement and academic performance. Structural characteristics of both schools (youth perceptions of school belonging, school climate) and families (parent-youth interactions) were found to influence educational engagement and school performance for all students, regardless of level of risk. Other research has shown these same patterns. For example, meso-systemic interactions between student peer groups, between school staff and students, and between school staff and parents, have all been shown to affect engagement (Christle et al., 2007; Sharkey, You & Schnoebelen, 2008). Though helpful, studies like these do not tell us if the promotive school and family interactions found across an entire school population are protective for students who face higher levels of adversity. A more contextually sensitive examination of engagement is needed to account for factors that are most likely to mitigate the risks marginalized young people experience.

Other distal factors relating to school engagement, beyond meso-systemic levels, like quality of neighbourhood and economic disadvantage, have received limited study. Daly and colleagues (2009) studied 123 culturally diverse urban adolescents "of color" in grades 7 and 8, identifying risk and protective factors specific to neighbourhood crime, delinquency, and incivility. They found that perceived neighbourhood incivility was uniquely predictive of

school engagement and that economic disadvantage may also affect school engagement. In what is one of the few school engagement studies not relying on a school sample, 489 children ages 11-15 were surveyed from high and low SES families in Philadelphia in the early 1990s. When examining the relationship between economic disadvantage, parental involvement in the education of children and children's academic orientation, high parental involvement was shown to be a protective factor and increased a child's academic orientation, but only for economically disadvantaged children (Cooper & Crosnoe, 2007). Arguably, these findings suggest that greater attention is needed to the risk profile of the population being studied and the need for non-school based samples.

Studies of engagement that have sought to capture racial and gender differences have shown that while the concept of engagement is relevant to all populations, levels of engagement differ by subgroup. Girls tend to engage more behaviourally and emotionally while boys score higher on cognitive engagement (Van de gaer, Pustjens, Damme & De Munter, 2009; Wang, Willett & Eccles, 2011). Programs that seek to improve school engagement and academic performance show different results depending on the gender of the child, with boys more likely to be influenced by interventions that change problem behaviours (Farrell, Meyer, & White, 2001). Likewise, minority youth (African American youth in this case) score higher than majority culture youth on emotional engagement but lower on behavioural engagement (Wang et a al., 2011) suggesting that, like gender, racial factors play a role in school engagement. The current study focuses on the complex systemic factors that cause these differences to exist.

Method

Sample

Participants were drawn from mental health service providers, child welfare, special school based education support services, juvenile justice, and community street youth outreach organizations. Sampling took place, in both urban and rural communities in Atlantic Canada, between January 2008 and December 2009. In order to increase homogeneity, youth who were active users of their primary service were selected and referred by frontline staff if they

were also known to use (or had used within the previous six months) at least one other service listed above.

Frontline staff invited youth to participate in the study and also gained permission from a legal guardian (where required) before sharing any of the youth's contact information with the research team. To ensure youth anonymity, all meetings took place in private rooms. To minimize literacy challenges, regardless of youth reading skills, a one-on-one setting was used where researchers were able to read all questions out loud to participants. Youth were reimbursed for their time ($10) and any expenses that they encountered during their participation.

This study included 497 youth, 57% (281) of which were boys and, at the time of the study, the participant mean age was 17 (SD=1.87). Only 40% (198) of all participants lived with both of their parents, 16% (80) lived with a single parent and the remaining 44% (219) were in alternative living arrangements. Of the youth, 75% (368) were currently attending school and 12% (55) had already graduated from high school.

Due to the diversity of living arrangements, services used, and communities that the study took place in, consent requirements were often substantially different between service using populations. To add to the requirements set by the author's host institution Research Ethics Board, an additional 15 separate ethics applications were required to complete the study because of the vulnerability of the population. Different service providers and communities insisted that the study be reviewed to ensure the protection of ethnoracial minorities (as was the case in Canadian Aboriginal communities) and to protect clients who were under provincial mandates (as was the case with youth using child welfare services or those detained through youth justice services).

Measures

The study focussed on three broad areas of relevance to school engagement: risk, resilience, and service use. As resilience requires there to be exposure to risk, a number of risk factors were assessed and a composite score used for the purposes of our analysis. Risk factors included individual level internalizing and externalizing behaviours and community level risk measured as the student's perception of community danger. Service use included special

education services in the original PTR study. That study was concerned with understanding the service ecologies that mitigate risk exposure and enhance access to resources associated with resilience. These three areas were assessed through the use of both established measures and measures adapted specifically for the purposes of the PTR study. For the purposes of this analysis, our emphasis is on individual, family and community risk factors associated with school disengagement, individual, relational and community factors related to resilience, and service use patterns that might reasonably be expected to maintain school engagement.

Prior to fully launching the study, 40 youth were met with as part of a pilot group to test the questionnaire. Youth needed approximately 45 minutes to complete the questionnaire.

Risk. Risk was measured by making use of the Delinquency sub-scale from the 4-H study of Positive Youth Development, the 12-item version of the Centre for Epidemiological Studies Depression Scale, and by using items from the Boston Youth Survey (BYS) to establish a composite score for assessing sense of community danger. Together, the scales were able to measure risk as both danger within a youth's community and as internalizing and externalizing characteristics of the youth that put them at risk for early school leaving or that are linked to a lack of motivation to engage at school.

Delinquency was measured by using the Delinquency sub-scale of the 4HSQ, taken from the 4-H study of Positive Youth Development (Phelps et al., 2007; Theokas & Lerner, 2006). In the present study, ratings on a 5-point scale with options from never (1) to five or more times (5) were used. The scale asks how many times in the past year a youth has "Stolen something from a store", "Hit or beat up someone", "Damaged property", "Carried a weapon", and "Got into trouble with the police". Measuring reliability for this scale, the alpha coefficient was .83.

The 12-item version of the Centre for Epidemiological Studies Depression Scale (CES-D-12-NLSCY) (Poulin, Hand, & Boudreau, 2005) was used to measure risk of depression. The scale was favoured because it had already been used successfully and validated for youth in Atlantic Canada. The CES-D-12-NLSCY also compares well to other depression measures like the Beck Depression Inventory (Wilcox, Field, Prodromidis, & Scafidi, 1998). Rated on a 4-point scale from Rarely or none of the time (0) to All of the time (3) were questions asking how often during the past week a youth felt "too tired to do things", "had crying spells", or "was happy" (reverse scored). The alpha coefficient was .84, supporting the reliability of this scale.

The Boston Youth Survey (BYS), originally developed to better understand the lives of Boston school students and inform violence prevention, and school and community based programming, was used to establish a composite score for assessing sense of community danger. A four point Likert scale was used to assess six items: "There is litter, broken glass or trash around my community", "People in my neighbourhood can be trusted" (reverse scored), "People in my neighbourhood get along with each other" (reverse scored), "If a child or young person was being abused by his or her family, how likely is it that your neighbours would report it?" (reverse scored), "How safe do you consider your neighbourhood to be?" (reverse scored), and "If a group of youth in your neighbourhood was skipping school, how likely is it that your neighbours would do something about it?" (reverse scored). In this case the alpha coefficient was .69.

Resilience. The three sub-scales of the revised Child and Youth Resilience Measure (CYRM) were used to measure resilience. The 28-item CYRM is an instrument validated with a sample of 1451 youth from eleven different countries (China, Russia, USA, Canada, Columbia, India, South Africa, the Gambia, Palestine, Israel, and Tanzania) who were growing up while facing diverse types of adversity (Authors, 2011; Authors, 2012). Items were rated on a 5-point scale from does not describe me at all (1) to describes me a lot (5), with higher scores indicating higher levels of resilience. For this analysis of school engagement, however, two of the 28 CYRM questions ("I feel I belong at my school" and "Getting an education is important to me"), were omitted to avoid redundancy. The three CYRM sub-scales assess (1) individual resources, (2) relationships with parents or primary caregivers, and (3) contextual resources and sense of belonging.

Individual resources were measured with eleven items including: "I try to finish what I start", "I am given opportunities to show others that I am becoming an adult and can act responsibly", "I cooperate with people around me", and "I know how to behave in different social situations". For the present study, the alpha coefficient was .79. To measure relationships with parents or primary caregivers, seven items were used and included: "I talk to my caregiver(s) about how I feel", "My caregiver(s) watch me closely", "I enjoy my caregiver(s) cultural and family traditions", and "If I am hungry, there is enough to eat". In this case the alpha coefficient was .83. To measure contextual characteristics and sense of belonging, the remaining eight items were used: "I think it is important to serve my community", "Spiritual beliefs are a source of strength for me", "I participate in organized

religious activities", "I am proud of my ethnic background", "I enjoy my community's traditions", "I am treated fairly in my community", "I have people I look up to", and "I am proud to be a citizen of Canada". For the present sample, the alpha coefficient was .78.

Service Use. Service use was assessed by using a composite score comprised of service use history. How often, if ever, a youth had used a service (including mental health services, youth corrections or contact with the police, child welfare, special educational supports, and community street youth outreach organizations) determined service use history, with youth asked to say whether they had "Never needed" the service, "Used it once in a lifetime," "Twice," or had contact "Three times or more." Youth were asked to score their lifetime service use from a list of possible services based on services accessible to them in their community. Main service categories were broken down into seven to nine specific service options for youth to choose from, with possible scores for each item ranging from 0 to 3. Responses were summed for each main service type and divided by the total score available for each service. Scores were then multiplied by ten so that all service types had a minimum score of zero (indicating no involvement) and a maximum score of ten.

School engagement. To assess degree of school engagement, items from the Canadian National Longitudinal Survey of Children and Youth (NLSCY) that relate to school engagement, emotional attachment to school, and attitudes towards education were used. The NLSCY was a longitudinal survey used to measure factors that influence a child's social, emotional and behavioural development. Items from the NLSCY are: "During the last 12 months (or during the last full school year you attended), how many times did you get suspended?"(reverse scored), "During the last 12 months (or the last full school year you attended), how many times did you skip a day of school without permission?" (reverse scored), and "How would you describe your school (or the last school you attended)?". The alpha coefficient in the present study was .67.

Table 1 presents correlations among the predictor variables for risk, resilience and service use as well as the outcome variable school engagement. Descriptive data and reliability coefficients for the composites are also provided.

Table 1: Bivariate correlations and descriptive data on Measures (n=497)

	1	2	3	4	5	6	7	8	9	10	11
1. School Engagement (3 Items)	-										
2. Individual Sub-Scale CYRM Score (11 Items)	.305**	-									
3. Relationship with caregivers Sub-Scale CYRM Score (7 Items)	.311**	.410**	-								
4. Context Sub-scale CYRM Score (9 Items)	.423**	.545**	.499**	-							
5. School Service Use (8 Items)	-.110*	.077	.141**	.070	-						
6. Community Services Use (9 Items)	-.164**	-.046	-.130**	-.062	.372**	-					
7. Mental Health Service Use (8 Items)	-.201**	-.078	-.031	-.092*	.421**	.510**	-				
8. Corrections Service Use (7 Items)	-.382**	-.089*	-.176**	-.172**	.155**	.384**	.255**	-			
9. 4HSQ Delinquency (5 Items)	-.484**	-.143**	-.235**	-.255**	.138**	.271**	.227**	.615**	-		
10. CES-D-12-NLSCY Depression Scale (12 Items)	-.280**	-.289**	-.207**	-.261**	.218**	.225**	.424**	.134**	.210**	-	
11. Sense of community danger (4 Items)	-.173**	-.194**	-.364**	-.269**	-.036	.119**	-.015	.245**	.249**	.125**	-
M	19.783	43.109	26.695	27.211	3.659	2.028	2.809	2.978	5.618	12.149	13.408
SD	5.460	6.433	6.091	6.292	2.178	1.977	2.680	2.852	5.119	7.247	3.345
Range	5 -29	20-55	8-35	10- 40	0-10	0-10	0-10	0-10	0-16	0-35	5- 22
Internal consistency reliability(α)	.671	.789	.833	.779	.635	.765	.798	.893	.827	.842	.686

* p≤.05 ** p≤.01

Data analysis

ANOVA was used to examine differences in the dependent variable, school engagement, by the 11 independent variables, for the full sample as well as boys and girls. Hierarchical regression analyses were then used to examine the effects of resilience, service use, and risk on school engagement. Interactions between the independent variables and their subsequent impact on school engagement were then examined in a forced entry hierarchical analysis. As the focus of the study was on factors that contribute to positive growth and development, resources such as resilience and service supports were entered into the model before risk. The influence of supportive resources can be assessed by impact of risk variables. Specifically, these procedures allowed us to investigate how the mitigating effects of resilience and available supports alter as risk increases. Forced entry was used to reduce the influence of random variation in the data (Studenmund & Cassidy, 1987). The analysis was repeated for boys and girls because of the evidence that gender influences the impact of services and supports on behavior. Analyses were conducted with SPSS for Windows version 15 (SPSS, 2006).

Results

Table 1 presents the correlations between school engagement, contextual components of resilience, engagement with correctional services and delinquency. Of note is the relationship between engagement with correctional services and engagement in high rates of delinquent behaviour, as indicated by the 4HSQ delinquency scale, r=.615. While this relationship is high, and potentially indicative of multicollinearity, it is not considered unacceptable. Results of the tolerance statistics and the variance inflation factors of the various regression models support this interpretation of the correlations. Looking at the full data set, the average VIF is 1.086 and the tolerance statistics are satisfactory (.590-.990). This pattern continues for the data pertaining to girls (VIF average = 1.11; Tolerance: .637 - .963) and boys (VIF average = 1.046; Tolerance: .617 - .998).

Results of the ANOVA (Table 2) support the expectation of significant differences in levels of school engagement for all predictor variables except for engagement with additional

educational supports, F(34, 459) = 1.381, p = .078, and child welfare, F(34, 458) = 1.327, p = .107. Based on these findings, these measures were not included in the regression analysis. Similarly, sense of community danger amongst girls, F(29, 186) = .983, p = .497; and risk of depression amongst boys, F(27, 253) = 1.120, p = .317, were not included in the respective analyses for boys and girls (contact the authors for more information regarding ANOVA findings for boys and girls respectively).

Table 2: Results of ANOVA to assess significant differences in the outcome variable school engagement by the predictor variables (n=497)

	F	df_1	df_2	*p*	η^2
Resilience					
Individual	3.176	34	462	.000	.42
Primary Relationships	2.980	34	462	.000	.42
Context	4.273	34	462	.000	.42
Service Use					
School Supports	1.381	34	459	.078	.30
Child and Family Services	1.327	34	458	.107	.29
Mental Health	1.698	34	456	.010	.35
Corrections	3.884	34	459	.000	.48
Risk					
4HSQ Delinquency	5.638	34	462	.000	.51
CES-D-12-NLSCY	2.545	34	462	.000	.33
Sense of Community Danger	1.641	34	462	.014	.38

Table 3 presents the results of the hierarchical regression analysis used to examine the effects of risk, resilience and service use on degree of school engagement among all participants. The overall regression was statistically significant (F(8, 482) = 35.371, p = .000) and demonstrates that factors associated with resilience, involvement with services, and levels of risk explain 37% of the variability in school engagement.

Table 3: Results of hierarchical regression to predict school engagement by resilience, risk and supports (n = 497)

Variable	Model 1			Model 2			Model 3		
	B	***SE E***	**β**	***B***	***SE E***	**β**	***B***	***SE E***	**β**
Constant	6.240	1.544		10.134	1.515		12.641	2.011	
Resilience									
Individual	.082	.042	.097	.089	.039	.105**	.077	.038	.089*
Primary Relationships	.097	.043	.108*	.063	.040	.070	.044	.040	.049
Context	.275	.045	.318**	.235	.042	.272**	.201	.041	.232**
Service Use									
Mental Health				-.182	.080	-.089*	-.046	.084	-.023
Corrections				-.569	.076	-.298**	-.263	.090	-.138**
Risk									
4HSQ Delinquency							-.323	.051	-.303**
CES-D-12-NLSCY							-.077	.032	-.102*
Sense of community danger							.071	.065	.044
R^2		.199			.304			.370	
F for change in R^2		40.233**			36.876**			16.709**	

* p≤.05 ** p≤.001

Model 1 explains 19.9% of the variance in school engagement. Of the three resilience components included in the analysis, it is relationship with caregivers, □ = .108, t(487) = 2.262, p = .024, and context, □ = .318, t(487) = 6.132, p = .000 that have a significant and positive association with school engagement, rather than individual factors. While this reflects our original hypothesis, this pattern changes as the model develops.

Model 2 includes resilience predictors and degree of service use. This second model explains an additional 10% of the variance in school engagement, accounting in total for 30% of the variance. Services include child welfare, mental health, and juvenile justice (including all forms of contact with the criminal justice system). Only interactions with mental health services, □ = -.089, t(485) = -2.273, p = .023, and juvenile justice, □ = -.298, t(485) = -7.454, p = .000, have a significant and negative association with school engagement. Increased engagement with either of these services results in decreased reports of engagement with school. Involvement with juvenile justice has a greater effect on the outcome variable than engagement with mental health services. In this second model, the Context subscale of the CYRM retains its previous significant relationship with school engagement □ = .272, t(485) = 5.587, p = .000, while Primary relationships becomes statistically insignificant, and Individual characteristics becomes significant □ = .105, t(485) = 2.259, p = .024.

Model 3 includes resilience, service use and two risk variables: engagement in delinquent behavior and risk of depression. Inclusion of these risk variables helps explain an additional 7% of the variance in school engagement, with the full model accounting for 37% of the variance in school engagement within the sample. This model allows us to better understand the effect of proximal risk variables in relation to resources (resilience) and supports (service use). Of the three new variables added, engagement in delinquent behavior, □ = -.303, t(482) = -6.402, p = .000, and risk of depression, □ = -.102, t(482) = -2.419, p = .016 both have an inverse association with school engagement and are significant. Sense of community danger however is not significant. Also, Individual resilience processes □ = .089, t(482) = 1.982, p = .048, the Context subscale of the resilience measure □ = .232, t(482) = 4.940, p = .000, and engagement with juvenile justice services □ = -.138, t(482) = -2.935, p = .003, all retain a significant association with school engagement. The introduction of risk factors, however, has reduced the mitigating effect of mental health services on school engagement, with the association no longer being significant. It has also resulted in the reduction in the effect of juvenile justice as a negative predictor of school engagement.

These results can be further explored by examining findings from both the ANOVA and the regression analysis which show that additional support at school (such as receiving one-on-one support from a resource teacher, having an independent learning program, or seeing a school-based social worker) and engagement with child welfare services (such as having a social worker, having had a foster or group home placement, or having received home care) have no impact on level of school engagement. This is contrary to what we had hypothesized, that more service provision would increase a young person's reported engagement at school.

Model 3 also shows that when risk factors such as delinquency are introduced into the regression, the importance of all services is reduced. Inclusion of risk variables such as delinquency scores contribute to a more comprehensive understanding of the association between factors associated with resilience, service use and school engagement.

To better understand the model in relation to important sub-groups, the same analyses were run for girls and boys (Tables 4 and 5). Model 3 accounts for more of the variability in outcomes for girls (R^2=.441) than it does for boys (R^2=.286).

Table 4: Results of hierarchical regression to predict school engagement by resilience, risk and supports for girls (n = 216)

Variable	Model 1			Model 2			Model 3		
	B	***SE E***	**β**	***B***	***SE E***	**β**	***B***	***SE E***	**β**
Constant	6.057	2.130		8.728	2.344		16.094	2.344	
Resilience									
Individual	.097	.059	.125	.106	.057	.137	.053	.053	.069
Primary Relationships	.091	.062	.099	.065	.062	.070	.018	.056	.020
Context	.304	.063	.373**	.270	.062	.332**	.213	.057	.262**
Service Use									
Mental Health				-.196	.109	-.109	.024	.109	.014
Corrections				-.376	.133	-.175*	-.008	.138	-.004
Risk									
4HSQ Delinquency							-.395	.077	-.338**
CES-D-12-NLSCY							-.153	.042	-.234**
R^2		.266			.317			.441	
F for change in R^2		25.564**			7.8839*			23.115**	

* p≤.05 ** p≤.001

Table 5: Results of hierarchical regression to predict school engagement by resilience, risk and supports for boys (n = 281)

Variable	Model 1			Model 2			Model 3		
	B	***SE E***	**β**	***B***	***SE E***	**β**	***B***	***SE E***	**β**
Constant	7.494	2.167		11.735	2.101		12.247	2. 626	
Resilience									
Individual	.082	.058	.095	.073	.054	.085	.083	.053	.095
Primary Relationships	.086	.057	.102	.067	.053	.080	.059	.054	.070
Context	.204	.062	.233**	.178	.058	.203*	.160	.057	.182*
Service Use									
Mental Health				-.248	.119	-.114*	-.193	.121	-.089
Corrections				-.558	.099	-.313**	-.353	.119	-.198*
Risk									
4HSQ Delinquency							-.225	.068	-.219*
Sense of community danger							-.034	.090	-.022
R^2		.128			.257			.286	
F for change in R^2		13.283**			23.379**			5.446*	

* p≤.05 ** p≤.001

Reviewing the full model for girls, contextual process related to resilience □ = .262, t(208) = 3.757, p = .000, engagement in delinquency □ = -.338, t(208) = -5.151, p = .000, and risk of depression □ = -.234., t(208) = -3.644, p = .000 are all significant.

The analysis for boys shows a similar pattern contextual resilience processes □ = .182, t(267) = 2.803, p = .005 and engagement in delinquent behaviour □ = -.219, t(267) = -3. 003, p = .001, both being significant. However, sense of community danger is not significant. As with the model for all youth in the sample, the relationship between involvement with correctional services and school engagement remains inverse, and significant for boys □ = -.198, t(267) = -2.978, p = .003.

