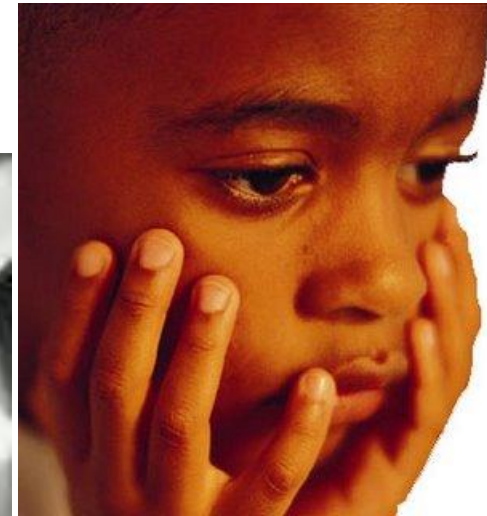
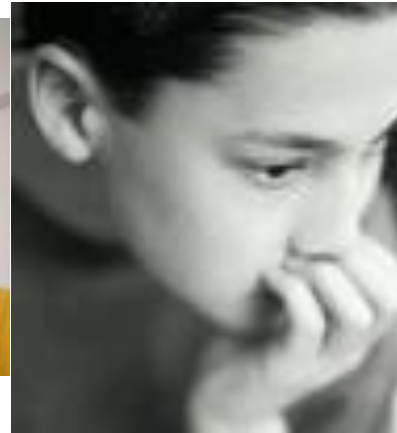


Depression and Anxiety in Adolescents with Learning Difficulties



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Questions to ponder...

- Do you believe that depression and anxiety are serious and increasing problems among adolescents?
- Do you believe that students with learning disabilities (LDs) could be at particular risk for developing social-emotional difficulties, including depression and anxiety?
- Do you think that teachers have a special role to play in supporting students with social-emotional difficulties?



Outline...

- Prevalence of depression and anxiety among typically developing adolescents
- Why we might need to be concerned about students with learning difficulties
- My study... What I found
- What teachers need to be aware of...
- How teachers can make a difference...
- Resources



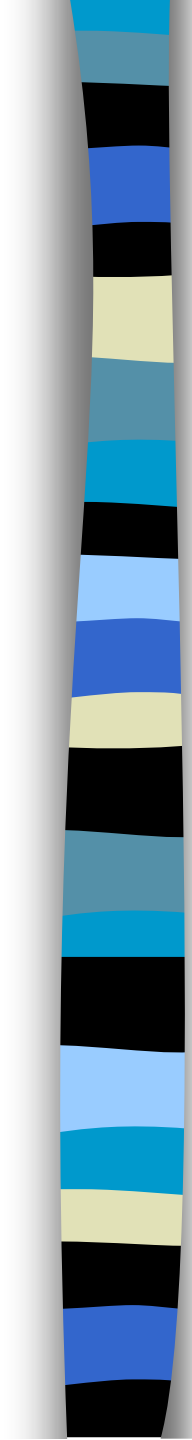
Depression & Anxiety (DSM-IV-TR)

■ Most Common Mood Disorders

- Major Depressive Disorder (MDD)
- Dysthymia (DD)

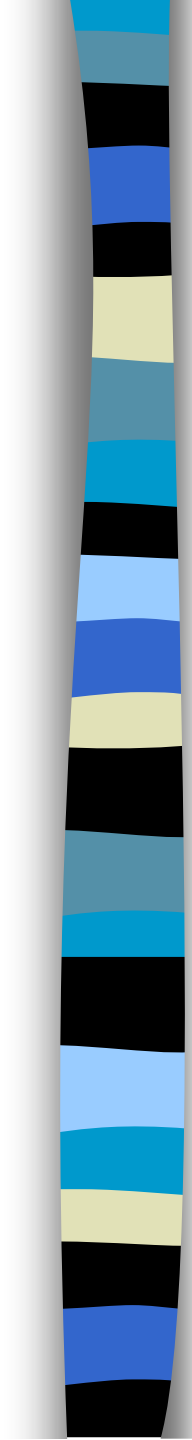
■ Most Common Anxiety Disorders

- Separation Anxiety Disorder***
- Generalized Anxiety Disorder
- Obsessive-Compulsive Disorder
- Posttraumatic Stress Disorder
- Panic Disorders
- Agoraphobia & Social Phobias



Why should we be concerned about depression among our adolescent students?

