

Chronic Stress of Musically Gifted Children and Adolescents -



Picture 1

Linking science of sport with science of music

Andreas Heye



Picture 2

1. Background

Literature is pointing out that permanent and recurring stress is part in everyday life of young children and adolescents, especially when stressors result from school contexts or other achievement-oriented contexts (e.g. Seiffge-Krenke & Lohaus (eds.), 2007; Frydenberg, 1997). For example, the study by Lohaus (1990) found out that 72% of the seven to 11-year-old children (N = 342) perceive stress in specific situations. The most frequent situations are:

1. Tests at school
2. Homework
3. Disputes with friend or family
4. High extend of leisure activities



How do children and adolescents cope with chronic stress when they are in two achievement-oriented contexts ?

The science of sport is one area which addresses this question above. Empirical studies have shown that active top athletes differ from non-active children and adolescents concerning their perception and coping with chronic stress (e.g. Richartz & Brettschneider, 1996; Hoffmann & Richartz, 2006).

In more detail, Hoffmann & Richartz (2006) found out that top athletes between seven and 12 years of age state lower stress ratings, even their double burden of school and training, than the control group of non-active children. Furthermore, young top athletes' *personal stress resources* (e.g. self-concept) are more developed which is one reason for the lower stress ratings.

In addition, *social resources* such as parents, teachers and peers have a huge influence on chronic stress processes, whereby the quality of relationship between the child and the parents has a central meaning (Richartz et al., in print).



Are there similarities between young top athletes and young top musicians concerning their perception of chronic stress ?

Hoffmann (2007) provided evidence by using parallelized samples of top athletes, Thomaner (Thomaner choir, Leipzig) and non-active participants (as control group). The results showed, that both, top-athletes and top-musicians show similarities in their perception of chronic stress but also provide protective resources which are more developed than these of the control group.

2. Aim & Research questions

Generally, little is known about the perception and coping of young top musicians. Therefore I would like to address this issue by examining chronic stress of musically gifted children as young top musicians. Instead of reinventing the wheel, the first question would be:



To what extend can research parameters of the science of sport be linked to the area of music science to answer the research questions ?

2.1 Theoretical framework

In general, most research is based on cognitive-transactional stress model by the research group around Lazarus (since 1966, cf. Richartz et al., in print) which seems appropriate for my approach, too. The author's key points are: Firstly, because individuals react differently on the same stressors, the situational context has to be taken into consideration. Secondly, coping - the emotional, physical and behavioural reaction to the stressor - is included in the stress reaction (figure 1).

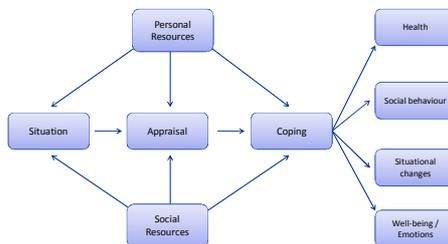


Fig. 1: Cognitive-transactional Model (in Richartz et al., in print)

2.2 Research questions:

External circumstances (context):

1. Which objective requirements exist at school (e.g. examinations, homework etc.) and music academy (e.g. performances, practising etc.)?
2. What time effort is linked to these requirements?
3. How do musically gifted children characterise these requirements?
4. What individual requirements do musically gifted children have relating to school and music academy?

Individual person (subject):

5. To what extend do musically gifted children and adolescents perceive chronic stress?
6. How do musically gifted children and adolescents cope with chronic stress?

Social resources:

7. How do the following variables family, peers, school teacher, instrumental teacher influence the chronic stress perception and the coping of musically gifted children? (figure 2)

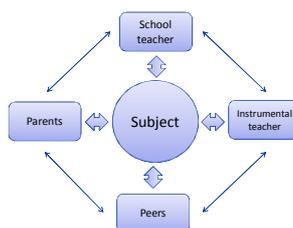


Fig. 2: Influencing variables on the subject - the musically gifted individual

3. Methodological considerations

A triangulation of qualitative and quantitative methodologies seems to be appropriate for this research topic.

However, linked to the research on Richartz & Brettschneider (1996) external circumstances should be evaluated during interviews.

Firstly, participants should fill out a "typical" week schedule (figure 3). Their schedule should display the following parameters:

- Time of waking up and going to bed
- Time effort at school
- Time effort of homework and test preparation
- Time effort at the music academy
- Time effort of practising the instrument
- Leisure Time
- Time effort of commuting

Secondly, participants should estimate different stress levels of the parameters using a visual-analog-scale.

Zeit	Montag	Dienstag	Mittwoch	Donnerstag	Freitag	Samstag	Sonntag
6.00-7.00	Aufstehen	Aufstehen	Aufstehen	Aufstehen	Aufstehen	Aufstehen	
7.00-8.00	Training	Training	Training	Training	Training	Training	
8.00-9.00							
9.00-10.00							
10.00-11.00							
11.00-12.00	Schule	Schule	Schule	Schule	Schule		
12.00-13.00	(Mittagessen)	(Mittagessen)	(Mittagessen)	(Mittagessen)	(Mittagessen)		
13.00-14.00							
14.00-15.00						Freizeit	Freizeit
15.00-16.00		Training	Freizeit	Freizeit	Freizeit	(Eislaufen)	
16.00-17.00	Training		Training	Training	Training		
17.00-18.00							
18.00-19.00		Freizeit	Freizeit	Freizeit	Freizeit		(Rückfahrt ins Internat)
19.00-20.00	Freizeit		Freizeit	Freizeit	Freizeit		
20.00-21.00							
21.00-22.00							

Fig. 3: Week schedule of a female swimmer of the 8th grade (in Richartz & Brettschneider, 1996, p.67)

4. Further perspectives

Generally, further research is needed because chronic stress is mainly examined in the domain of adults, but little is known in the domain of children.

The methodological challenge is to measure the subjective perception of chronic stress of young participants in a reliable way.

There are many unanswered questions asking of an adequate way of advancement for the musically gifted children.

5. Literature

Frydenberg, E. (1997). *Adolescent coping: Theoretical and research perspectives*. London: Routledge.

Hoffmann, K. (2007). *Alltagsbelastungen im Kindesalter. Worin unterscheiden sich Leistungssportler, Thomaner und nicht organisiert-aktive Kinder?* IBFM Tagung. Begabungsförderung und Begabungsforschung in der Musik. September, 2008.

Lohaus, A. (1990). *Gesundheit und Krankheit aus der Sicht von Kindern*. Göttingen: Hogrefe.

Richartz, A. & Brettschneider, W.-D. (1996). *Weltmeister werden und die Schule schaffen*. Schriftenreihe des Bundesinstituts für Sportwissenschaft. Band 89

Richartz, A., Hoffmann, K. & Sallen, J. (in print). *Kinder im Leistungssport. Chronische Belastungen und protektive Ressourcen*.

Seiffge-Krenke, I. & Lohaus, A. (Hrsg.) (2007). *Stress und Stressbewältigung im Kindes- und Jugendalter*. Göttingen: Hogrefe.

Picture 1: <http://www.spiegel.de/img/0,1020,942600,0.jpg> (25.09.09)

Picture 2: <http://wangtimes.wordpress.com/2009/02/28/tiffany-poon> (25.09.09)