Discussion

These findings raise important questions about how contextual aspects of resilience and patterns of service use affect school engagement. For both boys and girls, internalising and externalising behavioural issues play a key role in disengagement from school. For boys engagement in delinquent behaviour poses the key risk for school disengagement while for girls it is both delinquency and risk of depression. Our findings suggest that for an at-risk adolescent population who scores high on measures of delinquency and depression, and is a user of multiple social services, contextual factors combine with gender to influence school attendance, thoughts about school, and feelings of belonging when at school. As hypothesized, factors associated with community aspects of resilience like cultural adherence (enjoyment of one's cultural traditions and identification with one's ethnic and national identity) and fair treatment in one's community are more strongly related to school engagement than individual or relational factors. In this regard, our work continues a growing trend in the literature toward the need for greater contextual sensitivity in studies of at-risk youth and their functional outcomes.

We found no support, however, for our second hypothesis. More school-based supports were not associated with greater school engagement. Interestingly, increased use of mental health and juvenile justice services was associated with decreased school engagement. The data suggest that for boys engaged with youth criminal justice services this was a particular risk. This finding may however be due to their elevated rates of engagement in delinquent behaviour that would most likely bring them into contact with the law. Youth who are using social services or accessing educational supports may be getting more service but

those services are not contributing to at-risk youth changing their self-reported level of school engagement. These findings suggest that formal service providers are not establishing the necessary contextual supports that vulnerable youth need to reconnect with their education, or connecting youth to existing supports. This is particularly interesting in that many of the youth sampled who were receiving mental health services or were engaged with correctional services were in residential facilities that mandated school attendance.

An alternate suggestion, one that is less centred on the psychopathology of the students, and more ecological in its interpretation, is that service providers themselves have neither convinced at-risk youth of the value of education, nor built bridges to school that would engage these young people with their educators. In other words, it could be that despite the common goal of service providers to promote school attendance, they fail to make education meaningful to the young people they serve. Most notable in our research is the negative association between increased use of mental health services and decreased school engagement. While we might expect juvenile delinquents to resist school attendance as part of an overall pattern of delinquency, it seems odd that greater use of mental health services does not stabilise a young person's participation in school given the intensity of the service. Perhaps the individual focus of many mental health interventions focused on depression and delinquency overlook broader issues of the child's participation in everyday activities like school. Therapists may also not see their role as advocates for educational programs that meet the needs of young people in ways that would entice them back into school.

Our findings also contribute to our understanding of how sampling bias in studies of school engagement may influence results. Our sample did not pre-select youth who were already attending school. Instead, the sample comprised at-risk youth in the community, many of who reported high rates of truancy and who could not have reasonably been expected to have been included in the research if sampled during regular class time. Our findings, therefore, report on factors associated with school engagement that are relevant to youth who are at significant risk for dropping out. We have shown that contextual factors are protective (increased school engagement) for high-risk youth but we do not know from this sample if contextual factors matter as much to youth who are exposed to fewer risks (Suh, Suh & Houston, 2007). For example, disengagement from school may function as a protective process for some young people who face significant levels of adversity (Kelly, 2009).

Our results indicate the need for future studies of school engagement to ensure the following: (1) meso- and exo-systemic factors are better accounted for in the designs (see also Balfanz, Herzog, & MacIver, 2007), and (2) research includes young people from outside school settings.

Limitations

This study was based on correlational data from a cross-sectional data set. Without analysis of longitudinal data, results cannot support causal claims. Nor was the sample randomized, though this limitation is a necessary accommodation given that the purpose of the study was to engage with youth who show complex needs as evidenced by their service use patterns. As the focus of the study was on youth who shared patterns of multiple service use, we tolerated a large age range in the sample in part to locate enough youth for the study. There is no comprehensive database in Canada that could capture young people's service use across multiple social services. This range of ages may, however, compromise the validity of the findings if young people’s experience of service changes over time. Future studies may wish to focus on youth under 16 years of age and those 16 and older who have the choice to exercise more say over whether they attend school and participate in services.

With regard to the measure of school engagement itself, the combination of social and academic factors into one scale makes it difficult to distinguish whether behavioural, emotional or cognitive aspects of school engagement are most important for this population (Fredricks et al., 2004).

As discussed in the results of this study, the correlation value between engagement in delinquent behaviour and criminal justice services is suggestive of multicollinearity in the data. However, the tolerance statistics and variance inflation factors reduced concerns of this correlation value. This was further supported in that there was only a significant relationship between school engagement, and engagement in delinquency and youth criminal justice services for boys. This pattern was not observed for girls even though there was a significant relationship between school engagement and engagement in delinquency.

Conclusion

School engagement is a concern for young people who are already facing significant adversity and using multiple services. The purpose of this analysis of the PTR data has been to examine the association between school engagement, aspects of resilience, service use, and risk at multiple ecological levels, including gender. Our findings suggest the need for studies to account for meso- and exo-systemic factors when investigating school engagement. Like other research that has looked at young people's attitudes towards education (for example, McKendrick et al., 2007) our findings lend support to the notion that changing opportunities for young people to access contextual resources, and negotiate for these to be provided in meaningful ways, may help them engage more in school.

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Evaluating resilience-based programs for schools using a systematic consultative review.

Angie Hart[1] & Becky Heaver[1]

1 Centre for Health Research, University of Brighton, UK

Abstract: Resilient approaches to working in school contexts take many different forms. This makes them difficult to evaluate, copy and compare. Conventional academic literature reviews of these approaches are often unable to deal with the complexity of the interventions in a way that leads to a meaningful comparative appraisal. Further, they rarely summarise and critique the literature in a way that is of practical use to people actually wishing to learn how to intervene in an educational context, such as parents and practitioners. This includes teachers and classroom assistants, who can experience reviews as frustrating, difficult to digest and hard to learn from. Applying findings to their own particular settings, without precisely replicating the approach described, presents serious challenges to them. The aim of this paper is to explain how and why school-based resilience approaches for young people aged 12-18 do (or do not) work in particular contexts, holding in mind the parents and practitioners who engage with young people on a daily basis, and whom we consulted in the empirical element of our work, as our audience. Further, we attempt to present the results in a way that answer parents' and practitioners' most commonly asked questions about how best to work with young people using resilience-based approaches. The review is part of a broader study looking more generally at resilience-based interventions for this age group and young adults. We offer a critical overview of approaches and techniques that might best support those young people who need them the most.

Keyword: *Resilience; school-based; intervention; young people; review; consultative review; systematic review; systematic consultative review*

Introduction

The academic literature on resilience-based practice interventions has grown over the past decade, and there are clear signs that such interventions hold promise. As Powers argues, "Combining the ecological and risk and resilience theoretical perspective provides a more complete foundation for utilizing [evidence-based practice] in schools" (Powers, 2010, pp. 447).

In writing this paper, we shared frustrations with practitioners and parents about inaccessible reviews that did not answer the relevant questions or guide future research. Our sentiments were confirmed by the British Medical Journal which has banned the phrase "more research is needed" (Godlee, 2006, p. 0) from its published reviews, seeing this as unhelpful, vague, and often a "disappointing anticlimax" (Brown et al., 2006, p. 804). Instead, they require researchers at least to make specific recommendations (e.g., Brown et al., 2006) for future research, although in our experience, this often frustrates practitioners and parents too since they want to know what to do in the immediate future. Therefore, a more organic review process emerged for this paper. We aimed to summarise the current state of the evidence in relation to the population, outcomes and interventions of interest, in a way that was useful to people on the ground.

There are major challenges in relation to extracting meaningful ways forward for practice from academic reports of resilience interventions. First, there is enormous variation in the literature regarding precisely what is meant by a 'resilience intervention', an issue we have sought to address by adopting a transparent and systematic approach to deciding which reviews to include in this paper, as explored below in our methods section. Second, resilience interventions are generally too complex for direct comparison to be meaningful in a meta-analytic review, due to, for example, vast differences in the types of stress factors and success indicators measured by researchers, and the ways in which resilience is defined and measured (if at all), which would have left us with no comparable papers in our review. Therefore, we were drawn to the emerging 'realist' approach to systematic review and evaluation of complex social interventions (Pawson, Greenhalgh, Harvey, & Walshe, 2005). Realist review combines theoretical understanding and empirical evidence to identify what works for whom, in what circumstances, in what respects and how. In the context of our work on resilience, our realist focus is on explaining the relationship between context, capacities and outcomes.

Attention to these relationships is necessary because complex social interventions rarely fit randomised control trial-type reviews.

However, what was still missing was a way to integrate the questions that we are asked day in, day out, by parents and practitioners who frequently communicate their urgency and desperation to find practical, evidence-based strategies to make changes in the lives of their young people. On the whole, in our experience, parents and practitioners found the resilience literature evidence-base to be difficult to navigate, and often did not contain answers to their contextually driven questions. So rather than attempt to summarise statistical findings of every available study, we consulted parents and practitioners to find out what they wanted to know, and combined this with a systematic approach, such as the realist review, of resilience interventions, to form what we have called a 'systematic consultative review'. The systematic consultative review is similar in aims to a realist review and incorporates some of the key principles. In an iterative process, the findings were fed back to parents and practitioners to refine the questions and consider the results. By consulting 'end users', it also incorporated elements of a participatory review process, informed by the needs and knowledge of 'stakeholders' (see Rees, & Oliver, 2012). Juxtaposing systematic and consultative review may on the surface seem like an oxymoron, however it was important to find a way to produce a review that was helpful and accessible, whilst still having a rigorous and accountable methodology (Gough, Thomas, & Oliver, 2012).

We reviewed the resilience literature to find out whether anything resembling what we call here a 'systematic consultative review' has been previously undertaken. We could not find any studies that have used this approach. However, our work also relates to two bodies of literature concerning collaboration between academics and community partners, both of which have informed what we have attempted to do here. The first involves co-inquiry or action research, both of which have vast literature bases, summaries of which can be found in Heron, and Reason's (2008) chapter on co-inquiry, and Waterman, Tillen, Dickson, and de Koning's (2001) systematic review on action research. In many cases co-inquiry and action research are undertaken in relation to the empirical research elements of a given study, and not the literature review itself (e.g., Mitchell, 2010). When it comes to literature reviews, it seems largely to be the case that the researchers answer their own questions/those of their funding body, rather than those asked by participants or parents/practitioners. Of course, some studies will have a steering group, the membership of which might include parents or

practitioners, and who may therefore be consulted on the scope of the review to be undertaken. We are ourselves currently involved in a resilience-focused scoping study which does just this (Macpherson, Hart, Winter, & Heaver, 2012). Although Mitchell (2010) conducted a consultation with practitioners to garner their views on how research and knowledge brokering assisted their child protection practice, this was not in relation to a literature review. We have found no study within our field which combines the notion of undertaking a systematic review with writing up that review using a framework generated by prospective practitioner and parent users of that research.

The second body of literature concerns practitioner orientated research as a form of situated learning (see for example, Johansson, Sandberg, & Vuorinen, 2007). This is a dense and complex field, some key elements of which are worth summarising here. An awareness of situated learning theory draws our attention to the complex, contextual nature of learning in practice, a dance between the application of experiential and propositional knowledge informing action in the moment. Our goal in relation to this systematic consultative review is to work towards giving practitioners and parents a robust and systematic view of what the propositional knowledge base in relation to resilience can tell them about useful ways to approach their specific dilemmas in practice.

Methods

Consultation with practitioners and parents was carried out twice, once prior to the literature search to establish the questions of interest and table headings, and once after the literature search to check that the results were congruent with the aims. We specifically asked a convenience sample of fifteen practitioners and five parents, with whom we work on applying resilience concepts and methods to practice, what questions they wanted the resilience research base to answer. We also drew on the perspectives of other parents and practitioners as recorded in evaluations of twenty-two training events we have conducted over the past five years. Finally, we considered key issues raised by parents and practitioners in relation to what they wanted to know from the evidence base, documented in the reflective diary of one of the authors who has been conducting workshops and other training events with parents and

practitioners for seven years. Our resulting list of questions has been generated by synthesising these different data sets.

Interventions were initially retrieved from the literature by searching EBSCO databases (AMED, British Nursing Index, CINAHL Plus with Full Text, Criminal Justice Abstracts, E-Journals, PsycARTICLES, PsycINFO, SPORTDiscus), ASSIA, AEI, BEI, ERIC, Web of Science (inc Medline), ScienceDirect, Sage, Social Care Online, for articles between 2000-2011, which included resilience keywords in the title, and keywords related to age group, intervention and improvement in the abstract. All programs included were interventions, enhancing resilience for the present and the future; some were packaged with a preventative element.

The review strategy was informed by realist review methodology for complex social interventions (Pawson et al., 2005) and participatory systematic reviews (Rees, & Oliver, 2012), and additional publications were identified in an iterative process via Google Scholar, hand searching reference lists and discussion with colleagues. Of the 1488 retrieved references, 84 documents were identified as relevant on the basis of their title and abstract, and full text was reviewed by one or both researchers (See Figure 1).

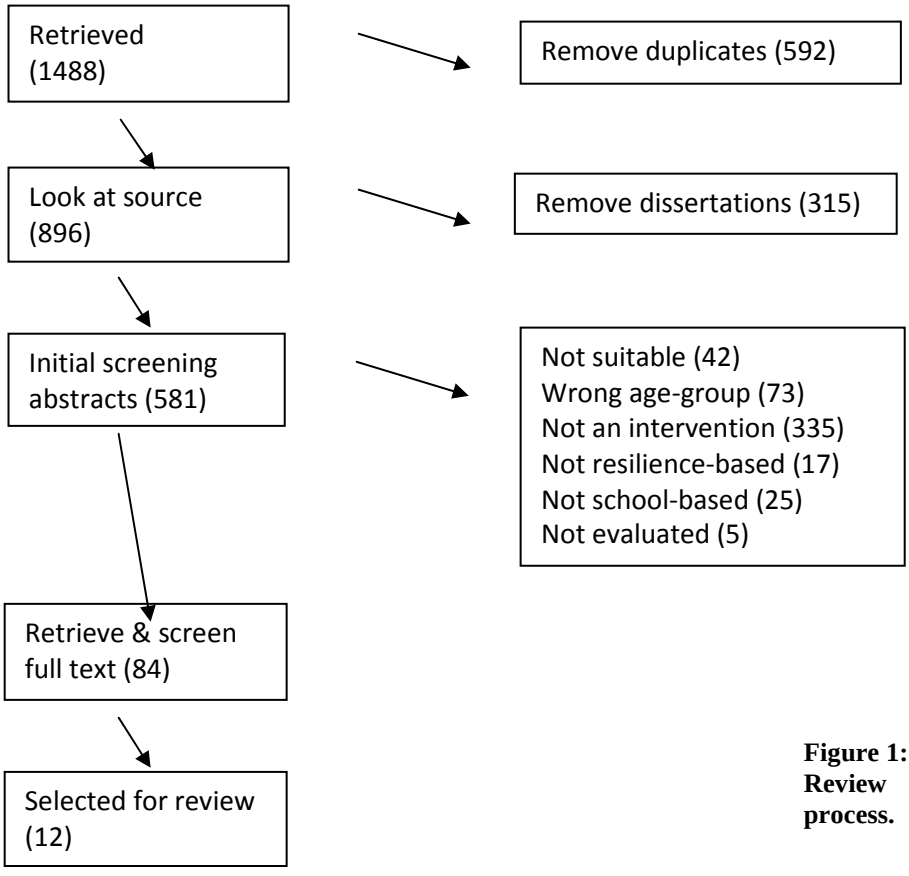

Figure 1: Review process.

Inclusion criteria for the review were: at least some of the participants were aged 12-18; at least part of the intervention took place at or during school; the intervention was resilience-based, and the intervention was evaluated. For the purposes of the review, interventions were considered resilience-based if the authors had engaged with the resilience evidence-base and attempted to link their program, or components of their program, with specific resilience-enhancing capacities. Articles needed to include a definition or explanation of resilience that indicated the authors' orientation with respect to the locus and nature of resilience (e.g., individual asset, dynamic transaction between individual and environment). (It is not our purpose in this article to discuss or debate definitions of resilience, so for further consideration of the concepts of resilience and positive development despite adversity see e.g., Hart, Blincow, & Thomas, 2007; Masten, 2001; 2011; Rutter, 2006; Ungar, 2012). We chose this age range because the practitioners and parents involved in our review were working with young people in this age group. In line with realist approaches we were keen to document the ecological context of the interventions, as adolescence is a sensitive developmental stage filled with context-specific changes, risks and challenges (Lerner & Galambos, 1998). Therefore programs were not required to target predefined developmental or resilience aspects. However, it was essential that the discussion of models or theories of resilience provided a conceptual basis for why the intervention would be effective in enhancing resilience (e.g., increased self-esteem).

Going further, we wanted to capture any information that included an inequalities angle. Resilience scholars, and those writing about resilience interventions, are not always aware of the inequalities focus that needs to be applied for work to be effective – a key issue in framing resilience work (see Hart, Blincow, & Thomas, 2007; Hart, Hall, & Henwood, 2003). Inequality, by and in itself, directly impacts psychological and physical health to a degree that cannot simply be ameliorated by psychological interventions (Prilleltensky, & Prilleltensky, 2005). A lack of 'inequalities imagination' means that interventions become mere water droplets in the fire-fight against the structural and power inequality manifest in some children's lives, through poverty, unemployment, marginalisation and constellated disadvantage (Hart et al., 2007; Prilleltensky, & Prilleltensky, 2005). Addressing basic inequalities and lack of access to developmentally-appropriate resources has been authoritatively described as the single most important step in improving outcomes for mental health (Friedli, 2009; Layard, 2005). Yet these factors are, even within interventions targeting

disadvantaged populations, rarely explicitly considered and worked with beyond citing contextual issues relating to the child's social ecology. This may in part be due to difficulty in defining what constitutes disadvantage and how it is located and measured (see Hart et al., 2007; Mayer, 2003; Prilleltensky, & Prilleltensky, 2005). Our review relied on individual interventions to report accurately sufficient demographics to enable us to identify whether or not disadvantaged young people were included. These are the reasons for a spotlight on this particular dimension for our review. Alongside these reasons is the important fact that all the parents and practitioners with whom we are working support young people in contexts they would define as complex inequality or disadvantage, those who are "denied access to the tools needed for self-sufficiency" (Mayer, 2003, p.2).

Finally, outcomes had to include either a resilience scale or measures of the individual resilience outcomes defined in the authors' rationale (e.g., self-esteem). The most common reasons for papers being excluded were that they did not properly relate their study to resilience conceptually, despite using the term in the abstract or key words, or they did not include an intervention. Instead they described narratives, cross-sectional data, longitudinal trajectory data, conceptual frameworks, relationships between protective factors and resilience outcomes, reviews of the literature or development of new measures.

Detailed information about each intervention was entered in a table to gain an understanding of what worked, for whom and in what context: method and intensity of delivery, participant characteristics, setting and circumstances. To identify whether an intervention satisfied all of the inclusion criteria, resilience definitions, program-theory links, capacities, and measures and outcomes were also recorded. Additional headings collected aspects such as evaluation design and methodology, strengths and weaknesses of the program and the evaluation, and program costs, funding and implementation history (where available). Where multiple outputs related to a single evaluation, information (including grey literature) was amalgamated into a single record; where multiple outputs related to separate evaluations of the same intervention, these were entered as separate records grouped together under the intervention heading to highlight differences.

Of the eighty-four papers identified, twelve were selected for inclusion in this article, which, through their variation in program content, setting, delivery, and young people, both authors felt were best-placed to answer the questions raised in consultation with parents and practitioners. These papers met the inclusion criteria in full including a robust resilience

concept and basis to the intervention, and a way of measuring changes in the young people's resilience.

Results

Although none of the questions in our consultation addressed the conceptual basis, evaluation or measures used, these criteria were used to screen interventions to satisfy ourselves that they were of sufficient quality and relevance.

The twelve papers in our ongoing review conceptualised resilience variously as a: tool, outcome, process, dynamic interaction, capacity, ability, characteristic, act, skill, trait, protective factor, positive influence, potential, asset, resource, recovery, disposition, competency, attitude, value, strength, knowledge, response, performance, functioning, adaptation, tendency, transactional relationship.

Unfortunately, some interesting and innovative interventions could not be included in the review because they did not meet the inclusion criteria. However, we were impressed by them so we thought them worth mentioning, because colleagues might well find them useful. In one such paper, by making intervention delivery part of a service-based learning course for undergraduate psychology students, Kranzler, Parks, and Gillham (2011) were able to form sustainable community-university links, potentially increasing the social capital of the target community, despite not providing training directly for school staff or teachers. However, Kranzler et al. (2011) did not explicitly define resilience, because rationale had been covered in previous publications generated by the large, well-evaluated intervention program (the Penn Resiliency Program). They also focussed their evaluation on their implementation model rather than on the success of the intensive intervention. Therefore it was not included in the review, despite its novel approach, practical advice and at least basic inequalities angle (the intervention took place in a deprived area and part of the intervention was providing a basic nutritional intervention in the context of food poverty).

The papers took a variety of approaches to evaluation: four were matched pre- and post-test (Griffin, Holliday, Frazier, & Braithwaite, 2009; Peacock-Villada, DeCelles, & Banda, 2007; Theron, 2006; Vetter et al., 2010); three were non-matched baseline and post-

test (Baum, 2005; Grunstein, & Nutbeam, 2006; Hodder et al., 2011); three provided qualitative data (Davis, & Paster, 2000; Ebersöhn, & Ferreira, 2011; Kruger, & Prinsloo, 2008); one utilised reflective case-studies (Woodier, 2011); one was a randomised-control trial (Leve, Fisher, & Chamberlain, 2009).

Among the measures included were the following: Connor-Davidson Resilience Scale (Vetter et al., 2010), California Healthy Kids Survey resilience module (Hodder et al., 2011), Adolescent Resiliency & Health Behaviours Survey (Grunstein, & Nutbeam, 2006), ATOD use (Griffin et al., 2009; Grunstein, & Nutbeam, 2006; Hodder et al., 2011), Incomplete Sentences Questionnaire (Theron, 2006), academic performance (Davis, & Paster, 2000), and custom scales devised by the researchers (Baum, 2005; Kruger, & Prinsloo, 2008; Woodier, 2011). Only five provided follow-up measurements (Baum, 2005; Griffin et al., 2009; Hodder, et al., 2011; Leve et al., 2009; Vetter et al., 2010) at six to twelve months following the end of the intervention, and only one provided any follow-up resources or support to participants – one young person received bi-weekly sessions for three years (Woodier, 2011).