- ▶ **Depression** is a serious mental health disorder that is increasing with successive generations
- ▶ Affects young children (4% likely to have symptoms) but incidence of major depressive disorder (MDD) rises rapidly during the adolescent years:
 - ▶ MDD for 13 to 8 year olds, 4%→23% females and 1→11% males
- ▶ 10-24% of adolescents have experienced a depressive disorder
- ▶ 60-70% of these adolescents will have a recurrent episode
- ▶ The experience of a major depressive disorder (MDD) is associated with high mortality (15% suicide rate)
- ▶ Depression curtails normative development and negatively affects life trajectory



Why should we be concerned about anxiety among our adolescent students?

- ▶ **Anxiety** is most prevalent form of psychopathology among children and adolescents
- ▶ Estimates range from 5-25% of children and adolescents are experiencing symptoms and from 6-18% are experiencing an anxiety disorder
- ▶ By age 6, twice as many girls as boys are experiencing an anxiety disorder
- ▶ By Year 9, 17% of girls and 8% of boys
- ▶ Anxiety is extremely debilitating and curtails normative development
- ▶ Anxiety often precedes depression, is highly comorbid with depression, and confers risk for the development of additional psychopathologies



Why might students with learning difficulties be vulnerable to developing social-emotional difficulties?

- Years of chronic stress as a result of their learning difficulties
- Difficulties in reaching goals
- Difficulties establishing and maintaining satisfying relationships with their peers



Why might students with social-emotional difficulties be vulnerable to developing learning difficulties?

- Tired, tense, irritable
- Difficulty sleeping
- Difficulty paying attention (rumination)
- Difficulty sustaining mental effort
- Difficulty feeling engaged at school
- Difficulty attending school regularly



Literature

- Although many educational journal articles **describe** students with learning difficulties as being more vulnerable to social-emotional difficulties (including depression and anxiety), **empirical evidence** is inconsistent

Research: LDs and Depression

LD > NLD/Norms	LD = NLD/Norms
Goldstein et al. (1985)	Stevenson & Romney (1984)
Maag & Behrens (1989a)	Rodriguez & Routh (1989)
Hall & Haws (1989)	Heath (1992)
Wright-Strawderman & Watson (1992)	Maag et al. (1992)
Dalley et al. (1992)	Short (1992)
Palladino et al. (2000)	Maag & Reid (1994)
Howard & Tryon (2002)	Newcomer et al. (1995)
	Navarette (1999)
	Heath & Ross (2000)
	Miller & Hynd (2005)

Research: LDs and Anxiety

LD > NLD/Norms	LD = NLD/Norms
Margalit & Zak (1984)	Newcomer et al. (1995)
Paget & Reynolds (1984)	Short (1992)
Margalit & Shulman (1986)	Stein & Hoover (1989)*
Stein & Hoover (1989)*	Miller & Hynd (2005)
Rodriguez & Routh (1989)	
Fisher et al. (1996)	



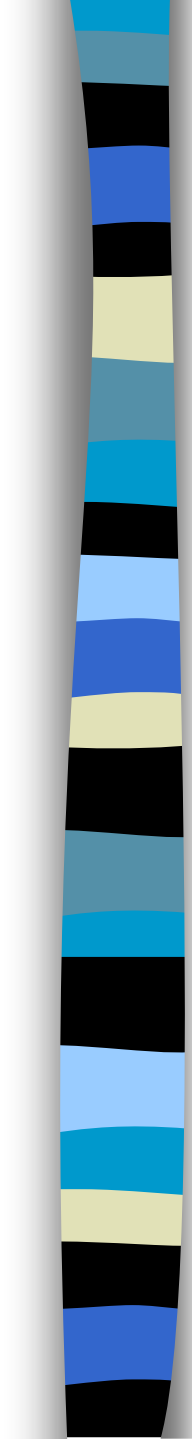
Objectives of the study...

1. To address methodological inconsistencies in the literature
2. To examine the prevalence and severity of symptoms of depression and anxiety in a sample of students with LDs
3. To examine whether a subset of students with LDs (especially those with RDs) experience significantly higher symptom levels than their LD peers
4. To explore potential links between self-efficacy and depression and anxiety (*Bandura's self-efficacy model of depression*) in conjunction with a consideration social support and life events



Objective #1 - Methodological Inconsistencies

- a) Range of methods used in identifying students with learning disabilities
- b) Range of measures/clinical cut-offs used in assessing depression and anxiety
- c) Samples (size, age span, gender, cognitive ability)



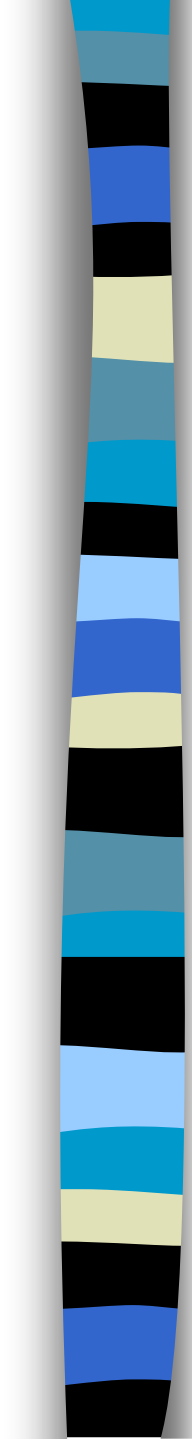
Objective #2 - Prevalence & Severity

DEPRESSION

- Prevalence
LD (10 – 43%) & NLD (4 – 24%)
- Severity (Mean T-scores, RADS)
LD (64) & NLD (54 – 62)

ANXIETY

- Prevalence
LD (N.R.) & NLD (7 – 13%)
- Severity (Mean Total scores, MASC)
LD (N.A.) & NLD (30 – 43)



Objective #3 - Prevalence & Severity among Students with LDs in Reading

- Sample “carved up” to meet different “definitions” of learning disabilities

Objective #4 - Exploration of Links between Self-Efficacy and Depression and Anxiety

Study	S-SE	A-SE	E-SE	R-SE	DEP	ANX
McF	X				X	
Ehr	X	X			X	
Ban	X	X			X	
Mur	X	X	X		X	
Mur	X	X	X		X	X
Mer	X	X	X	X	X	X

McFarlane et al. (1994, 1995); Ehrenberg et al (1991); Bandura et al. (1999); Muris et al. (2001); Muris (2002)



Participants

- 83 participants (59 boys & 24 girls)
- Aged 13 to 17 years
- From 13 schools across 4 school districts
- Identified as *Students with Learning Disabilities* (British Columbia Ministry of Education, Canada)
- Cognitive ability at/above 80ss
- Exclusions – sensory deficits, severe behaviour, inadequate English



Measures

- Cognitive Ability (on file: WISC-III or SB-IV)
- Academic Skills (WRAT-3 & GSRT)
- Depression (RADS-2)
- Anxiety (MASC)
- Self-Efficacy (Academic, Reading, Social, & Emotional)
- Social Support (SSQ)
- Life Events (LEQ)
- Demographic Questionnaire



Procedure

- **Ethics & Permission/Consent**
- **File Reviews**
 - Cognitive Ability
- **Session #1**
 - Assent & Demographic Questionnaire
 - Spelling & Arithmetic (WRAT-3)
 - Academic Self-Efficacy Questionnaire (A-SE)
 - Life Events Questionnaire (LEQ)
 - Social Support Questionnaire (SSQ)
 - Social Self-Efficacy Questionnaire (S-SE)
- **Session #2**
 - Reading Comprehension (GSRT)
 - Word Reading (WRAT-3)
 - Reading Self-Efficacy (R-SE)
 - Depression (RADS-2)* / Anxiety (MASC)*
 - Emotional Self-Efficacy (E-SE)