We will now present the demographics of the young people included in the studies, before going on to discuss the data we extracted from the papers selected in relation to the specific questions to which parents and practitioners wanted answers.

Demographics

There were over 3,200 children involved in the twelve studies in samples ranging from 2-1449 (Davis & Paster, 2000, Ebersöhn, & Ferreira, 2011, and Leve et al., 2009, did not provide sample size), more than 63% were female (Baum, 2005, Ebersöhn, & Ferreira, 2011, and Leve et al., 2009, did not provide gender breakdown), and the young people were aged 9-18 years (see Figure 2). Interventions took place in seven countries: USA (Davis, & Paster, 2000; Griffin et al., 2009; Leve et al., 2009), Australia (Grunstein, & Nutbeam, 2006; Hodder et al., 2011), South Africa (Ebersöhn, & Ferreira, 2011; Kruger, & Prinsloo, 2008; Peacock-Villada et al., 2007; Theron, 2006), Zambia (Peacock-Villada et al., 2007), Russia (Vetter et al., 2010), Israel (Baum, 2005), and Scotland (Woodier, 2011).

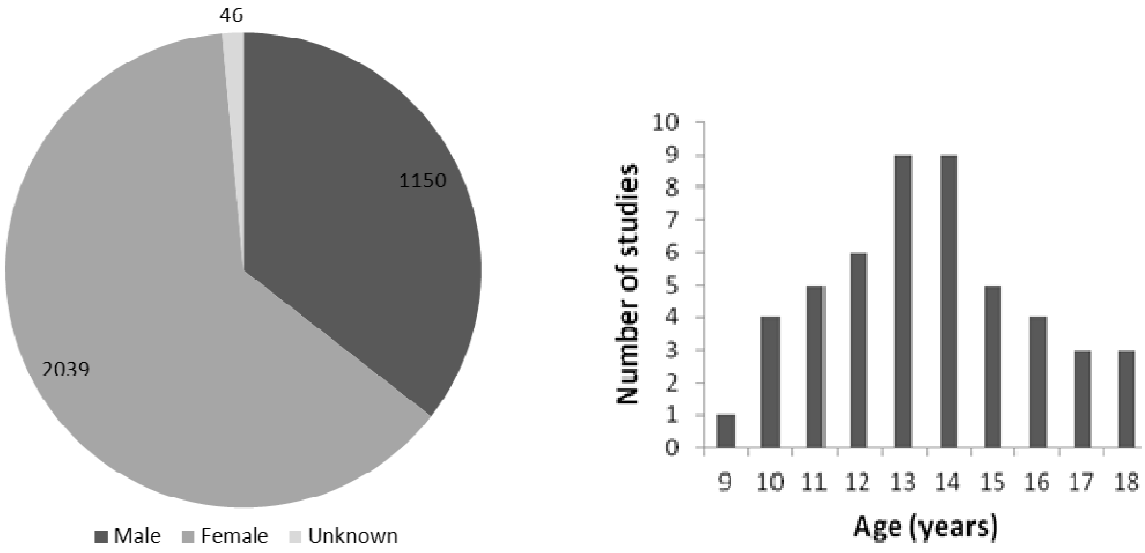

Figure 1: Demographic characteristics of young people.

Demographics	Psychological	Academic	Family
"high risk"; ethnic minority (3); facing adversity (HIV risk (2), economic deprivation(4), inner-city area high rate of ATOD & violence/crime); lowest quintile of SE disadvantage; involved with child welfare (2);	exposed to on-going trauma/stress (school siege, terrorist attack, suicide bombing, drive-by shooting, mortar attack) (2); severe emotional & behavioural difficulties (2); ADHD; prenatal ATOD; learning disability;	intellectually "gifted"; underachieving (3); mid-range academic ability; attending state, independent, selective, sport, or residential school;	severe marital discord; parental pathology, rejection, abuse, depression, drugs & alcohol (2), aggressive/anti-social behaviour; severe parenting; exposure to trauma; caregiver transitions; lack of medical care (2);

Table 1: Characteristics of young people in the review. Numbers in brackets indicate multiple studies.

At first glance, the types of young people involved seemed quite broad (see Table 1). However when we looked at the numbers we found that this range was much narrower (see Table 2). So who is missing? Very few of the young people had complex needs such as

learning difficulties (only six). This is particularly concerning given that resilience based interventions might be thought of as being most useful in complex circumstances – we see resilience in Masten's (2001) terms as a positive outcome despite serious threats to adaptation or development (p. 228).

Characteristic	**Number of YP**
Lowest quintile of disadvantage (Hodder et al., 2011)	1449
Average (Grunstein, & Nutbeam, 2006)	781
At risk of HIV (Ebersöhn, & Ferreira, 2011; Peacock-Villada et al., 2007)	670
Black and ethnic minority (Davis, & Paster, 2000; Griffin et al., 2009; Kruger, & Prinsloo, 2008)	229
Exposed to trauma (Baum, 2005; Vetter et al., 2010)	136
Specific learning difficulties (Theron, 2006)	6
Severe emotional & behavioural difficulties (Leve et al., 2009; Woodier, 2011)	2

Table 2: Distribution of characteristics of young people in the review.

Around 2.6-4.3% of young people in the UK have learning disabilities (Emerson, & Hatton, 2008). Among the young offenders population, a staggering 25% have special educational needs, 23% have very low IQs (<70), 60% have communication difficulties, 29% have literacy difficulties, and 15% have ADHD (Talbot, 2010). When it comes to mental health problems, 11.5% of young people in the UK are affected, but this rises to 40% for young offenders (Talbot, 2010). And yet, resilience-focused interventions often exclude the very people who might need them the most.

Young people with complex needs are often under-represented with studies such as those of the Penn Resiliency Program (e.g., Kranzler et al., 2011) specifically recruiting sub-clinical samples. Studies are usually conducted in 'mainstream' schools (e.g., Grunstein, & Nutbeam, 2006), with few marginalised young people taking part, who already have fewer chances and greater need for intervention (e.g., absent from school when intervention took place/measures recorded, non-respondents). For consideration of resilience strategies for special education see Jones (2011).

What really works?

Parents and practitioners have been asking the lead author of this paper this question for eight years during myriad training, supervision and consultation sessions. The targeted empirical consultation we conducted with them corroborated this as the question they most wanted answering. Our analysis of the papers in this review unsurprisingly, and for many parents and practitioners, disappointingly, gives us little in the way of definitive answers to that question. Most evaluations focussed on the positive findings, but without reporting effect sizes to facilitate comparisons, some findings appearing rather modest, and all were specific to the contexts in which they occurred. This confirms our realist review position that any discussion of what works has to be contextually focussed.

"Where do I start?" and "What can I do right now that will make a difference?"

These two questions, we felt, could quite naturally be considered together. There was not a lot in the school-based resilience intervention literature about starting positions, except that the earlier the better, and that there are major differences in approach. None of the interventions addressed the issue of whether a hierarchy of importance could be attached to specifics within the portfolio of techniques and approaches described in Table 3 and Table 4. This is an interesting gap in the intervention literature, particularly if we take Roisman and Padron's definition of resilience seriously. They see it as, "an emergent property of a hierarchically organized set of protective systems that cumulatively buffer the effects of adversity..." (Roisman, Padrón, Sroufe, & Egeland, 2002, p. 1216). For them, understanding where to start, and what to do at any given moment in time, is crucial. Our own take on this is that these questions must be addressed through an analysis of the specific context. In relation to the resilience-based practice intervention approach developed by the lead author of this paper alongside colleagues (Hart et al., 2007), we have devised the list reproduced in Figure 3 for practitioners and parents, since these questions came up over and over again and people reported feeling considerable anxiety in trying to address them. The ten step approach has been refined in the light of empirical data regarding its use in practice, however it is still a work in progress. In the absence of definitive guidance from research, the approach helps

people decide how to answer these two questions, and to move forward with making what we have termed elsewhere 'resilient moves' within a specific context. We have reproduced the approach here since it may prove useful for others trying to decide exactly 'what to do and when', in the course of attempting to instigate a resilience-based intervention of any nature, although some of it is obviously Resilient Therapy specific. The sixth to tenth points are certainly applicable beyond the immediate context of applying our own model.

Ten steps to applying Resilient Therapy

1. Get familiar with the RT framework (Basics, Belonging, Learning, Coping, Core Self).
2. Have it to hand.
3. Remember the noble truths (Accepting, Conserving, Commitment, Enlisting).
4. Use the framework to map out where the young person is at.
5. Does one or other potion bottle shout out at you?
6. Pick your priorities to make the most resilient moves (what's most urgent, what's most doable, quick wins, what you're up for, what the child/family wants, what the child/family can most easily manage, time available).
7. Come back to the noble truths. How can they help you here?
8. Make your resilient moves.
9. Check out with them, and yourself. How well did it go?
10. What have I learnt for another time?

Figure 2: Ten steps to applying Resilient Therapy. Adapted from Hart, Aumann, & Heaver, B. (2010).

Finally, in addressing these questions, an important point to consider is what can we take anywhere? If we cannot say for sure precisely 'what to do and when', is it worth considering what techniques are effective across contexts, situations and individuals that may form a portable and flexible approach, without reliance on resources and infrastructure? Suitable strategies highlighted in our review which also occur in the broader resilience evidence base we have summarised elsewhere (Hart, Blincow, & Thomas, 2007) include developing problem-solving skills, autobiographical narrative – 'consciousness-raising',

prioritising the development of a relationship with one caring adult, instigating a system of reward points, intensity of intervention and consistency.

Is it better to work with young people or parents or teachers or the whole school?

Because interventions were so different, but the majority reported modest improvements in key areas, it is not possible to conclude that any particular one of these approaches worked better than the others. For example, none of the programs compared the relative efficacy of different types of delivery. Of the interventions that did demonstrate at least modest improvements, six interventions worked directly with young people (Griffin et al., 2009; Grunstein, & Nutbeam, 2006; Hodder et al., 2011; Theron, 2006; Vetter et al., 2010; Woodier, 2011), one with young people and (foster) parents (Leve et al., 2009), two with young people and teachers or instructors (Kruger, & Prinsloo, 2008; Peacock-Villada et al., 2007), one with young people, parents and teachers (Davis, & Paster, 2000), and two with only teachers (Baum, 2005; Ebersöhn, & Ferreira, 2011). Approaches also varied in whether they targeted individuals, classrooms, the whole school, or whether they relied on volunteers from within the school signing up for an advertised program. For example, four interventions targeted individual students on the basis of characteristics such as gifted intelligence (Davis, & Paster, 2000), learning disability (Theron, 2006), or involved with child welfare services (Leve et al., 2009; Woodier, 2011), via activities including voluntary work (Woodier, 2011), group work (Davis, & Paster, 2000), art and music therapy (Theron, 2006), and often utilising multiple strategies (Leve et al., 2009; Theron, 2006). Four interventions targeted entire year groups on the basis of age (Griffin et al., 2009; Kruger, & Prinsloo, 2008), exposure to trauma (Vetter et al., 2010), or opportunity sample (Grunstein, & Nutbeam, 2006), via in-class activities (Kruger, & Prinsloo, 2008), performing arts (Grunstein, & Nutbeam, 2006), role-play (Griffin et al., 2009), and adventure recreation (Vetter et al., 2010). One intervention recruited participants from several schools (Peacock-Villada et al., 2007) to engage in afterschool activities such as football (Peacock-Villada et al., 2007). Two of the interventions were systemic ‘whole-school’ approaches with schools selected for exposure to trauma (Baum, 2005), or low socioeconomic disadvantage (Hodder et al., 2011), acting via teacher training (Baum, 2005), modifying school policies, and developing school-community links (Hodder et

al., 2011). One program targeted a proportion of teachers within schools to act as resource negotiators for their whole school (Ebersöhn, & Ferreira, 2011).

Programs varied widely when it came down to who delivered the intervention: socio-psychological expert (Davis, & Paster, 2000); graduate research students and community volunteers (Griffin et al., 2009); school staff (Grunstein, & Nutbeam, 2006), researchers and school staff (Hodder et al., 2011); therapists and professionals from search and rescue (Vetter et al., 2010); psychologists (Baum, 2005); psychologists and teachers (Kruger, & Prinsloo, 2008); teacher with access to multidisciplinary team (Woodier, 2011); researcher (Theron, 2006); peer educators (Peacock-Villada et al., 2007); multidisciplinary team (Leve et al., 2009); researchers in first iteration and then teachers in second (Ebersöhn, & Ferreira, 2011). In general, little consideration was given to sustainability, for example interventions delivered by teachers/parents can be adopted and continued after the study has been completed, whereas researchers will leave at the end of the intervention.

How do you make a really entrenched and marginalised young person change?

As we have explored before, there was not much focus on this topic given the relative lack of attention to young people with very complex needs in these studies. However, some of the key capacities that kept reoccurring are included in Table 3.

Capacities	Studies
Individual: Self-esteem	Baum, 2005; Griffin et al., 2009; Grunstein, & Nutbeam, 2006; Hodder et al., 2011; Kruger, & Prinsloo, 2008; Peacock-Villada et al., 2007; Woodier, 2011
Autonomy	Griffin et al., 2009; Grunstein, & Nutbeam, 2006; Hodder et al., 2011; Kruger, & Prinsloo, 2008; Peacock-Villada et al., 2007; Theron, 2006
Problem-solving	Grunstein, & Nutbeam, 2006; Kruger, & Prinsloo, 2008; Theron, 2006; Vetter et al., 2010
Goals & aspirations	Griffin et al., 2009; Grunstein, & Nutbeam, 2006; Hodder et al., 2011; Kruger, & Prinsloo, 2008; Peacock-Villada et al., 2007; Theron, 2006
Sense of purpose	Baum, 2005; Griffin et al., 2009; Grunstein, & Nutbeam, 2006; Kruger, & Prinsloo, 2008; Vetter et al., 2010
Skills, interests & competencies	Davis, & Paster, 2000; Griffin et al., 2009; Grunstein, & Nutbeam, 2006; Kruger, & Prinsloo, 2008; Leve et al., 2009; Peacock-Villada et al., 2007; Vetter et al., 2010; Woodier, 2011
Interpersonal: Empathy	Baum, 2005; Davis, & Paster, 2000; Grunstein, & Nutbeam, 2006; Hodder et al., 2011; Kruger, & Prinsloo, 2008; Theron, 2006; Vetter et al., 2010; Woodier, 2011
Being caring	Davis, & Paster, 2000; Griffin et al., 2009; Grunstein, & Nutbeam, 2006; Vetter et al., 2010; Woodier, 2011
Social competence	Griffin et al., 2009; Grunstein, & Nutbeam, 2006; Hodder et al., 2011; Kruger, & Prinsloo, 2008; Leve et al., 2009; Theron, 2006; Vetter et al., 2010; Woodier, 2011
Friends&Family: Family connectedness	Baum, 2005; Davis, & Paster, 2000; Ebersöhn, & Ferreira, 2011; Griffin et al., 2009; Grunstein, & Nutbeam, 2006; Hodder et al., 2011; Kruger, & Prinsloo, 2008; Leve et al., 2009
Bond with one caring adult	Davis, & Paster, 2000; Ebersöhn, & Ferreira, 2011; Leve et al., 2009; Peacock-Villada et al., 2007; Theron, 2006; Vetter et al., 2010; Woodier, 2011
Positive peer relationships	Ebersöhn, & Ferreira, 2011; Griffin et al., 2009; Hodder et al., 2011; Kruger, & Prinsloo, 2008; Peacock-Villada et al., 2007; Theron, 2006; Vetter et al., 2010
Community: Formal/informal social support	Baum, 2005; Ebersöhn, & Ferreira, 2011; Griffin et al., 2009; Kruger, & Prinsloo, 2008; Leve et al., 2009; Peacock-Villada et al., 2007; Woodier, 2011
School connectedness	Ebersöhn, & Ferreira, 2011; Grunstein, & Nutbeam, 2006; Hodder et al., 2011; Kruger, & Prinsloo, 2008
Community connectedness	Davis, & Paster, 2000; Ebersöhn, & Ferreira, 2011; Griffin et al., 2009; Hodder et al., 2011; Kruger, & Prinsloo, 2008; Peacock-Villada et al., 2007; Vetter et al., 2010

Table 3: Resilience capacities targeted by interventions.

The most effective strategies for entrenched and marginalised young people seemed to be high intensity interventions, which had been customised for the young person (e.g., Woodier, 2011) and a joined-up approach between home and school (Leve et al., 2009). A bond with one caring adult was very important: one hour of one-to-one mentoring per week for six months to communicate bonding, caring, support, and high expectations (Griffin et al., 2009); a non-family adult instructing participants in problem-solving strategies, life and coping skills (Vetter et al., 2010); a teacher providing sensitive and responsive support to an individual student (Woodier, 2011); foster parents being trained and supported to provide positive adult support and mentoring to the young person (Leve et al., 2009).

What do you do exactly, for how long and with what intensity?

This review has confirmed our conclusions from our many years of research and practice, that to be effective practitioners and parents, one has to be contextually focussed. Eight of the interventions had a specific focus for enhancing resilience including: prevention elements such as reducing alcohol, tobacco and/or other drug use (Griffin et al., 2009; Hodder et al., 2011) or preventing HIV infection (Ebersöhn, & Ferreira, 2011; Peacock-Villada et al., 2007); addressing trauma (Baum, 2005; Vetter et al., 2010); managing disability (Theron, 2006); career/vocation development (Griffin et al., 2009) (see Table 4).

Context	Intervention	Intensity	Study
Alcohol, tobacco and/or other drug use	problem-solving & communication skills curriculum modifications	90 mins, 2-3 x week, for 9 weeks implemented for 3 years	Griffin et al., 2009 Hodder et al., 2011
Trauma	teacher training mountaineering and survival skills	3 x 3hr sessions one-week residential course	Baum, 2005 Vetter et al., 2010
Disability	Individualised program	12 x 1hr sessions over 5.5 months	Theron, 2006
Career/vocation	Training & role-play	90 mins, 2-3 x week, for 9 weeks	Griffin et al., 2009
Preventing HIV	teacher training & vegetable garden outdoor recreation	6 x 8hr sessions over 1 year 6 weeks	Ebersöhn, & Ferreira, 2011 Peacock-Villada et al., 2007
Emotional & behavioural	One-to-one curriculum; work experience	3hrs a week for 1 year; twice a week for 3 yrs	Woodier, 2011
Foster care	Individualised program	6-9 months	Leve et al., 2009
General	psychosocial skills groups dance/drama competition curriculum modifications	1hr weekly for a year not specified 12 x 1hr sessions	Davis, & Paster, 2000 Grunstein, & Nutbeam, 2006 Kruger, & Prinsloo, 2008

Table 4: Examples of contexts, interventions and intensity (where given).

As summarised in Table 4, types of intervention included: psychosocial groups (Davis, & Paster, 2000), a dance/drama competition (Grunstein, & Nutbeam, 2006), skills and training (Griffin et al., 2009), curriculum modifications (Hodder et al., 2011; Kruger, & Prinsloo, 2008), outdoor recreation (Peacock-Villada et al., 2007; Vetter et al., 2010), teacher training (Baum, 2005; Ebersöhn, & Ferreira, 2011), work experience (Woodier, 2011), role-playing new skills (problem-solving, communication) (Griffin et al., 2009), and programs tailored to the individual's needs and interests (Leve et al., 2009; Theron, 2006). One program

ran three groups that were parallel and complementary for young people, parents, and teachers, around similar skills (conflict management, communication, stress management, creating support) (Davis, & Paster, 2000). Some of the most innovative, evidence-based strategies were: evoking images of family, obligation and responsibility (Davis, & Paster, 2000), vocational training and field trips (Griffin et al., 2009), mountaineering and survival skills (Vetter et al., 2010), the young person organising a dance competition for younger children (Woodier, 2011), having a school-family-community vegetable garden (Ebersöhn, & Ferreira, 2011), 'limboing' under a board that represented peer pressure (Peacock-Villada et al., 2007), and using the same reward points system across home and school environments (Leve et al., 2009). Length and intensity was very wide-ranging - from 12 x 1hr sessions over 5.5 months (Theron, 2006) to a one-week residential course – but even at the less intensive levels of intervention serious commitment and resources had to be mobilised (Vetter et al., 2010).

How much does it cost?

Few interventions provided any details on cost, with only one giving partial information: the three intervention schools were given funding for the first two years of a three-year intervention in order to facilitate teacher participation in training, planning and implementation (per school: AUS $4,000 in year 1, AUS $5,000 in year 2) (Hodder et al., 2011). Whilst costs may be increased by having multi-site or systemic interventions (Middlemiss, 2005), one multi-site intervention was deemed more cost-effective than placing a young person into institutional or residential care, reporting to save $32,915 in taxes per juvenile justice youth compared to standard group care (Leve et al., 2009).

As mentioned earlier, little consideration was given to sustainability and capacity building. Having parents or young people developing and/or delivering training, for example in the manner of our partners Amaze charity in Brighton, UK (Hart, Virgo, & Aumann, 2006) and in our own work with young people (Experience in Mind, Taylor, & Hart, 2011), enables interventions to involve the most excluded parents and young people, makes groups more sustainable, and actually builds training capacity and, as we have seen in our practice, the wider social capital of parents and young people. One intervention trained the teachers, who

were participants during the first phase of the intervention, to become the facilitators who implemented the intervention to other teachers in neighbouring schools in a second phase of iterative Participatory Rural Appraisal (PRA; Ebersöhn & Ferreira, 2011). This approach built capacity within the teaching staff as well as local families. And if the intervention per se only has a modest effect, the wider capacity and social capital building elements of the project may yet deliver longer term benefits.

What do we think could have made the interventions better/more successful?