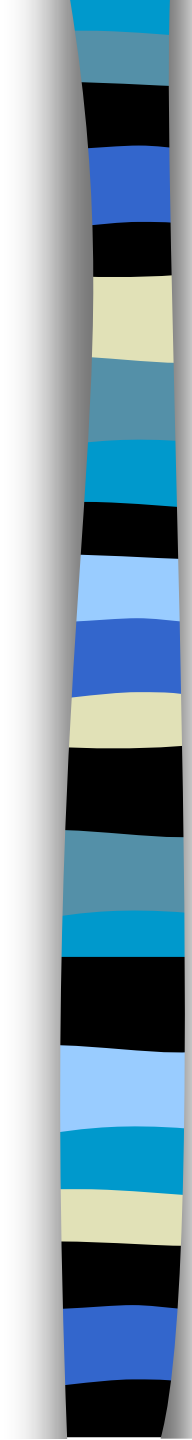
Sample (GLD) & 2 Subsets (TRAD-LD, RD)

Group	Criteria	N
GLD	All participants	83
TRAD-LD	Cognitive Ability at or above 80 ss with 1.5 SD discrepancy (cognitive ability - academic skills)	41
<i>RD-LW</i>	Word Reading skills at or below 90 ss	56
<i>RD-V/W</i>	1.3 SD discrepancy: Verbal Ability > Word Reading skills	17
<i>RD-C/W</i>	1.3 SD discrepancy: Reading Comprehension > Word Reading skills	6



Summary of Research Questions

1. What is the prevalence and severity of anxiety & depression in this sample of adolescents with LDs (and RDs?)
2. Can anxiety & depression be predicted on the basis of self-efficacy?
3. What is the role of social support?
4. What is the role of life events?
5. Are there gender differences in prevalence and severity of depression and anxiety?
6. Are students with RDs (3 methods of classification) more depressed and/or anxious than other students with LDs?
7. Are there particular factors that distinguish between adolescents reporting high levels of depression and anxiety and those experiencing low symptom levels?



FINDINGS #1: Prevalence

■ DEPRESSION

- 2.4% within clinical range (3% BeyondBlue)

■ ANXIETY

- 3.6% of entire sample within clinical range (4% BeyondBlue)
- 17% of RD-C>W sample within clinical range

■ COMORBIDITY

- Prevalence: 3.6% (consistent with previous studies)



FINDINGS #2: Is self-efficacy predictive of anxiety and depression?

- Self-efficacy negatively correlated with depression and anxiety
- Only simple regression analyses possible (sample size & collinearity)
- Only Social/Emotional Self-Efficacy predictive (not academic)
- Social/Emotional Self-Efficacy predictive of:
 - DEPRESSION: males and females
 - ANXIETY: females
 - COMORBIDITY (DEPRESSION & ANXIETY): males and females



FINDINGS #3: What is the role of social support?

- Not able to examine the contribution of Social Support (regression analyses)
- Compared Highest and Lowest Social Support Groups (each group n = 21; i.e., 25% of sample)
- Support from Family:
Low Group – Higher Depression & Lower Social SE
- Support from Friends:
Low Group – Higher Emotional SE (awareness?)
- Satisfaction with Support
No significant differences



FINDINGS #4: What is the role of life events?

- Not able to examine the contribution of Life Events (regression analyses)
- Compared Highest and Lowest groups for Positive, Neutral & Negative Life Events (each group n = 21; i.e., 25% of sample)
- Positive Life Events:
 - High Group – Higher Social SE
 - High Group – Higher Support Satisfaction
- Neutral Life Events:
 - No significant differences
- Negative Life Events:
 - High Group – Higher Depression



FINDINGS #5: Gender differences

- Depression: No significant differences
- Anxiety: No significant differences

But.....

- Emotional SE: (Females lower than Males)
- Social Support - Friends: (Males lower than Females)

Also, different patterns of inter-correlations:

- Depression:
 - Males: Anxiety, Social SE, Emotional SE, Academic SE, Family Support, & Support Satisfaction
 - Females: Anxiety, Social SE
- Anxiety:
 - Males: Depression, Emotional SE, Support Satisfaction
 - Females: Depression, Emotional SE, Support Friends



FINDINGS #6: Differences among LD groups

Among students with “general” learning disabilities....