Overall, the studies we reviewed lacked school-parent interaction, complex or marginalised (or absent) young people, and the value of addressing the basics (e.g., giving the young people a decent breakfast). There was very little participatory research (particularly at the point of program evaluation) from the point of view of the teachers, parents or young people. One study involved an advisory panel for school staff, parents and community members (Hodder et al., 2011), and another incorporated youth feedback during the pilot and was evaluated by a local peer educator who acted as an insider researcher and remained working in the region after the program finished (Peacock-Villada et al., 2007). Ebersöhn and Ferreira's (2011) Participatory Rural Appraisal meant that they: "... viewed participants as partners and experts throughout the research process and encouraged them to not only share their knowledge but also co-create and co-determine the progress and processes of the research" (p. 5). This study deserves particular mention because, as well as being participatory, it also addressed the basics (food, clothing, health care), made connections between the school, families and the community, focussed on schools with high levels of complex adversity, and built capacity in parents and teachers (Ebersöhn, & Ferreira, 2011).

Researchers trying to develop psychosocial resilience interventions may understandably not see tackling structural inequality as the primary goal of their project. However, despite the massive potential benefits, few of the interventions included so far had any inequalities angle at all, such as: providing food or travel costs, including strategies to raise awareness of inequalities for teachers, engaging in equality training for teachers, using "inequalities imagination" (e.g., Hart et al., 2003), or consciousness raising (e.g., autobiographical narrative). Only two studies focussed on young people from a deprived

neighbourhood (Ebersöhn, & Ferreira, 2011; Griffin et al., 2009), and one briefly considered racism and prejudice (Davis, & Paster, 2000). One study describes selecting schools where pupils lived in the "lowest quintile of socioeconomic disadvantage" (Hodder et al., 2011, p. 2). Whilst this might at first sound like pupils come from deprived backgrounds, the Australian Bureau of Statistics designate Quintile 1 as those having the least disadvantage. Attempts to contact the authors for clarification have been unsuccessful, and this ambiguous phrase suggests instead that pupils are from more privileged backgrounds.

Generally these interventions did not encourage hobbies, which have a good evidence-base in relation to resilience-building and also other evidence-based resilience capabilities like problem-solving skills (Hart et al, 2007). The few that are mentioned are sports and recreation (Peacock-Villada et al., 2007; Vetter et al., 2010), dance and drama (Grunstein, & Nutbeam, 2006), art (Theron, 2006; Vetter et al., 2010), music (Theron, 2006; Vetter et al., 2010) and religion (Baum, 2005; Kruger, & Prinsloo, 2008; Woodier, 2011). Most often these activities form a very minor component of a complex intervention, or are described in terms of facilitated 'play therapy' rather than encouraged as an independently pursued and rewarding hobby. Elsewhere in the literature such leisure activities have been reported to increase resilience in young people with disabilities through providing supportive relationships, power, control, 'desirable' identity, and social justice (Jessup, Cornell, & Bundy, 2010).

Conclusion

There are two things to consider in conclusion; firstly, the findings of the review, and secondly, the limitations of the methodology. We will reflect on the findings first. As discussed in the methods section, many of the papers originally selected in our first trawl of the literature were using the term 'resilience' in such a vague and conceptually weak manner that it was hard for us to pin down if the intervention really could be described as 'resilience-based'. Future papers reporting on 'resilience'-based approaches could usefully pay more attention to defining the specific ways in which they understand it to be resilience-based. If such studies are to add anything useful to the resilience field, they should engage properly

with the conceptual minefield that is at play here, and in this review we have at least offered some ways forward in terms of identifying whether or not an intervention can claim to be 'resilience-based'.

There is a huge gap between what research often reports, and what people want to know and learn about when working in the messy, complexity of situated practice. Many of the questions raised were not answered, most of the studies did not include enough of the very young people most people with whom we are involved are trying to support, and many of the interventions did not seem that practical to replicate in the real world outside a well-funded research project. The writing up of an intervention should include sufficient information to make the study replicable, but no basic information about costs was included, and from our knowledge of the area, such large-scale interventions are usually expensive. This is particularly an issue for high-intensity interventions, and consideration needs to be given to how this information is packaged for front-line workers, supporting young people with complex needs, who may only be able to offer time-limited intervention, with limited resources and under far from ideal conditions. Most interventions were researcher-led, and seven of the twelve interventions did not include the teachers who would be involved with the young people beyond the end of the research study. Capacity building in teachers, parents, etc was woefully absent, with the exception of Ebersöhn and Ferreira (2011). The inequalities dimension was also barely considered. We recommend that all of these issues should be addressed in future developments of school-based interventions.

Having said that, the findings of the review did identify repeating themes of effective resilient practices across the studies and contexts, such as teaching problem-solving skills, building relationships, and working at multiple levels (individual, family, community). A bond with one caring adult was found to be particularly important in communicating caring, support, and high expectations, whether this was one-to-one mentoring, skills guidance from a non-family adult, or positive support from a teacher or foster parent. Entrenched and marginalised young people with highly complex needs were of specific interest to the parents and practitioners we consulted, and we can infer from the papers in our review that, perhaps unsurprisingly, these young people responded to high intensity, individually customised interventions, and continuity between contexts, such as the home and school environments.

Of course there are limitations to what we have undertaken in that many interventions that do not define themselves as 'resilience-based' have been excluded for practical reasons.

A better resourced and more sophisticated systematic consultative review would find a way to include such papers if they focus on a specific area of resilience-based practice, albeit not defining it as such. In the area of self-esteem enhancement, for example, there are papers that we could have included were we to have taken that approach. Alternatively, such a review might start with the authors' definition of resilience and a review of the interventions that conformed to this perspective. However, in reality, relatively few 'resilience' interventions actually defined the term 'resilience'. Some included 'resilience' in the title and abstract but no-where else in the paper. Of those with a well-defined resilience concept, there was a complete lack of consensus about what resilience actually is, or how it might be measured. A review of interventions with a shared resilience concept would have had to compromise on another aspect of the inclusion criteria, sacrificing strong program-theory links, the evaluation or perhaps the age-group of interest; otherwise there would have been no comparable papers left to review.

Mitchell's (2010) consultation, whilst broader than ours, did identify some of the same practitioner questions of the research evidence-base, suggesting that they are indeed relevant. However, Mitchell (2010) had a formal methodological process for the consultation, and although firmly grounded in the lived experience of parents and practitioners supporting young people with complex needs, our approach was more organic and iterative, and emerged from the tensions involved in our everyday work at the interface between academic review and research, and practice development.

In summary, our approach was successful in answering some of our consultation group's questions, but not all; in particular, we did not manage to identify necessarily which programs were most effective (if indeed comparisons across contextualised interventions are appropriate). The British Medical Journal's despair over the failure of systematic reviews often to provide any further insights than "more research is needed" was the impetus for our approach here, alongside our sensitivity to what parents and practitioners wanted to know. Whilst being mindful of using the phrase ourselves, it is disappointing that only partial answers to questions that people want to know can be gleaned from the current literature. However, we hope that this review provides a starting point to generate some ideas for ways of working at the interface between academic research and practice development. Our schools-focussed review is part of a larger, ongoing systematic consultative review of resilience-based interventions for 12-25 year olds, and, as a result, consultation with parents

and practitioners was rather more general in scope. Therefore, in taking this technique forward and developing it more in relation to school-based interventions, the empirical consultation element could be refined by asking teachers, classroom assistants and school personnel to participate, in addition to parents and practitioners. We could also develop a more systematic approach to this empirical element of the review process. In this way, we hope that we can move towards an appropriate and useful approach for producing reviews that are actually helpful to people who want to use research findings to support the young people with whom they live or work.

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Preventing depression, which story does the evidence tell? A theoretical paper

Sara Hjulstad Bækkerud[1], Odin Hjemdal[1], Roger Hagen[1]

1 Department of Psychology, Norwegian University of Science and Technology, Norway

Abstract: Depression implies both an individual suffering and high financial costs for society. Even though evidence shows that some forms of psychological treatment for depression could be effective, there is still a large potential for improvement because a significant proportion of the patients in treatment studies do not convalesce and many patients that do experience relapses at follow up. Lately the focus on preventing depression has increased and the present paper is a review of empirical studies related to prevention of depression among children and adolescents. Collectively the evidence points to larger effect sizes for targeted intervention programs rather than universal programs, both measured at post-treatment and at follow-up. There are also better results for interventions implemented by psychologists than for interventions implemented by teachers and other professions. Targeted programs do not have the effects one would expect, and generally the effects of these interventions seem short lived. Possible reasons for these results are discussed and further directions for research of this field are suggested. It is essential that future work on the prevention of depression among children and adolescents is based on evidence and empirical findings.

Prevention of depression among children and adolescents

Depression is among the most frequent psychological disorders, and according to the WHO is now one of the most common causes of disability in the western world (Murry & Lopez, 1996). Depression is highly prevalent from early adolescence onwards, and is more frequent among women than men (Ayuso-Mateos, 2001). Studies indicate that the proportion of mild and moderate depressive episodes has increased in the latter half of the 20th century (Costello et al., 2002; Nilsson, Bogren, Mattison & Nettelbladt, 2007). Treatment of depression is

costly, e.g. in Norway the direct costs related to treating depression are estimated to be 220 million Euros per year (Dalgard & Bøen, 2008).Depressive disorders also cause about 30% of all disabilities in Norway (Mykletun & Øverland, 2006). In addition to these societal costs, depression also causes considerable subjective suffering and experiencing a depressive episode is also the primary risk factor for new episodes of depression (Lewinsohn, Seeley, Solomon & Zeiss, 2000; Fergusson, Horwood, Eidder & Beautrais, 2005).

There are several different treatments for depression. Research indicates that a large portion of the patients treated do not respond to treatment, which is the case both for pharmacological treatments (Kennard et al., 2006) and for psychological treatments (Elkin et al., 1989; Kennard et al., 2006; Weersing & Weisz, 2002). Only about 50% are cured after treatment (Dimidjian et al., 2006; Roth & Fonagy, 2005). According to several different treatment studies, relapses occurring after treatments are a common finding across several treatment studies. As many as 40% have a relapse within the first year after treatment has ended, and about half of the patients relapse within a period of 18 months (Dimidjian et al., 2006). The probability of a new relapse increases by 16% with every new episode (Solomon et al., 2000).

Cognitive behavioural therapy, (CBT), has been shown to be among the most effective methods in the treatment of depression (Blackburn, Eunson & Bishop, 1986; Dobson, 1989; Elkin et al., 1989; Lynch, Laws & McKenna, 2010; Teasdale et al., 2000; Weersing & Weisz, 2002), and seems to prevent relapses to a larger extent than pharmacological treatment alone (Blackburn et al., 1986; Lynch et al., 2010; Teasdale et al., 2000). Even though CBT is viewed as an effective treatment intervention, there is still a relatively large portion of the patients being treated that do not respond to the treatment (Elkin et al., 1989; Kennard et al., 2006).

Based on the magnitude of the problem depression poses and the general effectiveness of treatment, alternative approaches like prevention are receiving increased interest and prevention has become the focal point of new long-term aims in countries such as Norway.

Prevention for depressive disorders

The research literature is often a bit unclear regarding the difference between treatment and prevention. Gillham, Shattè and Freres (2000) has pointed out that several studies which claim to study prevention in reality explore the effect of a treatment. Treatment can be defined as controlled intervention with the aim of improving symptoms, while prevention focuses on hindering the development of disorders and symptoms. The goal of prevention thus is to reduce the prospective risk. If explored empirically the results would potentially indicate an increase in symptom levels for control groups, while for intervention groups the levels of symptoms remains stable. A prevention study should thus always contain a follow-up period (Gillham et al., 2000), and it is particularly the aspect of a follow-up time that has become problematic in distinguishing prevention and treatment (Gillham et al., 2000). One central issue is the duration of the effects of the intervention, and how long an effect must be maintained in order to call it prevention. Gillham et al. (2000) argue that the specification of months in such a context would be arbitrary. A meaningful test would be if an intervention offers protection during a period of increased risk. Their proposal is that the prevention intervention should be implemented prior to the development of a particular condition such as e.g. clinical depression.

Prevention interventions have traditionally been divided into constructs of primary, secondary and tertiary prevention. Primary prevention interventions are designed to prevent new cases of the disorder. Secondary prevention interventions, on the other hand, imply early detection and treatment, while tertiary prevention focuses on reducing the negative consequences of an already existing disorder (Gillham et al., 2000; Mrazek & Hagerty, 1994). It has proved difficult to differentiate between primary, secondary and tertiary prevention. Based on these problems related to differentiating these levels of interventions, a new three-partied classification of the construct has been suggested (Mrazek & Hagerty, 1994). It has been argued that the partition into universal, indicated and selective prevention could be more useful. Universal prevention is related to intervention for the entire population without differentiating between individual risks. Indicated prevention is directed at individuals in a risk zone for a given disorder based on the initial signs of disorder (such as heightened symptom levels) but not yet at a level sufficient for clinical diagnosis. Selective prevention focuses on individuals with heightened risk, defined by the individuals' living circumstances,

not based on heightened symptom levels. Indicated and selective prevention is often collectively termed as targeted prevention (Gillham et al., 2000; Mrazek & Hagerty, 1994).

An important question is also which age groups prevention should focus on. Depression is one of the most common psychological disorders among children and adolescents (Costello et al., 2002). The prevalence of depression increases in early adolescents for both girls and boys, but more profoundly for girls. This gender difference seems to arise around the age of 13 years, when the prevalence of depression among girls increases dramatically. This particular gender difference seems to be relatively unique to depression, even though it overlaps to some extent in other disorders such as anxiety and especially generalized anxiety disorder (Costello et al., 2002; Hankin & Abramson, 2001). The debut of depression in early childhood or adolescence is a strong risk factor for later episodes of depression (Costello et al., 2002; Fergusson et al., 2005), and an early debut is also associated with a chronic condition later in life. Preventing the first depressive episode in childhood or adolescence could therefore reduce the risk and severity of depression in adulthood. It is essential therefore to have empirical data on the effects of such intervention programs prior to implementing them on a larger scale in addition to evaluating whether to go for a universal, indicated or selective approach.

This paper will address the following issue in regard to depression: *Which type of prevention could be regarded as effective related to the studies that have been carried out so far and which implications could be drawn from the studies related to prevention of depression*. These issues are important to review in determining whether investing in a prevention program should be a prioritized task, and ultimately which interventions the research seems to support.

Method

The literature reviewed in this paper consists of publications prior to January 2012. Only studies that had a control group were included in this review. The review also includes studies with participants in the age span from 6 to 18 years of age. The key words used for searching were *depression* and *prevention* in combination. The searches were further limited by using

the key terms *school-age and adolescents*. The search engines used in the search was limited to PsychInfo and PsychArticles. The search using the key terms described above resulted in 31 studies which have explored prevention to depression. The studies are presented in Table 1. There were in all 12 universal interventions, of which two were follow-up studies reporting longitudinal data. Interventions were indicated in all 11 studies, of which two also reported follow-up data. Eight studies were identified as selective intervention programs, of which two of these also included follow-up assessments.

The effect sizes used in the present review is Cohen's d, if not otherwise specified. The effect sizes are important in addition to the significance of the results, because they give an indication of the magnitude of change (Flay et al., 2005; Meltzoff, 1997). Cohen's d smaller than .20 are regarded as small, effect sizes of .50 are regarded as medium and sizes of .80 are considered to be large (Meltzoff, 1997). Some studies also use Pearson's r where the effect sizes are related to r. Scores of .10 are small, .30 are medium and .50 are large (Meltzoff, 1997). Based on the new classification mentioned earlier in this paper it is natural to look at studies related to universal, indicated and selective approaches individually, and then discuss the findings collectively.

The effects of different approaches to prevention

Universal prevention programs.

Pössel, et al., (2004) designed a prevention program based on cognitive methods, called LISA-T. The program was administered in a classroom setting, two hours at a time once a week over a period of ten weeks. The intervention groups were divided into subgroups based on sex. The separation of the sexes seemed to increase collaboration within each groups. The program was implemented by clinical psychologists or students at the master level with experience from clinical work. The average age of the participants was 14 years. LISA-T contains both cognitive and social interpersonal components. The main focus of the interventions in this program was to illustrate the relation between cognitions, emotions and behavior, and to change dysfunctional cognitions. This was implemented by training self-assertion and expanding the participants' social competences. The researchers behind the

study claimed that the program would contribute to preventing depression among adolescents in two ways; 1) the cognitive interventions aimed at increasing the ability to reflect and question their own negative automatic thoughts and therefore develop more adaptive and functional thoughts and, 2) the social interventions aimed to promote pro-social and positive social behaviour. It was not assumed that people with a clinical depression would benefit from the intervention, because they would need a more intensive treatment. The results from the six month follow-up indicated that participants with initial minimal depressive symptoms showed no increase in symptom levels, but such a significant increase was found in the control group. The intervention significantly reduced the level of depressive symptoms among those with subsyndromal depression scores, which was also the case for participants in high risk groups. Participants with clinical depression did, however, not show any decrease in levels of symptoms (Pössel et al., 2004). No effect sizes were reported in this particular study. However, Spence and Shortt (2007) have in retrospect estimated the effect sizes for Pössel et al. (2004) to be .49 at post-test and .44 at six month follow-up. The results for the group with subsydromal scores were non-significant at posttest, but significant at 6 months follow-up with an effect size of .50. There were, however, no significant changes in dysfunctional automatic thoughts or the social network as a consequence of the interventions. Therefore it is unclear what the active ingredients in the intervention are, and also the period of follow-up is short.

Spence, et al., (2003) classified their ”Problem Solving for Life Program” (PSFL) as a universal prevention program. The intervention in their program is structured to one school hour per week over a period of 8 weeks, and the participants were between 12-14 years of age. Trained teachers delivered the intervention, which consisted of two main components: cognitive restructuring and problem solving training. The program was implemented by teachers. The results from the program indicated a significant reduction in depressive symptoms from pre to post intervention for the PSFL pupils that were classified in the high risk intervention group, compared to the high risk participants in the control group. The low risk intervention pupils saw small but significant changes. Spence and Shortt (2007) reported effect sizes of .36 and .32 for high and low symptom levels, respectively. The results were significant at post-test, but not at 1 year follow-up. The low risk control group participants had a small increase in the depression scores. The intervention group had a significant increase in problem solving ability compared to the control group. The problem solving

ability was found to mediate the relation between the intervention and the depressive symptoms. There were no differences in depression, social functioning and attribution style, problem-solving abilities or internalized or externalized problems at 12 months follow up. The only significant difference between the groups at 12 months follow-up was a reduction in avoidant problem solving style between the high risk intervention group compared to the control group. In a later paper Spence, Sheffield and Donovan (2005) reported the results from a two, three and four year follow-up. The results for Spence, et al., (2005) did not identify significant differences between the intervention group and the control group. So, even though there was a short term positive effect, it was not maintained neither at 1, 2, 3 nor 4 years of follow-up (Spence et al., 2003; Spence et al., 2005). Of the pupils that had heightened symptom levels at the start, 25% reported level of symptoms within clinical levels at the 4 year follow-up both in the control and intervention group (Spence et al., 2005). These findings underline the importance of long term follow-up in order to identify possible intervention effects.

”The Aussie Optimism Programme” (AOP, Roberts et al., 2010) consisted of two components, namely social skills and the development of an optimistic thinking style. The first component targeted interpersonal risk for depression, while the second component targeted the cognitive vulnerability factor of pessimistic attribution style (e.g. negative self-perception and negative expectations towards the future and problem solving skills). AOP was classified as a universal prevention program and was implemented in several schools. It was aimed at pupils in school areas with lower socioeconomic status, which were associated with a certain level of elevated risk such as poverty, higher divorce rates and interpersonal conflicts. The program had similar underlying theoretical framework as previously described programs, but additionally incorporated techniques for changing cognition, emotion and behaviour related both to anxiety and depression. The interventions were implemented once a week in classroom settings for children between the ages of 11 and 13 years over a 20 week period (Roberts et al., 2010). The participants’ self-reported levels of anxiety and depression indicated no group differences at post- test, and at 6 or 18 months follow-up. Sex and risk status prior to the interventions had no moderating effects. In fact, the only effect found was the parents’ reports of a reduction in internalizing problems at post-test, but this effect disappeared at 6 and 18 months follow-up. Compared to non-drop outs, the people who dropped out of the program had higher self-reports and higher parent reports of depressive

symptoms at pretest (Roberts et al., 2010). There were unfortunately no effect sizes reported for this study. The teachers which administered the intervention were reported to have a high fidelity to the manual. The attendance of the participants was also high throughout the intervention period. Therefore difficulties regarding implementing the program or reaching the pupils were not considered reasons for the missing effects.

"The Resourceful Adolescent Program" (RAP) is a universal program that is founded on cognitive behavioural therapy and interpersonal therapy (Rivet-Duval, et al., 2011; Shochet et al., 2001). Shochet et al. (2001) evaluated the effects of the program in a school setting with adolescents between 12 and 15 years of age. The study compared three interventions: a) RAP-A, where the adolescents participated in the intervention; b) Resourceful Adolescent Program-Family (RAP-F) where they added a component for the parents; c) a control group. RAP-A was administered in groups of 8 – 12 participants, with 11 weekly sessions implemented by psychologists. The parent intervention took place in the evening every three weeks, with psychologists as group leaders. The general participation in the interventions was high with an 88 % participation rate for the adolescents. Both the RAP-A and RAP-F had significant results with decreases in depressive symptoms compared to the control group at both post-test and 10 months follow-up. Spence and Shortt (2007) estimated this particular study to have an effect size of .47 at post- test and .34 at 10 months follow-up. However, no significant effects were found for the parent component. One possible reason for this was a low participation rate among the parents. No participants in the sub clinical symptoms group developed clinical depression neither in the intervention period nor in the follow-up. In comparison, 17.6% of the control group developed a clinical depression at post-test. Although this study reported some positive results, the sample size was small and there was also no randomization to the intervention groups.

Rivet-Duval et al. (2011) attempted to replicate the findings of Shochet et al. (2001), for the RAP-A with participants from Mauritius. The interventions were administered by teachers and not psychologists in this particular study and it was unable to replicate the same effects of Shochet et al. (2001). The results indicated a short term effect of the program on depressive symptoms, with lower scores in the intervention group compared to the control group at post-test. The effect size was reported at .32. These significant results disappeared at six months follow-up. The study did, however, find significant increases in self-confidence and coping behaviour at post-test and follow-up. The authors concluded that the RAP-A can

be effective in promoting positive health, but not as a direct intervention toward depression (Rivet-Duval et al., 2011). These particular findings are in accordance with two prior studies were the RAP was administered by teachers and not psychologists (Harnett & Dadds, 2004; Merry, Mcdowell, Wild, Bir & Cunliffe, 2004).