- No sig. difference between RD subgroups (RD-LW, RD-V/W, RD-C/W) and remaining GLD students on Depression or Anxiety

But.....

- RD-LW (*low word group*)
lower on Reading SE
- RD-V/W & RD-C/W (*discrepant groups*)
higher on Emotional SE



FINDINGS #7: Which factors are associated with students reporting the highest levels of depression and anxiety?

- The most Depressed/Anxious students:
 - Older
 - Lower Emotional SE
 - Lower Satisfaction with Social Support
 - More Negative Life Events



Implications of Findings

- For this particular group of students who were all receiving some form of learning support, social-emotional and environmental factors were more critical than academic factors
- Male and female adolescents may well need different types of interventions given different underlying correlates of depression and anxiety



Limitations of the Study

- Correlational Design
- Sample (size, gender representation, nonrandom, characteristics as a result of recruitment)
- Self-report data
- Cognitive ability data
- Lack of information concerning current academic performance and educational history



Strengths of the Study

- Theoretical – support for SE Model of Depression (Bandura)
- Examined all three self-efficacy pathways posited by Bandura (Academic, Social & Emotional)
- Extended model to include self-efficacy in a specific academic domain, Reading, and developed a reliable measure (.91)
- Examined anxiety and depression concurrently using an anxiety measure that reliably distinguishes anxiety from depression
- Extended the model to a new population (and fully described the identification of participants with LD and RD)
- Accounted for factors robustly associated with depression (social support and life events)



Future Directions

- Explore apparent gender differences in patterns of relationships among variables associated with depression and anxiety
- Explore the role of educational support (LD and NLD comparison groups) accounting for the cumulative effect of “risk” and “protective” or “enabling” factors
- Enrich investigations by utilizing qualitative and time-sampling methods



What should you be looking for?

▶ Depression:

- Sad, depressed mood; lack of interest in activities; poor concentration, feeling hopeless or worthless, self-blaming; tired; talking about death; mentioning suicide; engaging in risky behaviours; harming other children, animals, self; angry and resentful

▶ Anxiety:

- Exceptionally well-behaved; asks questions frequently (esp. what if?); needs constant reassurance; gets upset about mistakes or changes in routines; a loner; rarely volunteers answers; becomes “sick” before school (Mondays) and performances; worries about “bad things” happening; clingy; difficulties in separating from parents; may be perfectionist with seatwork and homework



You may notice gender differences in expression...

Females

- Concerned re. health (somatic complaints)
- Distorted body image
- Introspective
- Irritable

Males

- ▶ Concern re. physical abilities
- ▶ Substance abuse
- ▶ Irritable
- ▶ Acting-out
- ▶ Physical aggression

Transactional Relationships (Bandura)

Where can teachers make a difference?

PSYCHOLOGICAL

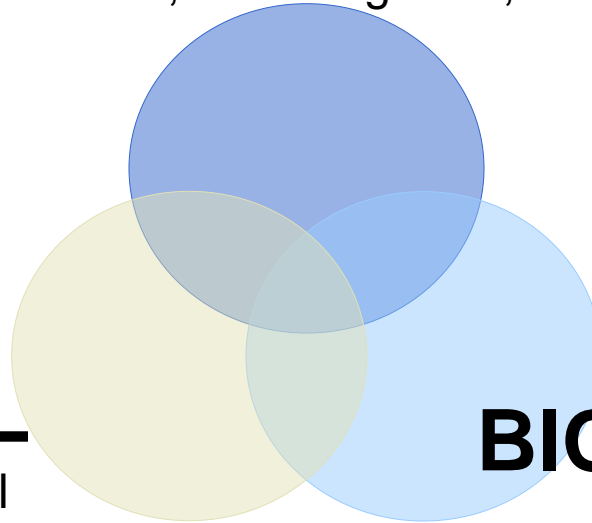
Cognitive, Affective, Sociocognitive, Socioemotional

SOCIAL

Interpersonal
Familial
Cultural

BIOLOGICAL

Genetic
Neurobiological





Supporting Students with Social-Emotional Difficulties

Level 3:

- School and class-wide approaches

Level 2:

- Support from specialist staff

Level 1:

- Support from community professional and agencies



Classroom Strategies...