One of the largest universal prevention programs that has ever been implemented in school settings is the «Beyond Blue»- program. The interventions in this program was developed based on the experience with earlier school based interventions and included a sample with a mean age of 13 years of age (Sawyer, et al., 2010a; b). The program had a three year implementation period. It consisted of four specific components; a psycho-educational component, a component focusing on improving the quality of the social interaction between all members of the school, increased access to health care and information, and finally a component focused on forming appropriate forums or places where young people, their families and school employees could exchange information to help them identify problems, seek help and help peers. The study used a model of depression based on the dynamic interaction between risk and protective factors, stressful life events, and psychosocial adaptation. The psycho-educative component it was focused strongly on problem solving, social skills, (called resilient thinking styles), and coping strategies in class room settings administered by teachers in the particular schools (Sawyer et al., 2010a). Twenty-five secondary schools matched in relation to socioeconomic status were randomized to either intervention or control group conditions. The results indicated that there was no effect in reducing the level of depressive symptoms among the adolescents (Sawyer et al., 2010a; b). The results did not change at two years follow-up. Further analysis indicated that the participants with higher depression scores had higher drop-out rates, which could have influenced the results (Sawyer et al., 2010a). Other studies have found that participants with the highest level of symptoms had the highest probabilities of future depressive episodes and increased drop-out rates from such studies (Roberts et al., 2010; Spence et al., 2003; 2005). No effect sizes were reported for this study.

The Penn Resiliency Program (PRP) also known as the Penn Prevention Program, is among the programs that has generated the most research. It is a manualized intervention program for depression based on cognitive-behavioural therapy techniques. The interventions are group based, with twelve 90-minutes meetings. The adolescents who participated in the program were between 10 to 14 years of age (Reivich, Gillham, Chaplin & Seligman, 2005).

PRP has been tested both as a universal program (Cardemil, et al., 2002; Gillham et al., 2007) and an indicated program (Gillham, et al., 2006; Jaycox, et al., 1994). Cardemil et al. (2002) and have studied the effect of PRP as a universal program for minority groups in areas with low socioeconomic status, which is a known risk factor for developing depression (Goodman, Slap & Huang, 2003). The intervention yielded positive results for participants with a Latin American background with a follow-up period of 6 months. The intervention gave significant results for the groups with higher levels of symptoms at the start. The effect size was reported as 1.19 at post intervention and .90 at six months follow-up. They also found significant results for participants with low initial scores, however, they chose to use the significance level of .10. The effect sizes for the low symptom group was .67 at the end and .79 at six months follow-up, which was interpreted as a trend toward prevention. The intervention also seemed to have a positive effect both for groups with low and high symptoms. No effects were found for participants with an African-American background. One possible explanation for this may be that the Latin-American groups reported higher levels of depressive symptoms. The sample size was small, particularly in the Latin-American group with only 49 participants distributed across the interventions and control group.

Gillham et al. (2007) has evaluated the PRP as a universal intervention program implemented by teachers. This study included both an active and a passive control group. In the active control group they focused on factors associated with depression, without including the CBT content of the PRP. The Gillham et al. (2007) study included three schools. The results for the entire sample showed no effects of the program. PRP prevented the debut of depression compared the passive control groups, but not compared to the active control group. PRP did also not reduce the levels of depressive symptoms over a follow-up period over three years, neither compared to the passive nor the active control group. A more thorough analysis of the data indicated that there were differences between the schools. In two of the schools the PRP significantly reduced the depressive symptoms compared to the control group with an effect size of .24. In these particular schools the PRP prevented the debut of clinical depression. The effects were largest for the mild and moderate depressive symptoms of clinical depression. The effects of the interventions seem to depend on if they were administered by members of the research team or others (such as teachers) (Gillham et al., 2006; Harnett & Dadds, 2004; Merry et al., 2004; Rivet-Duval et al., 2011; Shochet et al.,

2001). The Gillham et al. (2007) study was influenced by low recruitment rates (15 -22 % participated) at all schools, and the drop-out rates were high in the follow-up period.

This short review of universal prevention programs shows that only two of the programs, LISA-T and RAP (Pössel et al., 2004; Shochet et al., 2001), have effects at six and 10 month follow-ups. Cardemil et al. (2002) found effects for participants with a Latin-American background but not for groups with an African-American background. Attempts to replicate the findings have found short term effects, but no effects on the long term (Harnett & Dadds 2004; Merry et al. 2004; Rivet-Duval et al. 2011). Some differences related to the effects have also been identified depending on the type of profession administering the interventions.

The effects of targeted prevention programs.

Indicated prevention.

Indicated intervention programs are aimed at individuals that already show signs of a condition, but do not yet satisfy the criteria of a clinical diagnosis. In depression prevention research these groups are often selected based on elevated or subclinical scores on inventories related to measure depressive symptoms (Gillham et al., 2000; Mrazek & Hagerty, 1994). Subclinical symptoms are thus a known risk factor for clinical depression, and therefore a particularly important group with regard to prevention programs.

Dobson, et al., (2010) explored the effect of ”The Adolescent Coping with Stress Course” for anxiety and depression among adolescents with elevated depression scores. The program is based on cognitive behaviour therapy spanning over 15 group sessions, each lasting 45 minutes. Interventions were administered by students in clinical psychology. An active control group was included. There were no significant differences between the two groups. The drop-out rate was as high as 39.1% which gave a result of only 14 remaining participants in each group at six months follow-up.

Stice et al., (2006) compared a short CBT group intervention consisted of four sessions with four placebo groups: a support group, biblio-therapy, expressive writing and writing a diary. In all 255 people participated, within an age span of 15 to 22 years. The

participants were selected based on heightened depression scores. The results indicated that the CBT gave significant higher reduction in depressive symptoms than the waiting list, with the effect size of r = .48 at post-test and r = .28 at one month follow-up. These differences were non-significant at 6 months follow-up. The four placebo groups also had a significant reduction of depressive symptoms compared to the waiting list. Only biblio-therapy retained significant results at six months follow-up with the effect size of .29. CBT only significantly better compared to writing a diary at post-test with the effect size of r = .23. This result may raise the question if CBT techniques are necessary to reduce depressive symptoms in prevention of depression. The fact that the biblio-therapy did as well as the CBT group therapy, may indicate that the non-specific factors like social support and attention, could be associated with effects for both groups. The researchers pointed out some weaknesses of this study, including small group sizes, which reduced the statistical power of the study. There was no control over whether the participants actually understood and started using the techniques that they learned in the program. The drop-out rate was highest in the CBT group with rates going up to 24%.

Stice, Rohde, Seeley og Gau (2008) extended the Stice et al. (2006) intervention from 4 to 6 hours, hoping that a larger dose of the interventions would improve the results. The sample was larger than in the initial study with 341 participants in the age range of 14 to 19 years (Stice, et al., 2006). Biblio-therapy and supportive group therapy were chosen as placebo groups, in addition to a passive control group. Supportive group therapy was chosen because the researchers wanted an active intervention with a non-specific element also relevant in the CBT groups, but without the cognitive focus. The results indicated that the CBT gave a significant symptom reduction at post-test compared to the supportive group therapy, biblio-therapy and the control group, with effect sizes of .28, .52 and .46, respectively. Both CBT, biblio-therapy and supportive group therapy showed significant lower risk for developing clinical depression at the six month follow-up (Stice et al., 2008). The results for the CBT group for depressive symptoms were still significant after one and two years follow-up with effect sizes of .30 and .29, respectively, compared to the other interventions where reductions in depressive symptoms were marginal The risk for future clinical depression were lower for participants in the CBT group and the biblio-therapy group compared to the control group (Stice, Rohde, Gau & Wade , 2010).

Clarke et al. (2001) explored the preventive effects of group CBT intervention for adolescents that had elevated subclinical depression scores and depressed parents. This approach was defined as a combination between indicated and selective intervention. It was based on known CBT techniques, with particular focus on the experiences of living with a depressed parent. The parents were invited to a meeting with information about the program and the theory behind it. The intervention in itself did not focus directly on the individual parent's depression. They found a significant prevention effect for suicidality and general functioning. The risk for developing clinical depression was significantly lower for the intervention group compared to the control group. The study included a two year follow-up period and the prevention effect subsided with time. Stice, Shaw, Bohon, Marti and Rohde (2009) reported effect sizes of r = .22 at post-test and r = .16 at one year follow-up from the Clarke et al (2001) study.

Jaycox et al. (1994) tested the PRP as an indicated intervention program. The participants were included based on heightened depression scores, as well as elevated reports of parental conflict, which is a known risk factor for developing depression (Lewinsohn et al., 2000; Nomura, Wickramaratne, Warner, Mufson & Weissman, 2002; Shaw & Emery, 1987; Sheeber, Hops, Alpert, Davis & Andrews, 1997). The adolescents (aged 10 to 13 years) experienced a significant reduction in depressive symptoms compared to the control group over the six month follow-up. The variable related to attributional style for negative life events seemed to mediate the outcome. The effect sizes were highest for children that reported the highest levels of symptoms, and for those that reported the highest levels of parental conflict. The follow-up at two years indicated that the interventions had a significant prevention effect, as the intervention group reported significantly lower depression scores compared to the control group. These results indicate that cognitive interventions in late childhood, early adolescents may prevent the development of depressive symptoms in adolescents (Gillham, Reivich, Jaycox & Seligman, 1995). The results were significant and had effect sizes of .18 at post-test, .32 at 6 months follow-up and .20 at two years (Horowitz & Garber, 2006).

Gillham et al. (2006) wanted to explore the effectiveness of the PRP in a natural setting, and therefore it was implemented for use in the health services. The intervention was directed toward adolescents (11 to 12 years), which were identified based on their elevated depression scores. An indicated program is more in accordance with the health services than

in schools, because in schools there is a general awareness and a focus on not stigmatizing groups of pupils. It may also be plausible that employees in the health services have a background that facilities the implementation of such a program to a greater extent than employees in the schools. The results indicated an improvement in the attribution style of positive events. The effects of attribution style for negative life events and depressive symptoms were moderated by sex. The program significantly reduced depressive symptoms for girls who had an effect size of .31, but not significantly for the boys. The level of symptoms also moderated the reduction of the depression symptoms, so that significant results were found for those with high but not low symptom levels. Summarized, the effects on depressive symptoms were small and inconsistent over a two-year period. The study had a high drop-out rate with nearly a third dropping out over the two year period.

Sheffield et al. (2006) compared universal and indicated interventions and a combination of these for preventing depression among 13 to 15 year olds with elevated depression scores. The universal interventions are further described by Spence et al. (2003). Sheffield's study had several methodological strengths, including a large sample size of 2470 participants distributed across 354 schools, an independent research team, a randomization to different conditions of interventions, long term follow-up (12 months) and a low drop-out rate (Sheffield et al., 2006). The indicated interventions were based on cognitive techniques like cognitive restructuring and problem-solving, with longer sessions and in smaller group formats with a larger focus on interpersonal abilities. None of the interventions had an effect compared to the control group. They did not find intervention effect if the program was considered universal and included the entire sample, or when they isolated the group with heightened risk. None of the interventions had effects on hypothesized mediation factors like coping and social adaptation. This may indicate that the participants did not acquire skills or abilities associated with preventing depression or increasing resilience.

Young, Mufson & Gallop (2010) developed an intervention program based on interpersonal psychotherapy which was named "Interpersonal Psychotherapy-Adolescent Skills Training" (IPT-AST). They pointed out that interpersonal conflicts are a known risk factor for depression and that positive interpersonal relations have been found to protect toward the development of depression. The intervention consisted of eight 90 minute group sessions, but also included individual meetings and meetings with the parents. The control group had meetings with the school counsellor. The results from the IPT-AST group indicated

significant larger reduction of symptoms compared to the pupils that meet with the school counsellor, with effect sizes of .81. They reported fewer symptoms at six months follow-up with an effect size of.61. But at 12 months follow-up there were no significant differences between the groups.

Depression is a common mental disorder among individuals with epilepsy, and certain types of epilepsy seem to be a risk factor for depression (Grabowska-Grzyba, Jędrzejczaka, Nagańskaa & Fiszera, 2006). Martinovic, Simonovic & Djokic (2006) compared the effect of a CBT program with "treatment as usual" (TAU) in preventing depression among young epileptics. They classified their program as an indicated prevention program, because the participants included had heightened depressive scores. The CBT program was implemented over eight sessions for the first four months, then one session per month in the following four months. The results indicated changes, but these were non-significant.

Several of the interventions reviewed in this section of the paper show an effect at post- test (Stice et al., 2006) and at six months follow-up (Clarke et al., 2001; Dobson, et al., 2010; Young et al., 2010). In general these effects seem to disappear long term (Clarke et al., 2001; Dobson et al., 2010; Young et al., 2010), with few exceptions (Jaycox; et al., 1994; Stice et al., 2010). Sheffield et al. (2006) found no effects in their study, while Gillham et al. (2006) found small and inconsistent effects. The indicated approach to prevention of depression seems promising, but the results are inconclusive. Aiming the interventions at groups that have elevated symptoms seems to work better than offering it to a general group. Therefore, it is also interesting to consider programs aimed at individuals with increased risk.

Selective prevention.

This type of prevention programs targets individuals with an increased risk based on their life circumstances and not their elevated symptom levels. More specifically the participants in these programs are selected based on particular life events, demographic characteristics or other general factors that have been known to increase the probability of developing psychiatric disorders (Gillham et al., 2000; Mrazek & Hagerty, 1994). Death in close family (Cerel, Fristad, Verducci, Weller & Weller, 2006; Gray, Weller, Fristad & Weller, 2011), elevated conflict level in the home (Nomura et al., 2002; Shaw & Emery, 1987; Sheeber et al.,

1997), having divorced parents (Shaw & Emery, 1987) or having a parent with diagnosed clinical depression (Lieb, Isensee, Höfler, Pfister & Wittchen, 2002; Nomura et al., 2002) are all known risk factors for depression and adjustment difficulties for children and adolescents. Therefore, people that have experienced some of these life events may be relevant for selective prevention interventions. The sample in selected prevention programs is more heterogenic than for universal and indicated programs, therefore the interventions in the selective programs are more varied and have a broader aim as they do not only focus on depression (Horowitz & Garber, 2006). In the following section, we will primarily focus on the outcomes that are relevant for preventing depression. The selective prevention programs are often a combination of selective and indicated prevention (Gillham et al., 2000; Mrazek & Hagerty, 1994). Therefore, several of the interventions described below are a combination of these two approaches (Clarke et al., 2001; Jaycox et al., 1994; Martinovic et al., 2006).

Wolchik et al. (2002) explored the effects of two intervention programs for prevention of mental health problems among children and adolescents of divorced parents. The participants were between 9 and 12 years at the start of the study. The two interventions consisted of a group for mothers and one for mothers and children. Only families where the mother had full custody were included. The program was based on cognitive techniques with focus on parenting and the child – parent relation. The mothers groups also focused on reducing the conflicts between parents, and also increasing the contact with the child's father. This program had a positive effect on externalizing and internalizing symptoms at post-test. Only the effects related to externalizing problems were significant at three months follow-up. No additive effects were found for the combined program. The results were stable over a six year follow-up. No effect sizes were reported from this study. The researchers did however note that divorce is primarily a risk factor for externalizing problems, and that in this perspective the lack of effects on internalizing problems are not surprising (Nomura et al., 2002; Wolchik et al., 2002).

The loss of a parent is a known risk factor for depression and adjustment problems in children and adolescents (Cerel et al., 2006; Gray et al., 2011). Sandler et al. (1992) explored the effects of a theory driven family program called "The Family Bereavement Program" (FBP), in relation to preventing psychological problems in such a group. The program included group interventions that were meetings with other families experiencing the same situation, meetings with one family at a time, and individual meetings with parents. In

addition, the program focused on different coping strategies, conversations of grief related topics, the parent's perception of social support and the children's satisfaction with the support of the family. The participants were from 9 to 17 years of age. The program positively influenced the parents' perceptions of the family environment, as well as the parents' rapports of depression and behavioural difficulties with older children, but not for the younger ones. The difference in the parents' reports may be related to the fact that the program was originally designed for adolescents. This underlines the important issue of adaptation. If a different age group is targeted, the program has to be adapted to this group. There were no reported effects on the children's perception of family environment or adaptation problems. The sample size was relatively low with only 72 families distributed between the intervention and the control group. In addition, only a third of the participants completed the program.

Sandler et al. (2003) tested the "The Family Bereavement Program" (FBP) with a larger sample size (156 families with 244 children and adolescents). They found that the program did improve family and individual risk and protective factors at post-test. No effects on internalizing or externalizing problems were found at post-test, but at 11 months both the parents and the children reported recovery on both of these problems. The effect was only evident for girls and for those with higher symptoms at pre-test. The effect size for caregiver's report of internalizing problems for girls was .24 and significant, while for the girls with elevated symptoms at post-test it was .61.

Compas et al. (2009) tested a family-based intervention program based on CBT principles aimed at depressed parents and their children. The intervention consisted of 12 sessions, with eight weekly sessions and four monthly booster sessions. The effect of the intervention was compared to a group that only received written information about depression and the effects such a disorder may have on families. The intervention gave a significant effect on the children's depressive symptoms, as well as for anxiety symptoms compared to the control group. The strongest effect was found at 12 months follow-up, with significant results and effect sizes of .42 and .50. The intervention also seemed to have a positive effect on the parents' depressive symptoms. These trends continued at 18 and 24 months follow-up, with slightly smaller effect sizes over time. For the ASEBA "Youth Self Report" the difference at 18 months had an effect size of .46, but at 24 months this effect was no longer significant (Compas et al., 2011). It was particularly interesting to note that the intervention prevented clinical depression among the children in the intervention group over a period of

two years (Compas et al., 2011). Changes in coping style at six months seemed to mediate the effects of the interventions on depression at 12 months follow-up. The parental behavior also seemed to mediate the outcome but the effects were limited in this particular relation (Compas et al., 2010).

Beardslee et al. (1997) developed and piloted a prevention program directed toward families with one depressed parent. The interventions built on the research on risk and protective factors and targeted non-depressed children and depressed parents. The intervention groups received a combination of meeting with only the parents, individual meetings with the children and family meetings, with booster sessions. The control group only took part in two lectures related to depression and their effects on children. The children included were between 8 and 15 years. The children in the intervention group reported a better understanding of the parent's illness and showed better adaptive functioning 18 months after the interventions. However, the interventions did not give any clear preventive effect for clinical depression with the children. The older children had a larger effect of the interventions, but no effect sizes were reported. The effect of larger benefits for older children was also the case of the study by Sandler et al. (1992). The interventions seemed to reduce the level of risk and increase the levels of protection for the families that participated in the program. The changes in the parents' understanding and behaviour mediated the changes in the children (Beardslee, Gladstone, Wright & Cooper, 2003). These effects were significant over a period of 4 1/2 years (Beardslee et al., 2003; Beardslee, Wright, Gladstone & Forbes, 2007).

Overall, we can see that the selective prevention programs effect a larger range of outcomes related to externalizing symptoms and behavioural difficulties (Compas et al., 2009; Sandler et al., 1992; Sandler et al., 2003; Wolchik et al., 2002), anxiety (Compas et al., 2009), depressive symptoms (Compas et al., 2009; Sandler et al., 1992; 2003) and clinical depression (Beardslee et al., 2003; 2007; Compas et al., 2009; 2011). The interventions did, however, seem to have the larger effect if directed towards specific risk factors associated with a depressive disorder. The results from selective prevention programs are also unclearly related to variables like sex (Sandler et al., 2003), age (Beardslee et al., 1997; Sandler et al., 1992), symptom level (Sandler et al., 2003) and whether the parents report or the children or adolescents report themselves (Sandler et al., 1992).

Discussion

Overall, the effects of the prevention programs are limited, which may be related to several issues. Most of the prevention interventions are based on techniques borrowed from cognitive behavioural therapy, which focus on changing intrapersonal cognitive factors such as attribution style and problem solving abilities, which are assumed to be a risk factor for depression (Cardemil et al., 2002; Clarke et al., 2001; Dobson et al., 2010; Gillham et al., 2006; Gillham et al., 2007; Jaycox et al., 1994; Martinovic et al., 2006; Pössel et al., 2004; Rivet-Duval, et al., 2011; Roberts et al., 2010; Shochet et al., 2001; Spence et al., 2003 Stice et al., 2006).

It also seems like most prevention approaches focus on changing cognitive and behavioural characteristics of the individual such as attribution style, ability to better self-regulate and problem solve, social skills and coping. Studies have shown that these factors predict the level of depression after stressful life events, but Abela and D'Alessandro (2002) pointed out that the effect sizes for these studies were only small to medium. In addition, several studies on prevention interventions have shown that the assumed active ingredients not always mediate the outcome (Cardemil et al., 2002; Pössel et al., 2004; Rivet-Duval et al., 2011; Stice et al., 2008), and that the interventions not always are better than placebo interventions (Beardslee et al., 2007; Dobson et al., 2010; Gillham et al., 2007; Stice et al., 2006; Stice et al., 2008). The reasons for this may be several, but may indicate that other factors are those that are the cause of the depressive reaction. Depression is a complex disorder and it is probable that there are several factors that can operate here such as risk or protective factors for and against depressive symptoms. Research related to children that grow up under difficult life circumstances has contributed to identify protective factors that appear in many studies. For children who have lost one parent, or have a parent that functions poorly, it seems important to have at least one other significant person or adult that is there for the child as it grows and develops, someone who cares and is there when needed (Masten, Best & Garmezy, 1990). Based on this type of research it is possible to question the prevention programs as having a somewhat biased focus on the capacity and skills of the individual. Perhaps this focus might contain some of the reasons for the small to medium effects of the programs aimed at preventing depression.

Studies related to selective prevention also primarily focuses on the individual's ability to cope, or the family's ability to cope, rather than social and interpersonal circumstances of the individual (Gillham et al., 2000; Mrazek & Hagerty, 1994). Some of the intervention in the programs like LISA-T (Pössel et al., 2004), AOP (Roberts et al., 2010), RAP (Harnett & Dadds, 2004; Merry et al., 2004; Rivet-Duval et al., 2011; Shochet et al., 2001) and PRP (Cardemil et al., 2002; Gillham et al., 2006; Gillham et al., 2007; Jaycox et al., 1994) focuses on the cognitive factors of social and relational factors, but principally the main focus seem to be intrapersonal, with, for example, skill training in the individual's social problem solving ability. It does seem relevant to address the relatively small focus on interpersonal factors, which may be interesting to explore more in relation to prevention studies in the future.

It should be pointed out that studies with a stronger focus on the parents generally seemed to have a positive effect on the children (Beardslee et al., 2003; Compas et al., 2009; Sandler et al., 2003; Wolchik et al., 2002), but it is difficult to evaluate the results because none of the programs mentioned here had a condition that only included improving the parents' functioning. One exception is the universal intervention program called "Beyond Blue" (Sawyer et al., 2010a; b) that, in addition to focusing on cognitive factors, also aimed at factors at school and local society (like school environment, access to mental health care, and information about psychological disorders). This intervention did not show any effects on the level of depressive symptoms. One of the possible reasons for this was that it took two years to implement the structural changes that were part of the program in schools. The intervention was not only focused on the individual, but also tried to change entire systems at schools, and it is possible that the follow-up period of three years was too short, and that pupils that started after the program ended benefited from the changes (Sawyer et al., 2010a; b). The basis for coming to a conclusion on the effects of including more external factors and more structural factors of prevention is weak and premature.

Another possible cause for these varied results may also be that the models for depression are inadequate. If our present understanding of depression is inadequate, it will be difficult to develop good prevention strategies and interventions. Selective interventions seem to work better, and it is possible in the near future for example to include genetic factors in selective prevention, because genetic components have been shown to be important for depression. Newer research has indicated that a different combination of alleles may influence

the risk for developing depression when faced with adversity (Koefoed et al., 2012). This would involve some kind of a genetic screening, which is considered ethically controversial.

Future directions and possible solutions for preventing depression

The third wave of cognitive therapies

Over the last couple of decades newer therapy directions have developed with a basis in CBT. These therapies derived from CBT in that they consider other factors as important in the development of psychological disorders in general and depression in particular.

Collectively these approaches are often called the third wave and include dialectic behaviour therapy (DBT), mindfulness-based cognitive therapy (MBST) and metacognitive therapy (MCT) (Hagen & Hjemdal 2012). These are different therapy forms with important differences. Generally, as oppose to CBT where one of the main aims is to reality test the content of the thought,; the third wave approaches are more concerned with the individual thinking style as opposed to the content in the particular thought. We will focus on a new approach (MCT), in order to illustrate how this particular therapy form may improve prevention programs for depression.

In MCT it is argued that very many people experience negative thoughts without developing psychological disorders, and therefore the content of the thoughts probably is not as important as first claimed by CBT. MCT builds on a cohesive model for cognitive processing of information called the Self-Regulatory Executive Function Model (S-REF). This model indicates that a thinking style called the Cognitive Attentional Syndrome (CAS), is universal and common for psychiatric disorders, and that the CAS is responsible for prolonging and intensifying distressing emotions. The CAS consists of several cognitive strategies like inflexible self-focused attention i.e. the focus is on self-observation. These mental processes are again linked to a perseverative processing style of worrying and ruminating (Wells, 2009). Initial studies of MCT for depression show promising results (Papageorgiou & Wells, 2000; Wells et al., 2009; Wells et al., 2012). If the CAS is the predominant feature of e.g. depression, then a negative attribution style may not be the decisive feature that contributes to the development of depression when faced with adversity.

In relation to future prevention studies this may be particularly relevant. If prevention interventions can be developed on newer theories and evidence which targets central processes involved in developing and maintaining psychological disorders, such interventions may very well have larger effects also related to prevention.

Based on the hypothesis of inadequate understanding of depression and its antecedents along with the existing evidence that biased focus on intrapersonal factors, it is possible to suggest four further developments to try to improve the prevention interventions for depression, which are:

> Trying to explore the newer therapy development as described above in order to identify if the antecedents of depression can be better understood, and thus make the foundation for better interventions and thus increase the effects of these.

Another approach would be to increase the focus on external variables and thus increase the effects of such program. External variables may be related to social support and external social resources available to the individuals, but it is also the larger social structures and resources available to the individual. A conceptual framework that might be useful in this context could be the socio-ecological perspective of Bronfenbrenner (1977) that stresses the larger social structure as well as the intrapersonal systems. It would also be relevant to explore the external variables found to protect against psychological disorder when facing adversity, an area often associated with resilience research.

Several studies have indicated that exploring non-specific factors may play an important role in further understanding and developing interventions for preventing depression (Beardslee et al., 2007; Dobson et al., 2010; Gillham et al., 2007; Stice et al., 2006; Stice et al., 2008). In clinical psychotherapy research non-specific factors often refer to factors that are common for most therapy forms. These factors are often thought of as essential and part of the process that leads to healing for individuals with psychological problems. Some examples of non-specific factors are therapeutic alliance that has been understood as an empathic attention, sincere interest, and the possibility to discuss difficulties. The therapeutic setting also implies a degree of structure, and specific preset rules for interaction. Therapeutic work also promotes hope and realistic positive expectations. In prevention it would be relevant to explore how these common factors may be transformed into interventions and operationalized and if they were of relevance in contributing to maintaining mental health. Increased focus also on the non-specific factors may be relevant in

the future to develop a better understanding of which factors have effects for whom with which risk profiles.

A new possible way of approaching the challenges of prevention is to change towards a new paradigm. Resilience is a research field that focuses on adaptation and development of mental health in the face of adversity. It is defined as the dynamic process that involves positive adaptation and outcomes when faced with adversity shown to increase the probability of developing psychopathology (Luthar, Cicchetti & Becker, 2000). This research field may be particularly relevant as a theoretical ground for developing prevention interventions, as it has focuses on the protective factors that promote adaptation in the face of adversity.

Resilience has also in its early phases focused on personal attributes. However, later research has, to a larger extent, focused on the external and interpersonal protective factors and the interaction between the interpersonal and the intrapersonal level (Luthar et al., 2000). This research has also evolved to focusing on the processes that develops resilience, which means that the interest has turned towards understanding how different mechanisms and processes contribute to develop the capacity to adapt in the face of adversity. Knowledge of these naturally occurring processes may be of particular interest in exploring which interventions to give priority to in further prevention studies. Resilience is a naturally occurring process which may be of interest when exploring how to design interventions when such processes do not naturally occur. The field of resilience is also interesting because it represents a different approach than the traditional approach to prevention. Within this paradigm the primary interest is to know what promotes positive development rather than preventing or correcting a negative development. One particularly relevant and interesting aspect is whether some of the factors and processes involved in maintaining mental health are different from those that are needed for curing someone with a particular disorder. If this is the case, it may be conceptually wrong or less appropriate to import interventions from therapy, despite the fact that interventions may be effective for individuals with disorders. This is an interesting empirical question that needs further research.

Despite representing a different research paradigm, there are elements of danger by just importing the results from the resilience field to prevention. Resilience also focuses on many of the intrapersonal variables that already have been included in prevention interventions. The focus on self-efficacy, social skills, locus of control and problem solving ability are apparent in both research fields (Masten et al., 1990). The researches behind the

"Penn Prevention Program" changed the name of the program to "Penn Resiliency Program" when they wanted to use it as a universal prevention program. The change from prevention directed toward groups of risk toward the universal focus reflected an assumption that the program could contribute to develop resilience in adolescents. Despite this change, it was not reflected in changes in the content of the program (Reivich et al., 2005). And despite an explicit focus on building resilience, the PRP does not separate itself significantly from other prevention programs neither with regards to content or results.

Conclusions

Depression is a disorder that accounts for large problems in society with large financial losses, and severe suffering. Research shows that the treatment of depression,(even the best documented treatments) is less effective than desirable. Only half are cured, and of these, only half remain cured after a year and a half. An early debut of depression in childhood or adolescents is a predictor of the development of a more chronic disorder with multiple relapses.

This paper has given an overview of the empirical literature of prevention, identifying which preventions work and which seem less effective for preventing depression in this age group. Targeted prevention with indicated and selective programs overall seem to give better results with higher effect sizes than a universal approach. There is, however, large room for further improvement and the effects of many of the programs reviewed in this paper are generally short lived. Generally, the interventions seem to give better results if the implementation is made by psychologists or research teams compared to teachers.

Another explanation for the varying results within the field of prevention is that our models are incomplete in regards to understanding depression. Further research to ameliorate the understanding of the development and maintenance of depression is essential in order also to improve the effects of prevention. The existing research accentuated cognitive variables such as those that contribute to predicting depression, but based on the findings from the prevention studies, it is probably not the complete picture. Many of the interventions used in prevention programs are generated from cognitive therapy, which often focuses on

intrapersonal factors. Another possible approach is to include the focus on interpersonal factors in order to enhance the effect of the prevention programs.

Prevention of depression is, to a large extent, based on different therapy models, and thus it is very relevant that the prevention of depression closely follows the development within treatment research of depression. If better treatments are developed, they can become the source of further development of prevention interventions. One very interesting development within the cognitive therapy is third wave cognitive therapies. Especially MCT seems particularly interesting for the treatment of depression (Wells, 2009). This approach is in the early phases and further research is needed. A new possibility for the further research on prevention is to change paradigms completely. Other areas of research can possibly also serve as a point of departure for generating interventions that maintain mental health. Resilience research may be particularly interesting in this context, as it has identified protective factors and processes that promote mental health in the face of adversity.

It does, however, seem decisive that future emphasis on prevention is based on an empirical and solid theoretical foundation. If interventions are to be implemented, they should be based on actual knowledge of what works and such interventions should be rigorously evaluated.

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Table 1. An overview over the included studies, the sample size, age, country, effect size pre to post-test, and effect size pre to follow-up.

Universal prevention programs					
Study	**Sample (n)**	**Sample age**	**Country**	**Effect size post-test**	**Effect size follow- up**
Cardemil, Reivich & Seligman (2002) "The Penn Resiliency Program" (PRP)	Intervention group: Latino children (n = 23), African American children (n = 47). Control group: Latino children (n = 26), African American children (n = 56).	Average age: 11	USA	Latino children; high risk: 1,19, low risk: 0,67, African American children: no significant effects.	Latino children; high risk: 6 month follow-up: 0, 90, low risk 6 month follow-up: 0, 79 (significance level 0, 10). African American children: no significant effects.
Gillham et al. (2007) (PRP)	Intervention group PRP (n = 232), placebo group PEP (n = 231), control group (n = 234).	Average age: 12.13	USA	Complete sample (school A, B and C combined): no significant effects.	School A and B 3 year follow-up: 0, 24.
Harnett & Dadds (2004) "The Resourceful Adolescent Program" (RAP)	Intervention group RAP A (n = 96), control group (n = 116).	Age group: 12 – 16	Australia	No significant effects.	No significant effects at 1 or 2 years follow-up.
Merry, Mcdowell, Wild, Bir & Cunliffe (2004) "The Resourceful Adolescent Program" (RAP)	Intervention group RAP Kiwi (n = 192), placebo group (n = 172).	Age group: 13 – 14	New Zealand	Post-test: 0,04	18 month follow-up: no significant effects.

Pössel, Horn, Groen & Hautzinger (2004) LISA-T	Intervention group (n = 200), control group (n = 147)	Intervention group average age 13.82, control group average age 14.18.	Germany	Minimal depressive symptoms post-test: 0, 49, 6 months follow-up: 0,44 Subsyndromal score post-test: not significant.	Minimal depressive symptoms: 6 months follow-up: 0, 44. Subsyndromal score: 6 months follow-up: 0, 50.
Rivet-Duval, Heriot & Hunt (2011) ”The Resourceful Adolescent Program” (RAP)	Intervention group RAP A (n = 80), control group (n = 80).	Age group: 12 – 16	Mauritius	Post-test: 0, 32	6 month follow-up: no significant effects.
Roberts et al., (2010) The Aussie Optimism Programme (AOP)	Intervention group (n = 247), control group (n = 222).	Age group: 11 – 13	Australia	No effect sizes reported.	No effect sizes reported.
Sawyer et al., 2010a; b ”Beyondblue”	Intervention group (n = 3037), control group (n = 2597)	Average age: 13.1	Australia	No effect sizes reported.	No effect sizes reported.
Shochet et al. (2001) ”The Resourceful Adolescent Program” (RAP)	Intervention group RAP A (n = 68), intervention group RAP F (n = 56), control group Adolescent Watch (n =118).	Age group: 12 – 15	Australia	Post-test: 0, 47	10 month follow-up: 0, 34.
Spence, Sheffield & Donovan (2003); (2005) the Problem Solving for Life Program” (PSFL)	Intervention group (n = 751), control group (n = 749).	Age group: 12 – 14	Australia	High risk participants post-test: 0, 36. Low risk participants post-test: 0, 32.	High risk participants 1 year follow-up: not significant. Low risk participants 1 year follow-up: not significant.

Indicated intervention programs:					
Study	**Sample (n)**	**Age group**	**Country**	**Effect size post test**	**Effect size follow-up**
Clarke et al. (2001)	Intervention group (n = 45), control group (n = 49).	Age group: 13 – 18	USA	Post-test: r 0, 22.	1 year follow-up: r 0, 16.
Dobson, Hopkins, Fata, Scherrer & Allan (2010) ”The Adolescent Coping with Stress Course”	Intervention group (n = 25), placebo group (n = 21).	Age group: 13 – 18.	Canada	No significant effects.	No significant effects found at 3 pr 6 months follow-up.
Gillham, Hamilton, Freres, Patton & Gallop (2006) ”The Penn Prevention Program (PRP)”	Intervention group (n = 147), control group (n = 124).	Age group: 11 – 12	USA	Small and inconsistent effects.	
Jaycox, Reivich, Gillham & Seligman (1994); Gillham, Reivich, Jaycox & Seligman, 1995: ”The Penn Prevention Program (PRP)”	Intervention group (n = 69), control group (n = 74).	Age group: 10 – 13	USA	Post-test: 0, 18. .	6 month follow-up: 0, 32
Martinović, Simonović & Djokić (2006)	Intervention group (n = 15), control group (n = 15).	Age group: 13 – 19	Serbia	No effect sizes reported.	No effect sizes reported.

Stice, Burton, Bearman & Rohde (2006)	CBT intervention (n = 50), supportive-expressive (n = 19), bibliotherapy (n = 28), expressive writing (n = 27), journaling (n = 34), waitlist control (n = 67).	Age group: 15 – 22	USA	CBT compared with waitlist post-test: r 0, 48. CBT compared with journaling post-test: r 0, 23.	CBT compared with waitlist; 1 month follow-up: r 0, 28, 6 month follow-up: no significant effects Bibliotherapy compared with waitlist; 6 month follow-up: r 0, 29.
Stice, Rohde, Seeley & Gau (2008); Stice, Rohde, Gau & Wade (2010)	CBT Intervention (n = 89), supportive-expressive (n = 88), bibliotherapy (n = 80), control group (n = 84).	Age group: 14 – 19	USA	CBT post-test; compared with supportive group therapy: 0,28, compared with bibliotherapy: 0,52, compared with control group: 0, 46	CBT 6 month follow-up; compared with supportive group therapy: no significant effects, compared with bibliotherapy: no significant effects, compared with control group: 0,42. CBT 1 year follow-up; compared with control group: 0, 30, compared with bibliotherapy: 0, 38, compared with supportive group therapy: no significant effects. CBT 2 year follow-up; compared with control group: 0, 29, compared with bibliotherapy: 0, 45, compared with supportive group therapy: no significant effects.
Young, Mufson & Gallop (2010), ”Interpersonal Psychotherapy-Adolescent Skills Training” (IPT-AST)	Intervention group (n = 36), control group (n = 21).	Age group: 13 – 17	USA	Post-test: 0, 81.	6 month follow-up: 0, 61. 12 month follow-up: no significant effects.

Selective intervention programs:					
Study	**Sample (n)**	**Age group**	**Country**	**Effect size post-test**	**Effect size follow-up**
Beardslee et al. (1997)	Intervention group (18 families, 28 children), control group (18 families, 24 children).	Age group: 8 – 15	USA	No effect sizes reported.	No effect sizes reported.
Beardslee, Gladstone, Wright & Cooper, 2003; Beardslee, Wright, Gladstone & Forbes (2007)	Intervention group (53 families, 69 children), control group (40 families, 52 children).	Age group: 8 – 15	USA	No effect sizes reported.	No effect sizes reported.
Compas et al. (2009); Compas et al. (2011)	Intervention group (n = 56), control group (n = 55).	Age group: 9 – 15	USA	YSR (anxiety/ depression): 0, 37.	YSR (anxiety/ depression); follow-up 6 months: 0, 49, follow-up 12 months: 0, 50.
Sandler et al. (1992) ”The Family Bereavement Program” (FBP)	35 families.	Age group: 9 – 17	USA	No effect sizes reported.	No effect sizes reported.
Sandler et al. (2003) (FBP)	Intervention group (90 families, 135 children), control group (66 families, 109 children).	Age group: 8 – 16	USA	Boys: no significant effects. Girls post-test: no significant effects.	Boys: no significant effects. Girls; 11 month follow-up; internalizing symptoms caregiver rapport: 0, 24, internalizing symptoms self rapport: 0, 61.
Wolchik et al. (2002)	Intervention group Mother Plus Child Program (n = 83), intervention group Mother Program (n = 81), control group (n = 76).	Age group: 9 - 12	USA	No effect sizes reported.	No effect sizes reported.

Combined programs:					
Study	Sample (n)	Age group	Country	Effect size post-test	Effect size follow-up
Sheffield et al. (2006)	Universal intervention (n = 634), universal + indicated intervention (n = 636), indicated intervention (n = 722), control group (n = 614).	Age group: 13 – 15	Australia	No significant effects.	No significant effects found at 12 months follow-up.

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Young Children's Self-Regulated Learning: What Does it Look Like in the Classroom?

Uta Wagener

University of Oldenburg, Germany

Abstract: This article argues that self-regulated learning (SRL) in the classroom is an inherently social, dynamic, and complex process and that it is crucial to discuss SRL with regard to concrete practices and with a focus on what children actually do and say in classrooms. Current theoretical views on SRL are presented and consensual as well as conflicting aspects are identified. It presents a qualitative study of SRL in first and second grade children using qualitative triangulation of observation and interview. An example from a video observation in this study shows a fine-grained view of a process of SRL. The example which is analysed in detail shows a six-year old first grade student sitting at a table with other children and working on a mathematics task over a period of 30 minutes. In the analysis it becomes evident that this boy is self-regulating continuously and that several processes of complex self-regulation go hand in hand and are interwoven in this day-to-day learning episode. Multiple goals, social goals as well as learning goals are handled and balanced. With reference to the example presented, it is argued that SRL is always social, ubiquitous, not necessarily academically effective, and at times implicit.

Keywords: *self-regulated learning, metacognition, motivation, elementary education, learning processes, learning strategies, qualitative research, grounded theory*

Research on self-regulated learning (SRL) looks into rather commonplace phenomena in day-to-day learning: How and why do students focus on some aspects of their tasks and not on others? When and how do they use a certain strategy? How do they organize their work in the social setting of the classroom? Or, more generally: How do students make decisions in their learning process in constantly changing and interacting contextual circumstances? Even if we are talking about frequent events and even if research on SRL is a vast and steadily growing area, Perry and Rahim (2011) state that "descriptions of teachers and students working in classrooms are rare in research about SRL" (p. 123). They ask not only "what is self-regulated learning?" but also, "what does it look like in classrooms?" (Perry & Rahim, 2011, p. 122). In

the following, I would like to give one answer out of a probably uncountable number of possible answers to the second question and to present one example of SRL and how it unfolds in the classroom. The example is taken from a qualitative study examining SRL in the classroom with children in the first two years of school, aged six to nine years (cf. Wagener, 2010).

In the beginning of this article the theoretical background and contemporary conceptualizations of SRL will be presented. Some conflicting aspects in different approaches will be highlighted. Subsequently, methods and sample of the study from which the example was taken will be described. The example will then be presented and analysed in detail. It will be utilized to elaborate on theoretical considerations in the discussion. Different aspects of SRL are taken up again, aiming at clarifying terms and theoretical positions.

Conceptualization: What is SRL?

SRL is a complex phenomenon that is related to different fields of research in psychology and education. Self-regulation in general is defined as the reflexive and goal-oriented supervision and adjustment of one's own behaviour. It can be characterized as a process that is multifaceted and concerns the individual as well as its social and material environment. Even if there is no simple definition of SRL (cf. Boekaerts & Corno, 2005), there are some common assumptions in research on SRL: Strategic action, metacognition, and motivation are considered to play a part in a learning process that can be labelled as SRL (Artelt, Demmrich, & Baumert, 2001; Winne & Perry, 2000). As defined by Winne and Perry (2000), "'strategic' describes the way in which these learners approach challenging tasks and problems, by choosing from a repertoire of tactics which they believe are best suited to the situation, and applying those tactics appropriately" (pp. 533-534). Additionally, metacognition plays a crucial role in SRL. Metacognitive monitoring provides information that is needed as a benchmark for the regulation of further learning; every regulation needs a prior evaluation to clarify the necessity of regulation and of modification of behaviour, and therefore "metacognitive monitoring is the gateway to self-regulating one's own learning" (Winne & Perry, 2000, p. 540). Associated metacognitive knowledge is knowledge about particular

tasks and how best to address them, knowledge about strategies, cognitive resources, and about own academic strengths and weaknesses. Seeing that SRL is a process that is characterized by its self-directedness it becomes obvious that the motivation of a student to aspire to a specific goal is another vital aspect of SRL. SRL depends on motivation, on students who exert effort, who persist in the face of challenging tasks, and who feel self-efficacy afterwards. In summary, it is "the fusing of skill and will (and dare we add "thrill?") to emphasize that cognition, motivation, and affect are all involved in self-regulated learning" (Paris & Paris, 2001, p. 91).