- Giving short-term tasks
- Providing clear academic and behavioural expectations
- Monitoring activities frequently
- Encouraging cooperative learning
- Teaching for self-management and self-efficacy
- Encouraging self-advocacy (“ask for support”)
- Support healthy diet, exercise, social connections
- Monitor and assist with relapses



Pedagogical questions...

- How relevant/functional is this activity to the students' lives?
- Could I teach something more relevant and/or functional?
- Could I provide some individualised instruction or support?
- Are the students achieving success?
- Am I providing too little structure, too much direction, too much criticism, too little positive feedback?



What are some additional strategies?

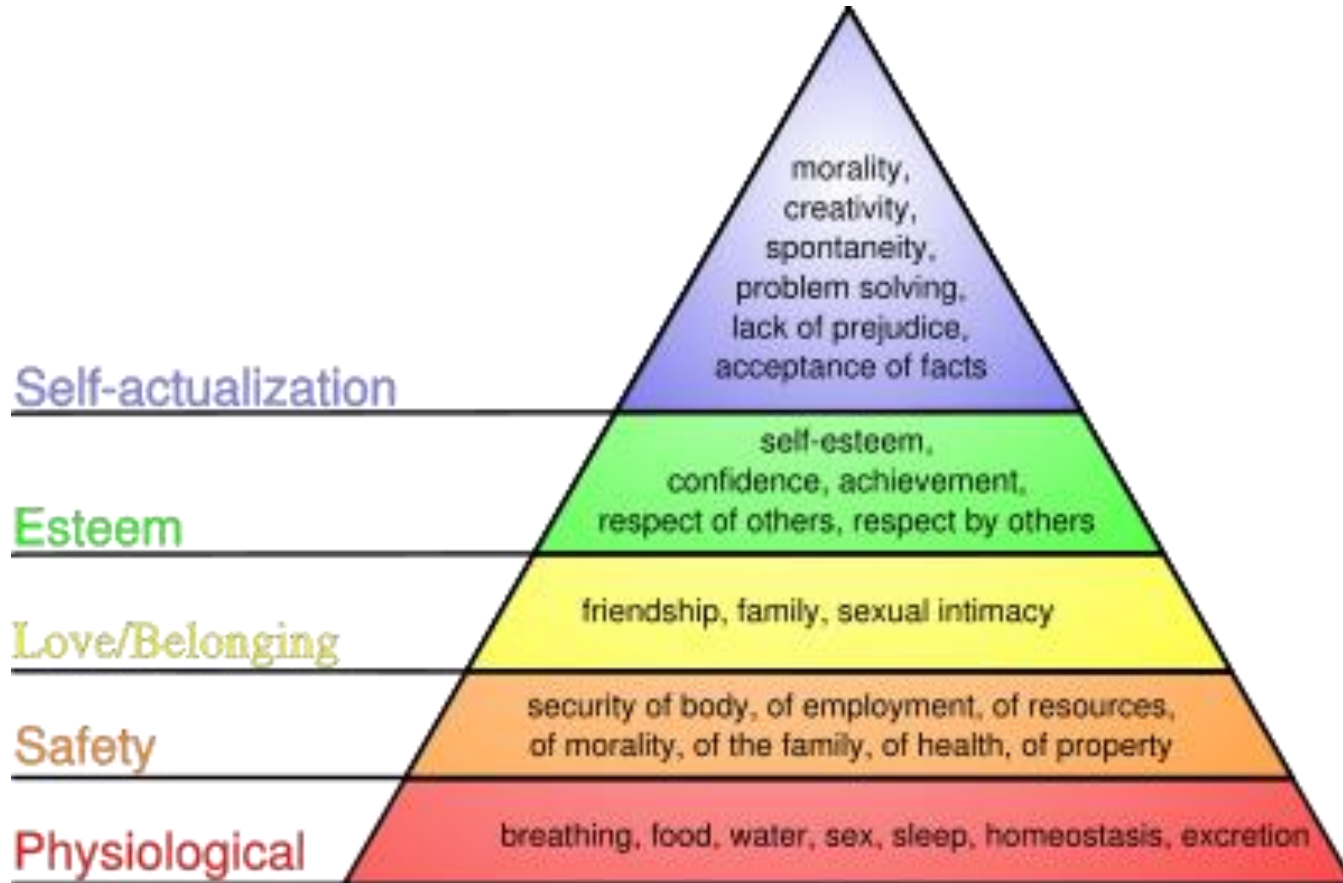
- Encourage students to be sociable, flexible, and cooperative
- Help students to recognise social cues and identify others' perspectives
- Provide instruction in understanding and managing emotions
- Encourage good teamwork and friendship skills
- Help students to develop special interests and skills
- Help students to develop anti-depressant skills (realistic thinking, problem-solving, and goal-setting)