Historically, research on SRL focused on individual cognitive-constructive activity and on individual differences regarding the use of strategies, metacognitive monitoring, goal-setting and motivation, self-efficacy, and achievement (e.g., Hadwin, Järvelä, & Miller, 2011). Thirteen years ago, Pintrich (2000) developed a consensual definition of SRL after reviewing contemporary models of SRL:

> Self-regulated learning . . . is an active, constructive process whereby learners set goals for their learning and then attempt to monitor, regulate, and control their cognition, motivation, and behavior, guided and constrained by their goals and contextual features of their environment. These self-regulatory activities can mediate the relationships between individuals and the context, and their overall achievement. (Pintrich, 2000, p. 453)

Pintrich (2000) divides the process of self-regulated learning into four phases. The first phase is called forethought, planning, and activation, including goal setting. The second phase comprises the monitoring of the learning process. The third phase includes regulation and control, thus the use of strategies is part of this phase. The fourth phase is called reaction and reflection and consists of all evaluations, judgements, and attributions that are made subsequently to a learning episode. According to Pintrich (2000), the four phases of self-regulated learning can occur in four different areas: cognition, motivation, behaviour, and context. The phases represent a time-ordered sequence but all phases do not take place in every learning process and they do not always happen consecutively (Pintrich, 2000).

This concept is still valid and often quoted. Nonetheless, recent conceptualizations of SRL are becoming increasingly complex, highlighting dynamic processes, social and contextual aspects, and mutual interaction between different aspects of SRL. Butler (2011) asserts that "it is widely agreed that SRL is a multi-componential, dynamic, recursive, contextualized activity that constitutes both individual and social processes" (Butler, 2011, p. 351). Perry and

Rahim (2011) focus on SRL in classrooms and underline the importance of considering the interplay between "contexts – including tasks, instructional practices, and interpersonal relationships in classrooms – and students' engagement in independent, academically effective forms of learning, SRL" (Perry & Rahim, 2011, p.122). Thus, it can be seen as a consensus in the actual discussion about learning that social and contextual aspects are important and have to be considered. Social settings and instructional conditions are not mere circumstances that influence learning – the picture is much more complex with changing dynamics, mutual interference, and inevitable, constant interdependence. Therefore, context and individual, social and individual, teacher instructions, peer interaction, and learning, have to be analysed in their multiple interaction, transaction, and interdependences and not as distinct variables. When reviewing research literature it becomes obvious that there are other aspects that are more controversial or less consistent in the conceptualization of SRL. For the purpose of this article I would like to elaborate on three points.

Is SRL Always Academically Effective Learning?

Some definitions refer to SRL as academically effective learning (e.g., Perry, 1998; Perry et al., 2002). This is convincing for those definitions that regard SRL as always directed towards desired and often prescribed learning goals (Schunk, 2001; Zimmerman, 2000). Boekaerts and Niemivirta (2000) and Boekaerts (1999) for example take a different position stating, "The term 'successful learning' does not have any explanatory power" (Boekaerts, 1999, p. 447). If social and emotional goals are included in the definition of SRL, it is problematic to define SRL as academically effective learning. If a student successfully pursues and reaches an emotional goal, he or she might neglect learning goals for this period of time. Students can use self-regulative abilities quite competently, but if they have not prioritized the pursuit of a learning goal this self-regulation will not lead to positive effects on learning outcomes. This means on the other hand that a student who failed to reach a learning goal is not necessarily lacking in self-regulative abilities, he or she might have reached another goal successfully (cf. Boekaerts, 2002). Students can also choose learning goals that differ from the goal the teacher wants them to adopt; a student can pursue the goal of becoming an excellent football player and therefore he or she reduces time spent on homework to the absolute minimum in order to

have more capacities for extensive training; “if my goal is to pass with little effort, I may look like I’m being less effective to someone who assumes that I am trying to learn as much as possible” (Nolen, 2006, p. 230). Judging effectiveness and necessity from an outside perspective as a researcher or teacher becomes extremely difficult if multiple goals are included in the concept. Effectiveness can only be judged depending on the goals that have been set. Not knowing about the goal(s) a student pursues, we cannot ascertain if he or she is successfully self-regulating. The recognition and choice of a compulsory or educationally desired learning goal can be seen as the first step in SRL but I argue that we narrow the analytic grasp of SRL if we only focus on learning processes striving for prescribed learning goals.

Is SRL in Classrooms Scarce or Ubiquitous?

Some conceptualizations define SRL as an advanced and rather sophisticated form of learning that students have to be taught and trained to use. In these definitions SRL is a desirable goal of education (e.g., Paris & Paris, 2001). From another perspective, SRL can also be seen as a more basic process: Winne (2011) states that “learning is potentially continuously self-regulated” (p. 19). Regulation means that learners make decisions; they focus on one thing and not the other, they choose to seek help from a peer or a teacher, they check on something in a dictionary, they use an online tool, or they do not check at all. Even in settings that are not ideal for SRL, where learners do not have choices about what to learn and how to proceed, learners have to make decisions and they have to regulate. Winne (2011) underlines that SRL is inevitable for two reasons, the first is that there are usually multiple contents to learn about, multiple ways to proceed, multiple things to look at, multiple people to listen to and to work with. “The world affords people uncountable opportunities to learn many things but not all opportunities are taken up – people are selective – they self-regulate learning” (Winne, 2011, p. 15). If we optimistically assume that classroom learning also provides several (if not uncountable) opportunities, it becomes obvious that self-regulation is necessary. The second argument for seeing SRL as inevitable is a cognitive argument: Our (cognitive) system has limited capacities; due to this limitation we always have to choose and regulate; “these implications of limited capacity support an inference that SRL is inherent in

learning activities. SRL is natural and learners do it whether taught about it or not" (Winne, 2011, p. 16). This view of SRL as generally inherent in learning considers processes that are likely to be at least partly implicit, which is the next point of discussion:

Can SRL be Implicit?

One controversial point in the definition of SRL is the aspect of implicitness or explicitness of SRL; other terms would be the (un-)consciousness, awareness, or intentionality of SRL. The question of whether SRL is always consciously applied and if all aspects of metacognition are aware, affects the theoretical basis as well as the assessment of SRL. According to some conceptualizations, consciousness is an essential element and correspondingly, Pintrich (2000) argues that if, for example, the activation of prior knowledge happens automatically this is not to be regarded as a part of SRL, "because it is not under explicit control of the learner" (p. 457). However, according to Butler (2002), "questions can be raised about how much 'self-regulation' transpires outside of direct awareness" (p. 61). Winne (2011) writes "cognition is often implicit" (p.18) and he summarizes,

> Learners appear sometimes not to self-regulate because cognition seems to them and to observers to 'run by itself.' This apparent absence of cognition is due to spreading activation across schemas and automated procedural knowledge. Notwithstanding, cognition is still self-regulated. (Winne, 2011, p. 19)

The aspect of consciousness is also an ongoing discussion regarding metacognition, metacognitive monitoring, and strategy choice. Veenman, Van Hout-Wouters, & Afflerbach (2006) point out that implicitness or explicitness of metacognition is controversial (cf. Reder & Schunn, 1996; Schnotz, 1992; Veenman, Prins, & Elshout, 2002). Reder and Schunn (1996) argue that implicit processing is not a marginal phenomenon: "Much of the cognition that is called metacognitive typically operates at an implicit level; that is without conscious awareness. Many of the tasks that are called monitoring are also operating without conscious awareness" (p. 73). Moreover, even if a strategic action itself is conscious or possible to recollect, the reasons for the choice of a strategy are often implicit and unaware, "although we argue that people are unaware of what causes them to select one strategy rather than another,

we make no claims about their awareness of the results of their strategy selections" (Reder & Schunn, 1996, p. 47).

Several models of SRL include processes that have been automatized. For example, according to information processing approaches, the processes of monitoring and adjustment of behaviour can become automatized and unconscious with experience and routine (Winne, 2001, Zimmerman, 2001). In Pressley et al.'s (1987) model of a good strategy user, automation of strategy use is explicitly included, "The good strategy user has automated many of the components" (Pressley et al., 1987, p. 116). Veenman et al. (2006) underline for metacognition that a clear and consistent conceptualization is needed but does not yet exist.

Focusing on SRL in classrooms several questions remain open. What is SRL? Does a student have to be able to verbalize and explain what he or she is doing and why? If for example metacognitive monitoring and checking of results have been learned by looking at a model and cannot be named as a strategy is this still a metacognitive, self-regulative process? Does a student have to be able talk about a strategy with or without prompting?

The Study: Young Children and SRL – one Extended Example

In the following section, a study of SRL in young children will be described regarding aims and methods (Wagener, 2010). After that, not the whole body of data but one example from a video observation in this study will be presented and analysed in detail. The example has been chosen because it enables observation and analysis of a variety of actions and reactions of a young student in his classroom context. The aim is to analyse and illustrate how (self-regulated) learning evolves in this natural setting; processual aspects of SRL are shown and how SRL is embedded in the social setting and the learning environment. Accordingly, also the description of data collection is focused on video observation.

Methodology, Methods and Sample

The study examines young children's self-regulated learning in the first two years of school in Germany. The aim of the study was to develop a fine-grained analysis of young children's self-regulated learning in a naturalistic school setting, recognizing children's thoughts and reflections as well as their actions and routines in their daily learning. Being at the beginning of their school career, these children were still learning to read and to write. Thus, it was impossible to use methods of data collection which require reading or writing skills. A qualitative triangulation of methods and perspectives was applied, using methods of participant observation, video-observation, and interview. Data collection and analysis were done according to the principles of Grounded Theory (Strauss, 1987; Strauss & Corbin, 1994; Strübing, 2004, Muckel, 2007). This qualitative and microanalytic approach was chosen because there is evidence that methods such as self-reports or experiments are likely to underestimate the metacognitive competencies of children (e.g., Whitebread, Bingham, Grau, Pasternak, & Sangster, 2007). Participation in the field was applied as a basic principle in data collection and aimed at obtaining more insight into children's daily practices and their perspective on the matter and at building a trusting relationship to all participants (cf. Wagener, 2010).

Data collection: Qualitative triangulation.

Data collection was conducted in three steps. In the first step, learning processes were observed with participant observation and documented with running records in three classes in different German primary schools. In the second step, one focus class was chosen and video observation was undertaken in this class. Finally, interviews were conducted in the same class. Different methods of data collection were used to capture different aspects of self-regulated learning in young students. Interviews are a way of learning more about their thoughts and reflections, whereas observation in a naturalistic setting can be a way of learning more about children's self-regulating and metacognitive abilities in daily practice (Winne & Perry, 2000). Video observation allows the analysis of self-regulated learning in the process and 'on-line' and enables an in-depth analysis of what children do and say in learning

situations. The focus in video observation is on self-regulated learning as an "event" (Winne & Perry, 2000). It enables the analysis of how self-regulated learning evolves in a situation, and how it is fostered or inhibited by other events or interactions. Observation can inform about different processes that go hand in hand or occur consecutively. Children were filmed at their group tables of four to six students to cover individual as well as social processes. Using video observation it was possible to cover the complexity of social interaction and task-related action (e.g., Huhn, 2005). Except for the presence of the researcher and the video camera no alterations in the classroom situation and classroom routines were made.

The sample.

The main body of data, most of the participant observations and all video observations and interviews, were collected in one focus class. In this class, 22 children, 12 boys and 10 girls, 11 children from first year and 11 from second year aged from 6 to 9, were educated together. They were observed during mathematics and German lessons. The chosen class was one from a regular elementary school in northwestern Germany. The school had deliberately chosen to educate children in the first and second year of school together in one class, due to pedagogical considerations.

Primary school children in this area have limited possibilities of choosing between different schools and they are normally assigned to one school according to their place of residence. Thus, even if the school differs from most other schools in the region by educating children from first and second year in one class, the children are selected only by their place of residence. The catchment area of this school can be described as rather typical for a town in northwestern Germany and as somewhat mixed regarding socio-economic background.

This focus class was chosen because children worked independently more often than in other classes, they had some choices in their work and these situations should make self-regulation more likely (Zimmerman, 2008). Another argument was that according to the concept of the chosen school, older children were allowed and encouraged to assist younger children. It was assumed that this would also influence interaction in the classroom, and that

research might benefit from observing these interactions possibly being situations of co-regulation (Hadwin et al., 2011).

Data analysis.

Data were analysed consecutively in an iterative research process. It is important to note that analysing in Grounded Theory is an interpretative and heuristic process. Thus, coding is much more than linking data to prefixed terms and categories, it is a way of gaining an analytical understanding of what happens in the data (e.g., Berg & Milmeister, 2007, pp. 186-189). Coding is also more than describing data. It is not a way of paraphrasing what happens, but it is used for conceptualizing data in theoretical terms. Coding procedures were applied with the aid of AtlasTi, a computer program for qualitative data analysis that has been developed for use in Grounded Theory research (e.g., Friese, 2012; Kuckartz, 2010).

In the analysis, inductive and deductive methods were combined. Concepts that are central to SRL were used to build codes such as "Use of criteria for evaluation" or "Evaluation of personal skills". They were integrated in further analysis as preliminary codes and it was reassessed whether they fit the data. This procedure was regarded as a means of linking the developing view on young children's self-regulated learning to existing theoretical frameworks, and to systematically search for further indicators for self-regulative processes in the data. Inductive coding procedures (e.g., Strauss, 1987) were used to complement the analysis and to extend the theoretical view on SRL. Later on, Pintrich's (2000) model, which describes chronological phases of SRL that are supposed to encompass the process of SRL was used for building codes. The four phases were applied as codes on data and it was checked whether these codes could be applied on data and if they could be grounded in data. As it has been described in Grounded Theory, all former theoretical concepts were used with scepticism until they proved to be appropriate. Coding procedures and categories were regularly discussed in a team of researchers.

The Example

The chosen example focuses on one boy from first grade who mainly works on his own. This boy reveals what he is doing and thinking in a given moment not only by his actions but also by conversing loudly. He talks to himself, to other children at the table, and to his teacher. The whole sequence takes 33 minutes; it is presented here in full length. According to the teacher's judgment, George is an imaginative, creative student whose overall achievements in school are on an average level.

The situation and the task

The setting is called "mathematics workshop" and this workshop takes place several times a week. There are numerous different tasks with material in a room next to the classroom and all children are allowed to choose between them. When they have started with one task, they are supposed to continue with it until it is finished. After that they can choose a new task freely.

All the tasks in the mathematics workshop are rather short, not very complex tasks. They can be solved alone and need no cooperation. Children have some freedom of choice in choosing between the different tasks, choosing a workplace, choosing a partner, or choosing to work alone and often there is a possibility for self-evaluation included. They are free to ask the teacher or other children for help and support if necessary. The tasks are from different parts of mathematics education. There are calculation tasks or small mathematical problems. In the following example, the children are working with geometric shapes. The task is one in a series in which children learn about basic geometric two-dimensional shapes, squares, rectangles, triangles, and circles and how they can be combined to build bigger shapes or patterns. Tasks are, for example, about rebuilding given shapes as in the game Tangram or about identifying and building symmetrical patterns. The task in this situation was an additional task the teacher had explained to the children outside the video focus; there was no written task description. The children were supposed to develop new and bigger patterns built out of geometric tiles and after this they should reproduce and draw these patterns with the aid of a stencil. The task seems to be rather open and it is not prescribed what kind of patterns the

children are supposed to build; no criteria for evaluating the quality of possible solutions are named within the video recording.

The actual classroom situation is affected by some disturbance. There had been some disciplinary problems and discussions with another teacher at the beginning of the day. The children in the class are still somewhat agitated; the head teacher is rather irritated and less composed than usual. Furthermore, the discussions had caused some delay and in the lesson presented; the head teacher decides to skip P.E. and to go on with mathematics. This adds to the disturbance. Some children are upset and start discussing and protesting.

The data

The analysis focuses on two boys, George and Stephan, from first grade who have chosen each other as partners. In several situations in the data, children are working on a task and simultaneously they comment on what they are doing. They sometimes do so in interaction with other children or the teacher, but they also talk to themselves without expecting anyone else to listen or to react. This is also the case in the following example: George is talking frequently, sometimes in soliloquy, sometimes addressing others, and sometimes these two ways of speaking seem to merge. Thereby, he provides an insight into his thinking and learning.

Along with Vygotsky (1986), George's way of speaking to himself can be regarded as self-talk or inner speech which is not yet internalized. In Vygotsky's view self-talk is a basis for higher order thinking skills. Self-talk or "egocentric speech develops along a rising not a declining, curve; it goes through an evolution, not an involution. In the end, it becomes inner speech" (Vygotsky, 1986, p. 228). Comparing children between the age of four to six years, self-talk has shown itself to become less frequent with age and children aged six generally start preferring inner speech (e.g., Patrick & Abravanel, 2000). Thus, George who is using self-talk extensively at nearly seven years might be rather late with the internalization of his self-talk; the extent to which he allows insight into his thoughts by his talking is rather exceptional in the data. There are several other children using self-talk, but not so extensively. Georges says what he is thinking and describes what he is doing and his self-talk gives the impression of being a natural think-aloud measurement.

An overview of the situation: "I Am Building a Huge Pyramid!"

In this lesson, George and his partner Stephan have chosen to work together. They are talking about a task they call "building patterns" but they are both kidding around and laughing. The teacher joins them and assists them in organizing their work. George is not listening to the teacher but Stephan is. The teacher continues to give instructions to Stephan and George is left on his own. In this situation, George starts his own task, laying new patterns with geometric tiles. He then specifies the task and decides to build "a pyramid". This does not mean that he is building a three-dimensional pyramid; he is forming a two-dimensional bigger triangle out of small triangles. After having finished, he specifies and changes slightly this goal of building a pyramid and then starts anew several times. He works on this task until the end of the lesson.

In the following, the situation will be described in more detail; quotations will be presented and analysed. For clarity of presentation the situation is separated into five parts; the five parts succeed each other at a stretch. Headlines given for each part represent topics that are focused on in the analysis.

Part 1: Getting the Work Started: Defining the Task and Setting Goals

Description of the situation.

In the first part of this situation George and Stephan are singing, laughing, and playing around with their material. They are also joking about the task. As they are quite loud, the teacher intervenes. Stephan quickly changes his activities and behaves more seriously whereas George goes on joking and does not seem to be moved by the teacher's reprimand. The teacher is talking to the boys to help them begin their work. He addresses both boys grammatically, but in the end he focusses his assignment on Stephan, explaining and specifying a task and helping him to obtain the required material. Meanwhile, George is shifting tiles on his plate, saying that he knows how to do his task. George starts working silently. The teacher asks George to move over and therewith he makes sure that Stephan has enough space to work on the table. Apart from this, the teacher does not interfere with what

George is doing. The teacher leaves the table and George announces that he is going to form a pyramid.

Analysis.

Two aspects will be focused on in the analysis of this initial part of the situation. The first aspect is the way the boys discuss the task and make fun of it. The second aspect is the way the teacher handles the situation. As already mentioned, the exact assignment of the initial task is not available. However, for the learning process it is most interesting how the children co-construct and redefine the task. George and Stephan refer to "patterns" as they are fooling around and arguing light-heartedly about their task. Asked by the teacher what they are doing, Stephan says that they are supposed to create patterns on a sheet of paper. An interesting aspect is that George is playing with this seemingly rather open and undefined task. He has obviously noticed that the task is easy to solve if it is taken literally. Putting two squares together George announces, "cornered squares, this is already a pattern." He underlines this argument when the teacher is asking about the task: Teacher: "Well, what are you doing here?" George: "This is already a pattern." Stephan: "We are supposed to make such patterns, on a sheet." George: "But this is a pattern."

George demonstrates that the term pattern is not very specific and that nearly everything might be called a pattern. He is showing that the task can be solved easily and he insists on making his point. Is he reflecting on the task and labelling it as too unspecific or too easy? Or is he just reacting to a situation that is easy to make fun of? Whichever is the case, he shows an understanding of the task and its difficulty or its incompleteness. He shows metacognitive knowledge and uses it for his advantage.

As the situation evolves, George specifies the task for himself. This is done by aiming to make "nice patterns" first and then by aiming to build a "good pyramid". George is not only able to make fun of this task and find an easy way out by working to rule, he can also fill in the blanks by specifying creatively what he has to do and therewith, possibly, fulfilling the task according to the teacher's intentions. This shows a student's competence in handling task assignments; George can handle an incomplete task. He complements the task by setting goals for his learning and thereby he masters one step toward being labelled a self-regulated learner.

What does the teacher do? The teacher intervenes in this situation in which two children are not working, but talking and disturbing other children. He tells them that they are too loud and then supports them in getting their work started. After the first reprimand, the teacher is mainly addressing Stephan, who responds to him immediately. George, who is more resistant at first, is left to his own resources. However, soon thereafter George is redefining the task for himself, saying, "I think I know how." George then starts working and focusing on the task. How can the teacher's intervention be interpreted? Was it surrendering to a student who is not listening, starting with the student who is compliant or was it knowledge that this was the best way to foster both students' learning? The teacher supports the boys' learning by interrupting their fooling around, helping them organize their workplace, and making sure that both students have the material they need. He offers instrumental help to Stephan and meanwhile, he lets George manage on his own. Whether well-chosen strategy or chance, it works: Stephan starts working according to the teacher's assignment and George's self-regulatory process evolves as he is left on his own with a task that needs specification. George defines his own task and sets his goals, rather exemplary for a beginning phase of self-regulated learning (cf. Pintrich, 2000).

Part 2: Working on the Task, Talking to Oneself and to Others

Description of the situation.

George announces that he needs further tiles and that he is going to make a good pyramid. He addresses Stephan and the teacher, telling them that he is doing well and that it is possible to build a pyramid. He starts putting tiles together and comments on his work by calling it "interesting" and "cool". Having finished his first pyramid, he shows it to Stephan, calls his pyramid "very nice", and announces that he wants to make a bigger pyramid. He starts putting all the pieces back in the box. George tells the teacher that it is possible to make a pyramid that is even bigger. The teacher acknowledges that he can do that.

Analysis.

One aspect that becomes evident in this part of the situation and continues to be prominent later on is that George is talking audibly about what he has done, what he is doing, and what he is intending to do. Sometimes George is talking quietly to himself, several times he addresses Stephan or his teacher, and sometimes it is not clear to whom he is talking. Often he is talking loudly so that all children at his table can hear him. These sequences can be analysed with the focus on what he is saying and which processes and thoughts are revealed therewith, but another aspect is the phenomenon as such.

An example which can be analysed as self-talk can be found in the opening paragraph of this sequence, where George says, "I need thin pieces. Out of them I can draw a good pyramid." Regarding the content of what George is saying, it is the expression of his planning directed towards his goal. He is talking about the material he needs for reaching this goal, the material he has to look for in the next step. In the following sentence George addresses Stephan and then the teacher, "look, Stephan, really good. Stephan, I need such a thin piece. Oh, Mr X [teacher], with them I can try to put together a real, good pyramid."

Looking at the video, one aspect is striking: George does not look up once. He addresses the teacher and his schoolmate verbally, but he seems to be speaking to himself exclusively. On the video, the teacher is not even in sight. Stephan is sitting beside George but George does not look at him; he does not shift his body towards Stephan. He is obviously not expecting any reaction from the teacher or his friend. He just goes on working. With regard to the content, George repeats what he needs to enable him to go on working and at the same time he monitors and evaluates what he has done so far, expressing again his goal of making "a real, good pyramid". As the teacher approaches the table shortly thereafter George does not address him again, he simply continues arranging the triangles. This supports the interpretation that he does not really intend to talk to the teacher.

Thereafter, George is planning to make a bigger pyramid. He tidies up his table and prepares it for the new or literally expanded task. He then addresses the teacher again and this time he looks up in the direction of the teacher, speaks out loud and gets a reaction, George: "Mr X [Teacher] I can also make an even bigger pyramid. That's possible. Teacher: "You can also do that."

George is talking to himself, sometimes even when he is verbally addressing someone else. Nonetheless, the last quotation shows that he can obviously differentiate and clearly and successfully address others. This indicates that George uses other people in his self-talk as imagined respondents, but he also knows how to interact and communicate successfully.

Speaking to himself, George is evaluating and praising his work. Positive self-talk is proposed as a motivational strategy that fosters learning and helps to overcome difficulties (Pintrich, 2000; Wolters, 2003). George is using this strategy successfully; he is working constantly and contentedly, and he is not disturbed by other children.

Part 3: Setting New Goals and Planning Carefully

Description of the situation.

Addressing the teacher, George adds that he can also make a smaller pyramid or the smallest one that is possible. The teacher does not react. Stephan and George begin to discuss the smallest pyramid. George builds a pyramid out of four triangles and says that this is the smallest one. Stephan argues against it; he holds one triangular piece up and says that this is the smallest pyramid. George raises objections and says that the pyramid has to be build out of (different) pieces and should not simply be on hand. George clears away the triangles and comments that he should not leave the tiles on the plate because he is making a large pattern which has to look nice as well. George then leaves his work and goes to the toilet. Coming back, he continues immediately. He says that he has not yet finished clearing away all the tiles, which is necessary to be able to make a large pyramid. George starts to build a pyramid made with red and blue triangles; he comments on what he needs in order to continue and presents his intermediate results as interesting and cool.

Analysis.

George develops and verbalizes a new goal: building the smallest pyramid possible. His former partner Stephan reacts and both boys present a solution quickly. Confronted with

Stephan's solution and the fact that his partner's pyramid is smaller than his own, George works out a rule that corresponds to his initial idea and to his solution of the task. This indicates that George evaluates different ways of solving the task, and based on this he elaborates a rule that fits his intentions of how the self-set task has to be completed. This development and verbalization of a rule reveals metacognitive abilities. In this situation it might also be regarded as a useful strategy that serves to save face and preserves George's social position. Thanks to this rule, he has not lost this competition. Stephan does not argue; both boys are content and continue with their tasks. Handling this situation quietly and quickly shows social competences. In doing so they also handle different, probably competing goals, social goals and learning goals.

George has the goal of building a pyramid that is larger than the one he has made before. For this reason, he says, he has to clear away all the tiles so that he has enough space for this pyramid on the plate, "But I shouldn't put them here, because I am making a huge pattern just now. It has to be lovely as well." Thus, George is planning and preparing for his new task. This time, not only the size of the pyramid is relevant, but another, an aesthetic criterion is added and applied; the pattern has to look "lovely". Returning from the toilet, George immediately starts with his work and continues to comment on what he is doing in spite of being out of breath, "I still haven't put everything away so that I can make a huge pyramid. I must do it, so that there is space for, huge pyramid, pyramid, pyramid, pyramid."

Tidying up and organizing his workplace is a strategy that he considers necessary for being able to reach his goal. When George has finished putting away the tiles he immediately starts working on his new pyramid, putting the first triangles down at the bottom line of the plate. Therewith, he really saves space to enable himself to meet his goal. Both strategies, tidying up and starting at the bottom of the plate, can be seen as the result of planning processes aimed at the goal of making a big pyramid.

Later on George specifies how he intends to realize the aesthetic criterion. He addresses Stephan saying, "I am building a pyramid which is super colourful. It has two colours, red and blue." His choice of words seems to be strange; he announces that he is building a pyramid that is colourful and then he adds that it has (only) two colours. What he does not mention is that he is putting red and blue tiles alternately. Thereby, he meets his criterion of building a nice pyramid and addressing Stephan again, he self-evaluates that his pyramid is interesting and cool.

Part 4: Monitoring

Description of the situation.

George has finished the base of his pyramid. He has one triangle in his hand and draws an imaginary line from the left side of the socket up to the prospective top and goes down to the right side of the base. He says that this is how big the pyramid will become and that it will be a huge pyramid. One of the other boys is annoyed by George's frequent comments, but George continues working. He says to himself that he is doing great and then he explains what he is doing, first putting the triangle upright and then upside down. He tells Stephan, who is not saying a word, that he should not disturb him and then says that he is concentrating well.

Analysis.

This sequence shows what can be described as an ongoing monitoring process. While he is still working on his task, he estimates how big his pyramid will become by using the base as a starting point, saying, "It will be that big. Stephan, I am drawing a giant pyramid." George performs metacognitive monitoring of his work successfully, using an adequate strategy for estimating how big his pyramid will become and he presents what he is doing to his fellow students. He predicts that his pyramid will be great. Subsequently, George judges the overall quality of his work ("great") and then monitors and explicates the basic principle of how he has to proceed, "Do you know how I do it? One upright and one upside down and so on. Now I have to put one upside down." He thereby demonstrates his metacognitive awareness and procedural knowledge of the task affordances and he is obviously able to verbalize what he has to do to fulfil the task. The last domain of monitoring in this part is George's monitoring of his own concentration, "I'm concentrating super good." This situation evolves in a discussion with Stephan about who is doing more difficult work and who is concentrating better. It could be argued that George's appraisal of his own concentration is a way of publicly presenting his work and boasting about it and that it is more likely to serve a social function in his relationship to Stephan than being a real monitoring process. On the other

hand, from an outside perspective, George can be supported in what he is saying. He is concentrating well, particularly if compared to his fellow students and if the circumstances and the classroom situation at the end of this video sequence are considered.

Part 5: Continued Announcement and Control of Context

Description of the situation.

George goes on building pyramids, telling himself and other students that he is doing so, stressing that he is doing great, and that he is doing it all alone. He estimates once again how large his pyramid will become by drawing an imaginary line. At this time, some children in the class are becoming louder and are declaring a strike because of the cancelled P.E. lesson. At first, George is not disturbed by the other children's protest and the resulting disturbance. After a while he asks what the matter is, but then he interrupts the child who answers, saying that he has to get on with his task and that he has to concentrate hard. He is a bit distracted by what is happening around him, but he continues with his task nonetheless. In the end, he has no triangles left. He asks the teacher for more triangles, gets some but they are used up soon thereafter. At this time the other children at the table are not working anymore and they comment on George's problem. George starts a new pyramid and again praises his work. The teacher asks the children to tidy up. The lesson and the video recording finish.

Analysis.

Monitoring and evaluating his work, George mentions another argument and a criterion that supports his appraisal: he has completed his task all alone. He tells this to Tina, a girl from another table who comes over and looks at his pyramid, saying, "I'm making a pyramid, all alone. Look, it will be – that big." An interesting point in this last part of the situation is the way George seeks to influence and control his environment in order to continue working. This strategic behaviour is used purposefully to shield his concentration and his advancement, to keep himself working successfully. As already described, there are a plethora of possible

distractions present in this situation. George does not seem to notice or care at first. When another girl comes to his table, George looks up, asking her what the matter is. But as soon as she starts to talk, George says, “Wait, I have to do this. I have to concentrate hard. “ After that, George goes on working and when another student touches his plate he says, “No, don’t disturb me. I, that is, that will be my pyramid.” George exerts control over his environment successfully. The student leaves the table, and even if there is still some turbulence around him, George continues working. At this time he is the only child in the focus of the camera who is working. Even as the teacher approaches his table and praises his pyramid, George does not react but continues searching for triangles. Finally, he runs out of triangles. The other children comment on this and make more or less serious proposals. George puts away all the tiles but then again he restarts his work making a last pyramid until the lesson is finished.

Summary

The learning situation in this example was not ideal. There were several distractions but in spite of this unfavourable situation George is performing SRL. We can observe a young student who is working on a task and talking about it, who regulates and evaluates his learning. After having finished one task he immediately starts with a new, slightly modified one, he sustains his focus and concentration under difficult conditions, and he actively and strategically influences and controls his environment in so doing.

SRL in different phases of a learning process

George’s work can be described in the terms of Pintrich’s (2000) model of SRL and the four different phases of SRL. Each of the phases distinguished by Pintrich (2000) can be found in this example: Phase 1: George defines and co-constructs the task by specifying it and sets himself a goal. He makes plans, organizes his workplace and the necessary material for fulfilling his goal(s). He activates his interest by using motivating expressions and adjectives. Phase 2: While he is working, George uses monitoring frequently. He monitors what he is

doing and what he has done so far, he estimates the size of his pyramid, and he evaluates the quality of his concentration. Phase 3: George motivates himself by praising his achievement and using positive self-talk as a motivational strategy. Additionally he seeks plaudits from his peers and his teacher and seeks to be recognized for what he is doing. He verbalizes a systematization of what he has to do to fulfil his task (Part 4, George, "one upright and one upside down"), he strategically organizes his workspace and his material, and he controls his social environment to meet his goals. Phase 4: George evaluates what he is doing; he judges the overall quality of his work, his results, and also his cognitive processes (cf. Pintrich, 2000; Wagener, 2010). Additionally, he develops new goals based on these evaluations (bigger, smallest, colourful pyramid) and starts anew with planning and preparation (phase 1). George shows metacognitive knowledge by making fun of the task, by describing task affordances, by developing goals, and by applying various criteria for evaluating his work.

SRL as a social process

In the beginning of the example George has a partner but the teacher interferes in this social setting and the boys start working independently. George does not seek help, and there is no longer, intense interaction with other students or the teacher; the learning process is rather solitary but it is an inherently social situation and social aspects play an important part. Social aspects become visible when George is making use of his partner and the teacher as imagined respondents in his self-talk. George also genuinely presents his achievements; he actively seeks to fulfil his need of being recognized for what he is doing by using his social environment as an audience. Towards the end of this situation, George actively controls his environment to enable him to go on working; he handles and controls disturbances, reacts to social necessities, trying to strike a balance between social affordances and task affordances. Social goals like 'sustaining relationships', 'being better than someone', 'being seen and recognized by someone for something', or 'impressing someone' are relevant in this situation parallel to task related goals and learning goals. This strongly supports the notion that self-regulated learning in classrooms is always part of a social process in which there are always diverse, dynamic, interacting influences and multiple goals that have to be considered (e.g., Butler, 2011; Hadwin, Järvelä, & Miller, 2011; Perry & Rahim, 2011).

Discussion: What does this tell us about SRL?

Perry and Rahim (2011) emphasized that approaches are needed that "attempt to capture complex interactions and transaction among the individual, social, and contextual dimensions of SRL in classrooms" (p.123). The example presented shows one attempt to cover this complexity. It shows a young student working on a real task, in a real context (cf. Perry & Rahim, 2011) and is one example taken from a small-scale qualitative study, showing how one boy acts, talks, and thinks in his learning process. No claims are made regarding quantity or probability of behavioural patterns or thoughts. Further, more varied, and even more detailed analyses in different contexts, different domains, and different age groups would be valuable. Aspects of gender or ethnic background are not analysed in this study; and with regard to SRL on a micronanalytic level this is still a desideratum (cf. Bussey, 2011; McInerney, 2011). The analysis of nonverbal indicators of SRL could be strengthened which is an important methodological issue especially with regard to young children (e.g., Whitebread et al., 2009). However, the fine-grained approach presented clarifies what SRL can look like in classrooms (cf. Perry & Rahim 2011, p. 122) and it shows how individual agency and social processes interact (Butler, 2011). The example will now be used to elaborate on theoretical issues of SRL mentioned in the introduction.

Is SRL academically effective?

The boy in the example successfully reaches several goals he has set for himself. These goals are mainly learning goals that are clearly related to mathematics and geometry as school subjects. Even if there are some social goals that become apparent in between, he seems to be regulating, focused mainly on these learning goals and, referring to this, what he is doing is quite effective. The learning goals that are mentioned and pursued in this situation are short term goals. Seeing that the boy builds four different triangles and reaches several different goals in half an hour it becomes obvious that these are not carefully planned long term learning goals, they are rather quick and easy to reach. That leads to the question whether these goals are challenging for George. According to Hadwin et al. (2011) challenge episodes are likely to initiate self-regulation and strategic action; they are defined as "points in time

when learners get stuck or confront a problem" (Hadwin et al., 2011, p. 80). Which challenges is George facing in this situation? George has to develop his own task and his own task-related goal. He has to handle lack of space and lack of material and he has to manage and control distraction. Yet, these challenges are not primarily cognitive challenges. Looking at possible mathematical challenges, George seems to manage his task rather easily. He is not doubtful or hesitant, he talks about his work confidently, he does not face any mathematical difficulties. These are indicators that George has chosen tasks that are relatively easy to solve for him, that do not confront him with severe cognitive challenges. George obviously does not risk failure on this level. The repeated and quick solution of similar tasks can give the impression of routine and repetitive work. However, George slightly changes criteria each time; he gives the impression of being emotionally engaged in his work. The choice of adjectives he uses to describe what he is doing does not indicate dull repetition. Building experiences and also routines can be important goals of learning, of doing exercises.

George was able to administer control over challenges by choosing his goal. Control over challenges has been identified as an important task feature for promoting SRL (Perry, 1998). Consequently, it offers the possibility of choosing easy tasks. Children do not necessarily choose difficult and challenging tasks, and it can be perceived as satisfying and rewarding in a school context to get something done quickly (Wagener, 2010). In this case, with the available data, it cannot be established whether the tasks George has chosen are too easy for him, if he is doing something he has been able to do for years. Thus, looking only at the results of his learning, his academic effectiveness cannot be assessed reliably.

Nonetheless, looking at the learning process, the regulation itself can be regarded as very effective based on two arguments: first, comparing George's behaviour to his classmates at the same table, George's time-on-task is much higher; second, the process of SRL can be clearly recognized; different phases, different procedures and strategies become visible and audible.

Instructional approaches and trainings with a focus on improving young children's learning often conceptualize SRL as inherently academically effective (cf., Paris & Paris, 2001). Nonetheless, if children choose goals that are not described in the curriculum, regulation is not effective from a teacher's point of view but possibly from the child's point of view (e.g., Nolen, 2006). For research on SRL this means that the assessment of individual goals is crucial and that it is central to recognize and appreciate multiple and also social goals

(Boekaerts & Niemivirta, 2000). From an analytical and empirical perspective it is not beneficial to focus only on desired processes and desired outcomes. Getting the full picture enables the understanding of complexity, interaction, and transaction. I argue that for the analysis of the process of SRL and the dynamic of multiple goals and complex interactions, academic effectiveness is not a useful analytical category. Nonetheless, from an instructional perspective it can still be crucial to motivate children to strive for imposed learning goals.

Is SRL ubiquitous?

The situation that was observed here was analysed as an ongoing learning process with constant regulation. According to this view, there was no break or interval in which regulation ceased. Making fun of a task and even going to the toilet can be part of this process and are not necessarily separate from it. Different activities are the result of competing and intervening goals. SRL in classrooms is always about handling multiple goals and prioritizing them with probably constant and therefore ubiquitous rearrangements due to constantly changing personal, social, and contextual circumstances. Based on this, SRL can be seen as ubiquitous, as a never-ending process of regulating and making decisions (Winne, 2011). Even if students do "nothing", it can be in the pursuit of a social or ego-protective goal (Boekaerts & Niemivirta, 2000).

Is SRL used consciously?

In the situation presented, a young student was talking extensively about what he was doing. The indicators for processes of SRL that have been used, quoted, and analysed are mainly verbal and additionally behavioural indicators. Verbalizations are in principle conscious; however, what George is saying is not a retrospective summary of his work as we would have in interview data or in other self-report data. We examine a boy using self-talk which he does regularly while he is working. In this example, he also uses positive self-talk as a motivational strategy - praising and cherishing his work (cf. Pintrich, 2000; Wolters, 2003). However,

George would probably not name this as a strategy in a retrospective interview. George also uses monitoring; he administers an estimation of the height of his pyramid for planning purposes or perhaps for motivational purposes as well. Would he be able to tell us why he initiated monitoring at that point? It would be interesting for future research to try out stimulated recall interviews with young children, but working on tasks in daily classroom situations children might also apply internalized and automatized procedures. Pressley, Borkowski, & Schneider (1987) underline that "it is generally recognized that most of human performance is a mixture of automatic and controlled components" (p. 117). This means with regard to classroom practices that it can be difficult to ascertain for teachers as well as researchers whether a step in a learning process is implicit or explicit, conscious or unconscious. Based on the data and along with Winne (2011) it is argued that SRL is a mixture of automatic and controlled components and that implicit and explicit subprocesses are always involved. This would mean that it is important for future research to establish the relationship between these subprocesses in young children and to ascertain what this means for education and for fostering reflection on one's own learning processes in SRL.

Conclusion

Young children can and do self-regulate, pursuing personal goals and interacting in the complex social environment called school. Based on this study and on the example, I argue that SRL in the classroom is inherently social and not necessarily academically effective; it is ubiquitous and at times implicit. These aspects, which are inconsistent in different models, should be made clear when discussing SRL.

If we take the notion of "self" seriously, SRL can be a rather fundamental approach to learning. SRL is about agency in learning processes and thereby about agency in big parts of children's and adolescents' lives. It is also about recognizing and appreciating students' agency which is not invented by educational researchers or conceded to students by teachers. According to Bandura (1986) it is this agency that makes us human. Successful self-regulation relies on agency and on students who can and do choose their own goals and strive to reach them. However, school has learning goals as a priority; these learning goals are prescribed and fixed, and not arguable by a learner's (or teacher's) choice. Even if some

teachers and their classrooms lay their emphases on SRL and on individual standards for learning, we have to keep in mind that the school system as such is typically organized in a way that supports social comparison rather than individual pathways. Learning in classrooms is not only embedded in social contexts of peers and teachers but also in institutional, cultural, and political circumstances. We should not ignore these structural conditions but integrate them in the analysis and discussion of SRL in the classroom (Rogoff, 2003; Turner & Patrick, 2008).

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Call for Submissions – Deadline October 31st, 2013

Journal of Child and Youth Development

Special Issue on Children and Youth Suicide Prevention: Research, Policy, and Practice

Co-Editors: Jennifer White, EdD, Associate Professor, School of Child and Youth Care, University of Victoria,BC/Canada, and Wassilis Kassis, Full Professor, School of Educational Sciences, University of Osnabrück/Germany.

We are pleased to announce that we are convening a special issue of the ***Journal of Child and Youth Development*** **(JCYD)** on the topic of "Children and Youth Suicide Prevention: Research, Policy, and Practice" to be published in the winter of 2013/14. The purpose of this special issue is to assemble a diverse range of perspectives on the topic of children/youth suicide prevention, including original applied research, theoretical reviews of the literature, critical perspectives on prevention and therapeutic work, policy analyses, and practice accounts. We welcome international and local contributions with an emphasis on innovative psychosocial, community and educational efforts in children/youth suicide prevention research, policy and practice from scholars, and practitioners working in the broad field of child and youth studies.

Specific topics of interest include:

suicide prevention in residential care settings;

school- and community-based children/youth suicide prevention efforts;

gender specific research and practice on prevention for children/youth suicide;

ecological policies and practice frameworks for children/youth suicide prevention;

professional development and education on suicide prevention;

children/youth suicide prevention and social justice;

children/youth suicide and social media;

re-conceptualizations of children/youth suicide and practice;

children/youth participation in suicide prevention;

insider perspectives (e.g. service users, family members) on children/youth suicide;

socio-politically informed approaches on suicide prevention for working with racialized children/youth and children/youth at the margins of the society.

The JCYD is a peer reviewed, open access, interdisciplinary, international journal that is committed to scholarly excellence in the field of research about and services for children, youth, families and their communities. The JCYD seeks to foster and support the dissemination of knowledge about children, youth, families and their communities and the challenges they face.

Interested contributors are invited to submit their papers electronically as a Word or RTF document by **October 31, 2013**. Manuscripts following APA 6th edition style may be up to 35 double-spaced, pages in length and sent directly to **Jennifer White** (jhwhite@uvic.ca),or **Wassilis Kassis** (wkassis@uos.de). For more detailed information on submission guidelines go to

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For any additional inquires please contact **Jennifer White** (jhwhite@uvic.ca),or **Wassilis Kassis** (wkassis@uos.de)