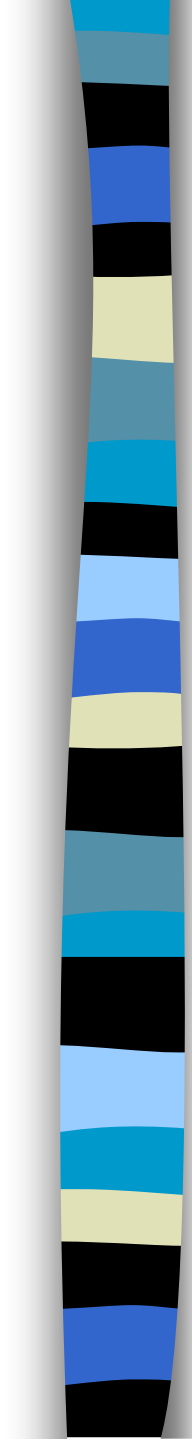


Students with learning difficulties who have been “successful”...

- Early identification
- Early intervention
- Continuing support (at least one adult who believes in their abilities)
- Development of learning strategies
- Development of strong self-efficacy
- Development of self-regulation
- Development of self-advocacy skills

Maslow's Hierarchy of Needs





Sobering information...

Beyond Blue (Ybblue)

- Less than 60% of young people experiencing depression seek help from a mental health professional
- When asked, young people gave the following reasons for why they don't seek help:
 - Prefer to manage their own problems (38%)
 - Think nothing can help (17%)
 - Don't know where to get help (17%)
 - Worried about what other people would think (14%)



Some references...

- Mondimore, F. (2002). *Adolescent depression: A guide for parents*. Baltimore, MD: Johns Hopkins.
- Anderman, E. M. (2002). School effects on psychological outcomes during adolescence. *Journal of Educational Psychology, 94*, 795-809.
- Bandura, A., Pastorelli, C., Barbaranelli, C., & Caprara, G. V. (1999). Self-efficacy pathways to childhood depression. *Journal of Personality and Social Psychology, 76*, 258-269.
- Gorman, J. C. (1999). Understanding children's hearts and minds: Emotional functioning and learning disabilities. *Teaching Exceptional Children, 31*, 72-77.
- Harrington, R. & Dubicka, B. (2001). Natural history of mood disorders in children and adolescents. In I. M. Goodyer (Ed.), *The depressed child and adolescent* (2nd ed., pp. 353-381). Cambridge, UK: Cambridge University Press.
- Muris, P. (2002). Relationships between self-efficacy and symptoms of anxiety disorders and depression in a normal adolescent sample. *Personality and Individual Differences, 32*, 337-348.



Highly Recommended Resources

- BEYOND BLUE

- <http://www.beyondblue.org.au>

- EMOTIONAL HEALTH CLINIC (Macquarie)

- <http://www.emotionalhealthclinic.com.au/index.cfm> (Macquarie University)

- FRIENDS

- <http://www.friendsinfo.net/>

Thank you! kl.mercer@qut.edu.au

